Revitalizing Auto Communities
Environmental Response Trust

February 28, 2023

U.S. EPA Region 5
Remediation and Reuse Branch
Land and Chemicals Division, LU-9J
77 West Jackson Blvd.
Chicago, IL 60604-3590
Attn: Molly Finn

RE: 2022 Groundwater Monitoring Report
RACER Trust Moraine Facilities
Moraine, Ohio

Dear Ms. Finn:

The Revitalizing Auto Communities Environmental Response Trust (RACER Trust) is providing this 2022 Groundwater Monitoring Report for the RACER Trust Moraine Facilities in Moraine, Ohio. This report presents the groundwater monitoring activities conducted to assess the performance of the current corrective measures completed in 2022 at the following facilities located in Moraine, Ohio: former Delphi Harrison Thermal Systems Moraine Plant; former General Motors Corporation Powertrain Group, Moraine Engine Plant; and former General Motors Corporation Truck Group, Moraine Assembly Plant.

If you have any questions, please contact me at (937) 751-8635.

Sincerely,

Pamela L. Barnett

Pamela L. Barnett, PG
Cleanup Manager (DE, LA, MA, OH, PA, VA)
RACER Trust

cc: M. Finn, U.S. EPA
R. Miller and B. Moore, Montgomery County
M. Davis, City of Moraine
M. Juhola, Copart Inc.
M. Carrocce, R&J Trucking
A. Hou and A. Conn, Fuyao Glass America Inc.
R. Kirkland, A. Taylor, and V. Orr, Ohio EPA
C. Semarjian and C. Salata, Industrial Commercial Properties, LLC
K. Hodnett, Ohio Department of Transportation
T. Scherack, West Carrollton Service Department
M. Emery, GM
M. Ekberg, Miami Conservancy District
A. Wright, Wright Mulch
S. Walzak, J. Lichter and K. Selle, Industrial Realty Group, LLC

RACER Trust

2022 Groundwater Monitoring Report

Former Delphi Harrison Thermal Systems, Moraine Plant

Former General Motors Powertrain Group, Moraine Engine Plant

Former General Motors Corporation Truck Group, Moraine Assembly Plant

Moraine, Ohio

February 28, 2023

2022 Groundwater Monitoring Report

Former Delphi Harrison Thermal Systems, Moraine Plant

Former General Motors Powertrain Group, Moraine Engine Plant

Former General Motors Corporation Truck Group, Moraine Assembly Plant

Moraine, Ohio

February 28, 2023

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Our Ref:
30121854

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1 Introduction

This 2022 Groundwater Monitoring Report provides an overview of the interim measure monitoring activities completed in 2022 at the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) Moraine Facilities (formerly General Motors Corporation [former GM Corporation]) located in Moraine, Ohio (Site; **Figure 1**). The facilities included:

- former Delphi Harrison Thermal Systems Moraine Plant (former Delphi Thermal Moraine)
- former General Motors Corporation Powertrain Group, Moraine Engine Plant (former Moraine Engine)
- former General Motors Corporation Truck Group, Moraine Assembly Plant (former Moraine Assembly)

As indicated in the 2021 Groundwater Monitoring Report (Arcadis 2022), the 2022 monitoring activities are summarized in this concise report with tabulated data and select figures. The 2022 monitoring activities were associated with the following United States Environmental Protection Agency (U.S. EPA) approved Site interim measures:

- Enhanced reductive dechlorination (ERD) - The ERD process was implemented to address site-specific volatile organic compound (VOC) impacts at the former Oil House Area and downgradient, diffuse plume at in-situ reactive zones (IRZ) IRZ-1, IRZ-2, IRZ-3 East, IRZ-3 West, and IRZ-4 East (**Figure 2**). Carbon source solution injections have not been completed since the December 2017 (IRZ-4 East) and October 2018 (IRZ-3 East). Monitoring to evaluate continued effectiveness or indications of rebound of site-specific VOC concentrations for the need of additional injections is ongoing.
- Phase 1 Dynamic Groundwater Recirculation (DGR™) - DGR™ involves hydraulic containment of the dissolved-phase, site-specific VOCs near the property boundary at the closed South Settling Lagoon. Hydraulic containment is used in combination with clean water injection to enhance advective flushing by inducing dynamic gradients required to reverse the processes of plume development. The result of addressing site-specific VOCs, specifically tetrachloroethene (PCE) and trichloroethene (TCE) within the downgradient Riverview Plat neighborhood, is to reduce and ultimately eliminate vapor intrusion risk for structures where access for installation of vapor intrusion mitigation systems has not been provided. Phase I DGR™ operation and maintenance activities were summarized in the First and Second Semi-Annual Progress Reports for 2022 (RACER Trust 2022 and 2023).
- Lower aquifer extraction well DN-13 - Extraction well DN-13 is owned by Montgomery County and has been used in a Pump-to-Waste Program since March 1990 in cooperation with former GM Corporation / Motors Liquidation Company (MLC) until March 31, 2011 and continued with RACER Trust. The capture zone interim measure for the lower aquifer consists of continued pumping of DN-13 with discharge to the Great Miami River. Samples at the DN-13 outfall and well flow rate data are collected monthly as a requirement of the National Pollutant Discharge Elimination System (NPDES) permit with the results submitted to the Ohio Environmental Protection Agency (Ohio EPA). Extraction well DN-13 operation and maintenance activities, including re-development, were summarized in the First and Second Semi-Annual Progress Reports for 2022 (RACER Trust 2022 and 2023).

Additional background information associated with the interim measures and groundwater monitoring activities at the Site can be found in the 2021 Groundwater Monitoring Report (Arcadis 2022) and referenced documents therein. Field methodologies and laboratory analytical methods associated with the 2022 groundwater monitoring activities were consistent with those summarized in the 2021 Groundwater Monitoring Report (Arcadis 2022).

Table 1 summarizes the monitoring wells used for performance monitoring of each of the interim measures and the associated analyses performed on the groundwater samples. **Figure 1** shows the monitoring well network and locations of the interim measures.

Note that groundwater monitoring associated with the closed North and South Settling Lagoons was completed in 2022. Details associated with these activities are summarized in the Supplementary Annual Report (**Appendix A**).

2 Performance Monitoring Overview

In November 2022, groundwater was sampled from select monitoring wells to evaluate the presence of site-specific VOCs and the performance of the interim measures at the Site (**Table 1**). **Tables 2** through **4** and **Appendices B** and **C** provide the groundwater monitoring and elevation data for 2022. Groundwater quality data for site-specific VOCs from 1999 through 2022 are provided in **Appendix D**. The following sections provide an overview of the groundwater monitoring activities and performance evaluation for the interim measures at the Site in 2022.

2.1 ERD

Carbon solution injections were not completed in 2022. Continued effectiveness of past injections was monitored through the collection of field parameter measurements, biogeochemical indicator parameters, and site-specific VOCs at monitoring wells proximal to IRZ-3 East (GM-2 and GM-21), IRZ-3 West (GM-32), and IRZ-4 East (GM-19S). As in 2021, the IRZ-1 monitoring wells (GM-23, GM-27, GM-28R, and GM-29) were not sampled as this area is located well within the boundaries of the Site, has had a long history of sampling data analysis, and concentrations of site-specific VOCs have been consistent from year to year. **Figure 2** shows the locations of the IRZs and the associated monitoring wells. The following is a summary of observations and conclusions based on a review of the ERD data:

- The target compounds (PCE and TCE) remained largely reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to end products (ethene and ethane) based on the VOC and light hydrocarbon data (**Tables 2** and **3; Figures 3** and **4**). The exception is at monitoring well GM-2, located further downgradient of IRZ-3 East. Monitoring of this well was completed to evaluate potential increasing concentrations of PCE. However, the PCE concentration in monitoring well GM-2 decreased from 43 micrograms per liter (µg/L) in 2021 to 35 µg/L in 2022. Note that these concentrations remain below the residential VISL for PCE of 122 µg/L, and the TCE concentration at this location remained below the MCL and residential VISL.
- No significant changes in anaerobic conditions or treatment effectiveness were observed as a result of the suspension of injections in December 2017 and October 2018.

Groundwater quality monitoring at and downgradient of the reactive zones indicates that the in-situ treatment program continues to be effective at reducing chlorinated VOC concentrations in groundwater via anaerobic reductive dechlorination.

2.2 Phase 1 DGR™

Baseline groundwater samples were collected in October 2019 from several monitoring wells upgradient, side-gradient, and downgradient of the Phase 1 DGR™ system to establish baseline groundwater concentrations for site-specific VOCs prior to system startup. The Phase 1 DGR™ system began full-scale operation in October 2019 and continued operation throughout 2022, with periodic shutdowns for maintenance and repair activities.

The DGR™ monitoring network sampled in 2022 includes wells located in four areas of the Site. The general concentration trends for PCE and TCE, the primary vapor intrusion drivers, in the Phase 1 DGR™ performance monitoring wells are discussed below in relation to the four groups with supporting concentration charts provided on **Figure 5**. Note that the concentration charts for PCE and TCE shown on **Figure 5** include: concentrations over the past 7 years (2016 through 2022), if available; the residential VISL concentrations (dashed lines) for TCE (9.9 µg/L) and PCE (122 µg/L); and the monitoring well screen interval for each well, indicated by WT (water table – the shallow portion of the upper aquifer) or TT (top of till – deeper portion of the upper aquifer).

- Upgradient and side-gradient monitoring wells: GM-19S and HR-17
  - Concentrations of PCE and TCE appear generally consistent to previous years, with the PCE concentration in monitoring well HR-17 (160 µg/L) as the only parameter that exceeded the VISLs.
- Phase 1 DGR™ area monitoring wells (upgradient of the neighborhood): W-2-S, W-3-S, W-4-S, RMW-93, and RMW-94
  - Concentrations of both PCE and TCE significantly decreased in W-4-S, RMW-93, and RMW-94 during the first two years of operation of the Phase 1 DGR™ system, and have since remained less than VISLs.
  - Concentrations of PCE in monitoring wells W-2-S (28 µg/L) and W-3-S (130 µg/L) increased in 2022. The PCE concentration in monitoring well W-3-S now exceeds the VISL. Concentration variability in these wells may be due to the relatively long screen length (e.g., 40 feet).
  - Aside from the increases noted above, concentrations of PCE and TCE for the wells in this group were generally stable or decreasing, with no other VISL exceedances.
- Riverview Plat neighborhood monitoring wells: GM-47, GM-63, GM-64
  - Concentrations of PCE and TCE in monitoring well GM-47 (38 µg/L and 24 µg/L, respectively) increased. The TCE concentration in this monitoring well that is set deeper within the upper aquifer continues to exceed the VISL. Water table monitoring well GM-50 is paired with monitoring well GM-47 but was not sampled in 2022 as concentrations of PCE and TCE have been consistently below the VISLs since 2013. Since the water table is more representative of conditions with the potential for vapor intrusion, monitoring well GM-50 will be sampled in 2023 for verification.
  - Aside from the increases noted above, concentrations of PCE and TCE for the wells in this group were generally stable, with no other VISL exceedances.
- Downgradient of the Riverview Plat neighborhood monitoring well: GM-51
  - The concentration of PCE (24 µg/L) in this well remained relatively stable and below the VISL. The concentration of TCE in monitoring well GM-51 (1.1 µg/L) decreased to below the VISL.

Groundwater levels collected at monitoring wells within the upper aquifer in the area of the Phase 1 DGR™ system (**Table 4**) were used to assess the operational hydraulic influence. The groundwater flow for the upper aquifer is generally from northeast to southwest with induced hydraulic gradient control in the Phase 1 DGR™ area (**Figure 6**). The extraction well pumping demonstrates radial flow towards the extraction wells, with radial

flow out of the injection wells into the upper aquifer. Additionally, the vertical hydraulic gradient from the shallow portion of the upper aquifer to the deeper portion of the upper aquifer demonstrates an induced downward vertical hydraulic gradient in the vicinity of the extraction wells (**Table 5**). Water levels in the vicinity of the injection wells (IW-1 through IW-4) indicate limited mounding affects.

Groundwater concentration data for monitoring wells in the Phase 1 DGR™ area demonstrate generally decreasing PCE and TCE concentrations downgradient and local to the injection wells (**Figure 5**). In addition, PCE and TCE concentrations within the Riverview Plat neighborhood in the shallow portion of the upper aquifer are below the respective residential VISLs (**Figure 5**). These data, along with the groundwater elevation data summarized above, suggest that the Phase 1 DGR™ interim measure is sufficiently maintaining hydraulic capture of the upper aquifer plume and decreasing the site-specific VOC concentrations downgradient with the treated water injection.

2.3 Lower Aquifer Extraction Well DN-13

Extraction well DN-13 is utilized to capture site-specific VOCs in lower aquifer groundwater. Past evaluations to determine the effectiveness of DN-13 used several lines of evidence following the general procedures outlined in A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems (U.S. EPA 2008). With the robust capture zone analyses that followed U.S. EPA guidance for over 9 years, the capture hydraulics in relation to DN-13 operation have been established. In the 2019 Groundwater Monitoring Report (Arcadis 2020), it was recommended that the capture analysis and evaluation of DN-13 data relative to hydraulic control be reduced to every 5 years with continued reporting on operation and maintenance to maintain a flow rate for capture. Specifically, removing the need to evaluate the hydraulics in relation to horizontal hydraulic gradients, statistical analysis of VOC concentrations, calculations, and inferred capture zones. Annual monitoring of local lower aquifer site-specific VOC concentrations at DN-13 was maintained.

Concentrations of site-specific VOCs in DN-13 (**Table 2**) and operational data (RACER Trust 2022 and 2023) were used to compare to past evaluations to confirm conditions as outlined below:

- The run-time average flow rate (pump in operation) for DN-13 in 2022 was approximately 482 gallons per minute (gpm) or 0.69 million gallons per day (MGD), while the average daily rate (total flow volume averaged over the entire year – including downtime) for 2022 was approximately 242 gpm (0.35 MGD). Extraction well DN-13 was operational for 49.3% of 2022, with a shutdown of 185.1 days for re-development activities and repairs (RACER Trust 2022 and 2023). Several extenuating factors contributed to the lengthy downtime. Prior to re-development, the turbine pump and well head assembly were removed and inspected, and the pump bowl was found to be eroded beyond repair, requiring a new pump and column pipe. A downhole inspection of the well and screen identified a hole in the well casing caused by a column pipe leak. Because of these issues, additional repairs, materials, and alternate development methods were required, outside the original scope of work. Supply chain issues delayed the arrival of materials, further delaying the repair and re-development of DN-13.
- The new downhole pump installed in DN-13 has limitations due to the depth and maintains a lower flow rate compared to the original pump set-up. The submersible pump depth and lower flow rate are intended to limit the intrusion of formation material from the hole in the casing. Currently, the flow rate is maintained at maximum capacity, approximately 500 gpm. Using the operational data and considering the consistent site-specific VOC plume width over the years (Arcadis 2022), the average daily flow rate of 482 gpm (excluding downtime) exceeds the minimum calculated groundwater flow rate required to capture the plume (339 gpm;

Arcadis 2020). Therefore, even after incorporating an overly conservative set of parameters as presented in the 2019 Groundwater Monitoring Report (Arcadis 2020), the current operational flow rate of DN-13 is sufficient to capture the lower aquifer plume width.

- In August and November 2022, the concentrations of PCE and TCE in groundwater from extraction well DN-13 were 1.5 µg/L and 5.5 µg/L, respectively. These concentrations are relatively consistent with the past several years. The other site-specific VOCs were detected at relatively low concentrations or below reporting limits. Note that DN-13 was sampled twice in 2022. The August 2022 sampling event was completed to evaluate concentrations of site-specific VOCs immediately after the DN-13 shutdown period.

The data above indicate that sufficient hydraulic capture within the lower aquifer was achieved. Based on the continued effective performance and proactive operation and maintenance of extraction well DN-13 during 2022, the current pumping program at DN-13 is effective and will continue to be implemented in 2023. A capture analysis will be completed in 2 years in 2025 (for the 2024 reporting period) per the recommendations presented in the 2019 report (Arcadis 2020). Flow rate measurements and sampling for site-specific VOC concentrations at DN-13 will be maintained on an annual basis to confirm overall conditions.

3 2023 Groundwater Monitoring Program

Based on the on-going remedial design tasks and expected remedy implementation, a focused 2023 interim measure performance monitoring program, similar to the one implemented in 2022, is proposed. The program includes monitoring associated with the IRZs, Phase 1 DGR™, and extraction well DN-13 (**Table 6**). A concise report with tabulated data and select supporting figures will be used to communicate the results of the 2023 groundwater monitoring program.

4 References

Arcadis. 2022. 2021 Groundwater Monitoring Report, RACER Trust, Moraine, Ohio. February 28, 2022.

Arcadis. 2020. 2019 Groundwater Monitoring Report, RACER Trust, Moraine, Ohio. February 25, 2020.

RACER Trust. 2022. First Semi-Annual Progress Report 2022, RACER Trust Moraine Facilities, Moraine, Ohio. July 11, 2022.

RACER Trust. 2023. Second Semi-Annual Progress Report 2022, RACER Trust Moraine Facilities, Moraine, Ohio. January 10, 2023.

U.S. EPA. 2008. A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/003.

Tables

Table 1
Groundwater Monitoring Program for 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Off-Site DN-13 Capture Zone Performance Monitoring Wells (Annual)

Lower aquifer monitoring well analyzed for the site-specific list of VOCs[1]:

DN-13

In-Situ Reactive Zone Performance Monitoring Wells – (Annual)

Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[1] and biogeochemical parameters[2]:

GM-2[3]	GM-19S	GM-21	GM-32

Phase I DGR™ Performance Monitoring Wells (Annual)

Upper aquifer monitoring wells[4] analyzed for the site-specific list of VOCs[1]:

GM-47	GM-51	GM-63	GM-64	RMW-93
RMW-94	HR-17	W-2-S	W-3-S	W-4-S

Analytical Methods

Parameter	Analytical Method
Site-specific list of VOCs	SW846 8260B
Total organic carbon	SW846 9060
Ethane, ethene, methane	AM20GAX

NOTES:

1 – Site-specific list of VOCs for 2022 includes: benzene, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes.

2 – Biogeochemical parameters include: total organic carbon (TOC), ethane, ethene, and methane.

3 – Monitoring well GM-2 is located further downgradient from IRZ-3 East. Sampled since 2019 to support performance verification.

4 – Includes monitoring well GM-19S.

Field parameters collected at all monitoring wells (pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and temperature)

Table 2
Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Site-Specific Volatile Organic Compounds	Units	Location ID / Date / U.S. EPA MCL[1]	Phase 1 DGR™ System Performance Monitoring Wells									
			GM-47 11/10/2022 Upper Aquifer	GM-51 11/10/2022 Upper Aquifer	GM-63 11/10/2022 Upper Aquifer	GM-64 11/9/2022 Upper Aquifer	RMW-93 11/8/2022 Upper Aquifer	RMW-94 11/9/2022 Upper Aquifer	HR-17 11/9/2022 Upper Aquifer	W-2-S 11/9/2022 Upper Aquifer	W-3-S 11/9/2022 Upper Aquifer	W-4-S 11/9/2022 Upper Aquifer
1,1,1-Trichloroethane	µg/L	200	0.68 J	< 1.0 U	1.9	0.59 J	0.68 J	0.64 J	< 2.0 U	0.59 J	< 2.0 U	1.1
1,1-Dichloroethane	µg/L	--	0.93 J	1.1	0.66 J	0.72 J	< 1.0 U	< 1.0 U	< 2.0 U	0.60 J	< 2.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	9.6	2.5	1.8	3.2	0.57 J	< 1.0 U	< 2.0 U	1.1	< 2.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U
Tetrachloroethene	µg/L	**5**	**38**	**24**	**13**	**7.5**	3.1	**6.0**	**160**	**28**	**130**	**26**
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U
Trichloroethene	µg/L	**5**	**24**	1.1	2.3	0.87 J	< 1.0 U	< 1.0 U	< 2.0 U	3.1	< 2.0 U	0.92 J
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U	< 4.0 U	< 2.0 U
Total Site-Specific VOCs			73.21	28.7	19.66	12.88	4.35	6.64	160	33.39	130	28.02

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
The QA/QC results for 2022 data are shown in Appendix B.
< - Constituent not detected above laboratory reporting limit shown.
BOLD - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.

Table 2
Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Site-Specific Volatile Organic Compounds	Units	Location ID Date U.S. EPA MCL[1]	DN-13 Performance Monitoring		Downgradient Reactive Zone Performance Monitorng Wells			
			DN-13 8/18/2022 Lower Aquifer	DN-13 11/8/2022 Lower Aquifer	GM-02 11/10/2022 Upper Aquifer	GM-19S 11/10/2022 Upper Aquifer	GM-21 11/10/2022 Upper Aquifer	GM-32 11/10/2022 Upper Aquifer
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	< 1.0 U	1.2	< 1.0 U	1.3	4.1	0.51 J
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.2	4.7	< 1.0 U	31	2.1	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	**5**	3.0	1.5	**35**	4.7	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.62 J	< 1.0 U
Trichloroethene	µg/L	**5**	4.7	**5.5**	1.7	3.7	0.46 J	< 1.0 U
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	0.98 J	1.4	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs			8.9	12.9	36.7	41.68	8.68	0.51

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
The QA/QC results for 2022 data are shown in Appendix B.
< - Constituent not detected above laboratory reporting limit shown.
BOLD - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.

Table 3
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones
RACER Trust
Moraine, Ohio

Constituents	Units	IRZ-3 West GM-32 9/22/99	2/28/00	5/30/00	9/25/00	3/19/01	11/12/01	12/11/01	6/12/02	9/20/02	5/23/03	10/1/03	9/14/04	10/19/05	9/19/06	9/18/07	9/23/08	11/16/09	9/27/10	9/29/11
TOC																				
Total Organic Carbon	mg/L	68	1,200	2,020	2,720	1,120	320 B	250	240	160	150	170	240 J	300	260	290 J	95	170	260	71
Permanent Gases																				
Methane	mg/L	2.7	7.1	15	17	29	29	38	24	32	24	19	25	30 J	26	26	25	NA	NA	NA
Light Hydrocarbon Scan																				
Ethane	ng/L	1,649	9,965	1,029	189	7,900	42,000	72,000	84,000	94,000	74,000	46,000	57,000	85,000 J	76,000	73,000	58,000	NA	NA	NA
Ethene	ng/L	86,509	163,855	472,312	510,593	150,000	130,000	90,000	93,000	49,000	9,900	3,400	2,000	1,900 J	2,400	1,200	940	NA	NA	NA
Field Parameters																				
pH	S.U.	7.54	8.59	7.64	7.73	8.36	8.42	8.13	8.55	8.13	6.41	6.81	6.86	6.30	6.84	7.00	7.13	7.02	7.68	7.20
Specific Conductivity	umhos/cm	2,750	9,030	9,195	9,225	7,483	6,874	6,200	5,432	4,289	3,908	3,192	4,210	4,810	4,510	4,240	3,220	3,540	5,328	3,280
Dissolved Oxygen	mg/L	0.09	0.23	10.82	2.55	0.36	0.07	0.03	1.14	0.22	1.93	0.31	0.00	0.00	0.21	0.45	1.79	0.89	2.4	1.97
Redox Potential	mV	-226.4	-279.1	-213.6	-353.8	-152.5	-222.8	-279	-220.5	-227.1	-204.6	-154.4	-160	-191	-193	-161	-200	-108	-236.9	-244
Temperature	°C	19.27	19.72	23.48	19.27	19.3	18.84	18.62	20.83	19.81	19.31	18.47	17.20	17.00	17.70	16.70	18.71	16.30	16.79	18.77

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
°C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

Table 3
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones
RACER Trust
Moraine, Ohio

		IRZ-3 West											IRZ-3 East							
		GM-32 (Continued)											GM-21							
Constituents	Units	9/6/12	9/26/13	10/8/14	12/8/15	8/17/16	8/16/17	7/24/18	7/11/19	7/31/20	10/7/21	11/10/22	9/22/99	2/23/00	5/26/00	9/22/00	3/19/01	11/13/01	12/11/01	6/12/02
TOC																				
Total Organic Carbon	mg/L	62	40	22	6.0	4.2	9.2	3.8	3.8	3.0	2.9	2.4	1.0	3.0	2.0	<1.0 U	<1.0 U	2.0 B	1.0	0.9J
Permanent Gases																				
Methane	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	0.42	0.41	0.27	0.037	0.018	0.014	0.042	0.048	0.049	0.035	0.022
Light Hydrocarbon Scan																				
Ethane	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	1,500	1,600	950 J	72	67	84	72	82	76	120	150
Ethene	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 1,000 U	< 1,000 U	< 1,000 U	169	38	70	69	46	46	100	120
Field Parameters																				
pH	S.U.	7.15	8.05	7.26	7.04	6.81	6.68	7.15	7.07	7.04	7.60	7.16	6.99	7.22	7.06	7.21	7.85	7.50	7.45	7.22
Specific Conductivity	umhos/cm	1,998	1,388	1,520	1,380	1,200	1,320	1,140	870	878	1,610	1,076	1,188	1,299	1,048	1,096	1,067	1,190	1,360	1,045
Dissolved Oxygen	mg/L	0.94	0.42	0.72	0	7.08	6.36	0	0.69	0.6	0.48	0.40	0.66	0.60	0.40	0.99	0.57	0.04	0.04	0.63
Redox Potential	mV	-72.8	-17	-99	-165	-148	-105	-167	-94	-125.9	-135	-138.2	-26.9	113.3	167.1	153.9	218.5	168.8	-25	373.8
Temperature	°C	21.50	18.36	18.48	15.57	17.96	15.83	16.21	17.80	17.00	16.65	16.43	20.43	18.43	17.92	19.03	17.59	16.73	15.82	18.67

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
°C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

Table 3
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones
RACER Trust
Moraine, Ohio

Constituents	Units	IRZ-3 East GM-21 (Continued) 9/25/02	5/22/03	9/24/03	9/14/04	10/17/05	9/20/06	9/26/07	10/3/08	11/16/09	9/28/10	9/29/11	9/7/12	9/26/13	10/9/14	12/11/15	8/22/16	8/17/17	7/25/18	7/12/19
TOC																				
Total Organic Carbon	mg/L	2	2	2	2 J	92	7	14 J	18	45	91	100	86	120	120	110	94	81	95	NA
Permanent Gases																				
Methane	mg/L	0.03	0.031	1.5	0.077	17	4.9	30	28	28	23	15	12	NA	15	17	16	13	15	16
Light Hydrocarbon Scan																				
Ethane	ng/L	120	130	30	140	9,800	27,000	290,000 J	77,000	71,000	50,000	21,000	7,500	NA	6,800	6,300	6,100	6,400	7,500	4,300
Ethene	ng/L	64	570	520	250	330,000	63,000	80,000	13,000	6,700	3,600	3,100	5,800	NA	5,400	8,100	7,000	4,600	5,700	4,400
Field Parameters																				
pH	S.U.	7.09	6.76	7.05	7.19	6.73	6.90	6.64	6.05	6.40	6.46	6.50	6.36	6.38	7.12	6.95	6.40	6.30	6.40	6.44
Specific Conductivity	umhos/cm	1,245	968	1,181	1,180	1,640	1,580	1,870	1,405	2,088	2,424	2,974	2,511	1,373	2,853	1,280	2,560	2,340	2,350	1,740
Dissolved Oxygen	mg/L	0.41	0.83	0.75	0	0	0.25	0.46	0.12	0.24	3.60	0.30	0.12	0.47	0.28	0	0.64	5.08	NA	0.81
Redox Potential	mV	238.1	77.1	-26.7	-7	-140	-137	-126	68	-92.1	-95.1	-13.7	-12	22.6	-29.3	-151	-93	-76	-116	-44
Temperature	°C	18.67	17.54	18.39	17.1	16.4	16.94	17.2	16.5	16.32	16.65	23.00	22.90	23.70	16.40	16.37	17.32	17.42	17.2	17.2

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
°C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

Table 3
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones
RACER Trust
Moraine, Ohio

		IRZ-3 East						GM-19S												
		GM-21 (Continued)			GM-2			IRZ-4 East												
Constituents	Units	7/31/20	10/7/21	11/10/22	7/31/20	10/7/21	11/10/22	9/20/99	2/23/00	5/24/00	9/22/00	3/19/01	11/20/01	12/11/01	6/12/02	9/26/02	5/21/03	9/25/03	9/13/04	10/18/05
TOC																				
Total Organic Carbon	mg/L	62	36	25	0.92 J	0.90 J	0.88 J	2.0	7.0	5.0	<1.0 U	<1.0 U	2.0 B	1.0	1.0	3.0	2.0	2.0	1.0	3.0
Permanent Gases																				
Methane	mg/L	14	14	5.3	<0.005 U	<0.005 U	<0.005 U	0.0099	0.0027	0.0033	0.0037	0.039	0.0050	0.0088	0.002	0.46	0.0021	0.0022	0.0014	< 0.0065 U
Light Hydrocarbon Scan																				
Ethane	ng/L	4,500 J	5,800	3,500	<1,000 U	240 J	<1,000 U	71	104	139	184	210	300	350	410	730	170	80	48	<250 U
Ethene	ng/L	2,600 J	1,600	< 1,000 U	<1,000 U	<1,000 U	<1,000 U	55	45	43	36	61	34	27	130	770	78	45	51	<220 U
Field Parameters																				
pH	S.U.	6.43	6.71	6.56	6.94	6.87	6.9	7.05	7.05	7.00	7.19	7.14	7.28	7.31	7.09	7.02	6.71	6.93	7.13	5.97
Specific Conductivity	umhos/cm	1,597	1,563	1,122	904	1,511	1,196	1,500	1,784	1,548	1,235	1,097	1,190	1,350	1,052	1,474	1,706	1,726	1,970	1,940
Dissolved Oxygen	mg/L	3.45	0.2	0.22	0.35	0.47	0.66	0.92	0.30	1.94	1.36	0.96	1.75	0.06	0.9	0.47	2.01	1.87	0.0	0.0
Redox Potential	mV	-25.3	163	-114.5	22.9	18	5.7	31.3	149.6	200.1	187.7	320.8	195.6	13	446.3	259.6	178.3	135	160	122
Temperature	°C	17.92	18.4	15.88	18.09	16.03	17.12	20.85	18.69	20.80	20.09	20.14	19.24	19.1	20.39	20.36	20.22	19.57	18.6	17.6

NOTES:
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°C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

Table 3
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones
RACER Trust
Moraine, Ohio

Constituents	Units	IRZ-4 East GM-19S (Continued)																	
		9/21/06	9/17/07	9/23/08	11/17/09	4/7/10	9/27/10	9/29/11	9/6/12	9/26/13	10/7/14	12/5/15	8/22/16	8/16/17	7/24/18	7/12/19	7/31/20	10/7/21	11/10/22
TOC																			
Total Organic Carbon	mg/L	22	6.0 J	3.0	10	NA	14	4.6	2.6	3.2	2.2	2.5	1.3	1.3	1.7	NA	1.5	1.2	1.0
Permanent Gases																			
Methane	mg/L	0.025	7.5	0.79	25	NA	19	1.3	0.0090	0.22	0.54	1.2	0.46	0.72	0.21	0.60	0.13	0.28	<0.005 U
Light Hydrocarbon Scan																			
Ethane	ng/L	730	7,800	550	11,000	NA	9,300	870	53	85	91	160	37 J	14 J	57 J	77 J	< 1,000 U	< 1,000 U	< 1,000 U
Ethene	ng/L	550	22,000	30,000	<120 U	NA	72	1,800	760	590	600	330	180	180	390	140	130 J	< 1,000 U	< 1,000 U
Field Parameters																			
pH	S.U.	6.84	7.03	7.1	6.93	6.78	7.47	6.33	7.11	8.43	6.85	6.95	6.92	6.64	7.11	6.91	7.0	7.21	6.99
Specific Conductivity	umhos/cm	2,150	2,010	2,290	1,951	2,370	1,986	2,150	1,377	1,539	1,280	1,280	1,180	1,180	1,130	1,127	893	1519	865
Dissolved Oxygen	mg/L	0.3	0.43	1.87	0.33	0.80	0.67	2.08	0.54	0.54	0.32	0	2.16	3.72	0	1.32	0.61	0.33	0.24
Redox Potential	mV	-82	-145	-153	-137.9	-157	-112.5	-150	-26	-64.1	-79	-151	-133	-138	-143	-40.7	-107.3	-111.0	-125.6
Temperature	°C	17.9	17.5	16.9	16.68	17.73	16.43	17.82	23.90	19.80	15.30	16.37	17.37	17.41	16.87	17.30	17.53	16.37	15.99

NOTES:
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B - Blank Contamination.
°C - Degrees Celsius.
J - Value is estimated.
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umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

Table 4
Groundwater Level Measurements Collected During 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Measuring Point Elevation (feet AMSL)	Date/Time	Depth-to-Water (feet)	Total Depth (feet)	Groundwater or Surface Water Elevation (feet AMSL)	Survey Datum Used
Upper Aquifer Wells						
GM-02	734.76	11/8/22 12:51	29.25	NM	705.51	NAVD 88
GM-08	734.40	11/8/22 12:44	28.97	NM	705.43	NAVD 88
GM-17	722.79	11/8/22 10:52	17.86	NM	704.93	NAVD 88
GM-19S	729.72	11/8/22 13:05	24.08	NM	705.64	NAVD 88
GM-34	729.27	11/8/22 13:28	23.45	NM	705.82	NAVD 88
GM-45	728.13	11/8/22 13:14	22.10	NM	706.03	NAVD 88
GM-47	725.81	11/8/22 10:05	20.63	NM	705.18	NAVD 88
GM-50	725.62	11/8/22 10:04	20.49	NM	705.13	NAVD 88
GM-63	724.86	11/8/22 9:51	19.50	NM	705.36	NAVD 88
HR-16	726.02	11/8/22 9:32	20.32	NM	705.70	NAVD 88
HR-17	725.42	11/8/22 9:26	19.44	NM	705.98	NAVD 88
RMW-100	723.58	11/8/22 10:38	18.49	NM	705.09	NAVD 88
RMW-101	723.47	11/8/22 10:36	18.35	NM	705.12	NAVD 88
RMW-102	723.98	11/8/22 10:24	19.15	NM	704.83	NAVD 88
RMW-91	725.50	11/8/22 9:19	20.15	NM	705.35	NAVD 88
RMW-92	725.92	11/8/22 9:16	20.45	NM	705.47	NAVD 88
RMW-93	727.56	11/8/22 9:34	22.27	NM	705.29	NAVD 88
RMW-94	727.53	11/8/22 9:35	22.19	NM	705.34	NAVD 88
RMW-98	725.10	11/8/22 10:13	20.35	NM	704.75	NAVD 88
RMW-99	724.95	11/8/22 10:15	20.14	NM	704.81	NAVD 88
W-2-S	725.67	11/8/22 9:26	20.44	68.00	705.23	NAVD 88
W-3-S	728.16	11/8/22 9:28	22.89	NM	705.27	NAVD 88
W-4-S	726.76	11/8/22 9:39	21.24	NM	705.52	NAVD 88
WEST	729.96	11/8/22 13:34	24.15	NM	705.81	NAVD 88
WSU-23	724.00	11/8/22 9:56	18.91	NM	705.09	NAVD 88

NOTES:

Elevations are reported in feet above mean sea level (AMSL).

Groundwater levels were measured on November 8, 2022 using electronic water level indicators.

Groundwater level measurements are reported in feet below the measuring point.

Measuring point is the top of the well casing or surveyed measuring point.

NM - Not Measured.

Survey of well coordinates were originally to a site-specific coordinate system in feet with the vertical datum as the National Geodetic Vertical Datum of 1929 (NGVD 29) using an on-site benchmark. In 2019 several monitoring wells were re-surveyed using the North American Vertical Datum of 1988 (NAVD 88).

Table 5
Vertical Hydraulic Gradients for 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Vertical Hydraulic Gradients - 2022			
Shallow/Deep Upper Aquifer Wells[1]	**Mid-Screen Distance (ft)**	**Direction (U/D)**	**Gradient**
On-Site - Phase 1 Extraction Well Area - November 8, 2022			
RMW-92 (705.47 ft amsl) / RMW-91 (705.35 ft amsl)	20	D	6.2E-03

NOTES:

U - Upward vertical hydraulic gradient.

D - Downward vertical hydraulic gradient.

amsl - above mean sea level.

ft - feet.

The vertical datum for Off-site/Downgradient wells is NGVD 29.

The vertical datum for Shallow/Deep Upper Aquifer wells is NAVD 88.

1 - vertical gradient is calculated using shallow Upper Aquifer and deep Upper Aquifer well pair.

Table 6
Proposed Groundwater Monitoring Program for 2023
RACER Trust Moraine Facilities
Moraine, Ohio

Off-Site DN-13 Capture Zone Performance Monitoring Wells (Annual)

Lower aquifer monitoring wells to be analyzed for the site-specific list of VOCs[1]:

DN-13

In-Situ Reactive Zone Performance Monitoring Wells (Annual)

Upper aquifer monitoring wells to be analyzed for the site-specific list of VOCs[1] and biogeochemical parameters[2]:

GM-2[3]	GM-19S	GM-21	GM-32

Phase I DGR™ Performance Monitoring Wells (Annual)

Upper aquifer monitoring wells[4] to be analyzed for the site-specific list of VOCs[1]:

GM-47	GM-50	GM-51	GM-63	GM-64	HR-17	W-2-S
RMW-93	RMW-94	RMW-99	RMW-101	RMW-102	W-3-S	W-4-S

Analytical Methods

Parameter	Analytical Method
Site-specific list of VOCs	SW846 8260B
Total organic carbon	SW846 9060
Ethane, ethene, methane	AM20GAX

NOTES:

1 – Site-specific list of VOCs for 2021 includes: benzene, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes.

2 – Biogeochemical parameters include: total organic carbon (TOC), ethane, ethene, and methane.

3 – Monitoring well GM-2 is located further downgradient from IRZ-3 East. Sampled since 2019 to support performance verification.

4 – Includes monitoring well GM-19S.

Field parameters will be collected at all monitoring wells (pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and temperature)

Figures

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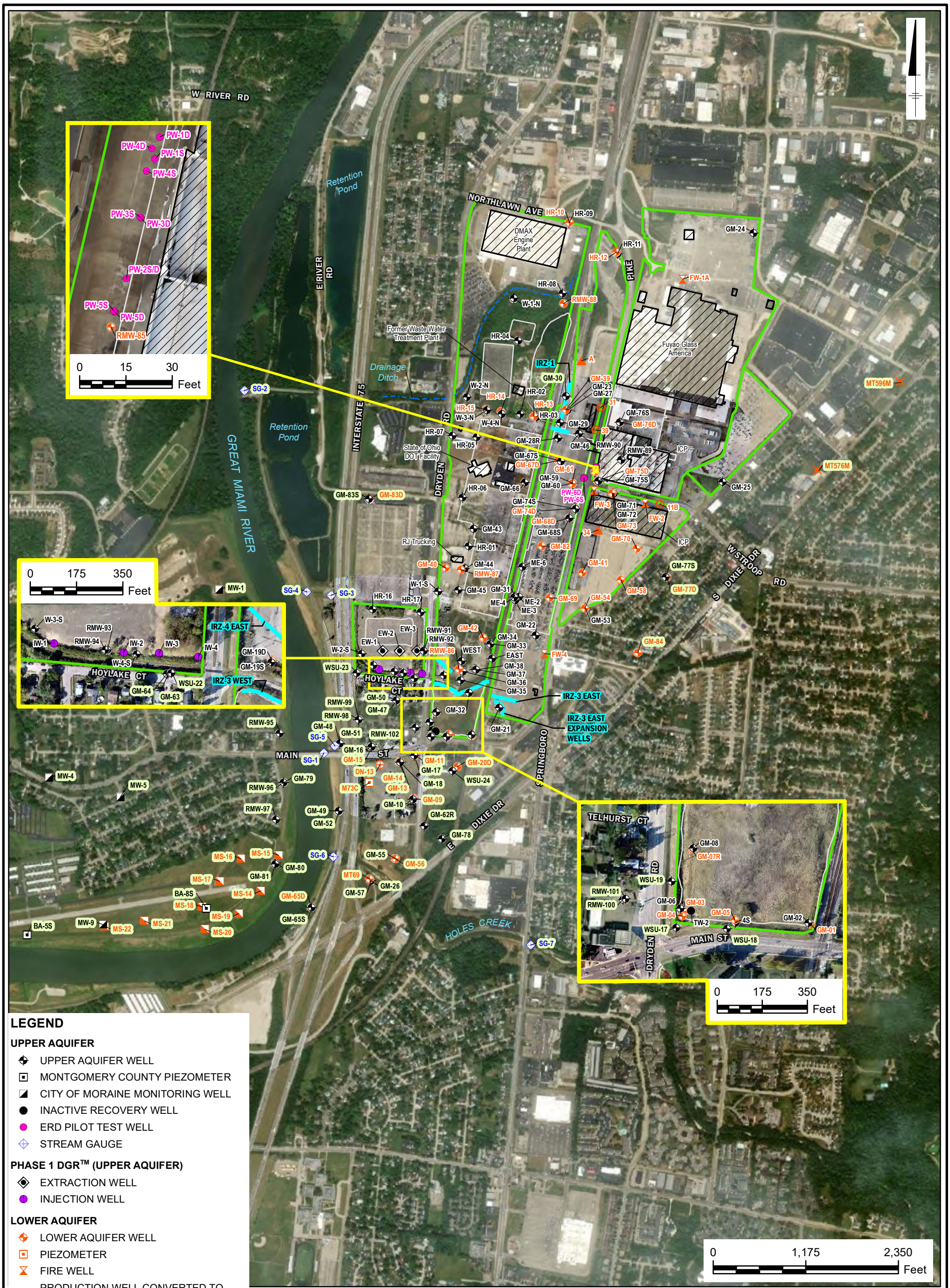

LEGEND

UPPER AQUIFER

- UPPER AQUIFER WELL
- MONTGOMERY COUNTY PIEZOMETER
- CITY OF MORAINE MONITORING WELL
- INACTIVE RECOVERY WELL
- ERD PILOT TEST WELL
- STREAM GAUGE

PHASE 1 DGR™ (UPPER AQUIFER)

- EXTRACTION WELL
- INJECTION WELL

LOWER AQUIFER

- LOWER AQUIFER WELL
- PIEZOMETER
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL
- INACTIVE PRODUCTION WELL
- MONTGOMERY COUNTY WELL (DN-13) USED BY RACER
- MONTGOMERY COUNTY WELL (INACTIVE)
- PRIVATE WELL
- CARBON SOURCE INTRODUCTION WELLS, REACTIVE ZONES
- DRAINAGE DITCH

- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/26/2023.
3. Parcel data downloaded on 01/22/2020 from http://www.mcauditor.org/downloads/gis_downloads.cfm/.
4. Olive-shaded labels indicate offsite wells.

RACER TRUST
MORAINE, OHIO

2022 GROUNDWATER MONITORING REPORT

SITE MAP

ARCADIS

FIGURE
1

Created By: jchen Last Saved By: jchen
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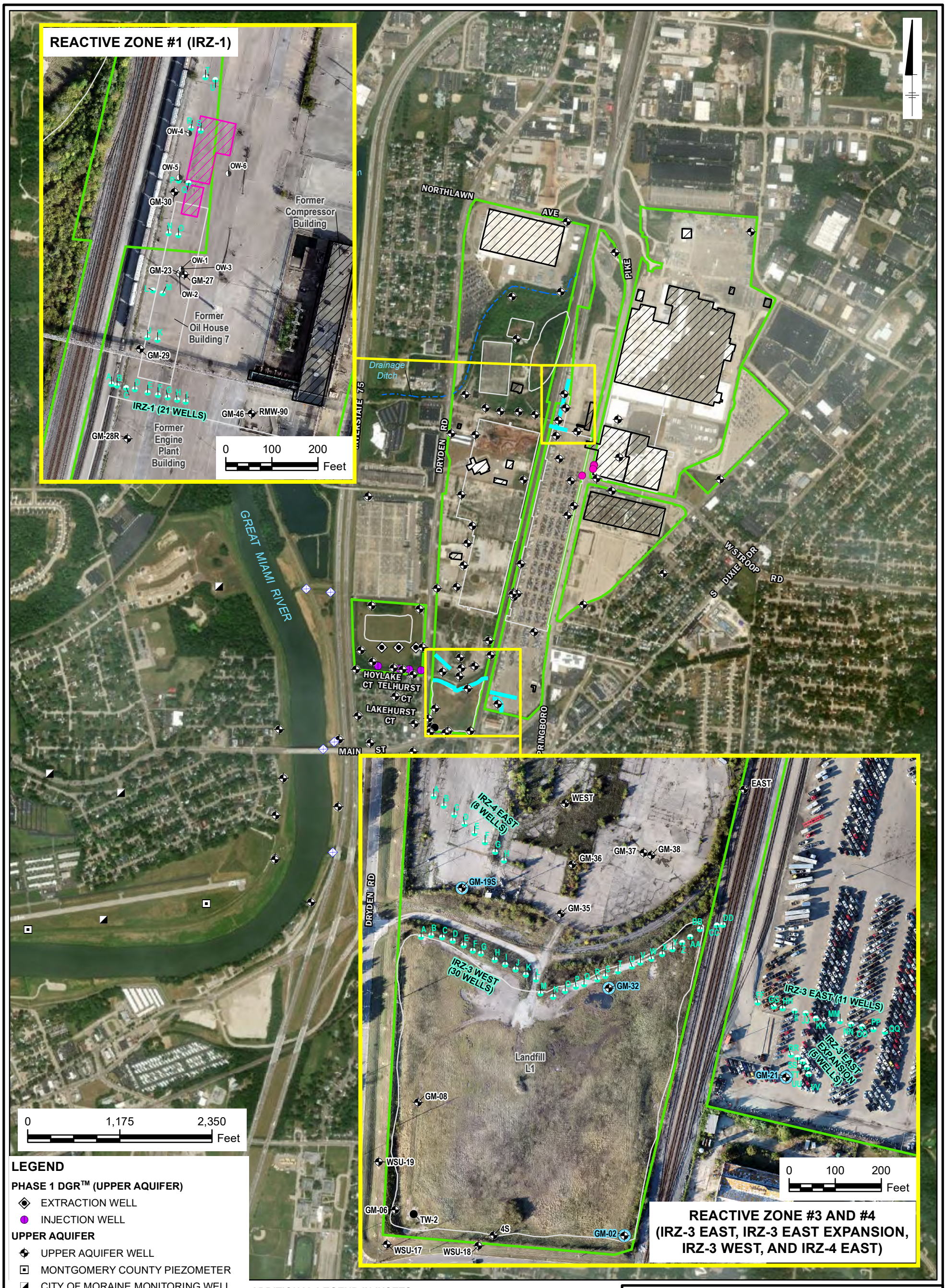


LEGEND

PHASE 1 DGR™ (UPPER AQUIFER)
- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER
- UPPER AQUIFER WELL
- MONTGOMERY COUNTY PIEZOMETER
- CITY OF MORAINE MONITORING WELL
- INACTIVE RECOVERY WELL
- ERD PILOT TEST WELL
- STREAM GAUGE
- CARBON SOURCE INTRODUCTION WELLS, REACTIVE ZONES
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

ADDITIONAL LEGEND IN INSETS
- OXIDATION WELL (INACTIVE)
- CARBON SOURCE INTRODUCTION WELL
- UPPER AQUIFER MONITORING WELL SAMPLED IN 2022
- APPROXIMATE LOCATION OF FORMER MORAINE ENGINE TANK FARM

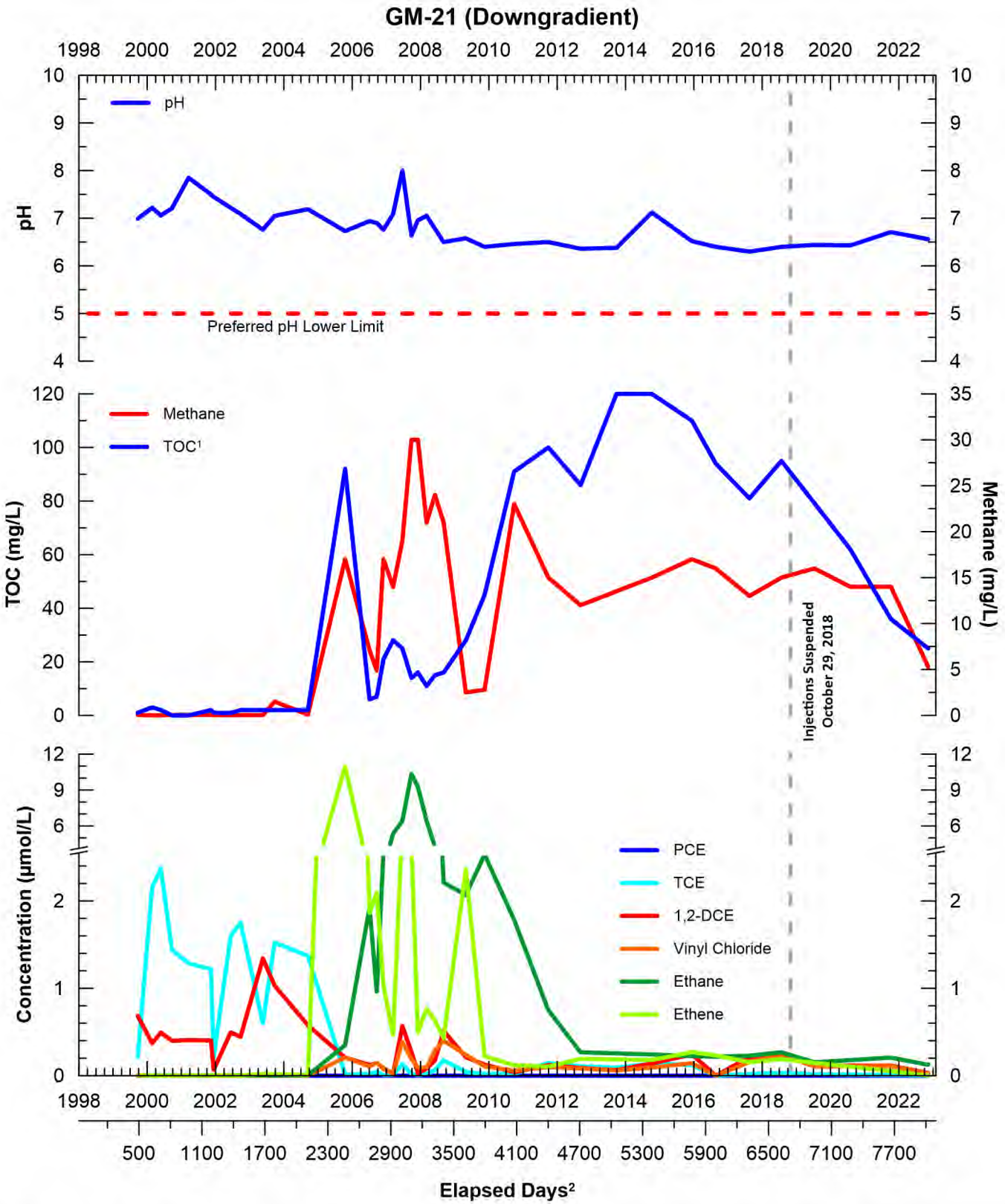
Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/26/2023.

RACER TRUST
MORAINE, OHIO
2022 GROUNDWATER MONITORING REPORT

UPPER AQUIFER REACTIVE ZONES

ARCADIS

FIGURE
2



1 - TOC breakthrough is 20 mg/L.
2 - Days since RZ-3 ERD implementation.
ERD - Enhanced reductive dechlorination.
pH - Negative logarithm of the hydrogen-ion concentration.
mg/L - Milligram per liter.
µmol/L - micromoles per liter.
TOC - Total organic carbon.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
1,2-DCE - cis and trans-1,2-Dichloroethene.

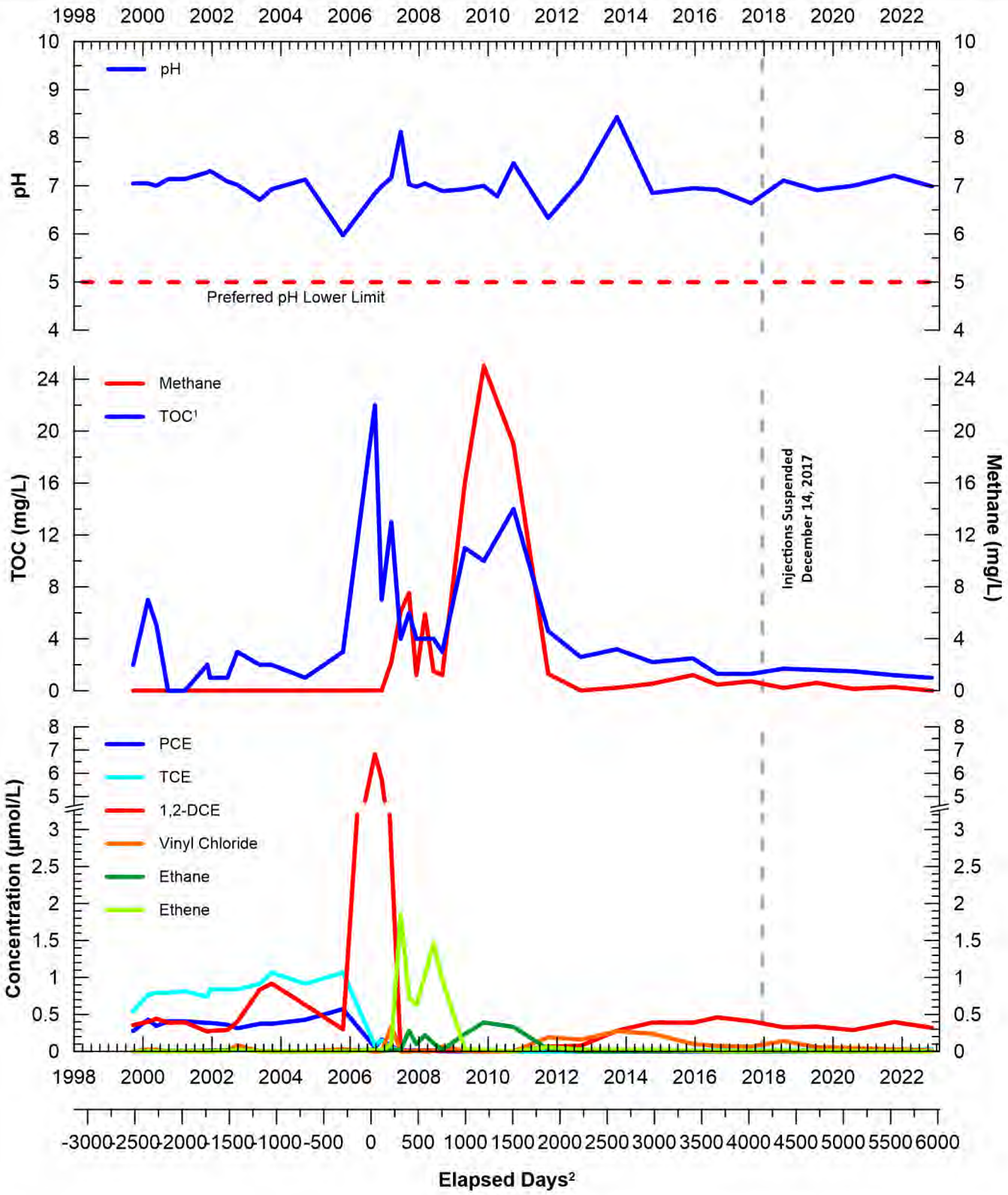
Note: Ethene, ethane, and methane parameters were not collected during the 2013 annual groundwater sampling event at GM-21.

RACER TRUST
MORAINE, OHIO
30121854.0004B

IRZ-3 EAST ERD ANALYSIS (GM-21 - DOWNGRADIENT)

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3



1 - TOC breakthrough is 20 mg/L.
2 - Days since RZ-4 ERD implementation.
ERD - Enhanced reductive dechlorination.
pH - Negative logarithm of the hydrogen-ion concentration.
mg/L - Milligram per liter.
µmol/L - micromoles per liter.
TOC - Total organic carbon.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
cis-1,2-DCE - cis-1,2-Dichloroethene.

RACER Trust
MORAINE, OHIO
30121854

IRZ-4 ERD ANALYSIS
(GM-19S - DOWNGRADIENT)

ARCADIS

FIGURE
4

Created By: jchen Last Saved By: jchen Charts inserted in Fig04_Phase1DGR-PCE_TCE_ConcentrationTrends in GW_2022.ai
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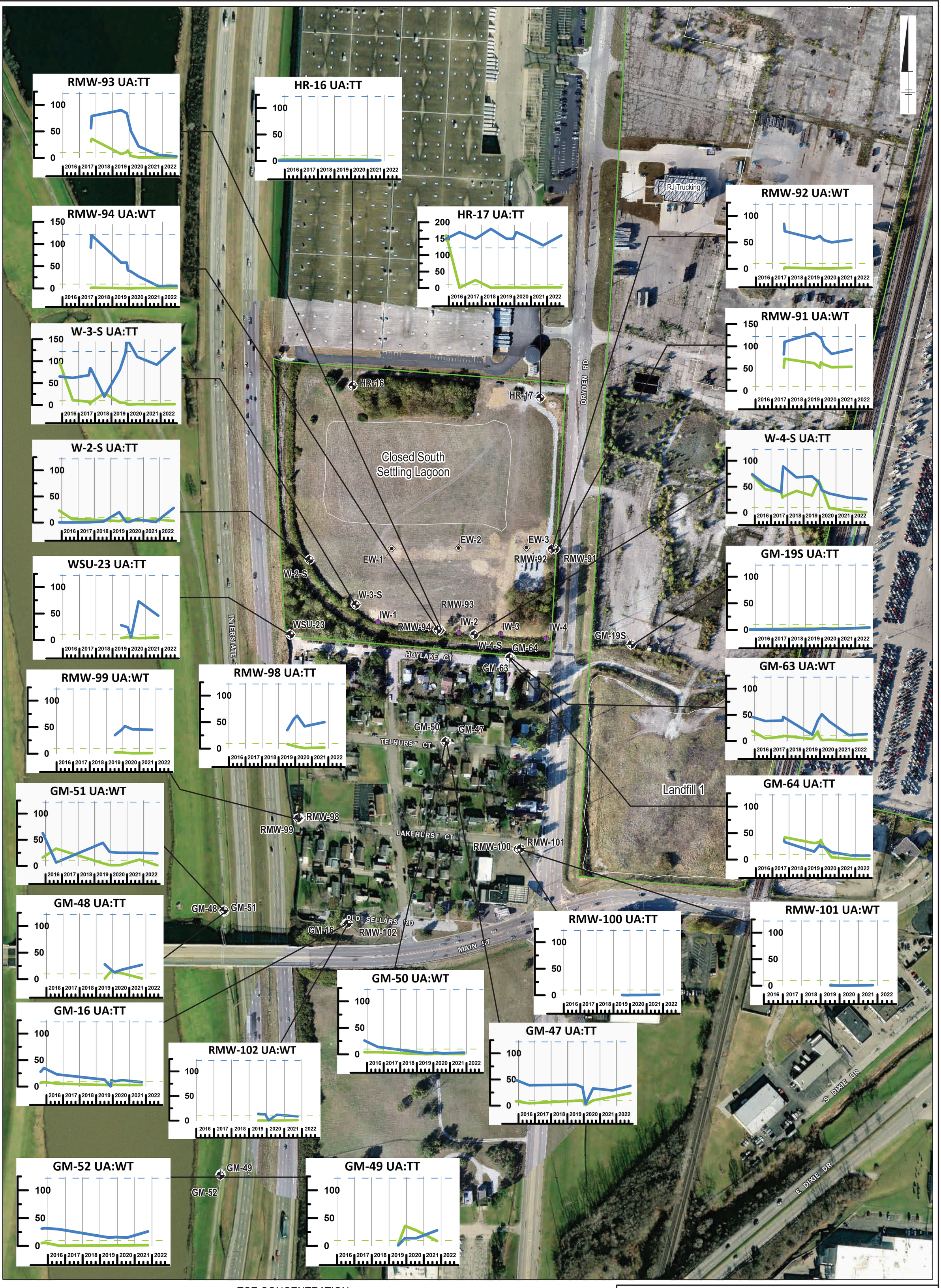

LEGEND

PHASE 1 DGR™ (UPPER AQUIFER)

- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER

- UPPER AQUIFER WELL
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

- TCE CONCENTRATION
- PCE CONCENTRATION
- TCE VISL (9.9 µg/L)
- PCE VISL (122 µg/L)

PCE = Tetrachloroethene
TCE = Trichloroethene
µg/L = Micrograms per Liter
EPA = Environmental Protection Agency
VISL = Vapor Intrusion Screening Level
UA = Upper Aquifer
WT = Water Table
TT = Top of Till (Regional Clay Till)

0 300 600 Feet

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/8/2023.
3. Screening Levels are calculated using U.S. EPA VISL calculator and based on average groundwater temperature of 11°C.

RACER TRUST
MORAINE, OHIO
2022 GROUNDWATER MONITORING REPORT

PHASE 1 DGR™ - PCE AND TCE CONCENTRATION TRENDS IN GROUNDWATER

ARCADIS

FIGURE 5

DRAFT

Created By: jchen Last Saved By: jchen
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Phase 1 DGR™ System	Average Flow Rate (gpm) (November 11, 2022)
EW-1	100.0
EW-2	100.0
EW-3	100.5
IW-1	36.2
IW-2	63.8
IW-3	100.0
IW-4	100.5
Total System	300.5

LEGEND

PHASE 1 DGR™ (UPPER AQUIFER)
- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER
- UPPER AQUIFER WELL
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

GM-02 — WELL IDENTIFIER
706.88 — GROUNDWATER ELEVATION (FEET AMSL)

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 12/22/2022.
3. Groundwater elevations were measured on November 11, 2022.
4. AMSL = Above Mean Sea Level
5. ( ) = not used in contouring
6. gpm = Gallons per Minute

RACER TRUST
MORAINE, OHIO
2022 GROUNDWATER MONITORING REPORT

GROUNDWATER POTENTIOMETRIC SURFACE FOR PHASE 1 DGR™ AREA

ARCADIS

FIGURE 6

Appendix A

Supplementary Annual Report

Intentionally Omitted

Appendix B

Annual Groundwater Sampling Event Field Parameters Data Sheet for 2022

Appendix B
Annual Groundwater Sampling Event Field Parameters Data Sheet for 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well ID	Sample ID	pH (s.u.)	Temp (°C)	ORP (mV)	Cond (mS/cm)	DO (mg/L)	Purge Rate (mL/min)	Purge Start Time	Purge End Time	Volume Purged (gallons)	Sample Date	Time Sampled	Sampler
DN-13	DN-13/110822/	7.38	15.03	56.9	0.794	3.60	300	14:25	14:30	0.40	11/08/2022	14:35	Hannah Smith
GM-19S	GM-19S/111022/	6.99	15.99	-125.6	0.865	0.24	500	11:55	12:20	3.30	11/10/2022	12:25	Hannah Smith
GM-2	GM-2/111022/	6.90	17.12	5.7	1.196	0.66	500	13:25	14:00	4.62	11/10/2022	14:05	Teresa Langenkamp
GM-21	GM-21/111022/	6.56	15.88	-114.5	1.122	0.22	200	10:40	11:15	1.85	11/10/2022	11:20	Hannah Smith
GM-32	GM-32/111022/	7.16	16.43	-138.2	1.076	0.40	276	12:17	12:52	2.55	11/10/2022	12:57	Teresa Langenkamp
GM-47	GM-47/111022/	7.23	16.91	58.8	1.055	0.41	450	10:30	11:10	4.76	11/10/2022	11:15	Teresa Langenkamp
GM-51	GM-51/111022/	7.00	16.31	14.3	0.835	1.20	500	09:15	09:55	5.28	11/10/2022	10:00	Hannah Smith
GM-63	GM-63/111022/	7.24	16.51	81.5	1.045	2.92	414	09:11	09:46	3.88	11/10/2022	09:51	Teresa Langenkamp
GM-64	GM-64/110922/	6.95	16.57	-90.9	0.917	0.20	500	14:40	15:20	5.28	11/09/2022	15:25	Hannah Smith
HR-17	HR-17/110922/	7.17	17.16	10.1	1.142	1.36	500	13:14	13:49	3.96	11/09/2022	13:54	Teresa Langenkamp
HR-4	HR-4/110922/	6.90	15.50	30.4	1.029	0.53	245	11:37	12:17	2.59	11/09/2022	12:10	Teresa Langenkamp
RMW-93	RMW-93/110822/	7.10	15.90	50.9	0.734	2.00	472	15:30	16:10	4.99	11/08/2022	16:15	Hannah Smith
RMW-94	RMW-94/110922/	7.01	16.18	38.6	0.891	1.96	500	13:30	14:00	3.96	11/09/2022	14:05	Hannah Smith
W-2-N	W-2-N/110922/	7.30	15.94	-121.8	1.080	0.64	327	09:25	10:20	4.76	11/09/2022	10:25	Teresa Langenkamp
W-2-S	W-2-S/110922/	6.98	16.67	69.7	0.800	0.51	110	15:05	15:45	1.16	11/09/2022	15:50	Teresa Langenkamp
W-3-N	W-3-N/110922/	6.87	15.50	-130.6	1.091	0.28	400	08:50	9:25	3.70	11/09/2022	09:30	Hannah Smith
W-3-S	W-3-S/110922/	6.81	15.83	-4.0	0.862	0.29	400	11:20	11:55	3.70	11/09/2022	12:00	Hannah Smith
W-4-N	W-4-N/110922/	6.79	15.12	-55.5	1.126	0.22	500	09:55	10:35	5.28	11/09/2022	10:40	Hannah Smith
W-4-S	W-4-S/110922/	6.94	16.58	27.2	0.905	0.93	500	12:35	13:10	4.62	11/09/2022	13:15	Hannah Smith

Notes:
Cond - Conductivity
ºC - Degrees Celsius.
DO - Dissolved Oxygen.
mg/L - Milligrams per Liter.
mL/min - Milliliters per Minute
mS/cm - Millisiemens per Centimeter.
mV - Millivolts.
NM - Not Measured.
ORP - Oxidation Reduction Potential.
s.u. - Standard Units.
Temp - Temperature.

Appendix C

Groundwater VOC Analytical Data for 2020 Including QA/QC Samples

Appendix C
Groundwater VOC Analytical Data for 2022 Including QA/QC Samples
RACER Trust Moraine Facilities
Moraine, Ohio

			Phase 1 DGR TM System Performance Monitoring Wells										DN-13 Performance Monitoring	
Site-Specific Volatile Organic Compounds	Units	Location ID Sample Type Date U.S. EPA MCL[1]	GM-47 N 11/10/2022 Upper Aquifer	GM-51 N 11/10/2022 Upper Aquifer	GM-63 N 11/10/2022 Upper Aquifer	GM-64 N 11/9/2022 Upper Aquifer	RMW-93 N 11/8/2022 Upper Aquifer	RMW-94 N 11/9/2022 Upper Aquifer	HR-17 N 11/9/2022 Upper Aquifer	W-2-S N 11/9/2022 Upper Aquifer	W-3-S N 11/9/2022 Upper Aquifer	W-4-S N 11/9/2022 Upper Aquifer	DN-13 N 8/18/2022 Lower Aquifer	DN-13 N 11/8/2022 Lower Aquifer
1,1,1-Trichloroethane	ug/L	200	0.68 J	< 1.0 U	1.9	0.59 J	0.68 J	0.64 J	< 2.0 U	0.59 J	< 2.0 U	1.1	< 1.0 U	< 1.0 U
1,1-Dichloroethane	ug/L	--	0.93 J	1.1	0.66 J	0.72 J	< 1.0 U	< 1.0 U	< 2.0 U	0.60 J	< 2.0 U	< 1.0 U	< 1.0 U	1.2
1,1-Dichloroethene	ug/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	ug/L	70	9.6	2.5	1.8	3.2	0.57 J	< 1.0 U	< 2.0 U	1.1	< 2.0 U	< 1.0 U	1.2	4.7
Ethylbenzene	ug/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	ug/L	**5**	**38**	**24**	**13**	**7.5**	3.1	**6**	**160**	**28**	**130**	< 1.0 U	3	1.5
Toluene	ug/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	ug/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	ug/L	**5**	**24**	1.1	2.3	0.87 J	< 1.0 U	< 1.0 U	< 2.0 U	3.1	< 2.0 U	< 1.0 U	4.7	**5.5**
Vinyl chloride	ug/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	ug/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U	< 4.0 U	< 1.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L	--	73	29	20	13	4	7	160	33	130	2	8.9	13

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
BOLD - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Check

Appendix C
Groundwater VOC Analytical Data for 2022 Including QA/QC Samples
RACER Trust Moraine Facilities
Moraine, Ohio

			Downgradient Reactive Zone Performance Monitoring Wells											
Site-Specific Volatile Organic Compounds	Units	Location ID Sample Type Date U.S. EPA MCL[1]	GM-02 N 11/10/2022 Upper Aquifer	GM-19S N 11/10/2022 Upper Aquifer	GM-21 N 11/10/2022 Upper Aquifer	GM-32 N 11/10/2022 Upper Aquifer	DUPLICATE (W-2-S) 11/9/2022 Upper Aquifer	DUPLICATE (GM-02) 11/10/2022 Upper Aquifer	EQUIPMENT BLANK 11/8/2022 QA/QC	EQUIPMENT BLANK 11/9/2022 QA/QC	EQUIPMENT BLANK 11/9/2022 QA/QC	EQUIPMENT BLANK 11/10/2022 QA/QC	EQUIPMENT BLANK 11/10/2022 QA/QC	TRIP BLANK 11/9/2022 QA/QC
1,1,1-Trichloroethane	ug/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.59 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	ug/L	--	< 1.0 U	1.3	4.1	0.51 J	0.57 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	ug/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	ug/L	70	< 1.0 U	31	2.1	< 1.0 U	0.97 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	ug/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	ug/L	**5**	**35**	4.7	< 1.0 U	< 1.0 U	**28**	**35**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	ug/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	ug/L	100	< 1.0 U	< 1.0 U	0.62 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	ug/L	**5**	1.7	3.7	0.46 J	< 1.0 U	2.8	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	ug/L	2	< 1.0 U	0.98 J	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	ug/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L	--	37	42	9	1	33	37	0	0	0	0	0	0

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
BOLD - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Check

Appendix D

Groundwater VOC Analytical Results from 1999 to 2022

Appendix D

Groundwater VOC Analytical Results from 1999 to 2022

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
Upgradient of the Site													
GM-24	9/23/1999	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	12/11/2015	8.1	0.67 J	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.4	< 1.0 U	< 2.0 U
	8/16/2016	10	0.84 J	< 1.0 U	1.5	1.2	< 1.0 U	< 1.0 U	0.94 J	< 1.0 U	4.5	< 1.0 U	< 2.0 U
HR-11	9/14/1999	< 1.0 U	14	< 1.0 U	< 1.0 U	3.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/18/2000	< 1.0 U	33	< 1.0 U	< 1.0 U	19	< 1.0 U	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 1.0 U	< 1.0 U
	11/6/2001	0.30 J	33	< 1.0 U	< 1.0 U	18	< 1.0 U	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U
	9/26/2002	< 1.0 U	18	< 1.0 U	< 1.0 U	6.1	< 1.0 U	< 1.0 U	< 1.0 U	0.72	< 1.0 U	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	10	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/15/2004	< 1.0 U	7.3	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	2.2	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/17/2005	< 1.0 U	6.5	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	**6.0**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	6.7	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/19/2007	< 1.0 U	7.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2008	< 1.0 U	5.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	4.4	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 2.0 U
On-Site													
GM-6	9/20/1999	25	33	1.2	< 1.0 U	53	< 10 U	**81**	< 1.0 U	2.0	**78**	1.6	< 10 U
	9/26/2000	12	13	< 1.0 U	< 1.0 U	41	< 1.0 U	**52**	< 1.0 U	2.2	**57**	**3.7**	< 1.0 U
	11/9/2001	3.9	14	< 2.0 U	< 2.0 U	8.2	< 2.0 U	**14**	< 2.0 U	1.8	**48**	1.9J	< 2.0 U
	9/20/2002	1.4 J	60	< 2.0 U	2.2	43	< 2.0 U	**14**	< 2.0 U	8.6	**33**	**12**	< 2.0 U
	10/2/2003	0.19 J	20	< 1.0 U	1.0	13	0.22 J	**11**	< 1.0 U	2.5	**23**	**3.3**	< 1.0 U
	9/14/2004	< 1.0 U	18	< 1.0 U	1.7	10	< 1.0 U	2.6	< 1.0 U	1.9	**5.7**	**3.0**	< 1.0 U
	10/19/2005	< 1.0 U	21	< 1.0 U	0.49 J	20	< 1.0 U	0.34 J	< 1.0 U	2.1	1.4	**11**	< 2.0 U
	9/19/2006	< 1.0 U	16	< 1.0 U	< 1.0 U	18	< 1.0 U	< 1.0 U	< 1.0 U	1.6	0.35 J	**7.3**	< 2.0 U
	9/18/2007	< 1.0 U	26	< 1.0 U	0.42 J	16	< 1.0 U	< 1.0 U	< 1.0 U	2.6	0.34 J	**6.7**	< 2.0 U
	9/24/2008	< 1.0 U	< 8.0 U	< 1.0 U	1.2	6.7	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	**2.1**	< 2.0 U
	11/11/2009	< 1.0 U	6.9	< 1.0 U	1.3	3.4	< 1.0 U	< 1.0 U	< 1.0 U	0.68 J	3.8	1.2	< 2.0 U
	9/27/2010	< 1.0 U	6.2	< 1.0 U	1.1	4.9	< 1.0 U	0.38 J	< 1.0 U	0.89 J	**6.6**	1.6	< 2.0 U
	9/29/2011	< 1.0 U	4.5	< 1.0 U	1.0	3.7	< 1.0 U	< 1.0 U	< 1.0 U	0.84 J	< 1.0 U	1.5	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	0.66 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	0.79 J	< 2.0 U
	10/7/2014	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	12/8/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/22/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/16/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/24/2018	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	0.40 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65 J	< 2.0 U
	7/11/2019	< 1.0 U	0.23 J	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-8	9/20/1999	1.9	30.2	< 1.0 U	3.4	26.2	20.7	**14.8**	< 1.0 U	12	**30.4**	**8.4**	2.3
	9/26/2000	< 1.0 U	37	< 1.0 U	1.1	1.5	13	< 1.0 U	< 1.0 U	5.4	**6.6**	**2.4**	1.9
	11/9/2001	0.40 J	40	< 1.0 U	0.78 J	2.0	0.40 J	< 1.0 U	< 1.0 U	3.6	4.4	1.9	0.39J
	9/20/2002	< 2.0 U	63	< 2.0 U	**5.5**	5.5	7.5	< 2.0 U	1.8 J	9	< 2.0 U	**5.8**	1.5J
	10/1/2003	< 2.0 U	48	< 2.0 U	**5.4**	< 1.0 U	11	< 2.0 U	< 2.0 U	4.4	< 2.0 U	< 2.0 U	< 2.0 U
	9/14/2004	< 1.0 U	15	< 1.0 U	4.2	< 0.50 U	19	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.48 J	1.1
	10/19/2005	< 1.0 U	16	< 1.0 U	3.5	0.24 J	29	< 1.0 U	0.39 J	0.99 J	< 1.0 U	0.73 J	< 2.0 U
	9/19/2006	< 5.0 U	18	< 5.0 U	2.1 J	2.1 J	< 5.0 U	< 5.0 U	< 5.0 U	1.0 J	< 5.0 U	**3.2 J**	< 1.0 U
	9/18/2007	< 2.0 U	9.1	< 2.0 U	2.4	< 2.0 U	1.7 J	< 2.0 U	< 2.0 U	0.9 J	< 2.0 U	< 2.0 U	0.9 J
	9/23/2008	< 1.0 U	1.7	< 1.0 U	**6.8**	< 1.0 U	8.6	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	0.48 J	3.9
	11/16/2009	< 1.0 U	2.9	< 1.0 U	3.9	< 1.0 U	5.5	0.34 J	0.13 J	0.22 J	< 1.0 U	< 1.0 U	1.3 J
	9/27/2010	< 1.0 U	3.0	< 1.0 U	4.7	< 1.0 U	0.33 J	< 1.0 U	0.18 J	0.29 J	< 1.0 U	0.44 J	< 2.0 U
	9/29/2011	< 1.0 U	1.9	< 1.0 U	3.5	< 1.0 U	5.4	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	0.24 J	0.99 J
	9/6/2012	< 1.0 U	0.66 J	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	0.88 J	< 1.0 U	1.9	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	0.59 J	< 1.0 U	1.2	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	< 2.0 U
	12/8/2015	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.53 J	< 2.0 U
	8/22/2016	< 1.0 U	0.37 J	< 1.0 U	0.79 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/16/2017	< 1.0 U	0.44 J	< 1.0 U	0.86 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J
	7/24/2018	< 1.0 U	0.47 J	< 1.0 U	1.3	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 2.0 U
	7/11/2019	< 1.0 U	0.40 J	< 1.0 U	1.6	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-19S	9/20/1999	16	7.7	1.0	< 1.0 U	35	< 10	**46**	< 1.0 U	2.3	**71**	< 1.0 U	< 10
	9/22/2000	15	4.4	< 1.0 U	< 1.0 U	38	< 1.0 U	**68**	< 1.0 U	2.6	**104**	< 1.0 U	< 1.0 U
	11/12/2001	7.6	2.9J	< 3.3 U	< 3.3 U	26	< 3.3 U	**64**	< 3.3 U	2.0	**97**	< 3.3 U	< 3.3 U
	9/26/2002	6.3	6.3	< 4.0 U	< 4.0 U	39	< 4.0 U	**52**	< 4.0 U	2.7	**110**	**5.2**	< 4.0 U
	9/25/2003	13	8.3	1.6 J	< 5.0 U	**89**	< 5.0 U	**62**	< 5.0 U	2.9	**140**	< 5.0 U	< 5.0 U
	9/13/2004	14	8.1	1.9 J	< 4.0 U	61	< 4.0 U	**71**	< 4.0 U	2.4	**120**	< 4.0 U	< 4.0 U
	10/18/2005	13	9.0	1.2 J	< 1.0 U	29	< 1.0 U	**95**	< 1.0 U	1.0 J	**140**	1.8	< 3.3 U
	9/21/2006	9.7 J	7.0 J	< 22 U	< 22 U	**660**	< 22 U	**9.1 J**	< 22 U	10 J	**11 J**	< 22 U	< 4.0 U
	9/17/2007	0.59 J	10	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	1.5	< 1.0 U	0.29 J	0.46 J	< 1.0 U	< 2.0 U
	9/23/2008	< 1.0 U	13	< 1.0 U	< 1.0 U	0.68 J	< 1.0 U	0.94 J	< 1.0 U	0.52 J	3.0	**9.3**	< 2.0 U
	11/17/2009	< 1.0 U	12	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	0.22 J	< 1.0 U	< 2.0 U
	4/7/2010	< 1.0 U	9.6	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/27/2010	< 1.0 U	9.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/29/2011	< 1.0 U	10	< 1.0 U	< 1.0 U	5.3	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**12**	< 2.0 U
	9/6/2012	< 1.0 U	8.4	< 1.0 U	< 1.0 U	7.3	< 1.0 U	< 1.0 U	< 1.0 U	0.84 J	0.30 J	**10**	< 2.0 U
	9/26/2013	< 1.0 U	8.3	< 1.0 U	< 1.0 U	26	< 1.0 U	< 1.0 U	< 1.0 U	1.1	0.46 J	**17**	< 2.0 U
	10/7/2014	< 1.0 U	7.6	< 1.0 U	< 1.0 U	37	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	0.81 J	**15**	< 2.9 U
	12/8/2015	< 1.0 U	3.1	< 1.0 U	< 1.0 U	37	< 1.0 U	< 1.0 U	< 1.0 U	0.66 J	1.3	**6.4**	< 2.0 U
	8/22/2016	< 1.0 U	3.4	< 1.0 U	< 1.0 U	44	< 1.0 U	< 1.0 U	< 1.0 U	0.64 J	1.8	**4.6**	< 2.0 U
	8/17/2017	< 1.0 U	2.3	< 1.0 U	< 1.0 U	39	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	1.9	**4.0**	< 2.0 U
	7/24/2018	< 1.0 U	2.3	< 1.0 U	< 1.0 U	31	< 1.0 U	0.37 J	< 1.0 U	0.66 J	2.4	**8.8**	< 2.0 U
	7/12/2019	< 1.0 U	1.9	< 1.0 U	< 1.0 U	32	< 1.0 U	1.0	< 1.0 U	0.52 J	2.3	**3.6**	< 2.0 U
	2/13/2020	< 1.0 U	1.2	< 1.0 U	< 1.0 U	32	< 1.0 U	2.6	< 1.0 U	0.41 J	3.2	**2.1**	< 2.0 U
	7/31/2020	< 1.0 U	1.1	< 1.0 U	< 1.0 U	28	< 1.0 U	1.5	< 1.0 U	< 1.0 U	2.7	**2.9**	< 2.0 U
	10/7/2021	< 1.0 U	1.8	< 1.0 U	< 1.0 U	38	< 1.0 U	2.9	< 1.0 U	0.51 J	2.9	1.7	< 2.0 U
	11/10/2022	< 1.0 U	1.3	< 1.0 U	< 1.0 U	31	< 1.0 U	4.7	< 1.0 U	< 1.0 U	3.7	0.98 J	< 2.0 U
GM-21	9/22/1999	53	9.0	3.9	< 1.0 U	66	< 1.0 U	< 1.0 U	< 1.0 U	7.8	**29**	< 1.0 U	< 1.0 U
	9/22/2000	16	5.6	1.6	< 1.0 U	39	< 1.0 U	< 1.0 U	< 1.0 U	13	**189**	< 1.0 U	< 1.0 U
	11/13/2001	6.9	3.8 J	< 5.0 U	< 5.0 U	39	< 5.0 U	< 5.0 U	< 5.0 U	15	**160**	< 5.0 U	< 5.0 U
	9/25/2002	31	5.0 J	2.6 J	< 6.7 U	43	< 6.7 U	< 6.7 U	< 6.7 U	5.1	**230**	< 6.7 U	< 6.7 U
	9/24/2003	31	6.9 J	2.0 J	< 8.0 U	**100**	< 8.0 U	< 8.0 U	< 8.0 U	2.9 J	**200**	< 8.0 U	< 8.0 U
	9/14/2004	26	4.2 J	3.1 J	< 9.1 U	56	< 9.1 U	< 9.1 U	< 9.1 U	7.9	**180**	< 9.1 U	< 9.1 U
	10/17/2005	4.3	3.4	< 1.0 U	< 1.0 U	20	< 1.0 U	< 1.0 U	< 1.0 U	22	1.8	**13**	< 2.0 U
	9/20/2006	12	8.6	0.19 J	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	4.3	**5.9**	**9.3**	< 2.0 U
	9/26/2007	8.5	18	<1.4 U	<1.4 U	26	<1.4 U	<1.4 U	<1.4 U	2.5	2.8	**12**	< 2.9 U
	10/3/2008	8.7	15	0.33 J	< 1.0 U	38	< 1.0 U	0.56 J	< 1.0 U	4.7	**18**	**19**	< 2.9 U
	11/16/2009	2.4	22	< 1.0 U	< 1.0 U	7.8	< 1.0 U	< 1.0 U	< 1.0 U	4.4	2.4	**6.6**	< 2.0 U
	9/28/2010	0.75 J	20	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 1.0 U	< 1.0 U	3	3.2	**3.6**	< 2.0 U
	9/29/2011	1.0	16	< 1.0 U	< 1.0 U	9.9	< 1.0 U	< 1.0 U	< 1.0 U	1.9	**19**	**6.2**	< 2.0 U
	9/7/2012	< 2.0 U	18	< 2.0 U	< 2.0 U	8.5	< 2.0 U	< 2.0 U	< 2.0 U	1.7 J	**14**	**5.1**	< 4.0 U
	9/26/2013	< 1.0 U	9.5	< 1.0 U	< 1.0 U	5.1	< 1.0 U	< 1.0 U	< 1.0 U	1.1	**12**	**3.8**	< 2.0 U
	10/9/2014	< 1.0 U	16	< 1.0 U	< 1.0 U	12	< 1.0 U	< 1.0 U	< 1.0 U	1.6	**18**	**5.8**	< 2.0 U
	12/11/2015	< 2.0 U	12	< 2.0 U	< 2.0 U	22	< 2.0 U	< 2.0 U	< 2.0 U	1.6 J	**16**	**8.9**	< 4.0 U
	8/22/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/17/2017	< 1.0 U	11	< 1.0 U	< 1.0 U	19	< 1.0 U	< 1.0 U	< 1.0 U	1.5	2.4	**9.7**	< 2.0 U
	7/25/2018	< 1.0 U	9.3	< 1.0 U	< 1.0 U	23	< 1.0 U	< 1.0 U	< 1.0 U	1.6	3.9	**15**	< 2.0 U
	7/12/2019	< 1.0 U	6.3	< 1.0 U	< 1.0 U	10	< 1.0 U	< 1.0 U	< 1.0 U	1.0	2.1	**6.6**	< 2.0 U
	7/31/2020	< 1.0 U	7.0	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U*	< 1.0 U	1.3	1.7	**8.0**	< 2.0 U
	10/7/2021	< 1.0 U	8.4	< 1.0 U	< 1.0 U	9.8	< 1.0 U	< 1.0 U	< 1.0 U	1.5	0.98 J	**7.0**	< 2.0 U
	11/10/2022	< 1.0 U	4.1	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	0.62 J	0.46 J	1.4	< 2.0 U
GM-22	9/1/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	4.0	< 1.0 U	< 1.0 U
	9/21/2000	< 1.0 U	2.4	< 1.0 U	< 1.0 U	1.9	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/13/2001	4.4	6.8	0.58J	< 1.0 U	8.5	< 1.0 U	4.9	< 1.0 U	0.17 J	**7.5**	0.60 J	< 1.0 U
	9/25/2002	0.93 J	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 2.0 U	2.3	< 2.0 U	< 1.0 U	**7.6**	< 2.0 U	< 2.0 U
	9/24/2003	1.2	1.0	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	2.9	< 1.0 U	< 0.50 U	**7.6**	< 1.0 U	< 1.0 U
	9/14/2004	1.7	2.1	< 1.0 U	< 1.0 U	0.9	< 1.0 U	2.9	< 1.0 U	< 0.50 U	**10**	< 1.0 U	< 1.0 U
	10/17/2005	0.96 J	1.0	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	3.6	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/20/2006	0.47 J	1.1	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	3.2	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
	9/26/2007	0.66 J	0.72 J	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	3.3	< 1.0 U	< 1.0 U	3.3	< 1.0 U	< 2.0 U
	10/3/2008	0.73 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.7**	< 1.0 U	< 1.0 U	**5.7**	< 1.0 U	< 2.0 U
	9/26/2013	0.65 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.3	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 2.0 U
GM-23	9/2/1999	7.2	33	**17**	1.9	**7530**	< 1.0 U	**6250**	< 1.0 U	55	**1460**	**2500**	7.0
	9/20/2000	2.0	16	5.1	< 1.0 U	**5620**	< 1.0 U	**3470**	< 1.0 U	33	**609**	**801**	< 1.0 U
	11/12/2001	< 4.0 U20	< 4.0 U20	< 4.0 U20	< 4.0 U20	**8400**	< 4.0 U20	**15000**	< 4.0 U20	< 210	**2200**	**1200**	< 4.0 U20
	9/26/2002	< 4.0 U0	< 4.0 U0	< 4.0 U0	< 4.0 U0	**7700**	< 4.0 U0	**10000**	< 4.0 U0	< 200	**1700**	**540**	< 4.0 U0
	9/23/2003	< 50 U0 U	< 50 U0 U	< 50 U0 U	< 50 U0 U	**5800**	< 50 U0 U	**12000**	< 50 U0 U	< 250 U	**1600**	**690**	< 50 U0 U
	9/14/2004	< 50 U0 U	< 50 U0 U	< 50 U0 U	< 50 U0 U	**4600**	< 50 U0 U	**6700**	< 50 U0 U	< 250 U	**1100**	**870**	< 50 U0 U
	10/17/2005	< 560 U	< 560 U	< 560 U	< 560 U	**19000**	< 560 U	**2300**	< 560 U	< 560 U	**490 J**	**2800**	< 100 U
	9/28/2006	< 330 U	< 330 U	< 330 U	< 330 U	**11000**	< 330 U	**370**	< 330 U	**270 J**	**95 J**	**4100**	< 670 U
	9/27/2007	< 200 U	< 200 U	< 200 U	< 200 U	**4700**	< 200 U	**280**	< 200 U	**130 J**	**82 J**	**2600**	< 4.0 U0 U
	10/23/2008	< 62 U	< 62 U	< 62 U	< 62 U	**2000**	< 62 U	**71**	< 62 U	58 J	< 62 U	**2100**	< 1.0 U
	11/17/2009	< 20 U	5.0 J	< 20 U	< 20 U	**1100**	< 20 U	**19 J**	< 20 U	31	**8.3 J**	**1100**	< 4.0 U
	9/29/2010	< 22 U	< 22 U	< 22 U	< 22 U	**490**	< 22 U	**50**	< 22 U	16 J	**17 J**	**500**	< 4.0 U
	9/30/2011	< 20 U	< 20 U	< 20 U	< 20 U	**580**	< 20 U	**57**	< 20 U	21	**33**	**840**	< 4.0 U
	9/7/2012	< 25 U	< 25 U	< 25 U	< 25 U	**580**	< 25 U	**33**	< 25 U	21 J	**15 J**	**390**	< 50 U
	9/27/2013	< 1.0 U	2.6	1.7	0.28 J	**470**	< 1.0 U	**37**	< 1.0 U	15	**28**	**210**	< 2.0 U
	10/10/2014	< 1.0 U	8.4 J	< 1.0 U	< 1.0 U	**210**	< 1.0 U	3.6 J	< 1.0 U	20	4.1 J	**220**	< 20 U
	12/8/2015	< 1.0 U	15	0.47 J	0.69 J	**100**	< 1.0 U	0.58 J	< 1.0 U	13	5.0	**120**	< 2.0 U
	8/22/2016	< 2.0 U	8.6	1.1 J	< 2.0 U	**530**	< 2.0 U	**8.0**	< 2.0 U	18	**7.6**	**280**	< 4.0 U
	8/17/2017	< 2.0 U	5.4	1.4 J	< 2.0 U	**580**	< 2.0 U	**30**	< 2.0 U	22	**8.6**	**360**	< 4.0 U
	7/26/2018	< 1.0 U	8	0.81 J	0.47 J	**260**	< 1.0 U	**8.4**	0.16 J	16	5.0	**210**	< 2.0 U
	7/12/2019	< 40 U	< 40 U	< 40 U	< 40 U	**550**	< 40 U	**22 J**	< 40 U	16 J	**15 J**	**250**	< 80 U
	7/31/2020	< 2.5 U	9.9	< 2.5 U	< 2.5 U	**140**	< 2.5 U	3.3	< 2.5 U	11	**6.8**	**190**	< 5.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-25	9/22/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/21/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
GM-27	9/1/1999	< 1.0 U	2.4	< 1.0 U	< 1.0 U	21	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**121**	< 1.0 U	< 1.0 U
	9/20/2000	< 1.0 U	2.2	< 1.0 U	< 1.0 U	14	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**112**	< 1.0 U	< 1.0 U
	11/13/2001	< 3.3 U	1.8 J	< 3.3 U	< 3.3 U	13	< 3.3 U	**6.8**	< 3.3 U	< 1.0 U	**110**	< 3.3 U	< 3.3 U
	9/26/2002	< 3.3 U	1.7 J	< 3.3 U	< 3.3 U	14	< 3.3 U	< 3.3 U	< 3.3 U	< 1.0 U	**100**	< 3.3 U	< 3.3 U
	9/23/2003	< 5.0 U	1.9 J	< 5.0 U	< 5.0 U	12	< 5.0 U	2.1 J	< 5.0 U	< 2.5 U	**100**	< 5.0 U	< 5.0 U
	9/15/2004	< 3.3 U	2.0 J	< 3.3 U	< 3.3 U	13	< 3.3 U	1.8 J	< 3.3 U	< 1.0 U	**81**	< 3.3 U	< 3.3 U
	10/17/2005	< 2.5 U	2.2 J	< 2.5 U	< 2.5 U	14	< 2.5 U	0.94 J	< 2.5 U	0.49 J	**76**	0.82 J	< 5.0 U
	9/28/2006	< 2.5 U	2.6	< 2.5 U	< 2.5 U	14	< 2.5 U	1.0 J	< 2.5 U	1.0 J	**80**	< 2.5 U	< 5.0 U
	9/27/2007	< 2.0 U	2.3	< 2.0 U	< 2.0 U	12	< 2.0 U	0.9 J	< 2.0 U	0.41 J	**70**	< 2.0 U	< 4.0 U
	10/23/2008	< 1.0 U	2	< 1.0 U	< 1.0 U	11	< 1.0 U	0.9 J	< 1.0 U	0.51 J	**57**	0.44 J	< 2.9 U
	9/27/2013	< 1.0 U	2.3	< 1.0 U	< 1.0 U	12	< 1.0 U	1.8	< 1.0 UB	0.51 J	**42**	0.18 J	< 2.0 U
	7/12/2019	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	9.0	< 1.0 U	0.59 J	< 1.0 U	0.37 J	**18**	0.31 J	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	7.7	< 1.0 U	0.85 J*	< 1.0 U	< 1.0 U	**22**	< 1.0 U*	< 2.0 U
GM-28	9/1/1999	18	3.3	< 1.0 U	< 1.0 U	**175**	< 1.0 U	**316**	< 1.0 U	9.2	**768**	**3.2**	< 1.0 U
	9/21/2000	5.0	9.9	< 1.0 U	< 1.0 U	37	< 1.0 U	2.3	< 1.0 U	22	1.6	**12**	< 1.0 U
	11/15/2001	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U
	9/24/2002	< 1.0 U	2.7	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	11	0.86 J	< 1.0 U	< 1.0 U
	10/1/2003	< 1.0 U	3.3	< 1.0 U	< 1.0 U	0.58	< 1.0 U	< 1.0 U	< 1.0 U	4.0	1.6	0.53 J	< 1.0 U
	9/15/2004	< 1.0 U	3.3	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	0.88 J	< 1.0 U	1.2	1.4	0.44 J	< 1.0 U
	10/18/2005	< 1.0 U	4.0	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	0.66 J	1.1	< 2.0 U
	9/27/2006	< 1.0 U	4.2	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	0.66 J	0.43 J	0.42 J	< 2.0 U
	9/20/2007	< 1.0 U	4.6	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	0.51 J	1.2	< 2.0 U
	10/22/2008	< 5.0 U	2.2 J	< 5.0 U	< 5.0 U	6.9	< 5.0 U	< 5.0 U	< 5.0 U	1.3 J	< 5.0 U	**6.5**	< 1.0 U
	11/16/2009	< 1.0 U	3.6	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U	1.7	0.58 J	**3.3**	< 2.0 U
	9/28/2010	< 1.0 U	4.6	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**2.2**	< 2.0 U
	10/5/2011	< 1.0 U	2.1	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	0.63 J	< 1.0 U	0.69 J	0.41 J	0.57 J	< 2.0 U
GM-28R	12/28/2015	< 1.0 U	0.55 J	< 1.0 U	< 1.0 U	5.6	< 1.0 U	**49**	< 1.0 U	0.38 J	**24**	0.99 J	< 2.0 U
	8/22/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	1.3	< 1.0 U	0.31 J	0.29 J	< 1.0 U	< 2.0 U
	8/17/2017	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	6.0	< 1.0 U	4.6	< 1.0 U	< 1.0 U	0.33 J	0.72 J	< 2.0 U
	7/25/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	3.5	< 1.0 U	< 1.0 U	0.30 J	0.70 J	< 2.0 U
	7/12/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**13**	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-29	9/1/1999	38	4.3	1.3	< 1.0 U	**320**	< 1.0 U	< 20 U	< 1.0 U	11	**878**	**3.8**	< 1.0 U
	9/21/2000	25	17	3.1	< 1.0 U	**2871**	< 1.0 U	**20**	2.2	14	**289**	**788**	< 1.0 U
	11/13/2001	< 50 U	< 50 U	< 50 U	< 50 U	**1800**	21 J	**17 J**	< 50 U	26	**270**	**230**	52
	9/25/2002	16 J	< 4.0 U	< 4.0 U	< 4.0 U	**1300**	< 4.0 U	**18 J**	< 4.0 U	21	**310**	**140**	< 4.0 U
	9/24/2003	18 J	< 33 U	< 33 U	< 33 U	**1200**	< 33 U	**18 J**	< 33 U	20	**390**	**150**	< 33 U
	9/15/2004	21 J	< 50 U	< 50 U	< 50 U	**1200**	< 50 U	**20 J**	< 50 U	21 J	**440**	**230**	< 50 U
	10/17/2005	19 J	18 J	< 50 U	< 50 U	**1600**	< 50 U	**15 J**	< 50 U	27 J	**390**	**490**	< 1.0 U
	9/28/2006	17 J	15 J	< 33 U	< 33 U	**1300**	< 33 U	**15 J**	< 33 U	20 J	**310**	**210**	< 67 U
	9/26/2007	15 J	15 J	< 50 U	< 50 U	**1200**	< 50 U	**18 J**	< 50 U	19 J	**350**	**290**	< 1.0 U
	10/6/2008	12 J	11 J	< 33 U	< 33 U	**900**	< 33 U	**17 J**	< 33 U	16 J	**300**	**150**	< 67 U
	11/17/2009	18	12	< 1.0 U	< 1.0 U	**600**	< 1.0 U	**21 J**	< 1.0 U	20	**370**	**70**	< 20 U
	9/29/2010	11 J	11 J	< 20 U	< 20 U	**660**	< 20 U	**17 J**	< 20 U	19 J	**330**	**59**	< 4.0 U
	9/30/2011	11 J	8.5 J	< 1.0 U	< 1.0 U	**470**	< 1.0 U	**13**	< 1.0 U	17	**320**	**52**	< 25 U
	9/26/2012	10 J	8.2 J	< 20 U	< 20 U	**520**	< 20 U	**14 J**	< 20 U	15 J	**310**	**45**	< 4.0 U
	9/27/2013	15	12	1.7	0.20 J	**530**	< 1.0 U	**15**	< 1.0 U	20	**280**	**60**	< 2.0 U
	10/9/2014	9.1 J	9.5 J	< 1.0 U	< 1.0 U	**480**	< 1.0 U	**12 J**	< 1.0 U	15	**260**	**40**	< 29 U
	12/8/2015	9.9	10	1.2 J	< 1.7 U	**440**	< 1.7 U	**11**	< 1.7 U	15	**270**	**48**	< 3.3 U
	8/22/2016	10	10	< 2.0 U	< 2.0 U	**470**	< 2.0 U	**13**	< 2.0 U	14	**360**	**42**	< 4.0 U
	8/17/2017	9.6	13	1.0 J	< 2.0 U	**430**	< 2.0 U	**11**	< 2.0 U	16	**280**	**53**	< 4.0 U
	7/25/2018	8.1	10	< 2.0 U	< 2.0 U	**420**	< 2.0 U	**13**	< 2.0 U	13	**310**	**41**	< 4.0 U
	7/12/2019	8.4 J	9.2 J	< 13 U	< 13 U	**380**	< 13 U	**11 J**	< 13 U	13	**300**	**38**	< 27 U
	7/31/2020	7.8	9.5	< 1.3 U	< 1.3 U	**380**	< 1.3 U	**11**	< 1.3 U	25	**290**	**42**	< 2.7 U
GM-30	9/2/1999	< 1.0 U	54 J	< 1.0 U	< 1.0 U	7.5 J	**7030 J**	**9.5 J**	**6950 J**	< 1.0 U	< 1.0 U	< 1.0 U	**23300 J**
	9/20/2000	< 1.0 U	50.6	< 1.0 U	2.7	< 1.0 U	**2290**	< 1.0 U	98.9	< 1.0 U	< 1.0 U	< 1.0 U	6770
	11/13/2001	< 25	31	< 25	< 25	< 1.0 U2	**840**	< 25	5.0 J	< 1.0 U2	**12 J**	< 25	2000
	9/27/2002	< 33	34	< 33	< 33	< 1.0 U7	350	< 33	< 33	< 1.0 U7	< 33	< 33	1400
	9/23/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 62 U	**1000**	< 1.0 U	240	< 62 U	< 1.0 U	< 1.0 U	7000
	9/14/2004	< 4.0 U	33 J	< 4.0 U	< 4.0 U	< 20 U	530	< 4.0 U	< 4.0 U	< 20 U	< 4.0 U	< 4.0 U	3000
	10/17/2005	< 50 U	23 J	< 50 U	< 50 U	< 50 U	620	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	3800
	9/20/2006	< 33 U	25 J	< 33 U	< 33 U	< 33 U	570	< 33 U	5.8 J	< 33 U	< 33 U	< 33 U	2500
	9/26/2007	< 1.0 U	16 J	< 1.0 U	< 1.0 U	< 1.0 U	380	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1300
	10/6/2008	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U	300	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	670
	9/27/2013	< 1.0 U	5.3	< 1.0 U	4.0	< 1.0 U	20	0.23 J	1.1	0.63 J	0.28 J	0.34 J	7.2
	10/9/2014	< 1.0 U	3.2	< 1.0 U	2.3	0.29 J	54	< 1.0 U	0.71 J	0.51 J	< 1.0 U	< 1.0 U	12
	12/11/2015	< 2.0 U	3	< 2.0 U	2.9	< 2.0 U	260	< 2.0 U	0.87 J	< 2.0 U	< 2.0 U	< 2.0 U	14
	8/26/2016	< 1.0 U	7.6	< 1.0 U	**8.9**	< 1.0 U	4.7	< 1.0 U	1.1	6.5	< 1.0 U	0.29 J	9.6
GM-31	9/1/1999	< 1.0 U	1.3	< 1.0 U	< 1.0 U	7.8	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**27**	< 1.0 U	< 1.0 U
	9/21/2000	< 1.0 U	1.1	< 1.0 U	< 1.0 U	40	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.5**	< 1.0 U	< 1.0 U
	11/15/2001	< 4.0 U	3.1 J	< 4.0 U	< 4.0 U	**120**	< 4.0 U	< 4.0 U	< 4.0 U	1.8J	**11**	**7.4**	< 4.0 U
	9/24/2002	< 6.0 U	5.9 J	< 6.0 U	< 6.0 U	**200**	< 6.0 U	< 6.0 U	< 6.0 U	3.5	**10**	**19**	< 6.0 U
	10/1/2003	< 5.0 U	6	< 5.0 U	< 5.0 U	**170**	< 5.0 U	< 5.0 U	< 5.0 U	3.5	**28**	**10**	< 5.0 U
	9/15/2004	1.4 J	4 J	< 5.0 U	< 5.0 U	**120**	< 5.0 U	2.5 J	< 5.0 U	2.7	**29**	**2.4 J**	< 5.0 U
	10/18/2005	3.4	6.2	0.42 J	< 2.0 U	**120**	< 2.0 U	< 2.0 U	< 2.0 U	3.7	**67**	**3.1**	< 4.0 U
	9/27/2006	2.3 J	5.1	< 4.0 U	< 4.0 U	**110**	< 4.0 U	< 4.0 U	< 4.0 U	2.9 J	**65**	1.2 J	< 8.0 U
	9/20/2007	3.7	4.8	< 3.3 U	< 3.3 U	**100**	< 3.3 U	< 3.3 U	< 3.3 U	2.8 J	**90**	1.1 J	< 6.7 U
	10/23/2008	2.9	3.2	< 2.5 U	< 2.5 U	**76**	< 2.5 U	< 2.5 U	< 2.5 U	3	**78**	0.9 J	< 5.0 U
	9/27/2013	9.8	2.3	< 1.0 U	< 1.0 U	21	< 1.0 U	0.43 J	< 1.0 U	1.2	**120**	< 1.0 U	< 2.0 U
	10/9/2014	3.8	2.8	< 2.0 U	< 2.0 U	54	< 2.0 U	0.48 J	< 2.0 U	1.6 J	**79**	< 2.0 U	< 4.0 U
	12/8/2015	2.9	2.5	< 1.0 U	< 1.0 U	48	< 1.0 U	< 1.0 U	< 1.0 U	1.5	**75**	0.64 J	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-32	9/22/1999	< 1.0 U	3.3	< 1.0 U	< 1.0 U	2.6	< 1.0 U	1.2	1.0	4.2	3.2	**3.0**	< 1.0 U
	9/25/2000	< 1.0 U	36	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	10	20	< 1.0 U	< 1.0 U	< 1.0 U
	11/12/2001	< 5.0 U	6.2	< 5.0 U	4.3 J	< 2.5	0.79 J	< 5.0 U	12	2.9	< 5.0 U	1.1 J	3.0 J
	9/20/2002	< 1.0 U	9.7 J	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	< 2.0 U	5.5	< 2.0 U	1.5 J	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	1.0	< 2.0 U	< 2.0 U	< 2.0 U
	9/14/2004	< 1.0 U	3.0 J	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/19/2005	< 1.0 U	4.9 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
	9/19/2006	< 1.0 U	3.7 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
	9/18/2007	< 5.0 U	4.3 J	< 5.0 U	1.6 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	1.0 J	< 5.0 U	< 5.0 U	3.4 J
	9/23/2008	< 1.0 U	4.0 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U
	7/11/2019	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 2.0 U
	7/31/2020	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 2.0 U
	10/7/2021	< 1.0 U	0.86 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/10/2022	< 1.0 U	0.51 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-33	9/25/2003	21	8.4	1.0 J	< 2.5 U	19	< 2.5 U	**37**	< 2.5 U	0.72 J	**75**	< 2.5 U	< 2.5 U
	9/13/2004	17	5.4	1.1 J	< 2.0 U	9.5	< 2.0 U	**37**	< 2.0 U	0.45 J	**55**	< 2.0 U	< 2.0 U
	10/18/2005	18	6.4	0.69 J	< 1.0 U	7.4	< 1.0 U	**50**	< 1.0 U	0.36 J	**71**	1.0	< 2.0 U
	9/21/2006	18	4.5	1.1 J	< 1.0 U	6.9	< 1.0 U	**37**	< 1.0 U	0.44 J	**64**	< 1.0 U	< 3.3 U
	9/24/2007	15	4.9	0.68 J	< 1.0 U	5.5	< 1.0 U	**32**	< 1.0 U	0.34 J	**49**	< 1.0 U	< 3.3 U
	10/23/2008	8.4	2.9	0.58 J	< 1.0 U	4.1	< 1.0 U	**38**	< 1.0 U	< 1.0 U	**36**	< 1.0 U	< 2.9 U
	9/26/2013	3.4	1.1	< 1.0 U	< 1.0 U	1.3	< 1.0 U	**28**	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 2.0 U
	8/24/2015	0.61 J	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
GM-34	8/7/2002	4.8	2.7	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**20**	< 1.0 U	0.4 J	**11**	< 1.0 U	< 1.0 U
GM-35	9/25/2003	17	46	4.0 J	< 8.0 U	**300**	< 8.0 U	**21**	< 8.0 U	12	**270**	**59**	< 8.0 U
	9/13/2004	17	36	4.1 J	< 1.0 U	**270**	< 1.0 U	**21**	< 1.0 U	9.1	**230**	**50**	< 1.0 U
	10/18/2005	12	36	1.8 J	< 5.0 U	**190**	< 5.0 U	**29**	< 5.0 U	9.3	**240**	**23**	< 1.0 U
	9/22/2006	5.5 J	26 J	< 5.0 UJ	< 5.0 UJ	**160 J**	< 5.0 UJ	**14 J**	< 5.0 UJ	11 J	**130 J**	**13 J**	< 1.0 UJ
	9/24/2007	5.8 J	26	< 1.0 U	< 1.0 U	**140**	< 1.0 U	**22**	< 1.0 U	8 J	**110**	**12**	< 20 U
	9/29/2008	4.6 J	20	< 1.0 U	< 1.0 U	**92**	< 1.0 U	**20**	< 1.0 U	9.4 J	**88**	**7.9 J**	< 20 U
	11/13/2009	4.7	17	1.0 J	< 3.3 U	**74**	< 3.3 U	**33**	< 3.3 U	8.2	**120**	**4.6**	< 6.7 U
	9/27/2010	4.8	19	0.97 J	< 4.0 U	**73**	< 4.0 U	**37**	< 4.0 U	8.9	**120**	**4.3**	< 8.0 U
	9/30/2011	2.6 J	20	0.64 J	< 3.3 U	66	< 3.3 U	**17**	< 3.3 U	11	**59**	**7.7**	< 6.7 U
	9/6/2012	< 20 U	27	< 20 U	< 20 U	**84**	< 20 U	< 20 U	< 20 U	17 J	**9.9 J**	**14 J**	< 4.0 U
	9/26/2013	< 50 U	30 J	< 50 U	< 50 U	69	< 50 U	< 50 U	< 50 U	18 J	**18 J**	**11 J**	< 1.0 U
	10/8/2014	< 25 U	22 J	< 25 U	< 25 U	57	< 25 U	**6.0 J**	< 25 U	14 J	**28**	< 25 U	< 50 U
	11/4/2015	4	34	3.7	0.52 J	**300**	< 1.0 U	**47**	< 1.0 U	19	**200**	**14**	< 2.0 U
	8/23/2016	<50 U	19 J	<50 U	<50 U	**120**	<50 U	**27 J**	<50 U	<50 U	**120**	<50 U	<100 U
	7/30/2020	< 20 U	19 J	< 20 U	< 20 U	**92 F1**	< 20 U	**13 J**	< 20 U	9.0 J	**150**	< 20 U	< 40 U
	10/8/2021	< 20 U	15 J	< 20 U	< 20 U	**78**	< 20 U	**18 J**	< 20 U	< 20 U	**210**	< 20 U	< 40 U
GM-36	8/5/2002	5.5	21	< 2.0 U	< 2.0 U	55	< 2.0 U	**54**	< 2.0 U	1.6 J	**50**	< 2.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	< 2.0 U
	10/8/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
GM-37	8/6/2002	17	7.1	0.98 J	< 2.5 U	41	< 2.5 U	**58**	< 2.5 U	1.6	**84**	< 2.5 U	< 2.5 U
	8/24/2015	2.0	0.65 J	< 1.0 U	< 1.0 U	5.9	< 1.0 U	**24**	< 1.0 U	< 1.0 U	**48**	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.7**	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 2.0 U
	10/8/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
GM-38	8/6/2002	6	6.5	< 2.0 U	< 2.0 U	22	< 2.0 U	**50**	< 2.0 U	1	**25**	< 2.0 U	< 2.0 U
	7/30/2020	1.4	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**20**	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 2.0 U
	10/8/2021	1.0	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	**23**	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 2.0 U
GM-43	8/19/2004	< 9.1 U	6.9 J	< 9.1 U	< 9.1 U	**210**	< 9.1 U	**16**	< 9.1 U	8.7	**100**	**2.8 J**	< 9.1 U
	9/22/2006	< 5.0 UJ	3.7 J	< 5.0 UJ	< 5.0 UJ	**120 J**	< 5.0 UJ	**21 J**	< 5.0 UJ	5.7 J	**98 J**	< 5.0 UJ	< 1.0 UJ
	11/17/2009	2.5	5.7	0.74 J	< 2.5 U	**150**	<2.5 U	**28 J**	<2.5 U	6.2	**180**	1.0 J	<5.0 U
	9/24/2010	< 8.0 U	6.8 J	< 8.0 U	< 8.0 U	**220**	< 8.0 U	**26**	< 8.0 U	8.1	**170**	< 8.0 U	< 1.0 U
	9/30/2011	< 4.0 U	4.2	1.0 J	< 4.0 U	**130**	< 4.0 U	**22**	< 4.0 U	5.3	**180**	1.0 J	< 8.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**79**	< 1.0 U	**28**	< 1.0 U	4.1 J	**230**	< 1.0 U	< 20 U
	9/26/2013	1.0	2.0	< 1.0 U	< 1.0 U	32	< 1.0 U	**22**	< 1.0 U	3.7	**170**	0.21 J	< 2.0 U
	10/8/2014	1.8 J	< 5.7 U	< 5.7 U	< 5.7 U	25	< 5.7 U	**35**	< 5.7 U	1.5 J	**220**	< 5.7 U	< 1.0 U
	11/5/2015	1.4	0.63 J	< 1.0 U	< 1.0 U	14	< 1.0 U	**42**	< 1.0 U	0.89 J	**270**	< 1.0 U	< 2.0 U
	8/23/2016	1.6 J	0.72 J	< 2.0 U	< 2.0 U	11	< 2.0 U	**41**	< 2.0 U	0.83 J	**260**	< 2.0 U	< 4.0 U
GM-44	8/19/2004	4 J	3.3 J	< 6.0 U	< 6.0 U	**130**	< 6.0 U	**57**	< 6.0 U	4.4	**140**	< 6.0 U	< 6.0 U
	4/9/2010	1.8 J	2.5 J	0.70 J	< 3.3 U	48	< 3.3 U	**70**	< 3.3 U	4.4	**110**	< 3.3 U	< 6.7 U
	10/8/2014	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	16	< 6.7 U	**100**	< 6.7 U	< 6.7 U	**180**	< 6.7 U	< 1.0 U
	11/5/2015	1.5	0.94 J	< 1.0 U	< 1.0 U	18	< 1.0 U	**110**	< 1.0 U	0.81 J	**180**	< 1.0 U	< 2.0 U
GM-45	8/19/2004	5.8 J	8.5 J	< 9.1 U	< 9.1 U	**79**	< 9.1 U	**220**	< 9.1 U	3.5 J	**220**	< 9.1 U	< 9.1 U
	9/22/2006	3.5 J	3.1 J	< 8.0 UJ	< 8.0 UJ	54 J	< 8.0 UJ	**230 J**	< 8.0 UJ	2.7 J	**230 J**	< 8.0 UJ	< 1.0 UJ
	4/9/2010	2.7 J	2.5 J	< 5.7 U	< 5.7 U	36	< 5.7 U	**200**	< 5.7 U	3.3 J	**180**	< 5.7 U	< 1.0 U
	10/8/2014	3.2 J	2.2 J	< 4.0 U	< 4.0 U	37	< 4.0 U	**150**	< 4.0 U	2.0 J	**140**	< 4.0 U	< 8.0 U
	11/4/2015	6.5	3.3	< 1.0 U	< 1.0 U	36	< 1.0 U	**190**	< 1.0 U	2.7	**180**	0.50 J	< 2.0 U
GM-46	3/2/2006	< 1.0 U	2.7	< 1.0 U	< 1.0 U	6.8	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	**22**	1.9	< 2.0 U
	11/30/2006	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	5.2	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	1.5	1.5	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	0.47 J	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	< 2.0 U
GM-53	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-59	9/15/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.0 J	< 1.0 U	**310**	< 1.0 U	< 1.0 U	**94**	< 1.0 U	< 29 U
	10/3/2008	< 33 U	< 33 U	< 33 U	< 33 U	41	< 33 U	**750**	< 33 U	< 33 U	**750**	< 33 U	< 67 U
	11/17/2009	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	3.3 J	< 6.7 U	**500 J**	< 6.7 U	< 6.7 U	**170**	< 6.7 U	< 1.0 U
	4/8/2010	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	2.9 J	< 8.0 U	**280**	< 8.0 U	< 8.0 U	**69**	< 8.0 U	< 1.0 U
	9/29/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.7 J	< 1.0 U	**520**	< 1.0 U	< 1.0 U	**350**	< 1.0 U	< 31 U
	9/30/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.4 J	< 1.0 U	**520**	< 1.0 U	< 1.0 U	**510**	< 1.0 U	< 25 U
	9/7/2012	< 50 U	< 50 U	< 50 U	< 50 U	16 J	< 50 U	**800**	< 50 U	< 50 U	**710**	< 50 U	< 1.0 U
	9/27/2013	1.0	< 1.0 U	< 1.0 U	< 1.0 U	11	< 1.0 U	**1000**	< 1.0 U	0.56 J	**1100**	< 1.0 U	< 2.0 U
	10/10/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.7 J	< 1.0 U	**420**	< 1.0 U	< 1.0 U	**110**	< 1.0 U	< 27 U
	12/8/2015	0.48 J	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	**270**	< 1.0 U	0.34 J	**97**	< 1.0 U	< 2.0 U
	8/23/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	2.6	< 2.0 U	**280**	< 2.0 U	< 2.0 U	**170**	< 2.0 U	< 4.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-60	9/15/2006	< 25 U	< 25 U	< 25 U	< 25 U	**220**	< 25 U	**510**	< 25 U	< 25 U	**570**	< 25 U	< 50 U
	10/3/2008	< 25 U	< 25 U	< 25 U	< 25 U	**360**	< 25 U	**900**	< 25 U	< 25 U	**920**	< 25 U	< 50 U
	11/17/2009	< 20 U	< 20 U	< 20 U	< 20 U	**160**	< 20 U	**1100 J**	< 20 U	< 20 U	**1400**	< 20 U	< 4.0 U
	4/8/2010	< 22 U	< 22 U	< 22 U	< 22 U	17 J	< 22 U	**820**	< 22 U	< 22 U	**740**	< 22 U	< 4.0 U
	9/29/2010	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**940**	< 4.0 U	**970**	< 4.0 U	10 J	**1300**	**18 J**	< 8.0 U
	9/30/2011	< 20 U	< 20 U	< 20 U	< 20 U	**370**	< 20 U	**620**	< 20 U	3.8 J	**810**	**11 J**	< 4.0 U
	9/7/2012	< 59 U	< 59 U	< 59 U	< 59 U	**480**	< 59 U	**610**	< 59 U	< 59 U	**980**	< 59 U	< 1.0 U
	9/27/2013	1.4	1.3	1.5	< 1.0 U	**400**	< 1.0 U	**670**	< 1.0 U	4.2	**1100**	**2.1**	< 2.0 U
	10/9/2014	< 67 U	< 67 U	< 67 U	< 67 U	**96**	< 67 U	**860**	< 67 U	< 67 U	**1400**	< 67 U	< 1.0 U
	11/5/2015	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	16	< 4.0 U	**770**	< 4.0 U	< 4.0 U	**910**	< 4.0 U	< 8.0 U
	8/23/2016	1.1 J	0.69 J	< 2.0 U	< 2.0 U	12	< 2.0 U	**530**	< 2.0 U	< 2.0 U	**700**	< 2.0 U	< 4.0 U
GM-66	5/2/2007	< 2.9 U	8.3	< 2.9 U	< 2.9 U	**84**	< 2.9 U	< 2.9 U	< 2.9 U	3.3	**31**	**4.1**	< 5.7 U
	10/8/2014	< 1.0 U	12	< 1.0 U	< 1.0 U	**280**	< 1.0 U	< 1.0 U	< 1.0 U	11	**110**	**3.0 J**	< 20 U
	12/8/2015	< 1.0 U	12	2.5	< 1.0 U	**280**	< 1.0 U	< 1.0 U	< 1.0 U	11	**110**	**3.0**	< 2.0 U
GM-67S	5/3/2007	< 5.7 U	2.8 J	< 5.7 U	< 5.7 U	5.2 J	< 5.7 U	1.1 J	< 5.7 U	< 5.7 U	**140**	< 5.7 U	< 1.0 U
	10/10/2014	< 5.0 U	1.6 J	< 5.0 U	< 5.0 U	2.3 J	< 5.0 U	1.1 J	< 5.0 U	< 5.0 U	**140**	< 5.0 U	< 1.0 U
	11/4/2015	< 1.0 U	2.1	< 1.0 U	< 1.0 U	2.3	< 1.0 U	1.6	< 1.0 U	0.34 J	**130**	< 1.0 U	< 2.0 UJ
GM-68S	5/4/2007	0.62 J	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	**28**	< 2.5 U	< 2.5 U	**78**	< 2.5 U	< 5.0 U
GM-71	5/3/2007	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**62**	< 2.0 U	< 2.0 U	**11**	< 2.0 U	< 4.0 U
	10/9/2014	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	**19**	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	11/3/2015	0.51 J	0.35 J	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	**19**	< 1.0 U	< 1.0 U	**20**	< 1.0 U	< 2.0 U
GM-72	5/3/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**53**	< 1.0 U	< 1.0 U	0.66 J	< 1.0 U	< 3.3 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-74S	9/27/2007	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**140**	< 4.0 U	< 4.0 U	**83**	< 4.0 U	< 8.0 U
	4/9/2010	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	**200**	< 5.7 U	< 5.7 U	**44**	< 5.7 U	< 1.0 U
	8/23/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**69**	< 2.0 U	< 2.0 U	**14 K**	< 2.0 U	< 4.0 U
GM-75S	9/26/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**490**	< 1.0 U	< 1.0 U	**210**	< 1.0 U	< 29 U
	10/6/2008	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	**690**	< 20 U	< 20 U	**250**	< 20 U	< 4.0 U
	11/16/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.9 J	< 1.0 U	**640**	< 1.0 U	< 1.0 U	**260**	< 1.0 U	< 20 U
	9/29/2010	< 29 U	< 29 U	< 29 U	< 29 U	14 J	< 29 U	**650**	< 29 U	< 29 U	**890**	< 29 U	< 57 U
	9/30/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.4 J	< 1.0 U	**430**	< 1.0 U	< 1.0 U	**720**	< 1.0 U	< 33 U
	9/7/2012	< 29 U	< 29 U	< 29 U	< 29 U	< 29 U	< 29 U	**420**	< 29 U	< 29 U	**250**	< 29 U	< 57 U
	9/27/2013	1.8	0.53 J	< 1.0 U	< 1.0 U	4.5	< 1.0 U	**480**	< 1.0 U	0.29 J	**350**	< 1.0 U	< 2.0 U
	10/9/2014	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	**460**	< 20 U	< 20 U	**170**	< 20 U	< 4.0 U
	12/11/2015	0.58 J	< 1.3 U	< 1.3 U	< 1.3 U	< 1.3 U	< 1.3 U	**420**	< 1.3 U	< 1.3 U	**68**	< 1.3 U	< 2.5 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**520**	< 2.0 U	< 2.0 U	**68**	< 2.0 U	< 4.0 U
GM-76S	9/23/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	0.64 J	< 1.0 U	< 2.0 U
GM-83S	2/26/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	0.18 J	0.3 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	0.19 J	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
HR-1	9/16/1999	1.6	2.4	< 1.0 U	< 1.0 U	5.8	< 1.0 U	**44**	< 1.0 U	3.9	**56**	< 1.0 U	< 1.0 U
	9/25/2000	1.3	2.4	< 1.0 U	< 1.0 U	8.5	< 1.0 U	**33**	< 1.0 U	3.2	**56**	< 1.0 U	< 1.0 U
	11/8/2001	2.2 J	2.8 J	< 3.3 U	< 3.3 U	9.9	< 3.3 U	**36**	< 3.3 U	2.8	**86 B**	< 3.3 U	< 3.3 U
	9/23/2002	< 2.0 U	2.8	< 2.0 U	< 2.0 U	4.5	< 2.0 U	**33**	< 2.0 U	3.2	**33**	< 2.0 U	< 2.0 U
	9/18/2003	1 J	2.6	< 2.0 U	< 2.0 U	2.3	< 2.0 U	**27**	< 2.0 U	3.2	**56**	< 2.0 U	< 2.0 U
	9/13/2004	0.56 J	2.5	< 1.0 U	< 1.0 U	24	< 1.0 U	**23**	< 1.0 U	2.3	**30**	0.55 J	< 1.0 U
	10/18/2005	1.2	2.7	< 1.0 U	< 1.0 U	19	< 1.0 U	**28**	< 1.0 U	2.3	**43**	1.1	< 2.0 U
	9/25/2006	0.57 J	1.7	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	1.4 J	**50**	< 1.0 U	< 3.3 U
	9/24/2007	0.45 J	2.2	0.21J	< 1.0 U	9.5	< 1.0 U	**20**	< 1.0 U	1.9	**40**	< 1.0 U	< 2.0 U
	9/29/2008	0.77 J	1.8 J	< 2.5 U	< 2.5 U	5	< 2.5 U	**27**	< 2.5 U	2 J	**70**	< 2.5 U	< 5.0 U
	9/26/2013	0.99 J	1.2	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**30**	< 1.0 U	0.90 J	**100**	< 1.0 U	< 2.0 U
	10/8/2014	1.3 J	1.4 J	< 5.0 U	< 5.0 U	20	< 5.0 U	**36**	< 5.0 U	1.5 J	**120**	< 5.0 U	< 1.0 U
	11/5/2015	1.2	0.51 J	< 1.0 U	< 1.0 U	6.6	< 1.0 U	**76**	< 1.0 U	0.43 J	**210**	< 1.0 U	< 2.0 U
	8/23/2016	1.1 J	< 2.0 U	< 2.0 U	< 2.0 U	3.3	< 2.0 U	**63**	< 2.0 U	< 2.0 U	**190**	< 2.0 U	< 4.0 U
	8/17/2017	1.0	0.39 J	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	**56**	< 1.0 U	< 1.0 U	0.65 J	< 1.0 U	< 2.0 U
	7/25/2018	0.77 J	0.96 J	< 1.0 U	< 1.0 U	20	< 1.0 U	**99**	< 1.0 U	1.3	**40**	< 1.0 U	< 2.0 U
	7/29/2020	< 10 U	< 10 U	< 10 U	< 10 U	20	< 10 U	**120**	< 10 U	< 10 U	**25**	< 10 U	< 20 U
HR-2	9/16/1999	< 1.0 U	3.9	< 1.0 U	< 1.0 U	9.6	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	4.6	< 1.0 U	< 1.0 U	8.6	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U
	11/7/2001	< 1.0 U	4.2	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	1.1	0.56 J	< 1.0 U	< 1.0 U
	9/24/2002	< 1.0 U	4.9	< 1.0 U	< 1.0 U	8.8	< 1.0 U	< 1.0 U	< 1.0 U	1.2	0.46 J	< 1.0 U	< 1.0 U
	9/16/2003	< 1.0 U	4.5	< 1.0 U	< 1.0 U	7.2	< 1.0 U	< 1.0 U	< 1.0 U	0.96	0.40 J	< 1.0 U	< 1.0 U
	9/16/2004	< 1.0 U	5.6	< 1.0 U	< 1.0 U	7.8	< 1.0 U	0.37 J	< 1.0 U	1.1	0.53 J	0.23 J	< 1.0 U
	10/20/2005	< 1.0 U	4.4	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U	< 1.0 U	0.78 J	0.35 J	0.29 J	< 2.0 U
	9/25/2006	< 1.0 U	5.2	< 1.0 U	< 1.0 U	5.6	< 1.0 U	< 1.0 U	< 1.0 U	0.79 J	0.48 J	< 1.0 U	< 2.0 U
	9/26/2007	< 1.0 U	5.3	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U	< 1.0 U	0.76 J	0.45 J	< 1.0 U	< 2.0 U
	10/1/2008	< 1.0 U	4.6	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 1.0 U	< 1.0 U	0.47 J	0.36 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	5.6	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	0.45 J	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	5.6	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	0.41 J	0.39 J	< 1.0 U	< 1.0 U
	9/28/2011	< 1.0 U	6.4	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	0.43 J	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	7.7	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	0.41 J	< 1.0 U	< 2.0 U
	9/27/2013	< 1.0 U	7.5	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	0.40 J	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	7.3	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	< 1.0 UB	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	8.3	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	< 2.0 U
	8/25/2016	< 1.0 U	9.5	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 UB	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
HR-3	9/16/1999	< 1.0 U	6.2	< 1.0 U	< 1.0 U	6.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	5.1	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/7/2001	< 1.0 U	6.9	< 1.0 U	< 1.0 U	5.1	< 1.0 U	< 1.0 U	< 1.0 U	0.60	0.66 J	< 1.0 U	< 1.0 U
	9/24/2002	< 1.0 U	15	< 1.0 U	< 1.0 U	9.9	< 1.0 U	< 1.0 U	< 1.0 U	1.0	1.4	< 1.0 U	< 1.0 U
	9/16/2003	< 1.0 U	13	< 1.0 U	< 1.0 U	9.9	< 1.0 U	< 1.0 U	< 1.0 U	1.1	1.6	< 1.0 U	< 1.0 U
	9/16/2004	0.27 J	23	< 1.0 U	< 1.0 U	18	< 1.0 U	0.32 J	< 1.0 U	1.8	**8.1**	< 1.0 U	< 1.0 U
	10/20/2005	0.34 J	18	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U	1.5	**10**	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	10	< 1.0 U	< 1.0 U	8.2	< 1.0 U	< 1.0 U	< 1.0 U	0.99 J	**7.2**	< 1.0 U	< 2.0 U
	10/2/2008	0.84 J	16	0.27 J	< 1.0 UJ	17	< 1.0 U	< 1.0 U	< 1.0 U	1.6	**32**	**2.2**	< 2.0 U
	9/27/2013	6.9	12	0.51 J	< 1.0 U	59	< 1.0 U	< 1.0 U	< 1.0 U	2.2	**190**	0.93 J	< 2.0 U
	10/8/2014	7.6 J	11	< 1.0 U	< 1.0 U	**82**	< 1.0 U	< 1.0 U	< 1.0 U	2.7 J	**220**	**6.4 J**	< 2.0 U
	11/4/2015	7.3	9.6	0.68 J	< 1.0 U	**82**	< 1.0 U	< 1.0 U	< 1.0 U	2.6	**200**	**13**	< 2.0 U
	8/25/2016	7.1	6.6	< 2.0 U	< 2.0 U	**93**	< 2.0 U	0.95 J	< 2.0 U	2.5	**200**	**4.2**	< 4.0 U
HR-4	9/14/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U
	9/20/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/6/2001	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	0.88 J	< 1.0 U	< 0.50 U	1.0	< 1.0 U	< 1.0 U
	9/27/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.59 J	< 1.0 U	< 0.50 U	0.71 J	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.55 J	< 1.0 U	< 0.50 U	0.71 J	< 1.0 U	< 1.0 U
	9/16/2004	< 1.0 U	0.77 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	0.50 J	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 2.0 U
	9/26/2007	< 1.0 U	3.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 2.0 U
	9/30/2008	< 1.0 U	4.1	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	5.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	4.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 2.0 U
	9/7/2012	0.23 J	5	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
	9/27/2013	0.29 J	3.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 2.0 U
	10/7/2014	0.71 J	2.0	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	10/30/2015	1.2	1.6	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 2.0 U
	8/19/2016	2	1.6	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 2.0 U
	8/16/2017	1.9	2.1	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/24/2018	1.6	1.6	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 2.0 U
	7/9/2019	2.2	1.7	0.19 J	< 1.0 U	0.56 J	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 2.0 U
	7/29/2020	1.9	1.3	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 2.0 U
	10/4/2021	1.9	1.9	< 1.0 U	< 1.0 U	0.71 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/9/2022	1.7	1.5	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
HR-5	9/16/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	10.5	< 1.0 U	< 1.0 U	< 1.0 U	1.1	**12**	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.6	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**8.1**	< 1.0 U	2.0
	11/7/2001	0.17 J	0.55 J	< 1.0 U	< 1.0 U	7.8	< 1.0 U	< 1.0 U	< 1.0 U	0.74	**11**	< 1.0 U	< 1.0 U
	9/23/2002	< 1.0 U	0.55 J	< 1.0 U	< 1.0 U	7.5	< 1.0 U	< 1.0 U	< 1.0 U	0.58	**13**	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	**11**	< 1.0 U	< 1.0 U
	9/13/2004	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	4.8	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	**11**	< 1.0 U	< 1.0 U
	10/18/2005	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	**13**	1.1	< 2.0 U
	9/22/2006	< 1.0 UJ	0.41 J	< 1.0 UJ	< 1.0 UJ	5.2 J	< 1.0 UJ	0.27 J	< 1.0 UJ	0.46 J	**13 J**	0.22 J	< 2.0 UJ
	9/24/2007	< 1.0 U	0.51J	< 1.0 U	< 1.0 U	5.4	< 1.0 U	< 1.0 U	< 1.0 U	0.41J	**13**	< 1.0 U	< 2.0 U
	9/29/2008	< 1.0 U	0.48 J	< 1.0 U	< 1.0 U	5.4	< 1.0 U	< 1.0 U	< 1.0 U	0.59 J	**13**	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	0.70 J	< 1.0 U	< 1.0 U	7.0	< 1.0 U	0.57 J	< 1.0 U	0.63 J	**14**	0.36 J	< 2.0 U
HR-6	9/16/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U
	9/23/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.5	< 1.0 U	< 1.0 U
HR-7	9/17/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.8**	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**9.4**	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**9.4**	< 1.0 U	< 1.0 U
	2/26/2008	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	0.94 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.3**	< 1.0 U	< 2.0 U
	9/23/2010	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.3**	< 1.0 U	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.0**	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	< 1.0 U	< 1.0 UF2J	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.9**	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.0**	< 1.0 U	< 2.0 U
HR-16	9/23/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U
	9/18/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.46J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.5	< 1.0 U	< 1.0 U
	1/21/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	9/6/2012	0.62 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 2.0 U
	9/25/2013	0.61 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.14 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	10/7/2014	0.58 J	0.64 J	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	2.7	< 1.0 U	< 2.0 U
	8/22/2016	< 1.0 U	1.5	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	0.67 J	3.6	< 1.0 U	< 2.0 U
	7/9/2019	0.36 J	0.75 J	< 1.0 U	< 1.0 U	0.62 J	< 1.0 U	0.17 J	< 1.0 U	0.21 J	2.9	< 1.0 U	< 2.0 U
	7/29/2020	0.52 J	0.67 J	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 2.0 U
	10/6/2021	< 2.0 U	1.5 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	1.2 J	< 2.0 U	< 2.0 U	1.8 J	< 2.0 U	< 4.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
HR-17	9/23/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.2	< 1.0 U	**16**	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 1.0 U
	9/28/2000	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 1.0 U	4.4	< 1.0 U	< 1.0 U
	11/8/2001	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	3.3	< 1.0 U	< 0.50 U	4.2 B	< 1.0 U	< 1.0 U
	9/18/2002	0.39 J	1.5	< 1.0 U	< 1.0 U	5.1	< 1.0 U	**22**	< 1.0 U	1.4	**12**	< 1.0 U	< 1.0 U
	9/25/2003	< 2.0 U	0.75 J	< 2.0 U	< 2.0 U	2.2	< 2.0 U	**64**	< 2.0 U	0.7 J	**10**	< 2.0 U	< 2.0 U
	9/17/2004	< 5.0 U	2.0 J	< 5.0 U	< 5.0 U	7.1	< 5.0 U	**82**	< 5.0 U	1.6 J	**18**	< 5.0 U	< 5.0 U
	10/19/2005	< 1.0 U	0.70 J	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**45**	< 1.0 U	0.57 J	**8.3**	< 1.0 U	< 3.7 U
	9/18/2006	< 1.0 U	0.6 J	< 1.0 U	< 1.0 U	4.6	< 1.0 U	**34**	< 1.0 U	0.46 J	**5.6**	< 1.0 U	< 2.0 U
	9/25/2007	< 2.5 U	1.2 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	**51**	< 2.5 U	0.69 J	**16**	< 2.5 U	< 5.0 U
	9/26/2008	< 4.0 U	1.1 J	< 4.0 U	< 4.0 U	2.7 J	< 4.0 U	**120**	< 4.0 U	1.0 J	**31**	< 4.0 U	< 8.0 U
	11/12/2009	< 2.5 U	1.7 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	**85**	< 2.5 U	1.3 J	**21**	< 2.5 U	< 5.0 U
	9/23/2010	< 1.0 U	1.9	< 1.0 U	< 1.0 U	2.2	< 1.0 U	**60**	< 1.0 U	1.2 J	**18**	< 1.0 U	< 3.3 U
	9/29/2011	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	**110**	< 5.7 U	< 5.7 U	**57**	< 5.7 U	< 1.0 U
	9/6/2012	< 9.1 U	< 9.1 U	< 9.1 U	< 9.1 U	2.4 J	< 9.1 U	**140**	< 9.1 U	< 9.1 U	**75**	< 9.1 U	< 1.0 U
	9/25/2013	1.3	0.93 J	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**150**	< 1.0 U	0.92 J	**100**	< 1.0 U	< 2.0 U
	10/7/2014	< 5.0 U	2.0 J	< 5.0 U	< 5.0 U	2.2 J	< 5.0 U	**170**	< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 1.0 U
	11/4/2015	1.5	0.61 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**150**	< 1.0 U	0.73 J	**160**	< 1.0 U	< 2.0 U
	8/25/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**170**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	8/17/2017	0.80 J	0.60 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	**150**	< 1.0 U	< 1.0 U	**24**	< 1.0 U	< 2.0 U
	7/25/2018	4.8	2.2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**180**	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	< 2.0 U
	7/9/2019	7.4	1.6	0.54 J	< 1.0 U	1.2	< 1.0 U	**150**	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 2.0 U
	2/13/2020	1.7	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	**170**	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 2.0 U
	7/29/2020	3.6	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**160**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**130**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	11/9/2022	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**160**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
ME-1	8/31/1999	14	2.4	< 1.0 U	< 1.0 U	38	< 1.0 U	**84**	< 1.0 U	1.5	**292**	**36**	< 1.0 U
ME-3	8/31/1999	43	6.1	< 1.0 U	< 1.0 U	5.7	< 1.0 U	**58**	< 1.0 U	< 1.0 U	**48**	< 1.0 U	< 1.0 U
	9/21/2000	6.4	3.4	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	1.4	2.9	< 1.0 U	**2.1**	< 1.0 U
	11/15/2001	1.6	5.9	< 1.0 U	< 1.0 U	16	< 1.0 U	1.3	0.34 J	2.7	3.8	**7.3**	< 1.0 U
	9/24/2002	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 1.0 U	< 2.5 U	< 2.5 U	< 2.5 U	< 1.0 U	< 2.5 U	< 2.5 U	< 2.5 U
	10/1/2003	0.31 J	24	< 1.0 U	0.6 J	0.96	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.5	< 1.0 U	< 1.0 U
	9/15/2004	0.53 J	18	< 1.0 U	< 1.0 U	2.2	< 1.0 U	0.21 J	< 1.0 U	< 0.50 U	1.5	1.1	< 1.0 U
	10/18/2005	1.6	15	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	1.6	< 2.0 U
	9/27/2006	1.1	8.5	< 1.0 U	< 1.0 U	3.5	< 1.0 U	1.9	< 1.0 U	0.34 J	2.4	**2.2**	< 2.0 U
	9/20/2007	2.0	3.8	< 1.0 U	< 1.0 U	1.2	< 1.0 U	**5.2**	< 1.0 U	< 1.0 U	3.6	0.82 J	< 2.0 U
	10/22/2008	2.1	1.8	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**8.1**	< 1.0 U	< 1.0 U	4.9	0.7 J	< 2.0 U
	9/27/2013	1.0	0.41 J	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	**7.1**	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 2.0 U
ME-6	8/31/1999	2.9	< 1.0 U	< 1.0 U	< 1.0 U	**255**	< 1.0 U	**213**	< 1.0 U	< 1.0 U	**474**	< 1.0 U	< 1.0 U
	9/21/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**99**	< 1.0 U	**6.7**	1.9	2.5	**19**	**6.1**	< 1.0 U
	11/15/2001	2.2	2.7	< 2.0 U	< 2.0 U	65	< 2.0 U	**8.2**	0.42 J	1.8	**23**	**13**	< 2.0 U
	9/25/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.2	< 1.0 U	< 1.0 U	6.6J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	13	7.2	< 2.0 U	0.46 J	20	< 2.0 U	**12**	< 2.0 U	< 1.0 U	**31**	**2.9**	< 2.0 U
	9/15/2004	4.1	6.3	0.26 J	< 1.0 U	14	< 1.0 U	**5.3**	< 1.0 U	0.56	**9.2**	**2.4**	< 1.0 U
	10/18/2005	2.2	7.0	< 1.0 U	< 1.0 U	13	< 1.0 U	**9.8**	< 1.0 U	0.93 J	**25**	**5.6**	< 2.0 U
	9/27/2006	1.4	6.3	< 1.0 U	< 1.0 U	27	< 1.0 U	**13**	< 1.0 U	1.3 J	**32**	**11**	< 2.9 U
	9/20/2007	0.61 J	6.4	< 1.0 U	< 1.0 U	9.2	< 1.0 U	4.5	< 1.0 U	0.51 J	**12**	**4.5**	< 2.0 U
	10/22/2008	2.7	11	< 1.0 U	< 1.0 U	5.2	< 1.0 U	**7.7**	< 1.0 U	0.25 J	**9**	1.7	< 2.0 U
	9/27/2013	5.9	20	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**5.1**	< 1.0 U	< 1.0 U	2.8	0.28 J	< 2.0 U
RMW-89	1/15/2016	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	**46**	< 1.0 U	< 1.0 U	**22**	< 1.0 U	< 2.0 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.4	< 2.0 U	**61**	< 2.0 U	< 2.0 U	**21**	< 2.0 U	< 4.0 U
RMW-90	1/15/2016	7.1	8.7	0.49 J	< 1.0 U	38	< 1.0 U	0.86 J	< 1.0 U	1.0	**29**	1.0	< 2.0 U
	8/17/2016	12	8.4	0.96 J	< 1.0 U	31	< 1.0 U	1.5	< 1.0 U	0.99 J	**55**	0.81 J	< 2.0 U
RMW-91	7/11/2019	1.8 J	2.5 J	< 5.0 U	< 5.0 U	25	< 5.0 U	**130**	< 5.0 U	2.3 J	**62**	< 5.0 U	< 10 U
	2/14/2020	2.8	1.8	< 1.0 U	< 1.0 U	12	< 1.0 U	**100**	< 1.0 U	1.1	**59**	< 1.0 U	< 2.0 U
	7/28/2020	1.8 J	< 5.0 U	< 5.0 U	< 5.0 U	8.9	< 5.0 U	**83**	< 5.0 U	< 5.0 U	**53**	< 5.0 U	< 10 U
	10/6/2021	2.9	1.6 J	< 2.0 U	< 2.0 U	9.3	< 2.0 U	**93 J**	< 2.0 U	< 2.0 U	**54**	< 2.0 U	< 4.0 U
RMW-92	7/11/2019	1.6	0.55 J	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	**57**	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	2/14/2020	1.4 J	0.56 J	< 2.0 U	< 2.0 U	0.84 J	< 2.0 U	**54**	< 2.0 U	< 2.0 U	1.0 J	< 2.0 U	< 4.0 U
	7/28/2020	1.3 J	< 2.0 U	< 2.0 U	< 2.0 U	0.79 J	< 2.0 U	**50**	< 2.0 U	< 2.0 U	0.96 J	< 2.0 U	< 4.0 U
	10/6/2021	1.8 J	< 2.0 U	< 2.0 U	< 2.0 U	0.98 J	< 2.0 U	**55**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
RMW-93	7/11/2019	2.0 J	0.66 J	< 2.5 U	< 2.5 U	1.7 J	< 2.5 U	**90**	< 2.5 U	< 2.5 U	**7.2**	< 2.5 U	< 5.0 U
	2/13/2020	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**50**	< 2.0 U	< 2.0 U	3.7	< 2.0 U	< 4.0 U
	7/28/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**22**	< 1.0 U	< 1.0 U	0.86 J	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.5**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/8/2022	0.68 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-94	7/11/2019	1.2 J	0.39 J	< 1.7 U	< 1.7 U	0.40 J	< 1.7 U	**58**	< 1.7 U	< 1.7 U	0.71 J	< 1.7 U	< 3.3 U
	2/13/2020	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**38**	< 2.0 U	< 2.0 U	0.39 J	< 2.0 U	< 4.0 U
	7/28/2020	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	**27**	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 3.3 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/9/2022	0.64 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.0**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RZ-1A	9/29/1999	5.7	1.8	< 1.0 U	< 1.0 U	68.6	< 1.0 U	**252**	< 1.0 U	3.6	**158**	**3.3**	< 1.0 U
RZ-1G	9/29/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	14.8	< 1.0 U	**91.5**	< 1.0 U	< 1.0 U	**44.1**	< 1.0 U	< 1.0 U
RZ-3E	9/30/1999	28.4	20.9	1.6	< 1.0 U	**112**	< 1.0 U	**58.2**	< 1.0 U	2.0	**124**	**2.7**	< 1.0 U
RZ-3L	9/30/1999	2.4	59.7	< 1.0 U	**8.2**	**96.6**	22.1	< 1.0 U	124	2.0	**18.2**	**14.1**	182.4
RZ-3PP	10/8/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	1.3	< 1.0 U	**14.7**	< 1.0 U	< 1.0 U
RZ-3T	9/30/1999	7.2	4.9	< 1.0 U	< 1.0 U	23.8	< 1.0 U	**19.8**	< 1.0 U	< 1.0 U	**97.3**	< 1.0 U	< 1.0 U
RZ-3Z	9/29/1999	3.8	1.5	< 1.0 U	< 1.0 U	3.2	< 1.0 U	**20.6**	< 1.0 U	< 1.0 U	**33.9**	< 1.0 U	< 1.0 U
RZ-4B	8/3/2006	6.1	3.7 J	< 4.0 U	< 4.0 U	11	< 4.0 U	**89**	< 4.0 U	1.1 J	**93**	< 4.0 U	< 8.0 U
RZ-4O	8/3/2006	3.8 J	2.6 J	< 4.0 U	< 4.0 U	13	< 4.0 U	**110**	< 4.0 U	1.6 J	**82**	< 4.0 U	< 8.0 U
W-1-N	9/17/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/27/2013	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	1.8	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	4.2	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 2.0 U
	8/18/2016	< 1.0 U	4.8	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
W-2-N	9/14/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/6/2001	0.48 J	0.33 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.3	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.4	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/16/2004	0.30 J	0.36 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	0.31 J	< 1.0 U	0.20 J	1.4	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	< 2.0 U
	9/22/2006	0.25 J	0.29 J	< 1.0 UJ	< 1.0 U	1.4 J	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	0.18 J	1 J	< 1.0 UJ	< 2.0 UJ
	9/25/2007	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	0.88 J	< 1.0 U	< 2.0 U
	9/29/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.47 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 2.0 U
	9/24/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	8/15/2017	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	7/24/2018	0.38 J	0.31 J	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	1.9	< 1.0 U	< 2.0 U
	7/9/2019	< 1.0 U	0.19 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.22 J	1.1	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.79 J	< 1.0 U	< 2.0 U
	10/4/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 2.0 U
	11/9/2022	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	< 2.0 U
W-3-N	9/17/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**291**	< 1.0 U	2.5	< 1.0 U	2.6	< 1.0 U	**13**	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**282**	< 1.0 U	< 1.0 U	< 1.0 U	3.9	< 1.0 U	**24**	< 1.0 U
	11/7/2001	< 5.6 U	< 5.6 U	< 5.6 U	< 5.6 U	**160**	< 5.6 U	**9.0**	< 5.6 U	2.2 J	2.1 J	**7.6**	< 5.6 U
	9/23/2002	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**150**	< 6.7 U	< 6.7 U	< 6.7 U	< 3.3 U	< 6.7 U	**6.5 J**	< 6.7 U
	9/17/2003	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**100**	< 4.0 U	**5.1**	< 4.0 U	1.6 J	1.7 J	**6.6**	< 4.0 U
	9/16/2004	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**120**	< 4.0 U	0.94 J	< 4.0 U	1.6 J	< 4.0 U	**6.1**	< 4.0 U
	10/20/2005	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**84**	< 4.0 U	1.4 J	< 4.0 U	1.0 J	< 4.0 U	**8.0**	< 8.0 U
	9/25/2006	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**140**	< 5.0 U	< 5.0 U	< 5.0 U	1.9 J	< 5.0 U	**9.6**	< 1.0 U
	9/26/2007	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**110**	< 4.0 U	< 4.0 U	< 4.0 U	1.4 J	< 4.0 U	**5.6**	< 8.0 U
	9/29/2008	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**98**	< 3.3 U	< 3.3 U	< 3.3 U	1.4 J	< 3.3 U	**3.8**	< 6.7 U
	11/13/2009	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**72**	< 2.0 U	< 2.0 U	< 2.0 U	0.99 J	< 2.0 U	**3.2**	< 4.0 U
	9/24/2010	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	56	< 2.0 U	< 2.0 U	< 2.0 U	0.79 J	< 2.0 U	**2.4**	< 4.0 U
	9/28/2011	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	53	< 2.5 U	0.94 J	< 2.5 U	0.80 J	< 2.5 U	**2.7**	< 5.0 U
	9/6/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	41	< 2.0 U	0.60 J	< 2.0 U	0.79 J	< 2.0 U	1.4 J	< 4.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	34	< 1.0 U	0.96 J	< 1.0 U	0.64 J	< 1.0 U	1.6	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	31	< 1.0 U	0.52 J	< 1.0 U	0.47 J	< 1.0 U	1.0	< 2.0 U
	11/4/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	29	< 1.0 U	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	1.3	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	22	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	1.9	< 2.0 U
	8/15/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	24	< 1.0 U	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	1.4	< 2.0 U
	7/24/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	16	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	1.1	< 2.0 U
	7/9/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	0.81 J	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.88 J	< 2.0 U
	10/4/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 2.0 U
	11/9/2022	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	9.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.76 J	< 2.0 U
W-4-N	9/17/1999	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.2	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**9.8**	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.3**	< 1.0 U	< 1.0 U
	11/7/2001	0.33 J	0.89 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	0.92 J	< 1.0 U	< 0.50 U	**7.1**	< 1.0 U	< 1.0 U
	9/24/2002	0.44 J	1.7	< 1.0 U	< 1.0 U	5.2	< 1.0 U	0.94 J	< 1.0 U	0.33 J	**8.5**	0.77 J	< 1.0 U
	9/17/2003	0.26 J	0.94 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	1.1	< 1.0 U	< 0.50 U	**8.1**	0.48 J	< 1.0 U
	9/16/2004	0.40 J	1.7	< 1.0 U	< 1.0 U	5.8	< 1.0 U	1.7	< 1.0 U	0.38 J	**12**	0.49 J	< 1.0 U
	10/20/2005	< 1.0 U	1.2	< 1.0 U	< 1.0 U	2.0	< 1.0 U	1.0	< 1.0 U	< 1.0 U	**7.2**	0.54 J	< 2.0 U
	9/25/2006	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.4	< 1.0 U	0.96 J	< 1.0 U	0.19 J	**7.6**	0.56 J	< 2.0 U
	9/26/2007	0.34 J	1.6	< 1.0 U	< 1.0 U	2.6	< 1.0 U	0.88 J	< 1.0 U	0.24 J	**10**	0.96 J	< 2.0 U
	9/29/2008	0.39 J	1.9	< 1.0 U	< 1.0 U	11	< 1.0 U	0.38 J	< 1.0 U	0.92 J	**8.4**	0.34 J	< 2.0 U
	11/13/2009	0.47 J	1.6	< 1.0 U	< 1.0 U	5.7	< 1.0 U	0.68 J	< 1.0 U	0.39 J	**15**	0.25 J	< 2.0 U
	9/24/2010	0.41 J	2.1	< 1.0 U	< 1.0 U	7.9	< 1.0 U	0.67 J	< 1.0 U	0.51 J	**13**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	2.4	< 1.0 U	< 1.0 U	9.7	< 1.0 U	1.1	< 1.0 U	0.59 J	**9.9**	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	5.6	< 1.0 U	< 1.0 U	14	< 1.0 U	0.52 J	< 1.0 U	1.2	**6.3**	< 1.0 U	< 2.0 U
	9/27/2013	< 1.0 U	7.1	< 1.0 U	< 1.0 U	11	< 1.0 U	0.63 J	< 1.0 U	0.76 J	**7.4**	0.18 J	< 2.0 U
	10/7/2014	< 1.0 U	5.7	< 1.0 U	< 1.0 U	11	< 1.0 U	0.49 J	< 1.0 U	0.69 J	**9.2**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	4.2	< 1.0 U	< 1.0 U	7.0	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	**12**	< 1.0 U	< 2.0 U
	8/19/2016	< 1.0 U	4.6	< 1.0 U	< 1.0 U	9.5	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	**10**	< 1.0 U	< 2.0 U
	8/16/2017	< 1.0 U	6.5	< 1.0 U	< 1.0 U	9.2	< 1.0 U	0.38 J	< 1.0 U	0.64 J	**8.8**	< 1.0 U	< 2.0 U
	7/24/2018	< 1.0 U	6.9	< 1.0 U	< 1.0 U	8.7	< 1.0 U	0.26 J	< 1.0 U	1.3	**6.1**	< 1.0 U	< 2.0 U
	7/9/2019	< 1.0 U	7.6	< 1.0 U	< 1.0 U	6.6	< 1.0 U	0.72 J	< 1.0 U	0.88 J	**9.2**	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	7.3	< 1.0 U	< 1.0 U	8.2	< 1.0 U	0.81 J	< 1.0 U	0.55 J	**6.9**	< 1.0 U	< 2.0 U
	10/4/2021	< 1.0 U	9.0	< 1.0 U	< 1.0 U	8.9	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	**7.0**	< 1.0 U	< 2.0 U
	11/9/2022	< 1.0 U	6.3	< 1.0 U	< 1.0 U	4.8	< 1.0 U	1.4	< 1.0 U	< 1.0 U	**9.2**	< 1.0 U	< 2.0 U
W-1-S	9/22/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	8.0	< 1.0 U	**31**	< 1.0 U	1.1	**11.6**	< 1.0 U	< 1.0 U
	9/19/2002	< 2.0 U	0.97 J	< 2.0 U	< 2.0 U	6.0	< 2.0 U	**62**	< 2.0 U	1.3	**16**	< 2.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
W-2-S	9/23/1999	1.9 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 1.0 U
	9/27/2000	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U
	11/8/2001	1.7	0.58 J	< 1.0 U	< 1.0 U	0.49 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.2 B**	< 1.0 U	< 1.0 U
	9/18/2002	1.5	0.98 J	< 1.0 U	< 1.0 U	0.90	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	4.9	< 1.0 U	< 1.0 U
	9/26/2003	1.4	0.99 J	< 1.0 U	< 1.0 U	0.74	< 1.0 U	< 1.0 U	0.25 J	< 0.50 U	**5.5**	< 1.0 U	< 1.0 U
	9/17/2004	1.5	1.3	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.55 J	< 1.0 U	< 0.50 U	**6.0**	< 1.0 U	< 1.0 U
	10/19/2005	1.6	1.2	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	**5.4**	< 1.0 U	< 2.0 U
	9/18/2006	1.8	1.2	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	9/24/2007	1.4	1.1	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 2.0 U
	9/25/2008	1.4	0.92 J	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.2**	< 1.0 U	< 2.0 U
	11/12/2009	1.7	1.2	< 1.0 U	0.43 J	0.90 J	< 1.0 UJ	0.35 J	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	9/24/2010	1.4	1.1	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/29/2011	1.6	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	**7.1**	< 1.0 U	< 2.0 U
	9/6/2012	1.6	1.1	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U
	9/25/2013	1.8	0.86 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	**6.4**	< 1.0 U	< 2.0 U
	10/7/2014	0.79 J	0.80 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	0.33 J	< 1.0 U	0.34 J	5.0	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.36 J	< 1.0 U	0.47 J	**23**	< 1.0 U	< 2.0 U
	8/23/2016	1.4	1.0	< 1.0 U	< 1.0 U	1.9	< 1.0 U	0.34 J	< 1.0 U	0.30 J	**6.6**	< 1.0 U	< 2.0 U
	8/16/2017	1.3	1.1	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	**5.9**	< 1.0 U	< 2.0 U
	7/25/2018	0.98 J	0.83 J	< 1.0 U	< 1.0 U	2.2	< 1.0 U	2.0	< 1.0 U	0.32 J	4.6	< 1.0 U	< 2.0 U
	7/9/2019	0.60 J	0.23 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	**20**	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 2.0 U
	2/12/2020	1.3	0.79 J	< 1.0 U	< 1.0 U	1.2	< 1.0 U	1.0	< 1.0 U	0.25 J	**5.9**	< 1.0 U	< 2.0 U
	7/29/2020	0.85 J	0.60 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**6.3**	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 2.0 U
	10/4/2021	1.0	0.79 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	1.0	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U
	11/9/2022	0.59 J	0.60 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**28**	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
W-3-S	9/23/1999	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 1.0 U
	9/28/2000	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U
	11/8/2001	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.44 J	< 1.0 U	< 0.50 U	1.5 B	< 1.0 U	< 1.0 U
	9/18/2002	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.61 J	< 1.0 U	< 0.50 U	2.4	< 1.0 U	< 1.0 U
	9/26/2003	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	0.81 J	< 1.0 U	< 0.50 U	2.0	< 1.0 U	< 1.0 U
	9/17/2004	2.4	0.21 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.2	< 1.0 U	< 0.50 U	2.9	< 1.0 U	< 1.0 U
	10/19/2005	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
	9/18/2006	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 2.0 U
	9/24/2007	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	9/26/2008	1.2	0.21 J	< 1.0 U	< 1.0 U	0.52 J	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	11/12/2009	1.2	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 UJ	0.87 J	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
	9/23/2010	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.95 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
	9/29/2011	0.51 J	0.38 J	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	2.8	< 1.0 U	0.19 J	2.6	< 1.0 U	< 2.0 U
	9/6/2012	0.60 J	0.89 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	4.4	< 1.0 U	0.49 J	**5.7**	< 1.0 U	< 2.0 U
	9/25/2013	0.49 J	1.2	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**25**	< 1.0 U	0.59 J	**21**	< 1.0 U	< 2.0 U
	10/7/2014	0.76 J	0.96 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	**38**	< 1.0 U	0.59 J	**35**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	2.6	< 1.0 U	**65**	< 1.0 U	0.31 J	**97**	< 1.0 U	< 2.0 U
	8/23/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	2.1	< 2.0 U	**62**	< 2.0 U	< 2.0 U	**11**	< 2.0 U	< 4.0 U
	8/16/2017	0.62 J	0.66 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	**68**	< 1.0 U	< 1.0 U	**7.6**	< 1.0 U	< 2.0 U
	7/25/2018	0.87 J	0.61 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**19**	< 1.0 U	0.19 J	**27**	< 1.0 U	< 2.0 U
	7/9/2019	2.5	0.83 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**81**	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 2.0 U
	2/13/2020	1.9	0.28 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**140**	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	7/29/2020	1.6	0.48 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	**110**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.6	< 2.0 U	**92**	< 2.0 U	< 2.0 U	1.6 J	< 2.0 U	< 4.0 U
	11/9/2022	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**130**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
W-4-S	9/23/1999	3.3	1.2	< 1.0 U	< 1.0 U	4.4	< 1.0 U	**31 J**	< 1.0 U	< 1.0 U	**15 J**	< 1.0 U	< 1.0 U
	9/28/2000	3.0	1.0	< 1.0 U	< 1.0 U	4.0	< 1.0 U	**15**	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U
	11/8/2001	2.9	1.1	< 1.0 U	< 1.0 U	3.3	< 1.0 U	**13**	< 1.0 U	0.43 J	**8.9 B**	< 1.0 U	< 1.0 U
	9/18/2002	2.3	0.87 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**17**	< 1.0 U	0.60	**9.8**	< 1.0 U	< 1.0 U
	9/26/2003	2.0	0.92 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**24**	0.25 J	0.78	**13**	< 1.0 U	< 1.0 U
	9/17/2004	2.3	1.2	< 1.0 U	< 1.0 U	4.4	< 1.0 U	**18**	< 1.0 U	0.97	**13**	< 1.0 U	< 1.0 U
	10/19/2005	2.4	1.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**20**	< 1.0 U	1.1	**13**	< 1.0 U	< 2.0 U
	9/19/2006	1.7	1.3	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**18**	< 1.0 U	1.0	**12**	< 1.0 U	< 2.0 U
	9/24/2007	1.5	1.8	< 1.0 U	< 1.0 U	5.9	< 1.0 U	**26**	< 1.0 U	1.3	**16**	< 1.0 U	< 2.0 U
	9/26/2008	0.95 J	1.3	0.21 J	< 1.0 U	6	< 1.0 U	**32**	< 1.0 U	1.2	**16**	< 1.0 U	< 2.0 U
	11/12/2009	1.3	1.6	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**39**	< 1.0 U	1.5	**23**	< 1.0 U	< 2.0 U
	9/23/2010	1.1	1.6	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**31**	< 1.0 U	1.5	**20**	< 1.0 U	< 2.0 U
	9/29/2011	1.1	1.5	< 1.0 U	< 1.0 U	8.9	< 1.0 U	**31**	< 1.0 U	1.4	**21**	< 1.0 U	< 2.0 U
	9/6/2012	1.0 J	1.6 J	< 1.0 U	< 1.0 U	9.4	< 1.0 U	**26**	< 1.0 U	1.4 J	**21**	< 1.0 U	< 3.3 U
	9/25/2013	1.6	1.9	< 1.0 U	< 1.0 U	6.3	< 1.0 U	**60**	< 1.0 U	1.2	**50**	< 1.0 U	< 2.0 U
	10/7/2014	1.4 J	1.3 J	< 2.5 U	< 2.5 U	6.1	< 2.5 U	**65**	< 2.5 U	1.1 J	**63**	< 2.5 U	< 5.0 U
	11/4/2015	1.9 J	2.3	< 2.0 U	< 2.0 U	9.7	< 2.0 U	**74**	< 2.0 U	1.4 J	**72**	< 2.0 U	< 4.0 U
	8/23/2016	1.6 J	1.7 J	< 2.0 U	< 2.0 U	12	< 2.0 U	**54**	< 2.0 U	1.1 J	**45**	< 2.0 U	< 4.0 U
	8/16/2017	1.5	2.7	< 1.0 U	< 1.0 U	22	< 1.0 U	**39**	< 1.0 U	2.1	**40**	< 1.0 U	< 2.0 U
	7/25/2018	1.8	2.1	< 1.0 U	< 1.0 U	17	< 1.0 U	**68**	< 1.0 U	1.5	**42**	< 1.0 U	< 2.0 U
	7/9/2019	1.7	1.6	< 1.0 U	< 1.0 U	13	< 1.0 U	**70**	< 1.0 U	1.2	**33**	< 1.0 U	< 2.0 U
	2/13/2020	1.7 J	0.72 J	< 2.0 U	< 2.0 U	9.4	< 2.0 U	**43**	< 2.0 U	0.79 J	**48**	< 2.0 U	< 4.0 U
	7/29/2020	0.71 J	< 2.0 U	< 2.0 U	< 2.0 U	1.0 J	< 2.0 U	**37**	< 2.0 U	< 2.0 U	**9.1**	< 2.0 U	< 4.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**29**	< 2.0 U	< 2.0 U	3.5	< 2.0 U	< 4.0 U
	11/9/2022	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**26**	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	< 2.0 U
EAST	9/21/1999	21	5.4	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**61**	< 1.0 U	< 1.0 U	**56**	< 1.0 U	< 1.0 U
	9/22/2000	22	7.7	1.2	< 1.0 U	**77**	< 1.0 U	**56**	< 1.0 U	1.8	**97**	**3.0**	< 1.0 U
	11/12/2001	13	6.2	0.90 J	< 3.3 U	51	< 3.3 U	**56**	< 3.3 U	2.7	**92**	1.5 J	< 3.3 U
	9/23/2002	10	3.9	0.73 J	< 2.0 U	8.8	< 2.0 U	**49**	< 2.0 U	< 1.0 U	**46**	< 2.0 U	< 2.0 U
	9/25/2003	7.1	2.3	< 2.0 U	< 2.0 U	4.3	< 2.0 U	**47**	< 2.0 U	< 1.0 U	**35**	< 2.0 U	< 2.0 U
	9/13/2004	5.7	0.72 J	0.34 J	< 1.0 U	1.6	< 1.0 U	**40**	< 1.0 U	< 0.50 U	**23**	< 1.0 U	< 1.0 U
	10/18/2005	5.9	3.0	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**47**	< 1.0 U	< 1.0 U	**23**	1.2	< 2.0 U
	9/21/2006	10	3.2	0.59 J	< 1.0 U	4.1	< 1.0 U	**41**	< 1.0 U	< 1.0 U	**29**	< 1.0 U	< 2.9 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	10/8/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**22**	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
WEST	9/21/1999	24.8	25.6	< 1.0 U	< 1.0 U	**125**	< 1.0 U	**41**	< 1.0 U	< 1.0 U	**37**	< 1.0 U	< 1.0 U
	7/30/2020	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**6.0**	< 1.0 U	**13**	< 1.0 U	< 1.0 U	4.4	0.98 J	< 2.0 U
	10/8/2021	< 1.0 U	1.3	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**10**	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 2.0 U
Downgradient of the Site													
4S	9/20/1999	< 1.0 U	1.6	< 1.0 U	1.6	< 1.0 U	<10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U
	10/2/2003	< 2.0 U	7.0	< 2.0 U	1.6 J	< 1.0 U	1.7 J	< 2.0 U	< 2.0 U	1.7	< 2.0 U	< 2.0 U	< 2.0 U
	9/14/2004	< 5.0 U	7.5	< 5.0 U	4.5 J	< 2.5 U	4.7 J	< 5.0 U	1.1 J	< 2.5 U	< 5.0 U	< 5.0 U	2.4 J
	10/19/2005	< 4.0 U	2.3 J	< 4.0 U	1.6 J	< 4.0 U	1.6 J	< 4.0 U	< 4.0 U	0.95 J	< 4.0 U	< 4.0 U	< 8.0 U
	9/20/2006	< 1.0 U	5.6	< 1.0 U	0.7 J	0.25 J	0.52 J	< 1.0 U	< 1.0 U	0.75 J	< 1.0 U	< 1.0 U	< 2.0 U
GM-2	9/20/1999	5.5	1.4	< 1.0 U	< 1.0 U	8.4	<10	**6.0**	< 1.0 U	< 1.0 U	**62**	< 1.0 U	< 10 U
	9/25/2000	5.7	3.7	< 1.0 U	< 1.0 U	39	< 1.0 U	**7.7**	< 1.0 U	1.3	**83**	1.7	< 1.0 U
	11/9/2001	6.1	6.1	< 3.3 U	< 3.3 U	26	< 3.3 U	**8.4**	< 3.3 U	1.1J	**65**	< 3.3 U	< 3.3 U
	9/20/2002	0.75 J	3.4	< 1.0 U	< 1.0 U	7.6	< 1.0 U	**8.7**	< 1.0 U	0.37J	**26**	< 1.0 U	< 1.0 U
	10/2/2003	0.21 J	1.7	< 1.0 U	< 1.0 U	4.7	0.21 J	**5.7**	< 1.0 U	< 0.50 U	**13**	0.46 J	< 1.0 U
	9/14/2004	< 1.0 U	1.6	< 1.0 U	< 1.0 U	5.6	< 1.0 U	4.0	< 1.0 U	0.23 J	**6.2**	< 1.0 U	< 1.0 U
	10/19/2005	< 1.0 U	2.0	< 1.0 U	< 1.0 U	6.8	< 1.0 U	3.6	< 1.0 U	0.26 J	4.6	0.24 J	< 2.0 U
	9/20/2006	< 1.0 U	2.1	< 1.0 U	< 1.0 U	7.7	< 1.0 U	2.6	< 1.0 U	0.34 J	**5.1**	0.61 J	< 2.0 U
	9/18/2007	< 1.0 U	1.4	< 1.0 U	< 1.0 U	4.9	< 1.0 U	1.6	< 1.0 U	0.28 J	2.3	1.1	< 2.0 U
	9/24/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.7	< 1.0 U	1.3	< 1.0 U	0.19 J	2.4	< 1.0 U	< 2.0 U
	11/11/2009	< 1.0 U	1.0	< 1.0 U	< 1.0 U	3.2	< 1.0 U	0.90 J	< 1.0 U	< 1.0 U	1.4	**2.3**	< 2.0 U
	9/27/2010	< 1.0 U	1.2	< 1.0 U	< 1.0 U	3.8	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	0.95 J	**2.5**	< 2.0 U
	9/29/2011	< 1.0 U	0.92 J	< 1.0 U	< 1.0 U	9.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	0.69 J	< 2.0 U
	9/6/2012	< 1.0 U	0.71 J	< 1.0 U	< 1.0 U	15	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	0.96 J	1.2	< 2.0 U
	9/25/2013	< 1.0 U	1.0	< 1.0 U	< 1.0 U	13	< 1.0 U	0.31 J	< 1.0 U	0.26 J	0.70 J	1.3	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
	12/8/2015	< 1.0 U	0.40 J	< 1.0 U	< 1.0 U	3.2	< 1.0 U	3.6	< 1.0 U	< 1.0 U	**6.7**	< 1.0 U	< 2.0 U
	8/19/2016	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	8.9	< 1.0 U	**8.5**	< 1.0 U	< 1.0 U	**6.3**	< 1.0 U	< 2.0 U
	7/12/2019	0.33 J	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	**28**	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**30**	< 1.0 U	< 1.0 U	3.9	< 1.0 U*	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**43**	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
	11/10/2022	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**35**	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 2.0 U
GM-10	9/21/1999	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U
	9/27/2000	2.5	1.4	< 1.0 U	< 1.0 U	5.7	< 1.0 U	1.4	< 1.0 U	< 1.0 U	**23**	< 1.0 U	< 1.0 U
	11/8/2001	2.7	3.4	< 1.0 U	< 1.0 U	16	< 1.0 U	1.9	< 1.0 U	0.93	**27**	1.2	< 1.0 U
	9/18/2002	1.8	0.61 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	1.1	< 1.0 U	< 0.50 U	**19**	< 1.0 U	< 1.0 U
	9/24/2003	0.96 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.2	< 1.0 U	< 0.50 U	**33**	< 1.0 U	< 1.0 U
	9/14/2004	1.2	< 1.0 U	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	1.5	< 1.0 U	< 0.50 U	**15**	< 1.0 U	< 1.0 U
	10/20/2005	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	9/27/2006	0.90 J	0.29 J	< 1.0 U	< 1.0 U	0.77 J	< 1.0 U	0.98 J	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 2.0 U
	9/19/2007	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	0.93 J	< 1.0 U	< 1.0 U	**8.8**	< 1.0 U	< 2.0 U
	9/24/2008	0.53 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/25/2013	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 2.0 U
GM-16	9/21/1999	2.2	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**44**	< 1.0 U	< 1.0 U	**8.5**	< 1.0 U	< 1.0 U
	9/26/2000	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**16**	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U
	11/8/2001	2.2	0.31 J	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	**17**	< 1.0 U	< 0.50 U	3.6	< 1.0 U	< 1.0 U
	9/24/2002	1.4 J	4.1	< 2.0 U	< 2.0 U	6.2	< 2.0 U	**63**	< 2.0 U	1.6	**28**	< 2.0 U	< 2.0 U
	9/22/2003	1.9 J	2.8 J	< 4.0 U	< 4.0 U	5.8	< 4.0 U	**110**	< 4.0 U	1.1 J	**57**	< 4.0 U	< 4.0 U
	9/16/2004	3.1 J	4.3	< 3.3 U	< 3.3 U	7.4	< 3.3 U	**130**	< 3.3 U	1.0 J	**90**	< 3.3 U	< 3.3 U
	10/19/2005	1.7 J	1.1 J	< 3.3 U	< 3.3 U	2.8 J	< 3.3 U	**100**	< 3.3 U	0.90 J	**55**	< 3.3 U	< 6.7 U
	9/18/2006	2.1	1.1 J	< 1.0 U	< 1.0 U	3.8	< 1.0 U	**98**	< 1.0 U	1 J	**51**	< 1.0 U	< 2.9 U
	9/25/2007	1.4 J	1.5 J	< 4.0 U	< 4.0 U	43	< 4.0 U	**94**	< 4.0 U	1.3 J	**52**	< 4.0 U	< 8.0 U
	9/30/2008	1.8 J	3.8	< 3.3 U	< 3.3 U	20	< 3.3 U	**100**	< 3.3 U	1.1 J	**48**	< 3.3 U	< 6.7 U
	11/16/2009	1.4 J	1.6 J	< 3.3 U	< 3.3 U	12	< 3.3 U	**110**	< 3.3 U	1.5 J	**74**	< 3.3 U	< 6.7 U
	9/23/2010	1.1 J	1.3 J	< 4.0 U	< 4.0 U	2.2 J	< 4.0 U	**110**	< 4.0 U	1.2 J	**75**	< 4.0 U	< 8.0 U
	9/29/2011	< 3.3 U	5.5	< 3.3 U	< 3.3 U	23	< 3.3 U	**64**	< 3.3 U	0.77 J	**45**	1.2 J	< 6.7 U
	9/5/2012	0.94 J	3.8 J	< 4.0 U	< 4.0 U	12	< 4.0 U	**66**	< 4.0 U	< 4.0 U	**41**	< 4.0 U	< 8.0 U
	9/25/2013	0.36 J	4.4	< 1.0 U	< 1.0 U	12	< 1.0 U	**51**	< 1.0 U	0.40 J	**17**	0.55 J	< 2.0 U
	10/7/2014	< 1.0 U	1.4	< 1.0 U	< 1.0 U	7.7	< 1.0 U	**31**	< 1.0 U	0.26 J	**7.5**	0.97 J	< 2.0 U
	11/4/2015	< 1.0 U	1.5	< 1.0 U	< 1.0 U	12	< 1.0 U	**35**	< 1.0 U	0.34 J	**8.3**	**10**	< 2.0 U
	8/18/2016	< 1.0 U	1.8	< 1.0 U	< 1.0 U	7.4	< 1.0 U	**23**	< 1.0 U	< 1.0 U	**5.7**	0.31 J	< 2.0 U
	7/8/2019	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	5.6	< 1.0 U	**13**	< 1.0 U	< 1.0 U	3.0	0.45 J	< 2.0 U
	2/11/2020	< 1.0 U	2.3	< 1.0 U	< 1.0 U	6.2	< 1.0 U	**10**	< 1.0 U	< 1.0 U	3.1	0.52 J	< 2.0 U
	7/28/2020	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**12**	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	**8.3**	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
GM-17	9/21/1999	6.4	26	< 1.0 U	< 1.0 U	30	< 1.0 U	< 1.0 U	< 1.0 U	2.6	**29**	1.4	< 1.0 U
	9/27/2000	6.7	24	< 1.0 U	< 1.0 U	42	< 1.0 U	**25**	< 1.0 U	2.5	**48**	< 1.0 U	< 1.0 U
	11/8/2001	6.8	7.3	< 3.3 U	< 3.3 U	16	< 3.3 U	**48**	< 3.3 U	1.8	**79**	< 3.3 U	< 3.3 U
	9/19/2002	2.3	6.0	< 1.0 U	< 1.0 U	13	< 1.0 U	**22**	< 1.0 U	0.67	**39**	0.79 J	< 1.0 U
	9/24/2003	1.3	1.2	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**12**	< 1.0 U	< 0.50 U	**24**	< 1.0 U	< 1.0 U
	9/15/2004	1.1	4	< 1.0 U	< 1.0 U	11	< 1.0 U	3.6	< 1.0 U	0.64	**22**	0.49 J	< 1.0 U
	10/20/2005	1.4	5.5	< 1.0 U	< 1.0 U	9.0	< 1.0 U	**8.1**	< 1.0 U	0.57 J	**29**	2.0	< 2.0 U
	9/27/2006	0.46 J	3.2	< 1.0 U	< 1.0 U	9.5	< 1.0 U	**11**	< 1.0 U	0.49 J	**24**	0.54 J	< 2.0 U
	9/18/2007	0.31 J	1.5	< 1.0 U	< 1.0 U	4.0	< 1.0 U	**7.3**	< 1.0 U	0.22 J	**15**	< 1.0 U	< 2.0 U
	9/24/2008	0.29 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.8	< 1.0 U	< 1.0 U	**10**	< 1.0 U	< 2.0 U
	9/27/2013	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	2.6	< 1.0 U	2.8	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	< 1.0 U	**26**	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-18	9/22/1999	43	23	1.3	< 1.0 U	35	< 1.0 U	4.9	< 1.0 U	2.2	**131**	< 1.0 U	< 1.0 U
	9/27/2000	32	10	< 1.0 U	< 1.0 U	24	< 1.0 U	**7.8**	< 1.0 U	1.8	**115**	< 1.0 U	< 1.0 U
	11/8/2001	23	3.3	1.3J	< 3.3 U	14	< 3.3 U	**12**	< 3.3 U	1.6 J	**93**	< 3.3 U	< 3.3 U
	9/19/2002	18	6.0	< 3.3 U	< 3.3 U	15	< 3.3 U	**28**	< 3.3 U	1.6 J	**98**	< 3.3 U	< 3.3 U
	9/22/2003	10	3.7	< 2.0 U	< 2.0 U	8.8	< 2.0 U	**24**	< 2.0 U	< 1.0 U	**77**	0.75 J	< 2.0 U
	9/15/2004	5.2	2.2	0.46 J	< 2.0 U	5.9	< 2.0 U	**20**	< 2.0 U	< 1.0 U	**53**	< 2.0 U	< 2.0 U
	10/20/2005	7.0	15	0.30 J	< 1.0 U	14	< 1.0 U	**21**	< 1.0 U	1.2	**70 J**	**3.0**	< 2.0 U
	9/27/2006	6.2	17	< 2.9 U	< 2.9 U	21	< 2.9 U	**15**	< 2.9 U	2 J	**72**	**2.5 J**	< 5.7 U
	9/19/2007	5.4	13	< 2.5 U	< 2.5 U	19	< 2.5 U	**14**	< 2.5 U	1.2 J	**64**	1.1 J	< 5.0 U
	9/24/2008	2.3	< 6.1 U	< 1.0 U	< 1.0 U	13	< 1.0 U	**16**	< 1.0 U	0.79 J	**38**	< 1.0 U	< 2.9 U
	9/25/2013	0.22 J	0.68 J	< 1.0 U	< 1.0 U	3.7	< 1.0 U	**17**	< 1.0 U	< 1.0 U	**10**	< 1.0 U	< 2.0 U
	12/11/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	**6.2**	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	11/11/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**11**	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
GM-25	9/22/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/21/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-26	9/22/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/27/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/12/2001	0.19 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.1	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/25/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.92 J	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.85 J	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/16/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/21/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/27/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	1/21/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/1/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/22/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-46	3/2/2006	< 1.0 U	2.7	< 1.0 U	< 1.0 U	6.8	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	**22**	1.9	< 2.0 U
	11/30/2006	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	5.2	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	1.5	1.5	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	0.47 J	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	< 2.0 U
GM-47	3/1/2006	2.2	1.8	< 1.0 U	< 1.0 U	7.2	< 1.0 U	**78**	0.28 J	1.5	**50**	< 1.0 U	< 2.0 U
	9/19/2006	2.2	1.7 J	< 2.0 U	< 2.0 U	9.5	< 2.0 U	**64**	< 2.0 U	1.4 J	**44**	< 2.0 U	< 4.0 U
	11/30/2006	1.9 J	1.7 J	< 2.0 U	< 2.0 U	8.9	< 2.0 U	**69**	< 2.0 U	1.4 J	**51**	< 2.0 U	< 4.0 U
	9/25/2007	2.2 J	2.4 J	< 7.1 U	< 7.1 U	**170**	< 7.1 U	**71**	< 7.1 U	4.6 J	**53**	< 7.1 U	< 1.0 U
	10/1/2008	1.4 J	2 J	< 5.0 U	< 5.0 U	**160**	< 5.0 U	**86**	< 5.0 U	3.9 J	**36**	1.9 J	< 1.0 U
	11/13/2009	1.0 J	2.4 J	< 2.5 U	< 2.5 U	61	< 2.5 U	**61**	< 2.5 U	2.8	**29**	0.66 J	< 5.0 U
	1/28/2010	0.85 J	2.3 J	< 2.5 U	< 2.5 U	51	< 2.5 U	**60**	< 2.5 U	2.5	**24**	< 2.5 U	< 5.0 U
	9/23/2010	0.77 J	2.7	< 1.0 U	< 1.0 U	42	< 1.0 U	**60**	< 1.0 U	2.4	**22**	0.39 J	< 3.3 U
	9/29/2011	< 2.5 U	2.9	< 2.5 U	< 2.5 U	34	< 2.5 U	**52**	< 2.5 U	2.3 J	**18**	< 2.5 U	< 5.0 U
	9/6/2012	< 2.5 U	3.0	< 2.5 U	< 2.5 U	23	< 2.5 U	**42**	< 2.5 U	2.0 J	**13**	< 2.5 U	< 5.0 U
	9/25/2013	0.65 J	3.7	< 1.0 U	< 1.0 U	26	< 1.0 U	**47**	< 1.0 U	2.4	**14**	0.42 J	< 2.0 U
	10/7/2014	< 1.0 U	4.5	< 1.0 U	< 1.0 U	28	< 1.0 U	**46**	< 1.0 U	1.8	**8.1**	< 1.0 U	< 3.3 U
	11/4/2015	< 1.7 U	4.9	< 1.7 U	< 1.0 U	46	< 1.7 U	**49**	< 1.7 U	2.3	**8.3**	< 1.7 U	< 3.3 U
	8/24/2016	< 2.0 U	3.8	< 2.0 U	< 2.0 U	38	< 2.0 U	**39**	< 2.0 U	1.8 J	4.4	< 2.0 U	< 4.0 U
	7/10/2019	< 1.0 U	5.2	< 1.0 U	< 1.0 U	29	< 1.0 U	**40**	< 1.0 U	0.81 J	**9.3**	0.60 J	< 2.0 U
	2/12/2020	< 1.0 U	0.70 J	< 1.0 U	< 1.0 U	9.3	< 1.0 U	3.3	< 1.0 U	< 1.0 U	1.1	0.33 J	< 2.0 U
	7/27/2020	< 2.0 U	2.7	< 2.0 U	< 2.0 U	38	< 2.0 U	**33**	< 2.0 U	< 2.0 U	**10**	< 2.0 U	< 4.0 U
	10/5/2021	0.61 J	1.0	< 1.0 U	< 1.0 U	26	< 1.0 U	**29**	< 1.0 U	0.59 J	**17**	< 1.0 U	< 2.0 U
	11/10/2022	0.68 J	0.93 J	< 1.0 U	< 1.0 U	9.6	< 1.0 U	**38**	< 1.0 U	< 1.0 U	**24**	< 1.0 U	< 2.0 U
GM-48	3/1/2006	0.62 J	0.71 J	< 1.0 U	< 1.0 U	0.7 J	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	11/30/2006	0.97 J	0.72 J	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	0.26 J	< 1.0 U	0.19 J	2.4	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	0.19 J	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	**28**	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	2/12/2020	0.85 J	1.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	7/27/2020	0.57 J	1.3	< 1.0 U	< 1.0 U	4.5	< 1.0 U	**18**	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 2.0 U
	10/6/2021	< 1.0 U	0.74 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**27**	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 2.0 U
GM-49	3/1/2006	2.4	3.4	< 1.0 U	< 1.0 U	4.7	< 1.0 U	2.5	0.25 J	0.66 J	**8.4**	< 1.0 U	< 2.0 U
	11/30/2006	1.8	2.6	< 1.0 U	< 1.0 U	3.8	< 1.0 U	3.1	< 1.0 U	0.53 J	**11**	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 2.0 U
	7/27/2020	1.2	0.75 J	< 1.0 U	< 1.0 U	2.4	< 1.0 U	**14**	< 1.0 U	< 1.0 U	**28**	< 1.0 U	< 2.0 U
	11/11/2021	0.67 J	1.2	< 1.0 U	< 1.0 U	3.4	< 1.0 U	**28**	< 1.0 U	< 1.0 U	**8.9**	< 1.0 U	< 2.0 U
GM-50	4/28/2006	2.4 J	1.9 J	< 5.0 U	< 5.0 U	5.2	< 5.0 U	**180**	< 5.0 U	1.6 J	**120**	< 5.0 U	< 1.0 U
	9/19/2006	1.4 J	1.5 J	< 5.6 U	< 5.6 U	13	< 5.6 U	**150**	< 5.6 U	1.7 J	**84**	< 5.6 U	< 1.0 U
	11/30/2006	1.6 J	1.5 J	< 5.0 U	< 5.0 U	34	< 5.0 U	**140**	< 5.0 U	1.5 J	**86**	< 5.0 U	< 1.0 U
	9/25/2007	1.4 J	1.9 J	< 5.9 U	< 5.9 U	**130**	< 5.9 U	**100**	< 5.9 U	2.5 J	**44**	< 5.9 U	< 1.0 U
	10/1/2008	1.6 J	1.7 J	< 2.5 U	< 2.5 U	13	< 2.5 U	**82**	< 2.5 U	0.68 J	**54**	< 2.5 U	< 5.0 U
	11/13/2009	1.8 J	1.3 J	< 5.0 U	< 5.0 U	11	< 5.0 U	**110**	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 1.0 U
	1/28/2010	1.5 J	1.2 J	< 5.0 U	< 5.0 U	8.1	< 5.0 U	**130**	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 1.0 U
	9/23/2010	1.6 J	< 5.0 U	< 5.0 U	< 5.0 U	4.0 J	< 5.0 U	**130**	< 5.0 U	0.95 J	**140**	< 5.0 U	< 1.0 U
	9/30/2011	1.7 J	2.3	< 2.0 U	< 2.0 U	7.1	< 2.0 U	**95**	< 2.0 U	0.62 J	**86**	< 2.0 U	< 4.0 U
	9/6/2012	2.7 J	< 5.0 U	< 5.0 U	< 5.0 U	3.4 J	< 5.0 U	**84**	< 5.0 U	< 5.0 U	**63**	< 5.0 U	< 1.0 U
	9/25/2013	2.5	3.5	< 1.0 U	< 1.0 U	5.7	< 1.0 U	**73**	< 1.0 U	0.29 J	**40**	0.30 J	< 2.0 U
	10/7/2014	< 1.0 U	7.1	< 1.0 U	< 1.0 U	5.1	< 1.0 U	**39**	< 1.0 U	< 1.0 U	**5.5**	1.8	< 2.9 U
	11/4/2015	< 1.0 U	4.0	< 1.0 U	< 1.0 U	5.6	< 1.0 U	**26**	< 1.0 U	< 1.0 U	4.0	1.7	< 2.0 U
	8/23/2016	< 1.0 U	2.1	< 1.0 U	< 1.0 U	5.1	< 1.0 U	**14**	< 1.0 U	< 1.0 U	4.1	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	7.4	< 1.0 U	< 1.0 U	7.4	< 1.0 U	2.2	< 1.0 U	0.20 J	0.39 J	1.8	< 2.0 U
	2/12/2020	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	8.3	< 1.0 U	3.6	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	2.2	< 1.0 U	< 1.0 U	7.0	< 1.0 U	1.9	< 1.0 U	< 1.0 U	0.75 J	1.4	< 2.0 U
	10/5/2021	< 1.0 U	0.66 J	< 1.0 U	< 1.0 U	0.95 J	< 1.0 U	3.2	< 1.0 U	< 1.0 U	0.56 J	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-51	4/28/2006	0.9 J	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	**6.7**	< 1.0 U	< 1.0 U	4.9	< 1.0 U	< 2.0 U
	11/30/2006	0.76 J	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	**6.6**	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 2.0 U
	9/27/2007	0.61 J	0.23 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	**7.2**	0.29 J	< 1.0 U	3.9	< 1.0 U	< 2.0 U
	9/30/2008	0.6 J	0.78 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	**9.3**	< 1.0 U	0.70 J	**7.7**	< 1.0 U	< 2.0 U
	9/25/2013	1.9	1.8	< 1.0 U	< 1.0 U	2.8	< 1.0 U	**46**	< 1.0 U	0.30 J	**64**	< 1.0 U	< 2.0 U
	10/6/2014	0.70 J	1.7 J	< 2.0 U	< 2.0 U	5.0	< 2.0 U	**67**	< 2.0 U	< 2.0 U	**33**	< 2.0 U	< 4.0 U
	10/30/2015	< 2.0 U	2.8	< 2.0 U	< 2.0 U	6.5	< 2.0 U	**63**	< 2.0 U	< 2.0 U	**16**	< 2.0 U	< 4.0 U
	8/25/2016	1.2	2.5	< 1.0 U	< 1.0 U	6.4	< 1.0 U	**6.5**	< 1.0 U	< 1.0 U	**33**	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	1.9	< 1.0 U	< 1.0 U	6.1	< 1.0 U	**44**	< 1.0 U	0.22 J	**5.0**	< 1.0 U	< 2.0 U
	2/12/2020	< 1.0 U	2.0	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**26**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	1.1	< 1.0 U	< 1.0 U	3.8	< 1.0 U	**25**	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 2.0 U
	10/6/2021	0.81 J	1.2	< 1.0 U	< 1.0 U	3.9	< 1.0 U	**25**	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	11/10/2022	< 1.0 U	1.1	< 1.0 U	< 1.0 U	2.5	< 1.0 U	**24**	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
GM-52	4/28/2006	2.0	0.94 J	< 2.0 U	< 2.0 U	1.9 J	< 2.0 U	**75**	< 2.0 U	0.67 J	**61**	< 2.0 U	< 4.0 U
	11/30/2006	1.3 J	0.93 J	< 2.0 U	< 2.0 U	2.7	< 2.0 U	**67**	< 2.0 U	0.76 J	**47**	< 2.0 U	< 4.0 U
	9/26/2007	1.3 J	1.5 J	< 2.5 U	< 2.5 U	18	< 2.5 U	**88**	< 2.5 U	1.0 J	**47**	< 2.5 U	< 5.0 U
	9/30/2008	1.9 J	3.0	< 2.5 U	< 2.5 U	14	< 2.5 U	**88**	< 2.5 U	< 2.5 U	**43**	< 2.5 U	< 5.0 U
	11/12/2009	1.1 J	1.1 J	< 2.5 U	< 2.5 U	1.5 J	< 2.5 U	**94**	< 2.5 U	0.83 J	**43**	< 2.5 U	< 5.0 U
	1/27/2010	1.0 J	1.0 J	< 4.0 U	< 4.0 U	1.6 J	< 4.0 U	**94**	< 4.0 U	0.99 J	**42**	< 4.0 U	< 8.0 U
	9/22/2010	0.92 J	0.94 J	< 3.3 U	< 3.3 U	1.8 J	< 3.3 U	**90**	< 3.3 U	0.74 J	**50**	< 3.3 U	< 6.7 U
	9/29/2011	< 4.0 U	1.9 J	< 4.0 U	< 4.0 U	4.2	< 4.0 U	**73**	< 4.0 U	< 4.0 U	**38**	< 4.0 U	< 8.0 U
	9/5/2012	< 4.0 U	4.1	< 4.0 U	< 4.0 U	7.9	< 4.0 U	**66**	< 4.0 U	< 4.0 U	**29**	< 4.0 U	< 8.0 U
	9/25/2013	0.47 J	1.2	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**53**	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 2.0 U
	10/6/2014	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**44**	< 2.0 U	< 2.0 U	**8.2**	< 2.0 U	< 4.0 U
	10/30/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**32**	< 2.0 U	< 2.0 U	**5.8**	< 2.0 U	< 4.0 U
	8/25/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	**30**	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 2.0 U
	11/11/2021	< 1.0 U	0.76 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	**26**	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U
GM-55	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	**7.7**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/22/2010	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	< 1.0 U	**7.2**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.6	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.3	0.34 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-57	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	1.9	0.48 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	1/21/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-62(1)	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	4/8/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**20**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-63	9/14/2006	2.3 J	1.9 J	< 5.0 U	< 5.0 U	5.6	< 5.0 U	**160**	< 5.0 U	1.4 J	**120**	< 5.0 U	< 1.0 U
	12/1/2006	2.3 J	1.9 J	< 4.0 U	< 4.0 U	8.8	< 4.0 U	**140**	< 4.0 U	1.3 J	**100**	< 4.0 U	< 8.0 U
	9/25/2007	2.7 J	1.8 J	< 6.7 U	< 6.7 U	5.0 J	< 6.7 U	**130**	< 6.7 U	< 6.7 U	**120**	< 6.7 U	< 1.0 U
	10/1/2008	4.0 J	2.2 J	< 5.0 U	< 5.0 U	4.9 J	< 5.0 U	**140**	< 5.0 U	< 5.0 U	**92**	< 5.0 U	< 1.0 U
	1/28/2010	2.0 J	< 5.7 U	< 5.7 U	< 5.7 U	3.2 J	< 5.7 U	**150**	< 5.7 U	< 5.7 U	**140**	< 5.7 U	< 1.0 U
	9/6/2012	3.2 J	1.6 J	< 5.7 U	< 5.7 U	2.2 J	< 5.7 U	**89**	< 5.7 U	< 5.7 U	**58**	< 5.7 U	< 1.0 U
	9/25/2013	4.4	1.6	< 1.0 U	< 1.0 U	1.9	< 1.0 U	**81**	< 1.0 U	0.33 J	**48**	< 1.0 U	< 2.0 U
	10/7/2014	2.8	1.9	< 1.0 U	< 1.0 U	2.4	< 1.0 U	**53**	< 1.0 U	< 1.0 U	**20**	< 1.0 U	< 2.9 U
	11/4/2015	2.2	1.9	< 1.7 U	< 1.7 U	3.4	< 1.7 U	**46**	< 1.7 U	< 1.7 U	**19**	< 1.7 U	< 3.3 U
	8/24/2016	2.2	0.84 J	< 1.7 U	< 1.7 U	1.2 J	< 1.7 U	**38**	< 1.7 U	< 1.7 U	5.0	< 1.7 U	< 3.3 U
	7/10/2019	< 1.0 U	1.6	< 1.0 U	< 1.0 U	2.6	< 1.0 U	**12**	< 1.0 U	< 1.0 U	3.7	0.31 J	< 2.0 U
	2/11/2020	1.0 J	< 2.0 U	< 2.0 U	< 2.0 U	5.3	< 2.0 U	**51**	< 2.0 U	< 2.0 U	1.5 J	< 2.0 U	< 4.0 U
	7/28/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	**37**	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 2.0 U
	10/5/2021	0.59 J	0.70 J	< 1.0 U	< 1.0 U	0.59 J	< 1.0 U	**11**	< 1.0 U	< 1.0 U	0.47 J	< 1.0 U	< 2.0 U
	11/10/2022	1.9	0.66 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	**13**	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
GM-64	9/14/2006	1.8 J	1.8 J	< 2.5 U	< 2.5 U	16	< 2.5 U	**77**	< 2.5 U	1.6 J	**34**	< 2.5 U	< 5.0 U
	12/1/2006	2.1 J	2.1 J	< 2.5 U	< 2.5 U	42	< 2.5 U	**85**	< 2.5 U	2 J	**35**	< 2.5 U	< 5.0 U
	9/25/2007	< 3.3 U	2.7 J	< 3.3 U	< 3.3 U	**74**	< 3.3 U	**11**	< 3.3 U	6.6	4.5	**18**	< 6.7 U
	10/1/2008	0.55 J	2.7	< 1.0 U	< 1.0 U	15	< 1.0 U	**31**	< 1.0 U	2.3	**14**	**2.3**	< 2.0 U
	9/26/2013	0.71 J	4.2	< 1.0 U	< 1.0 U	44	< 1.0 U	**41**	< 1.0 U	2.8	**31**	**5.8**	< 2.0 U
	7/10/2019	0.65 J	2.5	< 1.0 U	< 1.0 U	40	< 1.0 U	**15**	< 1.0 U	0.87 J	**31**	1.3	< 2.0 U
	2/11/2020	< 2.0 U	2.1	< 2.0 U	< 2.0 U	57	< 2.0 U	**24**	< 2.0 U	0.80 J	**24**	**2.7**	< 4.0 U
	7/28/2020	< 1.0 U	0.58 J	< 1.0 U	< 1.0 U	29	< 1.0 U	**14**	< 1.0 U	0.46 J	4.3	1.5	< 2.0 U
	10/5/2021	< 1.0 U	0.75 J	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**7.9**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	11/9/2022	0.59 J	0.72 J	< 1.0 U	< 1.0 U	3.2	< 1.0 U	**7.5**	< 1.0 U	< 1.0 U	0.87 J	< 1.0 U	< 2.0 U
GM-65S	5/2/2007	0.62 J	0.78 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**11**	< 1.0 U	< 1.0 U	**8.0**	< 1.0 U	< 2.0 U
	1/21/2008	0.58 J	0.54 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**7.9**	< 1.0 U	< 2.0 U
	10/6/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.7**	< 1.0 U	< 1.0 U	3.8	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	**11**	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
	1/27/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.22 J	< 1.0 U	**13**	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 2.0 U
	9/22/2010	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	**9.9**	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.8**	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.4**	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/17/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/14/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-77S	9/27/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/21/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-78	10/23/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.9**	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	1/21/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/2/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/29/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.3	0.18 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.5**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.5**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/25/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-79	10/23/2007	0.66 J	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	10/2/2008	0.65 J	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 2.0 U
	11/12/2009	0.72 J	0.31 J	< 1.0 U	0.48 J	0.28 J	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	9/22/2010	0.51 J	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	0.19 J	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	9/5/2012	0.72 J	0.94 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	2.2	< 1.0 U	< 2.0 U
	9/25/2013	0.88 J	1.1	< 1.0 U	< 1.0 U	1.4	< 1.0 U	0.31 J	< 1.0 U	0.42 J	3.9	< 1.0 U	< 2.0 U
	10/6/2014	1.0	3.2	< 1.0 U	< 1.0 U	8.4	< 1.0 U	1.0	< 1.0 U	0.43 J	**23**	< 1.0 U	< 2.0 U
	11/4/2015	0.71 J	2.2	< 1.4 U	< 1.4 U	7.4	< 1.4 U	0.97 J	< 1.4 U	< 1.4 U	**31**	< 1.4 U	< 2.9 U
	10/27/2016	0.70 J	2.6	< 1.0 U	< 1.0 U	7.4	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**36**	< 1.0 U	< 2.0 U
	8/1/2017	0.60 J	2.3	< 1.0 U	< 1.0 U	5.4	< 1.0 U	4.3	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	7/23/2018	0.39 J	1.7	< 1.0 U	< 1.0 U	4.5	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**21**	0.27 J	< 2.0 U
	10/6/2021	< 1.0 U	1.3	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**29**	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 2.0 U
GM-80	10/23/2007	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	0.68 J	< 1.0 U	0.21 J	4.0	< 1.0 U	< 2.0 U
	9/22/2008	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	0.93 J	< 1.0 U	0.19 J	**5.4**	< 1.0 U	< 2.0 U
	11/12/2009	0.24 J	0.55 J	< 1.0 U	< 1.0 U	3.2	< 1.0 U	1.6	< 1.0 U	0.25 J	**9.8**	< 1.0 U	< 2.0 U
	4/9/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	1.9	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	9/21/2010	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	2.6	< 1.0 U	< 1.0 U	**6.0**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.47 J	< 1.0 U	< 1.0 U	2.7	< 1.0 U	4.1	< 1.0 U	0.24 J	**5.9**	< 1.0 U	< 2.0 U
	9/5/2012	0.43 J	1.7	< 1.0 U	< 1.0 U	8.3	< 1.0 U	**5.2**	< 1.0 U	0.30 J	**13**	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.7**	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 2.0 U
	10/6/2014	0.50 J	0.66 J	< 1.0 U	< 1.0 U	2.5	< 1.0 U	3.5	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	0.96 J	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**18**	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 2.0 U
	10/27/2016	0.54 J	0.60 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**20**	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	8/1/2017	0.32 J	0.38 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**20**	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**18**	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 2.0 U
	3/27/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.76 J	< 1.0 U	**15**	< 1.0 U	< 1.0 U	3.6 B	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	**12**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
GM-81	10/23/2007	0.22 J	0.93 J	< 1.0 U	< 1.0 U	0.98 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.61 J	< 1.0 U	< 2.0 U
	4/9/2010	0.23 J	0.92 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	7/31/2017	0.26 J	1.1	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	1.1	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.19 J	1.5	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-5	7/31/2017	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	1.1 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7 J	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.64 J	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	<1.0 U	1.6	< 1.0 U	< 2.0 U
RMW-95	8/1/2017	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	1.4	< 1.0 U	0.48 J	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.57 J	< 1.0 U	0.13 J	0.38 J	0.13 J	3.4	0.33 J	< 1.0 U	1.6	< 1.0 U	0.19 J
	3/27/2019	0.43 J	0.35 J	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	2.6	< 1.0 U	< 1.0 U	0.63 JB	< 1.0 U	< 2.0 U
	7/30/2020	0.48 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.4**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	10/6/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.9**	< 1.0 U	< 1.0 U	0.69 J	< 1.0 U	< 2.0 U
RMW-96	8/2/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.95 J	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	0.80 J	< 1.0 U	**7.0**	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	3/27/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.43 J	< 1.0 U	2.0	< 1.0 U	< 1.0 U	0.44 JB	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-97	8/1/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.62 J	< 1.0 U	3.2	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U
	7/23/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.93 J	< 1.0 U	4.7	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	3/27/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	0.26 JB	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	0.57 J	< 1.0 U	< 2.0 U
RMW-98	7/10/2019	1.2	1.6	< 1.0 U	< 1.0 U	6.8	< 1.0 U	**35**	< 1.0 U	0.29 J	**8.5**	0.27 J	< 2.0 U
	2/14/2020	2.0	0.45 J	< 2.0 U	< 2.0 U	1.2 J	< 2.0 U	**62**	< 2.0 U	< 2.0 U	3.4	< 2.0 U	< 4.0 U
	7/28/2020	0.55 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**42**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	10/6/2021	1.1 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**50**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
RMW-99	7/10/2019	0.77 J	2.1	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**35**	< 1.0 U	< 1.0 U	2.3	0.26 J	< 2.0 U
	2/14/2020	1.2 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**52**	< 2.0 U	< 2.0 U	1.7 J	< 2.0 U	< 4.0 U
	7/28/2020	0.51 J	< 2.0 U	< 2.0 U	< 2.0 U	1.8 J	< 2.0 U	**46**	< 2.0 U	< 2.0 U	0.73 J	< 2.0 U	< 4.0 U
	10/6/2021	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**45**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-100	7/8/2019	< 1.0 U	0.82 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.50 J	< 2.0 U
	2/11/2020	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	0.69 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-101	7/8/2019	< 1.0 U	1.3	< 1.0 U	0.13 J	6.7	< 1.0 U	0.49 J	< 1.0 U	0.30 J	1.9	0.61 J	< 2.0 U
	2/11/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	0.14 J	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-102	7/8/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 2.0 U
	2/11/2020	< 1.0 U	1.6	< 1.0 U	< 1.0 U	10	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	0.63 J	0.30 J	< 2.0 U
	7/28/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.7**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Appendix D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
TW-2	9/26/2000	4.5	27.8	< 1.0 U	< 1.0 U	23	10	5.0	< 1.0 U	2.9	**43**	**5.9**	3.2
	11/9/2001	3.9	20	< 2.0 U	< 2.0 U	8.8	0.38 J	**8.5**	< 2.0 U	2.4	**48**	**2.7**	< 2.0 U
	9/20/2002	2.2	9.0	< 2.0 U	< 2.0 U	26	< 2.0 U	**5.9**	< 2.0 U	1.4	**70**	**2.5**	< 2.0 U
	10/2/2003	0.66 J	5.7	< 1.0 U	1.5	8.3	0.86 J	4.7	< 1.0 U	0.59	**24**	1.4	< 1.0 U
	9/14/2004	< 1.0 U	22	< 1.0 U	2.9	5.5	< 1.0 U	< 1.0 U	< 1.0 U	2.0	1.5	**2.5**	< 1.0 U
	10/20/2005	< 1.0 U	12	< 1.0 U	2.5	5.3	12	< 1.0 U	3.4	1.4	< 1.0 U	**4.4**	5.0
	9/19/2006	0.55 J	3.4	< 1.0 U	< 1.0 U	11	< 1.0 U	**7.0**	< 1.0 U	0.38 J	**32**	0.27 J	< 2.0 U
	9/18/2007	< 1.0 U	1.7	< 1.0 U	0.81 J	7.9	< 1.0 U	1.9	< 1.0 U	0.25 J	**24**	0.97 J	< 2.0 U
	9/24/2008	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 5.2 U	0.76 J	1.4	< 1.0 U	0.36 J	**7.5**	1.0	< 2.0 U
	11/11/2009	< 2.5 U	1.1 J	< 2.5 U	< 2.5 U	1.6 J	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	1.1 J	< 2.5 U	< 5.0 U
	9/28/2010	< 1.0 U	2.0	< 1.0 U	1.2	2.1	< 1.0 U	0.52 J	< 1.0 U	0.30 J	1.6	0.71 J	< 2.0 U
	9/28/2011	< 1.0 U	1.8	< 1.0 U	1.2	5.7	0.45 J	1.2	< 1.0 U	0.25 J	**5.9**	1.1	< 2.0 U
	9/6/2012	< 1.0 U	1.3	< 1.0 U	0.51 J	3.6	< 1.0 U	< 1.0 U	0.18 J	0.23 J	0.26 J	0.56 J	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/9/2014	< 1.0 U	0.48 J	< 1.0 U	< 1.0 U	0.56 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UB	0.64 J	< 2.0 U
	11/4/2015	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	< 2.0 U
	8/17/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
WSU-22	3/1/2006	3.1	1.7	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**110**	< 1.0 U	1.2 J	**88**	< 1.0 U	< 3.3 U
WSU-23	3/1/2006	2.5	0.97 J	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.1**	< 1.0 U	< 2.0 U
	11/30/2006	2.1	0.73 J	0.2 J	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U
	7/10/2019	1.7	0.86 J	< 1.0 U	< 1.0 U	0.77 J	< 1.0 U	**28**	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 2.0 U
	2/13/2020	1.4	0.62 J	< 1.0 U	< 1.0 U	0.65 J	< 1.0 U	**5.3**	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	7/28/2020	1.3 J	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**73**	< 4.0 U	< 4.0 U	3.5 J	< 4.0 U	< 8.0 U
	10/5/2021	1.1 J	< 2.0 U	< 2.0 U	< 2.0 U	1.1 J	< 2.0 U	**46**	< 2.0 U	< 2.0 U	4.8	< 2.0 U	< 4.0 U
WSU-24	9/23/1999	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U
	9/26/2000	2.1	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	1.2.	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U
	11/9/2001	2.4	0.81 J	< 1.0 U	< 1.0 U	4.0	< 1.0 U	1.6	< 1.0 U	< 0.50 U	**18**	< 1.0 U	< 1.0 U
	9/24/2002	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.2	< 1.0 U	< 0.50 U	**13**	< 1.0 U	< 1.0 U
	9/22/2003	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.0	< 1.0 U	< 0.50 U	**7.9**	< 1.0 U	< 1.0 U
	9/16/2004	0.58 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	**8.0**	< 1.0 U	< 1.0 U
	10/20/2005	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 2.0 U
	9/26/2006	0.65 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.81 J	< 1.0 U	< 1.0 U	**10**	< 1.0 U	< 2.0 U
	9/19/2007	0.66 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	**7.9**	< 1.0 U	< 2.0 U
	9/25/2008	0.62 J	0.85 J	< 1.0 U	< 1.0 U	2.4 J	< 1.0 U	1.7	< 1.0 U	0.35 J	**12 J**	< 1.0 U	< 2.0 U
	9/25/2013	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
	12/4/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.2**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.4**	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	11/16/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) - Well abandoned.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
B - Compound was found in the blank and sample.
BOLD - Result above MCL.
cis-1,2-DCE - cis-1,1-Dichloroethene.
F1 - MS and/or MSD recovery exceeds control limits.
F2 - MS/MSD Relative Percent Difference exceeds control limits.
J - Value is estimated.
K - The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high.
MCL - Maximum Contaminant Level.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.
U - Constituent not detected above laboratory reporting limit shown.
UB - Analyte considered non-detect at listed value due to associated blank contamination.
µg/L - Micrograms per Liter.
VOCs - Volatile Organic Compounds.
* - LCS or LCSD is outside acceptable limits.

Appendix D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
Upgradient of the Site													
HR-12	9/14/1999	< 1.0 UJ	2.7	< 1.0 U	1.2	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U
	9/28/2000	< 1.0 U	2.2	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.5**	< 1.0 U
	11/14/2001	< 1.0 U	3.6	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	0.23	< 1.0 U	**3.8**	< 1.0 U
	9/26/2002	< 1.0 U	2.4	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.7	< 1.0 U
	9/18/2003	< 1.0 U	1.7	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.6	< 1.0 U
	9/21/2004	< 1.0 U	1.8	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.1	< 1.0 U
	10/24/2005	< 1.0 U	2.1	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 2.0 U
	9/26/2006	< 1.0 U	2.1	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/19/2007	< 1.0 U	2.2	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2008	0.39 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	2.1	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	2.8	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	2.1	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	1.8	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	3.4	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	12/8/2015	< 1.0 U	2.4	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 2.0 U
	8/16/2016	< 1.0 U	3.1	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-88	9/26/2012	< 1.4 U	17	< 1.4 U	< 1.4 U	43	< 1.4 U	< 1.4 U	0.21 J	1.5	< 1.4 U	1.1 J	< 2.9 U
	9/27/2013	< 1.0 U	35	< 1.0 U	< 1.0 U	**75**	< 1.0 U	< 1.0 U	< 1.0 U	4.5	< 1.0 U	2.0	< 2.0 U
	10/8/2014	< 2.5 U	32	< 2.5 U	< 2.5 U	**78**	< 2.5 U	< 2.5 U	< 2.5 U	4.3	< 2.5 U	1.2 J	< 5.0 U
	8/26/2015	< 1.0 U	30	< 1.0 U	< 1.0 U	60	< 1.0 U	< 1.0 U	< 1.0 U	3.8	< 1.0 U	**3.3**	< 2.0 U
	10/30/2015	< 2.0 U	27	< 2.0 U	< 2.0 U	61	< 2.0 U	< 2.0 U	< 2.0 U	3.2	< 2.0 U	1.5 J	< 4.0 U
	8/26/2016	< 2.0 U	24	< 2.0 U	< 2.0 U	55	< 2.0 U	< 2.0 U	< 2.0 U	3.2	< 2.0 U	< 2.0 U	< 4.0 U
On-Site													
31	9/29/2000	< 1.0 U	7.4	< 1.0 U	< 1.0 U	8.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12.9**	**4.4**	< 1.0 U
	11/15/2001	< 1.0 U	3.1	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.1**	**2.5**	< 1.0 U
39	9/27/2002	< 1.0 U	1.6	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	3.8	0.51J	< 1.0 U
	9/24/2003	< 1.0 U	0.58 J	< 1.0 U	< 1.0 U	0.71	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.89 J	< 1.0 U	< 1.0 U
GM-7R	9/28/1999	4.2	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**76.1**	< 1.0 U	< 1.0 U
	8/25/2015	< 1.0 U	0.86 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**53**	< 1.0 U	0.47 J	**23**	0.60 J	< 2.0 U
GM-19D	9/28/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13.5**	1.5	< 1.0 U
	10/2/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	**15.7**	< 1.0 U
	11/14/2001	0.18 J	< 1.0 U	< 1.0 U	< 1.0 U	0.92	< 1.0 U	< 1.0 U	0.38J	< 0.50 U	3.7	**13**	< 1.0 U
	9/26/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.81	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	3.1	0.36 J	< 1.0 U
	9/25/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.24 J	**17**	< 1.0 U
	9/20/2004	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	3.5	**18**	< 1.0 U
	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	**15**	< 2.0 U
	9/26/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	**18**	< 2.0 U
	9/17/2007	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.2	**16**	< 2.0 U
	9/23/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.8**	< 2.0 U
	11/11/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	**14**	< 2.0 U
	9/27/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.98 J	**9.9**	< 2.0 U
	9/29/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	**8.6**	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	**7.4**	**2.4**	0.32 J
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	**7.8**	< 2.0 U
	10/7/2014	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	5.8	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	5.0	**4.1**	< 2.0 U
	11/4/2015	< 2.0 U	3	< 2.0 U	< 2.0 U	39	< 2.0 U	11	< 2.0 U	1.0 J	**69**	**1.0 J**	< 4.0 U
	8/16/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	0.62 J	< 1.0 U	< 1.0 U	4.9	**6.2**	< 2.0 U
GM-39	12/10/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	0.18 J	< 0.50 U	< 1.0 U	1.3	< 1.0 U
	9/20/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.8	< 1.0 U
	10/24/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	< 2.0 U
	9/27/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 2.0 U
	9/26/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	19 J	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	1.6	< 2.0 U
	10/1/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.2**	< 2.0 U
	9/27/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.68 J	< 1.0 U	< 1.0 U	0.63 J	1.5	< 2.0 U
GM-40	12/10/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	**3.1**	< 1.0 U
	9/20/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	**3.2**	< 1.0 U
	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.9**	< 2.0 U
	9/26/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.9**	< 2.0 U
	9/25/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**4.0**	< 2.0 U
	9/30/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.6**	< 2.0 U
GM-41	12/10/2003	< 11 U	< 11 U	< 11 U	< 1.0 U	10	< 11 U	< 11 U	< 11 U	< 5.6 U	**320**	< 11 U	< 11 U
	9/21/2004	< 6.2 U	< 6.2 U	< 6.2 U	< 6.2 U	24	< 6.2 U	< 6.2 U	< 6.2 U	< 3.1 U	**180**	< 6.2 U	< 6.2 U
	10/24/2005	< 10 U	< 10 U	< 10 U	< 10 U	16	< 10 U	< 10 U	< 10 U	< 10 U	**250**	< 10 U	< 20 U
	9/18/2006	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	11	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**210**	< 4.0 U	< 8.0 U
	5/3/2007	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	15	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**170**	**2.4 J**	< 13 U
	9/20/2007	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	17	< 6.7 U	< 6.7 U	< 6.7 U	1.4 J	**230**	1.9 J	< 13 U
	9/26/2008	< 7.1 U	< 7.1 U	< 7.1 U	< 7.1 U	11	< 7.1 U	< 7.1 U	< 7.1 U	< 7.1 U	**180**	< 7.1 U	< 14 U
	9/27/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	12	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	**79**	1.9	< 2.0 U
GM-42	12/9/2003	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	11	< 1.0 U	0.27 J	< 1.0 U	0.34 J	0.37 J	1.0	< 1.0 U
	9/20/2004	< 1.0 U	0.70 J	0.25 J	< 1.0 U	16	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	0.43 J	0.92 J	< 1.0 U
	10/25/2005	< 1.0 U	0.64 J	0.21 J	< 1.0 U	17	< 1.0 U	0.19 J	< 1.0 U	0.59 J	0.85 J	0.56 J	< 2.0 U
	9/26/2006	< 1.0 U	0.50 J	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	0.64 J	0.45 J	< 2.0 U
	9/25/2007	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	18	< 1.0 U	< 1.0 U	0.18 J	0.69 J	2.2	0.44 J	< 2.0 U
	9/30/2008	< 1.0 U	0.66 J	0.53 J	< 1.0 U	20	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	**9.9**	0.31 J	< 2.0 U
	9/6/2012	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	**6.4**	< 2.0 U

Appendix D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-54	9/14/2006	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**180**	< 6.7 U	< 6.7 U	3.2 J	< 6.7 U	< 13 U
	5/2/2007	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 5.0 U	2.9 J	< 5.0 U	< 10 U
	9/20/2007	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**150**	< 5.0 U	< 5.0 U	2.4 J	< 5.0 U	< 10 U
	9/30/2008	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	**190**	< 5.7 U	< 5.7 U	2.5 J	< 5.7 U	< 11 U
	11/13/2009	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 5.0 U	2.9 J	< 5.0 U	< 10 U
	1/28/2010	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 5.0 U	2.4 J	< 5.0 U	< 10 U
	9/23/2010	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	**92**	< 2.5 U	< 2.5 U	2.2 J	< 2.5 U	< 5.0 U
	9/29/2011	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**83**	< 4.0 U	< 4.0 U	2.6 J	< 4.0 U	< 8.0 U
	9/7/2012	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**64**	< 4.0 U	< 4.0 U	2.8 J	< 4.0 U	< 8.0 U
	9/26/2013	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**69**	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 2.0 U
	10/8/2014	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	**66**	< 1.7 U	< 1.7 U	< 1.7 UB	< 1.7 U	< 3.3 U
	11/3/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**62**	< 2.0 U	< 2.0 U	1.3 J	< 2.0 U	< 4.0 U
	8/18/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**61**	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
GM-58	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.73 J	< 1.0 U	4.4	0.4 J	< 1.0 U	0.72 J	< 1.0 U	< 2.0 U
	11/30/2006	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**85**	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 6.7 U
	5/3/2007	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	**82**	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	< 5.7 U
	9/20/2007	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**69**	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 6.7 U
	9/26/2008	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	**80**	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 5.0 U
	9/27/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	< 2.0 U
GM-61	9/15/2006	0.5.0 J	2.2	< 1.7 U	< 1.7 U	2.6	< 1.7 U	**20**	0.44 J	< 1.7 U	**36**	< 1.7 U	< 3.3 U
	9/26/2007	0.59 J	1.6 J	< 1.7 U	< 1.7 U	3.9	< 1.7 U	**28**	< 1.7 U	< 1.7 U	**56**	< 1.7 U	< 3.3 U
	10/1/2008	< 1.0 U	0.94 J	0.19 J	< 1.0 U	20	< 1.0 U	**13**	< 1.0 U	0.92 J	**23**	0.75 J	< 2.0 U
	9/26/2013	< 1.0 U	1.3	< 1.0 U	< 1.0 U	17	< 1.0 U	**7.2**	< 1.0 U	1.1	**5.2**	1.2	< 2.0 U
	8/26/2015	< 1.0 U	3.3	< 1.0 U	< 1.0 U	25	< 1.0 U	**32**	< 1.0 U	1.5	**12**	0.45 J	< 2.0 U
GM-67D	5/3/2007	0.59 J	3.0	0.36 J	< 1.7 U	23	< 1.7 U	**54**	< 1.7 U	0.83 J	**45**	< 1.7 U	< 3.3 U
	10/10/2014	1.2 J	3.7	< 3.3 U	< 3.3 U	**120**	< 3.3 U	0.84 J	< 3.3 U	2.6 J	**15.0**	**3.5**	< 6.7 U
	11/4/2015	2.5	6.8	1.8	< 1.0 U	**140 F1K**	< 1.0 U	1.7	< 1.0 U	4.6	**76**	0.70 J	< 2.0 U
GM-68D	5/4/2007	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	**1500**	< 50 U	< 50 U	**750**	< 50 U	< 100 U
	10/3/2008	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	14	< 5.0 U	**190**	< 5.0 U	< 5.0 U	**46**	< 5.0 U	< 10 U
	11/16/2009	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.5	< 2.0 U	**130 J**	< 2.0 U	< 2.0 U	**35**	< 2.0 U	< 4.0 U
	9/29/2010	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	3.0 J	< 3.3 U	**100**	< 3.3 U	< 3.3 U	**22**	< 3.3 U	< 6.7 U
	9/30/2011	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	1.5 J	< 1.7 U	**62**	< 1.7 U	< 1.7 U	**13**	< 1.7 U	< 3.3 U
	9/7/2012	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**49**	< 3.3 U	< 3.3 U	**6.9**	< 3.3 U	< 6.7 U
	9/26/2013	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	< 1.0 U	**45**	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 2.0 U
	10/10/2014	0.71 J	< 1.4 U	< 1.4 U	< 1.4 U	1.1 J	< 1.4 U	**36**	< 1.4 U	< 1.4 U	3.7	< 1.4 U	< 2.9 U
	11/3/2015	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**30**	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 2.0 U
	8/17/2016	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 2.0 U
GM-69	5/3/2007	< 12 U	8.7 J	< 12 U	< 12 U	29	< 12 U	**6.5 J**	< 12 U	< 12 U	**300**	< 12 U	< 24 U
GM-70	5/3/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
GM-73	10/23/2007	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**160**	< 6.7 U	< 6.7 U	**22**	< 6.7 U	< 13 U
GM-74D	9/27/2007	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	**250**	< 8.0 U	< 8.0 U	**130**	< 8.0 U	< 16 U
	4/9/2010	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	8.0	< 2.5 U	**98**	< 2.5 U	< 2.5 U	**50**	< 2.5 U	< 5.0 U
	8/24/2015	0.98 J	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**26**	< 1.0 U	< 1.0 U	**5.3**	1.3	< 2.0 U
GM-75D	9/26/2007	< 50 U	< 50 U	< 50 U	< 50 U	24 J	< 50 U	**470**	< 50 U	< 50 U	**1700 J**	< 50 U	< 100 U
	10/6/2008	< 33 U	< 33 U	< 33 U	< 33 U	**120**	< 33 U	**220**	< 33 U	< 33 U	**750**	< 33 U	< 67 U
	11/16/2009	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	15	< 5.0 U	**320**	< 5.0 U	< 5.0 U	**210**	< 5.0 U	< 10 U
	4/8/2010	< 9.1 U	< 9.1 U	< 9.1 U	< 9.1 U	19	< 9.1 U	**320**	< 9.1 U	< 9.1 U	**200**	< 9.1 U	< 18 U
	9/29/2010	< 9.1 U	< 9.1 U	< 9.1 U	< 9.1 U	12	< 9.1 U	**260**	< 9.1 U	< 9.1 U	**190**	< 9.1 U	< 18 U
	9/30/2011	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	12	< 4.0 U	**200**	< 4.0 U	< 4.0 U	**180**	**2.1 J**	< 8.0 U
	9/7/2012	< 11 U	< 11 U	< 11 U	< 11 U	31	< 11 U	**150**	< 11 U	< 11 U	**150**	**4.7 J**	< 22 U
	9/27/2013	< 1.0 U	0.40 J	0.28 J	< 1.0 U	25	< 1.0 U	**180**	< 1.0 U	0.58 J	**180**	**3.2**	< 2.0 U
	12/4/2014	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	11	< 5.7 U	**190**	< 5.7 U	< 5.7 U	**180**	< 5.7 U	< 11 U
	12/8/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	22	< 1.0 U	**140**	< 1.0 U	0.38 J	**150**	0.37 J	< 2.0 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	9.6	< 2.0 U	**200**	< 2.0 U	< 2.0 U	**220**	< 2.0 U	< 4.0 U
GM-76D	9/23/2007	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	**35**	< 1.0 U	< 1.0 U	**8.5**	< 1.0 U	< 2.0 U
	8/24/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	**27**	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	10/30/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**49**	< 2.0 U	< 2.0 U	**6.9**	< 2.0 U	< 4.0 U
GM-82	2/26/2008	< 2.0 U	2.3	< 2.0 U	< 2.0 U	47	< 2.0 U	**60**	< 2.0 U	1.9 J	**91**	< 2.0 U	< 4.0 U
	10/2/2008	1.0 J	2.4 J	0.64 J	< 3.3 U	46	< 3.3 U	**51**	< 3.3 U	2.0 J	**100**	< 3.3 U	< 6.7 U
	9/26/2013	0.49 J	1.4	0.60 J	< 1.0 U	41	< 1.0 U	**20**	< 1.0 U	1.3	**56**	**7.4**	< 2.0 U
	12/11/2015	< 2.0 U	1.5 J	< 2.0 U	< 2.0 U	30	< 2.0 U	**23**	< 2.0 U	1.2 J	**57**	0.63 J	< 4.0 U
GM-83D	2/26/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 2.0 U
	10/2/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 2.0 U
	11/11/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.1**	< 2.0 U
	9/22/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 2.0 U
	9/7/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.6**	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.0**	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.1**	< 2.0 U

Appendix D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-84	2/26/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.57 J	< 1.0 U	**5.5**	< 1.0 U	< 2.0 U
	10/2/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	11/16/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.3**	< 1.0 U	< 2.0 U
	1/27/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.4**	< 1.0 U	< 2.0 U
	9/23/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/29/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.7**	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.9	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.9	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5	< 1.0 U	< 2.0 U
	8/17/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
HR-13	9/15/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/29/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	11/14/2001	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/30/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/16/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/21/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	8/26/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
HR-14	9/15/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/30/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	8/26/2015	< 1.0 U	4.0	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.0**	0.40 J	< 2.0 U
HR-15	9/15/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U
	9/29/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U
	11/14/2001	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.86	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/30/2002	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/17/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.29 J	**14**	< 1.0 U
	9/21/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.38 J	**19**	< 1.0 U
	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	**14**	< 2.0 U
	9/25/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.50 J	**13**	< 2.0 U
	9/26/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	**15**	< 2.0 U
	9/29/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.47 J	**9.7**	< 2.0 U
	11/13/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.70 J	**6.5**	< 2.0 U
	9/24/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	**3.8**	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.78 J	**2.4**	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.87 J	1.1	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	1.4	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.71 J	1.9	< 2.0 U
	11/4/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	0.78 J	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	0.90 J	< 2.0 U
RMW-85	9/26/2012	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	**280**	< 10 U	< 10 U	**120**	< 10 U	< 20 U
	9/27/2013	0.19 J	0.84 J	0.26 J	< 1.0 U	60	< 1.0 U	**61**	< 1.0 U	0.48 J	**95**	0.31 J	< 2.0 U
	10/9/2014	< 2.0 U	< 2.0 U	< 2.0 U	0.75 J	55	< 2.0 U	**40**	< 2.0 U	1.8 J	**78**	**5.0**	< 4.0 U
	12/8/2015	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	18	< 1.0 U	**49**	< 1.0 U	< 1.0 U	**82**	0.31 J	< 2.0 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	18	< 2.0 U	**62**	< 2.0 U	< 2.0 U	**110**	< 2.0 U	< 4.0 U
RMW-86	9/26/2012	12	13	1.6 J	< 6.7 U	52	< 6.7 U	**48**	< 6.7 U	1.6 J	**190**	< 6.7 U	< 13 U
	9/26/2013	15	16	2.3	< 1.0 U	**110**	< 1.0 U	**41**	< 1.0 U	2.9	**190**	1.3	< 2.0 U
	10/8/2014	9.4	7.6	< 6.7 U	< 6.7 U	33	< 6.7 U	**29**	< 6.7 U	< 6.7 U	**140**	< 6.7 U	< 13 U
	12/8/2015	6.1	11	1.6	< 1.0 U	37	< 1.0 U	**40**	< 1.0 U	1.3	**110**	0.45 J	< 2.0 U
	8/17/2016	7.9	13	1.9	< 1.0 U	39	< 1.0 U	**59**	< 1.0 U	1.6	**120**	0.42 J	< 2.0 U
RMW-87	9/26/2012	< 1.0 U	15	< 1.0 U	0.13 J	23	< 1.0 U	< 1.0 U	0.39 J	1.3	**7.5**	0.93 J	< 2.0 U
	9/26/2013	< 1.0 U	18	< 1.0 U	< 1.0 U	43	< 1.0 U	< 1.0 U	< 1.0 U	2.2	**9.8**	1.3	< 2.0 U
	10/9/2014	< 2.2 U	13	< 2.2 U	< 2.2 U	62	< 2.2 U	< 2.2 U	< 2.2 U	2.7	**10**	< 2.2 U	< 4.4 U
	11/5/2015	< 1.0 U	7.8	< 1.0 U	< 1.0 U	58	< 1.0 U	< 1.0 U	< 1.0 U	2.1	**10**	0.42 J	< 2.0 U
	8/19/2016	< 1.0 U	7.8	< 1.0 U	< 1.0 U	43 K	< 1.0 U	< 1.0 U	< 1.0 U	2.3	**11**	0.35 J	< 2.0 U

Appendix D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
Downgradient of the Site													
DN-13	11/14/2001	1.1	2.5	< 1.0 U	< 1.0 U	6.2	< 1.0 U	< 1.0 U	< 1.0 U	0.37J	5.0	1.2	< 1.0 U
	9/27/2002	1.1	2.5	< 1.0 U	< 1.0 U	7.3	< 1.0 U	< 1.0 U	< 1.0 U	0.48J	**6.1**	1.3	< 1.0 U
	9/22/2003	1.1	2.4	< 1.0 U	< 1.0 U	6.8	< 1.0 U	0.31 J	< 1.0 U	0.4 J	**6.4**	1.1	< 1.0 U
	9/16/2004	0.84 J	2.2	< 1.0 U	< 1.0 U	6.7	< 1.0 U	0.44 J	< 1.0 U	0.49 J	**6.8**	**2.1**	< 1.0 U
	10/20/2005	1.5	2.0	< 1.0 U	< 1.0 U	5.5	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	**7.2**	**2.6**	< 2.0 U
	9/27/2006	0.51 J	1.5	< 1.0 U	< 1.0 U	6.1	< 1.0 U	0.33 J	< 1.0 U	0.41 J	**5.7**	**2.3**	< 2.0 U
	9/19/2007	0.48 J	2.0	< 1.0 U	< 1.0 U	6.4	< 1.0 U	< 1.0 U	< 1.0 U	0.4 J	3.3	**2.6**	< 2.0 U
	9/24/2008	0.63 J	< 1.7 U	< 1.0 U	< 1.0 U	6.2	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	4.5	1.4	< 2.0 U
	11/11/2009	0.77 J	2.1	< 1.0 U	< 1.0 U	7.9	< 1.0 U	0.33 J	< 1.0 U	0.50 J	**6.5**	1.7	< 2.0 U
	9/22/2010	0.48 J	1.6	< 1.0 U	< 1.0 U	6.9	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	5.0	1.3	< 2.0 U
	9/28/2011	< 1.0 U	1.5	< 1.0 U	< 1.0 U	6.3	< 1.0 U	0.40 J	< 1.0 U	0.38 J	4.8	1.3	< 2.0 U
	9/6/2012	0.99 J	2.0	< 1.0 U	< 1.0 U	7.5	< 1.0 U	0.76 J	< 1.0 U	0.47 J	**7.9**	1.2	< 2.0 U
	9/27/2013	0.93 J	1.9	< 1.0 U	< 1.0 U	6.9	< 1.0 U	0.58 J	< 1.0 U	0.55 J	**8.4**	1.1	< 2.0 U
	12/4/2014	0.86 J	1.6	< 1.0 U	< 1.0 U	5.9	< 1.0 U	3.5	< 1.0 U	0.41 J	**10**	0.79 J	< 2.0 U
	11/5/2015	0.81 J	1.3	< 1.0 U	< 1.0 U	5.5	< 1.0 U	2.5	< 1.0 U	0.42 J	**9.0**	0.70 J	< 2.0 U
	8/25/2016	0.97 J	1.3	< 1.0 U	< 1.0 U	5.6	< 1.0 U	1.5	< 1.0 U	0.37 J	**8.1**	< 1.0 U	< 2.0 U
	8/15/2017	0.93 J	1.5	< 1.0 U	< 1.0 U	5.8	< 1.0 U	2.1	< 1.0 U	0.43 J	**8.0**	0.86 J	< 2.0 U
	7/24/2018	0.52 J	1.1	< 1.0 U	< 1.0 U	4.7	< 1.0 U	1.4	< 1.0 U	0.28 J	**6.2**	0.53 J	< 2.0 U
	7/11/2019	0.66 J	1.0	< 1.0 U	< 1.0 U	4.4	< 1.0 U	0.87 J	< 1.0 U	0.23 J	**5.6**	0.30 J	< 2.0 U
	7/28/2020	0.56 J	0.96 J	< 1.0 U	< 1.0 U	4.2	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 2.0 U
	11/16/2021	0.56 J	1.3	< 1.0 U	< 1.0 U	4.5	< 1.0 U	1.4	< 1.0 U	< 1.0 U	5.0	0.50 J	< 2.0 U
	8/18/2022	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	3	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	11/8/2022	< 1.0 U	1.2	< 1.0 U	< 1.0 U	4.7	< 1.0 U	1.5	< 1.0 U	< 1.0 U	**5.5**	< 1.0 U	< 2.0 U
GM-1	9/28/1999	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	5.2	< 1.0 U	**31**	< 1.0 U	< 1.0 U
	10/2/2000	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	**37**	< 1.0 U	< 1.0 U
	11/14/2001	0.80J	0.29J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	**19**	< 1.0 U	< 1.0 U
	10/1/2002	1.3 J	0.48 J	< 1.4 U	< 1.4 U	0.95	< 1.4 U	2.3	< 1.4 U	< 0.72 U	**39**	< 1.4 U	< 1.4 U
	10/2/2003	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.0	< 1.0 U	< 0.50 U	**34**	< 1.0 U	< 1.0 U
	9/21/2004	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.1	< 1.0 U	< 0.50 U	**35**	< 1.0 U	< 1.0 U
	10/25/2005	0.95 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	9/20/2006	0.76 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	9/18/2007	0.74 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	**32**	< 1.0 U	< 2.0 U
	9/24/2008	0.69 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 2.0 U
	9/5/2012	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	**26**	< 1.0 U	< 2.0 U
	9/25/2013	0.41 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	< 1.0 U	**21**	< 1.0 U	< 2.0 U
GM-3	9/28/1999	1.7	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 1.0 U
	10/2/2000	1.0	2.1	< 1.0 U	< 1.0 U	8.3	< 1.0 U	1.5	< 1.0 U	1.1	**9.4**	< 1.0 U	< 1.0 U
	11/14/2001	0.16 J	0.95 J	< 1.0 U	< 1.0 U	2.6	< 1.0 U	0.48 J	< 1.0 U	0.25 J	2.9	< 1.0 U	< 1.0 U
	10/1/2002	0.74 J	1.8	< 1.0 U	< 1.0 U	8.9	< 1.0 U	1.4	< 1.0 U	1.2	**9.5**	0.63 J	< 1.0 U
	10/2/2003	0.96 J	1.6	< 1.0 U	< 1.0 U	5.5	0.26 J	1.7	< 1.0 U	0.77	**12**	< 1.0 U	< 1.0 U
	9/21/2004	1.0	1.8	< 1.0 U	< 1.0 U	4.9	< 1.0 U	2.0	< 1.0 U	0.75	**13**	< 1.0 U	< 1.0 U
	10/25/2005	0.83 J	1.6	< 1.0 U	< 1.0 U	4.7	< 1.0 U	2.0	< 1.0 U	0.66 J	**14**	< 1.0 U	< 2.0 U
	9/22/2006	0.59 J	2.0 J	< 1.0 UJ	< 1.0 UJ	6.1 J	< 1.0 UJ	2.1 J	< 1.0 UJ	1.0 J	**13 J**	0.27 J	< 2.0 UJ
	9/18/2007	0.67 J	1.5	< 1.0 U	< 1.0 U	3.8	< 1.0 U	1.9	< 1.0 U	0.77 J	**14**	< 1.0 U	< 2.0 U
	9/24/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 2.0 U
	9/25/2013	0.54 J	0.86 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	2.3	< 1.0 U	0.29 J	**15**	< 1.0 U	< 2.0 U
GM-4	9/28/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13.4**	< 1.0 U	< 1.0 U
GM-5	9/28/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.9	< 1.0 U	1.3	< 1.0 U	< 1.0 U
GM-9	9/24/1999	1.0	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 1.0 U
	10/3/2000	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U
	11/14/2001	0.48J	0.58J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.38 J	< 1.0 U	< 0.50 U	**8.6**	< 1.0 U	< 1.0 U
	9/30/2002	0.99J	0.48J	< 1.0 U	< 1.0 U	0.66	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**16**	< 1.0 U	< 1.0 U
	9/24/2003	1.3	0.45 J	< 1.0 U	< 1.0 U	0.56	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**20**	< 1.0 U	< 1.0 U
	9/21/2004	1.1	0.6 J	< 1.0 U	< 1.0 U	0.97	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**16**	< 1.0 U	< 1.0 U
	10/26/2005	0.85 J	0.59 J	< 1.0 U	< 1.0 U	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 2.0 U
	9/25/2006	0.44 J	0.48 J	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	9/19/2007	1.2	0.48 J	< 1.0 U	< 1.0 U	0.71 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 2.0 U
	9/24/2008	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 2.0 U
	9/22/2010	1.0	0.35 J	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	**17 J**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.50 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	9/5/2012	24	<22 U	<22 U	<22 U	7.9 J	<22 U	<22 U	<22 U	<22 U	**340**	<22 U	<44 U
	9/26/2012	1.1	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**16**	< 1.0 U	< 2.0 U
	9/25/2013	1.4	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**19**	< 1.0 U	< 2.0 U
	10/6/2014	1.2	0.39 J	< 1.0 U	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 2.0 U
	12/11/2015	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	8/17/2016	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	08/15/2017	0.84 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	7/24/2018	0.49 J	0.18 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.1**	< 1.0 U	< 2.0 U
	7/11/2019	0.51 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.0**	< 1.0 U	< 2.0 U
	7/20/2020	0.90 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U

Appendix D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

ARCADIS

Well	Date	VOCs (ug/L)										
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-11	9/24/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U
	10/2/2000	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 1.0 U	**41**	< 1.0 U	< 1.0 U
	11/14/2001	0.33J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.0	< 1.0 U	< 0.50 U	**12**	< 1.0 U	< 1.0 U
	10/1/2002	1.0	0.34J	< 1.0 U	< 1.0 U	0.62	< 1.0 U	2.2	< 1.0 U	< 0.50 U	**35**	< 1.0 U	< 1.0 U
	9/24/2003	0.96 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.2	< 1.0 U	< 0.50 U	**33**	< 1.0 U	< 1.0 U
	9/21/2004	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.1	< 1.0 U	< 0.50 U	**33**	< 1.0 U	< 1.0 U
	10/26/2005	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**32**	< 1.0 U	< 2.0 U
	9/25/2006	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	9/18/2007	0.6 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	**35**	< 1.0 U	< 2.0 U
	9/24/2008	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 2.0 U
	11/12/2009	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	**37**	< 1.0 U	< 2.0 U
	9/22/2010	0.36 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	1.1 J	< 1.4 U	< 1.4 U	**24**	< 1.4 U	< 2.9 U
	9/5/2012	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**25**	< 1.0 U	< 2.0 U
	9/25/2013	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**23**	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	8/18/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
GM-13	9/24/1999	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 1.0 U
GM-14	9/24/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
GM-15	9/24/1999	< 1.0 U	2.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.1	< 1.0 U	< 1.0 U
	10/2/2000	< 1.0 U	2.3	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 1.0 U
	11/14/2001	< 1.0 U	1.4	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	4.9	< 1.0 U	< 1.0 U
	9/27/2002	< 1.0 U	1.6	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	4.7	< 1.0 U	< 1.0 U
	9/22/2003	< 1.0 U	1.7	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.9**	< 1.0 U	< 1.0 U
	9/20/2004	< 1.0 U	1.8	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.8**	< 1.0 U	< 1.0 U
	10/26/2005	< 1.0 U	1.7	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/18/2006	< 1.0 U	1.6	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.3**	< 1.0 U	< 2.0 U
	9/25/2007	< 1.0 U	1.5	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	9/30/2008	< 1.0 U	1.1	< 1.0 U	< 1.0 U	0.79 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	9/23/2010	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	9/29/2011	< 1.0 U	1.1	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/5/2012	0.23 J	1.3	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	0.33 J	0.31 J	**6.1**	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.5	0.19 J	< 2.0 U
	10/7/2014	< 1.0 U	1.5	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	0.42 J	4.1	0.38 J	< 2.0 U
	11/4/2015	< 1.0 U	1.8	< 1.0 U	< 1.0 U	7.7	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	**6.6**	0.47 J	< 2.0 U
	8/18/2016	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	7/31/2017	< 1.0 U	2.1	< 1.0 U	< 1.0 U	7.7	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	**5.7**	0.58 J	< 2.0 U
	7/24/2018	< 1.0 U	1.9	< 1.0 U	< 1.0 U	6.6	< 1.0 U	< 1.0 U	< 1.0 U	0.66 J	**5.8**	0.50 J	< 2.0 U
	7/8/2019	< 1.0 U	2.3	< 1.0 U	< 1.0 U	9.4	< 1.0 U	< 1.0 U	< 1.0 U	0.68 J	**5.7**	0.68 J	< 2.0 U
	7/29/2020	< 1.0 U	2.6	< 1.0 U	< 1.0 U	12	< 1.0 U	< 1.0 U	< 1.0 U	0.64 J	4.5	0.56 J	< 2.0 U
GM-20D	9/24/1999	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	10/3/2000	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	11/14/2001	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/30/2002	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/22/2003	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/21/2004	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	10/26/2005	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/26/2006	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/19/2007	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/25/2008	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	11/13/2009	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/22/2010	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 2.0 U
	9/25/2013	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 2.0 U
	10/6/2014	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U
	08/15/2017	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	7/24/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	< 2.0 U
	7/11/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 1.0 U	0.48 J	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-56	9/14/2006	0.35 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.57 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J
GM-65D	5/2/2007	0.40 J	1.4	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	1.3	< 1.0 U	< 2.0 U
	1/21/2008	0.32 J	0.94 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	1/27/2010	0.88 J	1.2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U
	9/14/2018	1.7	0.33 J	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
GM-77D	9/27/2007	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	**45**	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 2.9 U
	1/28/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/17/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Appendix D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
MT-69 (1)	9/24/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/3/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/15/2001	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/30/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/27/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/24/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/27/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) - Well abandoned.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
B - Compound was found in the blank and sample.
BOLD - Result above MCL.
cis-1,2-DCE - cis-1,1-Dichloroethene.
F1 - MS and/or MSD recovery exceeds control limits.
F2 - MS/MSD Relative Percent Difference exceeds control limits.
J - Value is estimated.
K - The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high.
MCL - Maximum Contaminant Level.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.
U - Constituent not detected above laboratory reporting limit shown.
UB - Analyte considered non-detect at listed value due to associated blank contamination.
ug/L - Micrograms per Liter.
VOCs - Volatile Organic Compounds.
* - LCS or LCSD is outside acceptable limits.

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