ARCADIS Design & Consultancy for natural and built assets

Mr. Peter Quackenbush
Senior Environmental Engineer
Hazardous Waste Section
Office of Waste Management & Radiological Protection
Michigan Department of Environmental Quality
525 West Allegan Street
Constitution Hall, Atrium North
Lansing, MI 48909

Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis.com

ENVIRONMENT

Subject:
2017 Semi-Annual Groundwater Monitoring Report
RACER Lansing - Plants 2, 3 and 6
Lansing, Michigan

Date:
September 1, 2017

Contact:
Patrick Curry

Phone:
810.225.1926

Email:
Patrick.Curry@arcadis.com

Our ref:
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Dear Mr. Quackenbush:

Arcadis of Michigan, LLC (Arcadis) completed the first and second quarter 2017 gauging and groundwater monitoring activities as part of the on-going Resource Conservation and Recovery Act (RCRA) Corrective Action. The first quarter 2017 event was a quarterly sampling and gauging event and included:

- Gauging light nonaqueous phase liquid (LNAPL) wells;
- LNAPL recovery;
- Quarterly groundwater sampling and gauging activities;

The second quarter 2017 event was an annual sampling and gauging event and included:

- Gauging LNAPL wells;
- LNAPL recovery;
- Sitewide groundwater elevation gauging;
- Annual groundwater sampling activities;

Additionally, this report includes the result of the bedrock low-level 1,4-dioxane sampling, a summary of the Grand River 1,4-dioxanesampling results, and the results of the monthly LNAPL gauging and recovery proposed in the 2016 Annual Groundwater Monitoring Report (Arcadis 2017a) and implemented following the second quarter sampling event in May 2017.

All monitoring activities were completed in accordance with the Revised Interim Groundwater Monitoring Work Plan (IGMP) (Arcadis 2017a), approved by the Michigan Department of Environmental Quality (MDEQ) on February 8, 2017. Deviations from the approved sampling plan include the following:

- Monitoring well MW-03-05 was buried under gravel and could not be located during the second quarter 2017 event. MW-03-05 was uncovered and converted to stick up construction following the sampling event. Following repairs, MW-03-05 was sampled in accordance with the IGMP on June 20, 2017.

Monitoring well locations for Plants 2, 3, and 6 are included on **Figure 1, 2,** and **3**, respectively.

SITE ACTIVITIES

During the first quarter 2017 sampling event, completed March 6 and 7, 2017, groundwater elevations were collected from a total of 27 wells, including 24 wells which were also gauged for LNAPL. Groundwater samples were collected from a total of 3 monitoring wells during the first quarter sampling event. During the second quarter sampling event, site wide groundwater elevation measurements were collected from a total of 181 wells on April 24 and 25, 2017. LNAPL gauging was completed at a total of 24 wells. A total of 99 wells were sampled during the second quarter event.

The groundwater elevations and LNAPL thicknesses are summarized on **Table 1** and **Table 2**, respectively. A summary of the LNAPL removed from the wells is included as **Table 3**. Groundwater analytical results are summarized on **Table 4** with exceedances of Part 201 Drinking Water (DW) Criteria summarized on **Figures 4, 5** and **6.**

Monthly LNAPL gauging and recovery from selected wells were completed on May 26, 2017 and June 28, 2017 in accordance with the work proposed in the 2016 Annual Report (Arcadis 2017b).

LNAPL Removal

As outlined in the Summary of LNAPL Transmissivity Results memorandum provided to the MDEQ on March 30, 2015, LNAPL (Arcadis 2015a) transmissivity estimates for the monitoring wells installed in the deeper, confined LNAPL zone at Plant 2 are two to three orders of magnitude below the criterion established by MDEQ to define LNAPL that can be recovered in a cost effective and efficient manner. However, given that PCBs are present in the deeper LNAPL zone at elevated concentrations, and the LNAPL accumulates at significant thickness at several wells due to the presence of confined LNAPL conditions, LNAPL had been manually recovered from these wells on a quarterly basis, and is now being recovered monthly as of April 2017.

During both the first and second quarter events, three of the seven deeper LNAPL monitoring wells (LMW-14-12D, LMW-14-15D and LMW-15-16D) had LNAPL thickness greater than 10 feet, and a fourth LNAPL monitoring well (LMW-12-03D) contained over 1 foot of LNAPL. During the subsequent monthly LNAPL events in May and June 2017, three of the seven deeper LNAPL monitoring wells (LMW-14-12D, LMW-14-15D and LMW-15-16D) had LNAPL thickness greater than 10 feet, and a fourth LNAPL monitoring well (LMW-12-03D) contained over 2 feet of LNAPL.

The thickness of the LNAPL measured in the deeper monitoring wells during the first and second quarter of 2017 is consistent with previous monitoring events. A summary of the LNAPL recovered from the four deeper LNAPL monitoring wells indicating significant LNAPL thickness is provided as **Table 3**. Approximately 27.62 gallons of total liquid, consisting primarily of LNAPL, was recovered from the wells between January and June 2017.

LNAPL removal from monitoring well LMW-12-10 located on the north-central portion of Plant 3 began during the first quarter of 2017 as proposed in the IGMP. LMW-12-10 has shown an increasing LNAPL thickness since installation in fall 2012. The measured thickness has increased from no measurable LNAPL at the time of installation, to 11.7 feet and a complete absence of water during the first quarter 2017. Similar to the deeper LNAPL zone at Plant 2, LNAPL at LMW-12-10 is encountered under confined conditions and enters the well from a thin sand seam located at a depth of 19.5 feet below grade. LNAPL mobility testing at this location indicated a transmissivity too low to measure using standard recoverability testing. LNAPL removal was completed from LMW-12-10 during the first and second quarter events, as well as the June monthly LNAPL removal event. Due to slow LNAPL recovery following the April removal (<1 foot), LNAPL was not removed during the May event. The LNAPL recovery will continue on a monthly basis through the fourth quarter 2017. A summary of the ongoing LNAPL removal will be provided as part of the first quarter 2018 annual report.

Groundwater Sampling

During the first and second quarter sampling events, a total of 99 monitoring wells were sampled and analyzed for one or more of the following parameters:

- Target compound list (TCL) volatile organic compounds (VOCs) using USEPA Method SW8260B.
- 1,4-Dioxane using Method SW8260B-SIM.
- 1,4-Dioxane using Method 522. This is a drinking water analytical method used to provide low detection limit on select bedrock wells.
- Short metal list - arsenic, nickel, lead, vanadium, chromium, and copper - using Method SW6020A. Samples were submitted for dissolved and total metals analysis if turbidity could not be stabilized below 10 nephelometric turbidity units (NTUs).
- Chromium VI using Method SW6020A for samples collected at wells CH-14-RO and MW-91-2.

Groundwater samples were collected utilizing low-flow groundwater sampling methods with a submersible pump. With the exception of samples collected for low-level 1,4-dioxane analysis, samples were submitted under chain of custody protocol to Merit Laboratories (Merit) located in Lansing, Michigan. Samples collected for low-level 1,4-dioxane analysis by Method 522 were submitted, under chain of custody protocol, to Test America Laboratories (Test America) in Burlington, Vermont. Groundwater analytical results are summarized on **Table 4**. Groundwater low-flow sampling logs are included as **Appendix A.**

RESULTS

The second quarter 2017 sampling event was the first annual sampling event completed under the current IGMP and the results are generally consistent with previous groundwater sampling events. Of the 99 wells scheduled to be sampled, one well (MW-03-05) was buried and could not be located. MW-03-05 was later uncovered, converted to a stick up well, and sampled in accordance with the IGMP.

Exceedances of the Part 201 Residential Drinking Water (DW) Criteria are highlighted on **Table 4** and summarized on **Figures 4**, **5, and 6**. Results of the second quarter 2017 sampling event are summarized below.

- VOCs exceeding DW Criteria in at least one monitoring well during this event include benzene, ethylbenzene, vinyl chloride, total xylene, 1,1-dichloroethane, and 1,4-dioxane. This is consistent with previous groundwater investigation and monitoring results.
- Metals exceeding DW Criteria in at least one monitoring well during this event include arsenic, copper, lead, nickel and vanadium. The metals results are consistent with previous sampling events.
- Chromium VI exceeds the DW criterion at monitoring well CH-14-RO in the north central portion of Plant 3 near the former plating operation. This is consistent with previous groundwater investigation and monitoring results.

There were several detections of COCs observed in the perched zone or weathered bedrock near the property boundary. The following outlines these detections and notes the previously outlined potential reasons for the occurrence:

- MW-14-58 - 1,4-dioxane was detected at a concentration of 71 micrograms per liter (µg/L) in the perched zone near the western Plant 2 property boundary (DW criteria of 7.2 µg/L [MDEQ 2016]). As previously reported, the detections of 1,4-dioxane at this location could be associated with the perched plume at Plant 2, or commingled with the former Adam's Plating Company (APC) perched groundwater plume.
- MW-14-56, a weathered bedrock well located near the western Plant 2 property boundary. 1,4-Dioxane was detected at a concentration of 10 µg/L, above the criterion of 7.2 µg/L, during second quarter 2017. 1,4-Dioxane was detected at concentrations ranging from 6 to 9 µg/L during the past four quarterly sampling events. Based on the plume stability analysis included in the 2015-2016 Annual Groundwater Monitoring Report (Arcadis 2016a) the lower 1,4-dioxane plume at this location appears to be stable. As discussed with the MDEQ on January 2016, results along W. Genesee Street (Arcadis 2016) suggest that this detection could be related to a deeper 1,4-dioxane impact associated with the former APC.
- MW-15-73 – A weathered bedrock well installed in December 2015 located along the western property boundary of Plant 2. 1,4-Dioxane was detected at 6 µg/L during the second quarter 2017 sampling event. Previous results for 1,4-dioxane at this location have ranged from non-detect to 6 µg/L. Well MW-15-73 was installed as a replacement well for MW-13-42 and is located southeast of and in the proximity of the former APC site. Borings further west along W. Genesee Street (Arcadis

2016) suggest higher concentrations likely associated with the former APC site. This well will continue to be monitored semi-annually.

- MW-16-80 – A weathered bedrock well located at the western Plant 2 property boundary. 1,4-Dioxane was detected at 30 µg/L during the second quarter of 2017, exceeding the DW criterion of 7.2 µg/L. 1,4-Dioxane was previously detected in MW-16-80 at 46 µg/L in September 2016 and 21 µg/L in December 2016. Monitoring well MW-16-80 is located across the street from the former APC, and the detected 1,4-dioxane could be related to former APC operations. MW-16-80 was sampled following installation and development in June 2016, and 1,4-dioxane was not detected in the initial sample. This well will continue to be monitored semi-annually.
- MW-13-32 – A well located in the southeastern corner of Plant 3 within Area 16. Total nickel was detected at a concentration of 0.551 milligrams per liter (mg/L; DW criterion: 0.10 mg/L) during the second quarter of 2017; lower than the previous result of 1.99 mg/L in MW-13-32 from the first quarter 2016. In addition, well MW-13-31, located west of MW-13-32 and has sporadically indicated elevated concentrations of nickel, was below drinking water criteria with a concentration of 0.013 mg/L. Groundwater elevation in this area has indicated that a component of the groundwater flow is westerly, onto the Site. A detailed summary of the nickel occurrence at Plant 3 has been provided to the MDEQ for both soil and groundwater (Arcadis 2014, 2015b, 2015c).
- MW-12-16 – An interbedded zone well located in the southern right-of-way of Michigan Avenue and to the south of Plant 6, Area 7. Arsenic was detected at a concentration of 0.17mg/L (DW criteria of 0.01mg/L). The plume stability analysis included in the 2016 Annual Report (Arcadis 2017b) confirms an increasing trend at this location; however, concentrations appear to be stabilizing. MW-12-16 is screened in a confined sand unit at approximately 30 feet below ground surface (bgs), which intersects three other monitoring wells nearby. Groundwater elevations for these wells have consistently shown a northerly flow, onto the Site since 2014. Based on the hydraulic isolation of this well and the apparent northerly groundwater flow direction, MDEQ has agreed that arsenic at this location is related to regional background conditions and not associated with site impacts.
- Various metals, primarily arsenic, nickel, lead, and vanadium, were detected above DW Criteria near the property boundaries at several other monitoring well locations similar to previous sampling events. The plume stability assessment included in the 2016 Annual Report indicates that metals at the Site generally appear stable and are spatially limited (Arcadis 2017b).

Several notable detections of COCs were observed in recently installed weathered bedrock monitoring wells. These include:

- MW-16-81, MW-16-82, and MW-16-84 – MW-16-81 was installed, along with MW-16-82 and MW-16-84, as part of the Supplemental 1,4-Dioxane Plume Toe Investigation (Arcadis 2016b) to evaluate potential 1,4-dioxane flux from the perched plume to the lower plume. MW-16-81 is a weathered bedrock well near the southern extent of the Plant 2 LNAPL in Area 5.2. During the third and fourth quarter of 2016, concentrations of 1,4-dioxane at MW-16-81 were 230 µg/L and 290 µg/L, respectively. In the first and second quarter 2017, 1,4-dioxane was detected at concentrations of 550 µg/L and 630 µg/L, respectively. 1,4-Dioxane has not been detected in MW-16-82 (upgradient of

Plant 2 LNAPL) since a detection of 52 µg/L during initial sampling in September 2016. Concentrations in MW-16-84 (within northeast lobe northeast of the Plant 2 LNAPL) have shown a gradual increase from 29 µg/L during the fourth quarter 2016 to 47 and 46 µg/L during the first and second quarter of 2017. Arcadis will continue to sample MW-16-81 as well as MW-16-82 and MW-16-84 on a quarterly basis and will evaluate concentration trends as part of the 2017 Annual Groundwater Monitoring Report.

- MW-17-86 – A weathered bedrock well installed to the east of the northeast lobe of the lower 1,4-dioxane plume on Plant 2. 1,4-Dioxane was detected at 11 µg/L, exceeding the DW criterion of 7.2 µg/L, in April 2017. Resampling of MW-17-86 during May 2017 resulted in a 1,4-dioxane concentration of 12 µg/L. This well is interior to the Site and will continue to be monitored quarterly until 4 sampling events have been completed.

ADDITIONAL BEDROCK 1,4-DIOXANE EVALUATION

In response to low-level concentrations of 1,4-dioxane detected in several of the Lansing Board of Water & Light and Lansing Township municipal water supply wells (Arcadis 2017a), additional work was completed during the spring of 2017. Additional work included:

- Replacement of one bedrock monitoring well (MW-12-05R)
- Installation of an additional bedrock monitoring well (MW-17-87)
- Sampling of on-site bedrock wells for low-level 1,4-dioxane
- Surface water sampling for 1,4-dioxane at two locations along the Grand River

Bedrock Low-Level 1,4-dioxane Sampling

Bedrock wells at the Site have historically been non-detect for 1,4-dioxane using Method 8260-SIM using a reporting limit of 3 µg/L. The exception was monitoring well MW-12-05 that was cased to a relatively shallow depth (75 feet bgs) and intersected a portion of the weathered bedrock zone. As part of the Combined Second Quarter 2017 Workplan (Arcadis, 2017d), MW-12-05 was abandoned and replaced with bedrock monitoring well MW-12-05R cased to 100 feet bgs and completed as an open bedrock borehole to a total depth of 112 feet bgs. An additional bedrock monitoring well, MW-17-87, was installed along the western boundary of Plant 2 to fill a data gap in the bedrock monitoring network and provide an additional data point between the Site and the former APC facility, as well as between the Site and the Lansing Township municipal wells. Well MW-17-87 is cased to a depth of 100 feet bgs, similar to the nearest municipal well TW-90-03, but completed in the shallow consolidated bedrock as an open borehole to a depth of 112 feet bgs. For comparison, Township well TW-90-03 is completed as an open borehole well to 399 feet bgs.

To better understand the potential contribution of 1,4-dioxane from the site to the bedrock aquifer, the majority of bedrock wells on-site were sampled for low-level 1,4-dioxane in March and April 2017. Samples were sent to Test America for 1,4-dioxane analysis using Method 522, which yields a reporting

limit of 0.2 µg/L rather than the 3 µg/L reporting limit provided by Method 8260SIM. Analytical results for the low-level 1,4-dioxane sampling are provided on **Table 4** as well as **Figure 7**. Low-level 1,4-dioxane sampling took the place of standard 1,4-dioxane sampling (via Method 8260SIM) listed in the IGMP for the selected wells during the second quarter 2017 event. New bedrock wells MW-12-05R and MW-17-87 were resampled on May 30, 2017 to verify the low-level results.

As shown on **Figure 7**, the results of the low-level 1,4-dioxane sampling suggest a regional background condition evident from both the observed consistent low-level detections of 1,4-dioxane within the Lansing Township municipal wells, as well as on-site bedrock wells located upgradient of the lower 1,4-dioxane plume. The highest bedrock concentrations appear to be located in the Grand River Formation and decrease as the plume moves into the Saginaw Formation to the southeast. This trend is consistent with the observed bedrock conditions that show the Grand River Formation, consisting of relatively homogeneous sandstone, has less vertical anisotropy than the Saginaw Formation consisting of sandstone and heavily interbedded shale.

The low-level bedrock 1,4-dioxane sampling demonstrates consistently low concentrations of 1,4-dioxane in bedrock related to the lower 1,4-dioxane plume with a two to three order of magnitude reduction in concentration between the more permeable weathered bedrock zone (typically ranging from 5 to 10 feet thick) and the shallow competent bedrock. The results also confirm that 1,4-dioxane is not migrating off-site at concentrations above the DW Criteria of 7.2 µg/L.

Grand River Sampling

In some areas of Lansing (e.g. northwest of the RACER site) the bedrock aquifer receives recharge from the Grand River. To better understand potential source of 1,4-dioxane that may impact the bedrock aquifer, Arcadis collected surface water samples from the Grand River both to the south and north of the RACER site. A figure showing the sample locations is included as **Appendix B**. Grab samples were collected from shore using a Kemmerer discrete sampling device, as close to the midpoint of the river as practicable. Samples were shipped to Test America for analysis by Method 522 for 1,4-dioxane. The sample results indicate 1,4-dioxane was detected in the northern sample (GR-North) at an estimated concentration of 0.081 µg/L. The sample from the southern location (GR-South) was non-detect for 1,4-dioxane (<0.2 µg/L).

These results support the hypothesis that low-level 1,4-dioxane is widespread in Lansing area groundwater, and likely pervasive within the bedrock aquifer. The low-level detections of 1,4-dioxane in the region may result from several regional and/or numerous non-point sources.

CONCLUSIONS

The first quarter and second quarter 2017 monitoring results do not suggest significant changes to the Site groundwater conditions. Monitoring will continue during the third and fourth quarters of 2017 per the approved Interim Groundwater Monitoring Plan. The 2017 Annual Groundwater Monitoring Report will be prepared following the 4th quarter sampling event and will include a summary of all 2017 groundwater

monitoring activities, validated analytical reports, updated groundwater elevation contour figures, and a limited plume stability analysis.

If you should have any questions regarding the enclosed data please do not hesitate to contact me at 810.225.1926 or via email at patrick.curry@arcadis.com.

Sincerely,

Arcadis U.S., Inc.

Patrick J. Curry, P.G., C.P.G.
Principal Geologist

Copies:
John McCabe, MDEQ
Joe Rogers, MDEQ
Debra MacKenzie-Taylor, MDEQ
Dave Favero, RACER Trust
Grant Trigger, RACER Trust
Randy Seida, Westside Water
Alec Malvetis, City of Lansing
Angie Goodman, LBWL
Cheryl Louden, LBWL
David Love, Ingham County Drain Commission
Steve Haywood, Lansing Township
Lansing Public Library

Enclosures:

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2 Second Quarter 2017 Sampling Locations Plant 3

3 Second Quarter 2017 Sampling Locations Plant 6

4 Second Quarter 2017 Drinking Water Exceedances Plant 2 and W. Plant 6

5 Second Quarter 2017 Drinking Water Exceedances Plant 3

6 Second Quarter 2017 Drinking Water Exceedances Plant 6

7 Low-Level 1,4-Dioxane Sampling Results

Appendices

A First and Second Quarter 2017 Groundwater Sampling Logs

B Grand River Sampling Summary Figure

REFERENCES

Arcadis. 2014. Memorandum, Re: Area 16 Metals Summary. RACER Trust Plant 3, Lansing, Michigan. June 24.

Arcadis. 2015a. Memorandum, Re: Summary of LNAPL Transmissivity Results. RACER Trust Plant 2, Lansing, Michigan. March 30.

Arcadis. 2015b. Memorandum, Re: Area 16 Soil Risk Evaluation. RACER Trust Plant 3, Lansing, Michigan. February 4.

Arcadis. 2015c. Memorandum, Re: Area 16 Evaluation of Nickel in Groundwater. RACER Trust Plant 3, Lansing, Michigan. May 1.

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Arcadis. 2016b. Supplemental 1,4-Dioxane Plume Toe Investigation Report. RACER Trust Plant 2, Lansing, Michigan. September 21.

Arcadis. 2017a. Revised Interim Groundwater Monitoring Workplan. RACER Trust Plants 2, 3, and 6, Lansing, Michigan. January 30.

Arcadis. 2017b. 2016 Annual Groundwater Monitoring Report. RACER Trust Plants 2, 3, and 6, Lansing, Michigan. May 5.

Arcadis. 2017c. Lower 1,4-Dioxane Plume Northeast Lobe Investigation. RACER Trust Plant 2, Lansing, Michigan. February 3.

Arcadis. 2017d. Combined Second Quarter 2017 Investigation Work Plan. RACER Trust Plants 2 and 3, Lansing, Michigan. March 24.

TABLES

Table 1
Summary of Groundwater Elevations
January 2017 to June 2017
2017 Semi-Annual Groundwater Report
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

ARCADIS Design & Consultancy for natural and built assets

Well ID	Date Collected	Screened Interval Top (ft bgs)	Screened Interval Bottom (ft bgs)	Reference Elevation (TOC)	Ground Surface Elevation	Total Well Depth (ft. below TOC)	Depth to Water (ft. below TOC)	Groundwater Elevation (msl)
Plant 2								
AS-16-01	4/24/2017	72	77	862.74	862.13	75.42	61.45	801.29
AS-16-02	4/24/2017	73	78	861.96	862.17	76.42	64.81	797.15
LMW-12-01	3/7/2017	7	12	864.91	862.14	NM	9.31	855.60
LMW-12-01	4/24/2017	7	12	864.91	862.14	14.76	8.36	856.55
LMW-12-02	3/7/2017	5	10	865.25	862.17	NM	7.01	858.24
LMW-12-02	4/24/2017	5	10	865.25	862.17	12.90	6.54	858.71
LMW-12-03D	3/7/2017	17.3	22.3	864.99	862.08	NM	10.49	854.50*
LMW-12-03D	4/24/2017	17.3	22.3	864.99	862.08	NM	10.02	854.97*
LMW-12-03S	3/7/2017	4	9	864.93	862.06	NM	7.79	857.14
LMW-12-03S	4/24/2017	4	9	864.93	862.06	11.75	7.25	857.68
LMW-12-04	3/7/2017	16	21	864.94	862.12	NM	10.02	854.92
LMW-12-04	4/24/2017	16	21	864.94	862.12	23.66	9.53	855.41
LMW-12-05	3/7/2017	7	12	865.03	862.17	NM	10.81	854.22*
LMW-12-05	4/24/2017	7	12	865.03	862.17	NM	9.62	855.41*
LMW-12-06	3/7/2017	4	9	865.02	862.15	NM	7.19	857.83
LMW-12-06	4/24/2017	4	9	865.02	862.15	12.04	7.05	857.97
LMW-12-07	3/7/2017	4	9	864.13	861.50	NM	5.58	858.55
LMW-12-07	4/24/2017	4	9	864.13	861.50	11.95	5.65	858.48
LMW-12-08	3/7/2017	8	13	864.40	861.56	NM	8.27	856.13*
LMW-12-08	4/24/2017	8	13	864.40	861.56	NM	8.19	856.21*
LMW-14-12D	3/7/2017	18	23	864.59	862.11	NM	10.00	854.59*
LMW-14-12D	4/24/2017	18	23	864.59	862.11	NM	9.55	855.04*
LMW-14-13D	3/7/2017	17.5	22.5	865.03	862.06	NM	10.20	854.83
LMW-14-13D	4/24/2017	17.5	22.5	865.03	862.06	24.31	9.44	855.59
LMW-14-14D	3/7/2017	18	23	864.89	861.90	NM	12.50	852.39
LMW-14-14D	4/24/2017	18	23	864.89	861.90	25.05	11.90	852.99
LMW-14-15D	3/7/2017	18	23	865.11	861.66	22.60	NM	NM
LMW-14-15D	4/24/2017	18	23	865.11	861.66	22.50	NM	NM
LMW-15-16D	3/7/2017	19.5	24.5	865.20	862.24	NM	13.20	852.00*
LMW-15-16D	4/24/2017	19.5	24.5	865.20	862.24	NM	12.63	852.57*
LMW-15-17D	3/7/2017	20	25	865.21	862.24	NM	10.45	854.76
LMW-15-17D	4/24/2017	20	25	865.21	862.24	27.28	4.80	860.41
MW-01(2)	4/24/2017	10	20	875.79	876.10	15.95	6.49	869.30
MW-02(2)	4/24/2017	12	22	875.96	876.20	21.20	8.40	867.56
MW-03(2)	4/24/2017	12	22	876.70	876.79	19.15	6.80	869.90
MW-12-01	4/24/2017	87	110	867.94	865.46	111.10	78.60	789.34
MW-12-02	4/24/2017	87	110	853.91	851.88	97.10	68.75	785.16
MW-12-05R	4/24/2017	100	112	864.79	862.30	115.50	77.35	787.44
MW-12-06	4/24/2017	80.6	99.5	864.64	861.69	89.00	76.15	788.49
MW-12-07	4/24/2017	10	15	872.11	869.21	17.75	5.99	866.12
MW-12-08	4/24/2017	19	24	864.53	861.55	27.43	5.74	858.79
MW-12-09	4/24/2017	14	19	863.54	860.63	21.65	13.21	850.33
MW-12-17	4/24/2017	9.5	14.5	875.47	875.83	14.00	5.72	869.75
MW-12-18	4/24/2017	28	33	866.43	864.19	34.85	22.74	843.69
MW-13-42	4/24/2017	70	75	861.61	860.03	78.00	74.91	786.70
MW-13-43	4/24/2017	72	77	863.82	860.97	80.60	70.36	793.46
MW-13-44	4/24/2017	96	115	864.24	861.03	122.50	78.64	785.60
MW-13-45	4/24/2017	72	77	863.80	861.54	79.60	69.31	794.49
MW-13-51	4/24/2017	77	87	875.34	872.51	89.79	73.99	801.35
MW-14-54	4/24/2017	14	19	865.21	862.21	19.07	12.71	852.50
MW-14-55	4/24/2017	13	18	864.17	861.73	20.05	15.73	848.44
MW-14-56	4/24/2017	71	76	863.27	860.56	79.02	73.20	790.07
MW-14-57	4/24/2017	15	20	863.97	861.10	21.40	12.57	851.40
MW-14-58	4/24/2017	22	27	863.12	860.12	29.92	13.65	849.47
MW-14-59	4/24/2017	12	17	864.61	861.80	18.85	7.16	857.45
MW-14-60	4/24/2017	15	20	864.65	861.80	23.55	12.36	852.29

Table 1
Summary of Groundwater Elevations
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ARCADIS Design & Consultancy for natural and built assets

Well ID	Date Collected	Screened Interval Top (ft bgs)	Screened Interval Bottom (ft bgs)	Reference Elevation (TOC)	Ground Surface Elevation	Total Well Depth (ft. below TOC)	Depth to Water (ft. below TOC)	Groundwater Elevation (msl)
MW-14-61	4/24/2017	70	75	865.51	862.30	78.30	72.06	793.45
MW-14-62	4/24/2017	12	17	865.17	862.25	19.63	5.80	859.37
MW-14-63	4/24/2017	68	73	854.64	851.68	77.60	68.82	785.82
MW-15-72	4/24/2017	63	68	865.09	862.35	71.30	59.67	805.42
MW-15-73	4/24/2017	78	83	861.56	859.12	82.20	74.69	786.87
MW-16-74	4/24/2017	66	71	864.81	862.10	73.70	68.32	796.49
MW-16-75	4/24/2017	66	71	864.87	862.13	74.10	65.41	799.46
MW-16-76	4/24/2017	70	75	867.76	865.12	82.15	67.61	800.15
MW-16-77	4/24/2017	66	71	866.17	863.42	74.12	64.85	801.32
MW-16-78	4/24/2017	68	73	864.98	862.09	76.20	68.51	796.47
MW-16-79	4/24/2017	68	73	864.80	862.07	76.20	70.50	794.30
MW-16-80	4/24/2017	68	73	853.03	853.41	74.20	66.83	786.20
MW-16-81	3/6/2017	70	75	864.68	862.04	77.35	69.78	794.90
MW-16-81	4/24/2017	70	75	864.68	862.04	78.30	69.24	795.44
MW-16-82	3/6/2017	70	75	864.79	862.10	77.20	70.41	794.38
MW-16-82	4/24/2017	70	75	864.79	862.10	78.30	69.75	795.04
MW-16-83	4/24/2017	71	76	862.97	860.17	79.50	75.00	787.97
MW-16-84	3/6/2017	72	77	864.09	861.81	81.15	74.49	789.60
MW-16-84	4/24/2017	72	77	864.09	861.81	82.00	73.74	790.35
MW-16-85	4/24/2017	74	79	864.77	861.87	83.30	74.83	789.94
MW-17-86	4/24/2017	73	78	864.55	861.92	82.20	71.24	793.31
MW-17-87	4/24/2017	100	112	862.82	860.44	106.00	75.34	787.48
P2-MW-01	4/24/2017	31	36	858.00	858.35	35.80	14.66	843.34
P2-MW-02	4/24/2017	31	41	872.24	872.70	40.22	37.01	835.23
P2-MW-03	4/24/2017	27	32	854.18	854.66	27.20	9.03	845.15
P2-MW-04	4/24/2017	26	36	862.28	862.59	35.70	10.02	852.26
P2-SB-03	4/24/2017	14	19	863.89	861.03	22.05	15.73	848.16
P2-SB-06	4/24/2017	24	29	866.06	862.09	33.62	18.48	847.58
P2-SB-20	4/24/2017	8	13	864.46	861.12	16.20	8.27	856.19
P2-SB-37	3/7/2017	5	10	865.90	861.90	NM	6.01	859.89*
P2-SB-37	4/24/2017	5	10	865.90	861.90	NM	5.85	860.05*
PMW-01	3/7/2017	2.59	7.59	860.85	861.33	NM	2.11	858.74*
PMW-01	4/24/2017	2.59	7.59	860.85	861.33	NM	2.02	858.83*
PMW-02	3/7/2017	2.59	7.59	860.94	861.33	NM	0.00	860.94*
PMW-02	4/24/2017	2.59	7.59	860.94	861.33	7.50	1.23	859.71
PMW-03	3/7/2017	1.2	6.2	861.59	862.12	NM	2.35	859.24
PMW-03	4/24/2017	1.2	6.2	861.59	862.12	6.01	2.01	859.58
PW-14-01	4/24/2017	71.6	76.8	864.97	862.38	85.65	65.85	799.12
PW-14-02	4/24/2017	75	80	863.87	860.93	88.10	70.05	793.82
TW-14-01	4/24/2017	70	75	865.08	862.27	78.20	66.04	799.04
TW-14-02	4/24/2017	67	72	865.01	862.13	74.19	63.90	801.11
TW-16-01	4/24/2017	73	78	861.81	862.16	78.00	63.78	798.03
Plant 3								
CH-14-RO	4/24/2017	7	12	866.44	863.68	14.84	6.94	859.50
LMW-12-09	3/6/2017	3	8	863.22	860.40	10.75	4.25	858.97
LMW-12-09	4/24/2017	3	8	863.22	860.40	10.75	4.29	858.93
LMW-12-10	3/6/2017	14	19	866.82	863.60	21.40	NM	NM
LMW-12-10	4/24/2017	14	19	866.82	863.60	NM	9.13	857.69*
LMW-12-11	3/6/2017	15	20	866.53	863.53	22.85	11.91	854.62
LMW-12-11	4/24/2017	15	20	866.53	863.53	22.84	11.06	855.47
MW-02-01(3)	4/24/2017	59	69	865.54	863.35	72.11	54.06	811.48
MW-02-02(3)	4/24/2017	74	84	862.70	863.11	84.11	66.83	795.87
MW-02-03(3)	4/24/2017	79	89	859.63	859.90	90.10	64.37	795.26
MW-02-04(3)	4/24/2017	76	86	862.61	862.93	84.19	64.31	798.30
MW-04(3)	4/24/2017	10.5	15.5	859.40	859.79	15.73	3.94	855.46
MW-04-01(3)	4/24/2017	95	105	862.61	862.93	106.20	53.39	809.22
MW-04-02(3)	4/24/2017	126	136	861.09	861.26	133.80	66.58	794.51

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MW-04-03(3)	4/24/2017	80	90	860.72	861.00	88.19	65.25	795.47
MW-04-04(3)	4/24/2017	72	82	855.72	856.11	82.15	59.93	795.79
MW-05(3)	4/24/2017	10	15	859.02	859.79	15.21	3.83	855.19
MW-06(3)	4/24/2017	6.5	11.5	859.52	859.79	11.52	2.74	856.78
MW-12-04	4/25/2017	77	100	844.08	844.26	99.96	50.46	793.62
MW-12-19	4/24/2017	5	10	859.55	859.96	8.90	5.79	853.76
MW-12-20	4/24/2017	75	80	864.20	861.45	79.49	68.64	795.56
MW-12-21	4/24/2017	70	75	864.50	861.45	78.03	68.24	796.26
MW-13-22	4/24/2017	89	94	864.37	861.50	97.32	71.07	793.30
MW-13-23	4/24/2017	69	74	864.31	861.45	78.20	72.34	791.97
MW-13-24	4/27/2017	69	74	864.35	861.48	77.33	67.69	796.66
MW-13-25	4/24/2017	67	72	863.77	860.49	75.04	69.60	794.17
MW-13-26	4/24/2017	72	77	863.95	861.67	79.15	67.56	796.39
MW-13-27	4/24/2017	67	72	864.50	861.54	75.88	71.24	793.26
MW-13-28	4/24/2017	99	115.5	864.42	861.61	118.45	71.73	792.69
MW-13-29	4/24/2017	68	73	862.81	859.81	76.30	69.72	793.09
MW-13-30	4/24/2017	72	77	864.53	861.66	79.71	69.79	794.74
MW-13-31	4/24/2017	5	10	861.27	858.36	12.80	7.29	853.98
MW-13-32	4/24/2017	5	10	860.11	857.32	12.64	6.03	854.08
MW-13-33	4/24/2017	12	17	860.71	857.69	19.14	8.69	852.02
MW-13-34	4/25/2017	74	79	853.92	851.82	79.93	67.09	786.83
MW-13-37	4/24/2017	97	112	866.02	863.75	118.20	72.98	793.04
MW-13-38	4/24/2017	107	124	866.47	863.71	131.30	73.83	792.64
MW-13-39B	4/24/2017	97	112	860.20	857.33	109.71	67.42	792.78
MW-13-40	4/24/2017	72	77	862.67	859.69	79.25	64.71	797.96
MW-13-41	4/24/2017	77	82	866.38	863.68	81.83	65.11	801.27
MW-13-46	4/25/2017	68	73	854.54	852.12	74.63	65.89	788.65
MW-13-47	4/24/2017	99	119	853.74	851.89	114.18	66.84	786.90
MW-13-48	4/25/2017	65	70	854.83	852.17	73.06	61.43	793.40
MW-13-49	4/25/2017	73	78	853.01	850.55	81.65	67.25	785.76
MW-14-64	4/24/2017	98.6	103.6	864.56	861.77	107.94	71.23	793.33
MW-14-65	4/24/2017	5	10	866.34	863.71	13.20	6.25	860.09
MW-15-71	4/24/2017	110	115	864.56	861.58	119.45	69.16	795.40
MW-19	4/24/2017	55	65	859.74	859.92	64.95	53.90	805.84
MW-22	4/24/2017	52.5	62.5	859.69	860.08	63.95	52.97	806.72
MW-88-1	4/24/2017	103.5	140	858.75	859.06	139.65	70.59	788.16
MW-91-2	4/24/2017	68	78	863.62	863.88	81.40	61.49	802.13
MW-91-3	4/24/2017	105	117	860.81	859.35	120.59	71.09	789.72
MW-91-4	4/24/2017	116	132.5	855.59	855.93	132.89	61.63	793.96
MW-91-5	4/24/2017	112.5	128	860.61	861.20	126.33	65.19	795.42
MW-91-6	4/25/2017	82	98	851.84	852.22	95.78	63.11	788.73
P3-SB-07	4/24/2017	11	16	866.84	863.63	19.64	8.76	858.08
P3-SB-28	4/24/2017	8	13	866.43	863.63	10.36	5.20	861.23
PW-14-03	4/24/2017	85	90	864.31	861.55	102.00	73.56	790.75
UNK-09	4/24/2017	11	16	859.42	860.02	15.28	2.48	856.94
UNK-10	4/24/2017	11	16	859.34	860.05	15.33	2.83	856.51
UNK-11	4/24/2017	6.5	11.5	859.91	860.17	11.82	4.29	855.62
UNK-13	3/6/2017	11	16	859.11	859.91	14.95	3.98	855.13
UNK-13	4/24/2017	11	16	859.11	859.91	14.96	3.89	855.22
UNK-14	3/6/2017	10.4	15.4	859.32	859.70	NM	3.02	856.12*
UNK-14	4/24/2017	10.4	15.4	859.32	859.70	NM	2.95	856.37*
UNK-15	4/24/2017	11	16	859.56	859.94	NM	2.50	857.06
Plant 6								
MW-02-01(6)	4/24/2017	35	45	865.54	863.35	40.08	27.55	837.99
MW-02-02(6)	4/24/2017	35	45	868.04	868.41	43.39	29.93	838.11
MW-02-03(6)	4/27/2017	35	45	869.54	869.97	44.62	30.72	838.82
MW-03-02	4/24/2017	30	40	864.52	864.76	39.35	21.98	842.54

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MW-03-04	4/24/2017	33	43	865.28	865.53	42.69	22.12	843.16
MW-03-05	4/24/2017	35	45	868.90	869.14	NM	NM	NM
MW-03-06	4/24/2017	30	40	870.45	870.80	40.57	36.20	834.25
MW-03-07	4/24/2017	30	40	866.88	867.02	40.50	26.16	840.72
MW-03-08	4/27/2017	35	45	869.03	869.39	44.93	33.38	835.65
MW-04-01(6)	4/24/2017	78	88	866.85	867.15	87.97	75.65	791.20
MW-04-04R	4/24/2017	82	110	873.31	870.64	111.08	81.43	791.88
MW-04-05(6)	4/24/2017	20	30	858.33	858.87	29.63	9.52	848.81
MW-04-06R	4/24/2017	74	99.5	861.56	858.59	78.02	71.01	790.55
MW-12-03	4/24/2017	57	80	859.10	856.71	82.31	68.80	790.30
MW-12-10	4/24/2017	8	13	860.89	858.82	17.97	10.29	850.60
MW-12-11	4/24/2017	13	18	857.26	857.68	16.79	2.06	855.20
MW-12-12	4/24/2017	13	18	874.34	874.61	17.21	6.28	868.06
MW-12-13	4/24/2017	18.5	23.5	882.60	880.51	25.41	9.80	872.80
MW-12-14	4/24/2017	25	30	872.56	869.28	32.05	23.94	848.62
MW-12-15	4/24/2017	18	23	865.23	865.49	22.66	19.66	845.57
MW-12-16	4/24/2017	28	33	864.24	864.73	32.18	22.99	841.25
MW-13-35	4/24/2017	25	30	864.81	865.23	29.50	23.74	841.07
MW-13-36R	4/24/2017	5.5	10.5	878.04	875.28	12.78	4.89	873.15
MW-13-50	4/24/2017	85	107	872.85	869.93	109.87	82.04	790.81
MW-13-52	4/24/2017	70	80	872.50	869.84	81.45	70.43	802.07
MW-13-53	4/24/2017	73	83	875.56	873.10	85.45	77.02	798.54
MW-14-66	4/24/2017	14	19	877.85	874.73	22.22	5.27	872.58
MW-14-67	4/24/2017	13	18	877.76	875.07	20.84	4.73	873.03
MW-14-68	4/24/2017	36	41	878.44	875.42	44.08	DRY	DRY
MW-14-69	4/24/2017	41	46	883.62	880.72	48.99	DRY	DRY
MW-14-70	4/24/2017	16	21	882.79	880.08	23.12	9.60	873.19
MWBP-10-UST5-6	4/24/2017	28	38	867.70	867.99	36.85	30.73	836.97
MWBP-11-UST1-4	4/24/2017	9	19	868.66	869.07	11.22	2.65	866.01
MWBP-12A-UST1-4	4/24/2017	28	38	869.74	869.96	36.72	29.29	840.45
MWBP-12-UST1-4	4/24/2017	15	25	870.02	870.58	11.24	7.90	862.12
MWBP-12-UST5-6	4/24/2017	28	38	NM	NM	38.50	32.28	NM
MWBP-13A-UST1-4	4/24/2017	28	38	869.99	870.10	37.99	32.41	837.58
P6-MW-01	4/24/2017	23	28	870.10	866.87	31.23	28.96	841.14
P6-SB-07	4/24/2017	15	20	877.36	874.36	23.62	5.45	871.91
P6-SB-18	4/24/2017	3	8	878.46	874.60	12.15	4.46	874.00
P6-SB-21	4/24/2017	3	8	874.20	870.92	11.12	2.64	871.56
P6-SB-35	4/24/2017	3	8	877.76	874.28	11.97	3.96	873.80
P6-SB-37	4/24/2017	5	10	878.12	874.32	13.93	4.43	873.69
SME-MW-02	4/24/2017	33	38	869.30	NS	37.28	33.26	836.04

Notes:
* Groundwater elevations have been corrected for the presence of LNAPL using a measured LNAPL density of 0.8995 grams per milliliter.
NM = not collected or not available
ft bgs = feet below ground surface
ID = identification
NS = not surveyed
TOC = top of casing

Table 2
Summary of LNAPL Thickness
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Plant 2								
AS-16-01	4/24/2017	862.74	862.13	75.42	61.45	NP	NP	801.29
AS-16-02	4/24/2017	861.96	862.17	76.42	64.81	NP	NP	797.15
LMW-12-01	3/7/2017	864.91	862.14	NM	9.31	NP	NP	855.60
LMW-12-01	4/24/2017	864.91	862.14	14.76	8.36	NP	NP	856.55
LMW-12-02	3/7/2017	865.25	862.17	NM	7.01	NP	NP	858.24
LMW-12-02	4/24/2017	865.25	862.17	12.90	6.54	NP	NP	858.71
LMW-12-03D	3/7/2017	864.99	862.08	NM	10.49	10.11	3.79	854.5*
LMW-12-03D	4/24/2017	864.99	862.08	NM	10.02	9.75	2.70	854.97*
LMW-12-03D	5/26/2017	864.99	862.08	NM	12.35	10.40	1.95	854.39*
LMW-12-03D	6/28/2017	864.99	862.08	NM	13.51	11.10	2.41	853.65*
LMW-12-03S	3/7/2017	864.93	862.06	NM	7.79	NP	NP	857.14
LMW-12-03S	4/24/2017	864.93	862.06	11.75	7.25	NP	NP	857.68
LMW-12-04	3/7/2017	864.94	862.12	NM	10.02	NP	NP	854.92
LMW-12-04	4/24/2017	864.94	862.12	23.66	9.53	NP	NP	855.41
LMW-12-05	3/7/2017	865.03	862.17	NM	10.81	10.78	0.32	854.22*
LMW-12-05	4/24/2017	865.03	862.17	NM	9.62	9.60	0.15	855.41*
LMW-12-06	3/7/2017	865.02	862.15	NM	7.19	NP	NP	857.83
LMW-12-06	4/24/2017	865.02	862.15	12.04	7.05	NP	NP	857.97
LMW-12-07	3/7/2017	864.13	861.50	NM	5.58	NP	NP	858.55
LMW-12-07	4/24/2017	864.13	861.50	11.95	5.65	NP	NP	858.48
LMW-12-08	3/7/2017	864.40	861.56	NM	8.27	8.08	1.92	856.13*
LMW-12-08	4/24/2017	864.40	861.56	NM	8.19	8.03	1.62	856.21*
LMW-14-12D	3/7/2017	864.59	862.11	NM	10.00	8.35	16.45	854.59*
LMW-14-12D	4/24/2017	864.59	862.11	NM	9.55	7.85	16.94	855.04*
LMW-14-12D	5/26/2017	864.59	862.11	NM	24.80	8.41	16.39	854.53*
LMW-14-12D	6/28/2017	864.59	862.11	NM	24.82	9.26	15.56	853.77*
LMW-14-13D	3/7/2017	865.03	862.06	NM	10.20	NP	NP	854.83
LMW-14-13D	4/24/2017	865.03	862.06	24.31	9.44	NP	NP	855.59
LMW-14-13D	5/26/2017	865.03	862.06	NM	9.98	NP	NP	855.05
LMW-14-13D	6/28/2017	865.03	862.06	NM	10.79	NP	NP	854.24
LMW-14-14D	3/7/2017	864.89	861.90	NM	12.50	NP	NP	852.39
LMW-14-14D	4/24/2017	864.89	861.90	25.05	11.90	NP	NP	852.99
LMW-14-14D	5/26/2017	864.89	861.90	NM	12.11	NP	NP	852.78
LMW-14-14D	6/28/2017	864.89	861.90	NM	12.75	NP	NP	852.14
LMW-14-15D	3/7/2017	865.11	861.66	22.60	NA	9.19	NA	NA
LMW-14-15D	4/24/2017	865.11	861.66	22.50	NA	9.60	NA	NA
LMW-14-15D	5/26/2017	865.11	861.66	NM	22.65	9.96	12.69	853.87*
LMW-14-15D	6/28/2017	865.11	861.66	NM	22.63	10.61	12.02	853.29*
LMW-15-16D	3/7/2017	865.20	862.24	NM	13.20	12.30	8.95	852.00*
LMW-15-16D	4/24/2017	865.20	862.24	NM	22.73	11.50	11.23	852.57*
LMW-15-16D	5/26/2017	865.20	862.24	NM	24.10	11.56	12.54	852.38*
LMW-15-16D	6/28/2017	865.20	862.24	NM	18.40	13.13	5.27	851.54*
LMW-15-17D	3/7/2017	865.21	862.24	NM	10.45	NP	NP	854.76
LMW-15-17D	4/24/2017	865.21	862.24	27.28	4.80	NP	NP	860.41
LMW-15-17D	5/26/2017	865.21	862.24	NM	11.46	NP	NP	853.75
LMW-15-17D	6/28/2017	865.21	862.24	27.31	11.16	NP	NP	854.05
MW-01(2)	4/24/2017	875.79	876.10	15.95	6.49	NP	NP	869.30
MW-02(2)	4/24/2017	875.96	876.20	21.20	8.40	NP	NP	867.56
MW-03(2)	4/24/2017	876.70	876.79	19.15	6.80	NP	NP	869.90
MW-12-01	4/24/2017	867.94	865.46	111.10	78.60	NP	NP	789.34
MW-12-02	4/24/2017	853.91	851.88	97.10	68.75	NP	NP	785.16
MW-12-05R	4/24/2017	864.79	862.30	115.50	77.35	NP	NP	787.44
MW-12-06	4/24/2017	864.64	861.69	89.00	76.15	NP	NP	788.49

Table 2
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Well ID	Date Collected	Reference Elevation (TOC)	Ground Surface Elevation	Total Well Depth (ft. below TOC)	Depth to Water (ft. below TOC)	Depth to LNAPL (ft. below TOC)	Calc. Thickness NAPL (ft)	Groundwater Elevation (msl)
MW-12-07	4/24/2017	872.11	869.21	17.75	5.99	NP	NP	866.12
MW-12-08	4/24/2017	864.53	861.55	27.43	5.74	NP	NP	858.79
MW-12-09	4/24/2017	863.54	860.63	21.65	13.21	NP	NP	850.33
MW-12-17	4/24/2017	875.47	875.83	14.00	5.72	NP	NP	869.75
MW-12-18	4/24/2017	866.43	864.19	34.85	22.74	NP	NP	843.69
MW-13-42	4/24/2017	861.61	860.03	78.00	74.91	NP	NP	786.70
MW-13-43	4/24/2017	863.82	860.97	80.60	70.36	NP	NP	793.46
MW-13-44	4/24/2017	864.24	861.03	122.50	78.64	NP	NP	785.60
MW-13-45	4/24/2017	863.80	861.54	79.60	69.31	NP	NP	794.49
MW-13-51	4/24/2017	875.34	872.51	89.79	73.99	NP	NP	801.35
MW-14-54	4/24/2017	865.21	862.21	19.07	12.71	NP	NP	852.50
MW-14-55	4/24/2017	864.17	861.73	20.05	15.73	NP	NP	848.44
MW-14-56	4/24/2017	863.27	860.56	79.02	73.20	NP	NP	790.07
MW-14-57	4/24/2017	863.97	861.10	21.40	12.57	NP	NP	851.40
MW-14-58	4/24/2017	863.12	860.12	29.92	13.65	NP	NP	849.47
MW-14-59	4/24/2017	864.61	861.80	18.85	7.16	NP	NP	857.45
MW-14-60	4/24/2017	864.65	861.80	23.55	12.36	NP	NP	852.29
MW-14-61	4/24/2017	865.51	862.30	78.30	72.06	NP	NP	793.45
MW-14-62	4/24/2017	865.17	862.25	19.63	5.80	NP	NP	859.37
MW-14-63	4/24/2017	854.64	851.68	77.60	68.82	NP	NP	785.82
MW-15-72	4/24/2017	865.09	862.35	71.30	59.67	NP	NP	805.42
MW-15-73	4/24/2017	861.56	859.12	82.20	74.69	NP	NP	786.87
MW-16-74	4/24/2017	864.81	862.10	73.70	68.32	NP	NP	796.49
MW-16-75	4/24/2017	864.87	862.13	74.10	65.41	NP	NP	799.46
MW-16-76	4/24/2017	867.76	865.12	82.15	67.61	NP	NP	800.15
MW-16-77	4/24/2017	866.17	863.42	74.12	64.85	NP	NP	801.32
MW-16-78	4/24/2017	864.98	862.09	76.20	68.51	NP	NP	796.47
MW-16-79	4/24/2017	864.80	862.07	76.20	70.50	NP	NP	794.30
MW-16-80	4/24/2017	853.03	853.41	74.20	66.83	NP	NP	786.20
MW-16-81	3/6/2017	864.68	862.04	77.35	69.78	NP	NP	794.90
MW-16-81	4/24/2017	864.68	862.04	78.30	69.24	NP	NP	795.44
MW-16-82	3/6/2017	864.79	862.10	77.20	70.41	NP	NP	794.38
MW-16-82	4/24/2017	864.79	862.10	78.30	69.75	NP	NP	795.04
MW-16-83	4/24/2017	862.97	860.17	79.50	75.00	NP	NP	787.97
MW-16-84	3/6/2017	864.09	861.81	81.15	74.49	NP	NP	789.60
MW-16-84	4/24/2017	864.09	861.81	82.00	73.74	NP	NP	790.35
MW-16-85	4/24/2017	864.77	861.87	83.30	74.83	NP	NP	789.94
MW-17-86	4/24/2017	864.55	861.92	82.20	71.24	NP	NP	793.31
MW-17-87	4/24/2017	862.82	860.44	106.00	75.34	NP	NP	787.48
P2-MW-01	4/24/2017	858.00	858.35	35.80	14.66	NP	NP	843.34
P2-MW-02	4/24/2017	872.24	872.70	40.22	37.01	NP	NP	835.23
P2-MW-03	4/24/2017	854.18	854.66	27.20	9.03	NP	NP	845.15
P2-MW-04	4/24/2017	862.28	862.59	35.70	10.02	NP	NP	852.26
P2-SB-03	4/24/2017	863.89	861.03	22.05	16.53	NP	NP	847.36
P2-SB-06	4/24/2017	866.06	862.09	33.62	18.48	NP	NP	847.58
P2-SB-20	4/24/2017	864.46	861.12	16.20	8.27	NP	NP	856.19
P2-SB-37	3/7/2017	865.90	861.90	NM	6.01	5.90	1.10	859.89*
P2-SB-37	4/24/2017	865.90	861.90	NM	5.85	5.75	1.03	860.05*
PMW-01	3/7/2017	860.85	861.33	NM	2.11	1.89	2.16	858.74*
PMW-01	4/24/2017	860.85	861.33	NM	2.02	1.70	3.15	858.83*
PMW-02	3/7/2017	860.94	861.33	NM	0.00	0.00	0.02	860.94*
PMW-02	4/24/2017	860.94	861.33	7.50	1.23	NP	NP	859.71
PMW-03	3/7/2017	861.59	862.12	NM	2.35	NP	NP	859.24
PMW-03	4/24/2017	861.59	862.12	6.01	2.01	NP	NP	859.58

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PW-14-01	4/24/2017	864.97	862.38	85.65	65.85	NP	NP	799.12
PW-14-02	4/24/2017	863.87	860.93	88.10	70.05	NP	NP	793.82
TW-14-01	4/24/2017	865.08	862.27	78.20	66.04	NP	NP	799.04
TW-14-02	4/24/2017	865.01	862.13	74.19	63.90	NP	NP	801.11
TW-16-01	4/24/2017	861.81	862.16	78.00	63.78	NP	NP	798.03
Plant 3								
CH-14-RO	4/24/2017	866.44	863.68	14.84	6.94	NP	NP	859.50
LMW-12-09	3/6/2017	863.22	860.40	10.75	4.25	NP	NP	858.97
LMW-12-09	4/24/2017	863.22	860.40	10.75	4.29	NP	NP	858.93
LMW-12-10	3/6/2017	866.82	863.60	21.40	NM	9.70	NM	NM
LMW-12-10	4/24/2017	866.82	863.60	NM	9.13	8.38	7.44	857.69*
LMW-12-10	5/26/2017	866.82	863.60	NM	10.32	9.65	0.67	857.10*
LMW-12-10	6/28/2017	866.82	863.60	NM	11.15	10.04	1.11	856.67*
LMW-12-11	3/6/2017	866.53	863.53	22.85	11.91	NP	NP	854.62
LMW-12-11	4/24/2017	866.53	863.53	22.84	11.06	NP	NP	855.47
MW-02-01(3)	4/24/2017	865.54	863.35	72.11	54.06	NP	NP	811.48
MW-02-02(3)	4/24/2017	862.70	863.11	84.11	66.83	NP	NP	795.87
MW-02-03(3)	4/24/2017	859.63	859.90	90.10	64.37	NP	NP	795.26
MW-02-04(3)	4/24/2017	862.61	862.93	84.19	64.31	NP	NP	798.30
MW-04(3)	4/24/2017	859.40	859.79	15.73	3.94	NP	NP	855.46
MW-04-01(3)	4/24/2017	862.61	862.93	106.20	53.39	NP	NP	809.22
MW-04-02(3)	4/24/2017	861.09	861.26	133.80	66.58	NP	NP	794.51
MW-04-03(3)	4/24/2017	860.72	861.00	88.19	65.25	NP	NP	795.47
MW-04-04(3)	4/24/2017	855.72	856.11	82.15	59.93	NP	NP	795.79
MW-05(3)	4/24/2017	859.02	859.79	15.21	3.83	NP	NP	855.19
MW-06(3)	4/24/2017	859.52	859.79	11.52	2.74	NP	NP	856.78
MW-12-04	4/25/2017	844.08	844.26	99.96	50.46	NP	NP	793.62
MW-12-19	4/24/2017	859.55	859.96	8.90	5.79	NP	NP	853.76
MW-12-20	4/24/2017	864.20	861.45	79.49	68.64	NP	NP	795.56
MW-12-21	4/24/2017	864.50	861.45	78.03	68.24	NP	NP	796.26
MW-13-22	4/24/2017	864.37	861.50	97.32	71.07	NP	NP	793.30
MW-13-23	4/24/2017	864.31	861.45	78.20	72.34	NP	NP	791.97
MW-13-24	4/27/2017	864.35	861.48	77.33	67.69	NP	NP	796.66
MW-13-25	4/24/2017	863.77	860.49	75.04	69.60	NP	NP	794.17
MW-13-26	4/24/2017	863.95	861.67	79.15	67.56	NP	NP	796.39
MW-13-27	4/24/2017	864.50	861.54	75.88	71.24	NP	NP	793.26
MW-13-28	4/24/2017	864.42	861.61	118.45	71.73	NP	NP	792.69
MW-13-29	4/24/2017	862.81	859.81	76.30	69.72	NP	NP	793.09
MW-13-30	4/24/2017	864.53	861.66	79.71	69.79	NP	NP	794.74
MW-13-31	4/24/2017	861.27	858.36	12.80	7.29	NP	NP	853.98
MW-13-32	4/24/2017	860.11	857.32	12.64	6.03	NP	NP	854.08
MW-13-33	4/24/2017	860.71	857.69	19.14	8.69	NP	NP	852.02
MW-13-34	4/25/2017	853.92	851.82	79.93	67.09	NP	NP	786.83
MW-13-37	4/24/2017	866.02	863.75	118.20	72.98	NP	NP	793.04
MW-13-38	4/24/2017	866.47	863.71	131.30	73.83	NP	NP	792.64
MW-13-39B	4/24/2017	860.20	857.33	109.71	67.42	NP	NP	792.78
MW-13-40	4/24/2017	862.67	859.69	79.25	64.71	NP	NP	797.96
MW-13-41	4/24/2017	866.38	863.68	81.83	65.11	NP	NP	801.27
MW-13-46	4/25/2017	854.54	852.12	74.63	65.89	NP	NP	788.65
MW-13-47	4/24/2017	853.74	851.89	114.18	66.84	NP	NP	786.90
MW-13-48	4/25/2017	854.83	852.17	73.06	61.43	NP	NP	793.40
MW-13-49	4/25/2017	853.01	850.55	81.65	67.25	NP	NP	785.76
MW-14-64	4/24/2017	864.56	861.77	107.94	71.23	NP	NP	793.33
MW-14-65	4/24/2017	866.34	863.71	13.20	6.25	NP	NP	860.09

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MW-15-71	4/24/2017	864.56	861.58	119.45	69.16	NP	NP	795.40
MW-19	4/24/2017	859.74	859.92	64.95	53.90	NP	NP	805.84
MW-22	4/24/2017	859.69	860.08	63.95	52.97	NP	NP	806.72
MW-23	4/24/2017	859.45	859.76	61.35	52.14	NP	NP	807.31
MW-88-1	4/24/2017	858.75	859.06	139.65	70.59	NP	NP	788.16
MW-91-2	4/24/2017	863.62	863.88	81.40	61.49	NP	NP	802.13
MW-91-3	4/24/2017	860.81	859.35	120.59	71.09	NP	NP	789.72
MW-91-4	4/24/2017	855.59	855.93	132.89	61.63	NP	NP	793.96
MW-91-5	4/24/2017	860.61	861.20	126.33	65.19	NP	NP	795.42
MW-91-6	4/25/2017	851.84	852.22	95.78	63.11	NP	NP	788.73
P3-SB-07	4/24/2017	866.84	863.63	19.64	8.76	NP	NP	858.08
P3-SB-28	4/24/2017	866.43	863.63	10.36	5.20	NP	NP	861.23
PW-14-03	4/24/2017	864.31	861.55	102.00	73.56	NP	NP	790.75
UNK-09	4/24/2017	859.42	860.02	15.28	2.48	NP	NP	856.94
UNK-10	4/24/2017	859.34	860.05	15.33	2.83	NP	NP	856.51
UNK-11	4/24/2017	859.91	860.17	11.82	4.29	NP	NP	855.62
UNK-13	3/6/2017	859.11	859.91	14.95	3.98	NP	NP	855.13
UNK-13	4/24/2017	859.11	859.91	14.96	3.89	NP	NP	855.22
UNK-14	3/6/2017	859.32	859.70	NM	3.20	3.02	1.76	856.12*
UNK-14	4/24/2017	859.32	859.70	NM	2.95	2.77	1.79	856.37*
UNK-15	4/24/2017	859.56	859.94	NM	2.50	NP	NP	857.06
Plant 6								
MW-02-01(6)	4/24/2017	865.54	863.35	40.08	27.55	NP	NP	837.99
MW-02-02(6)	4/24/2017	868.04	868.41	43.39	29.93	NP	NP	838.11
MW-02-03(6)	4/27/2017	869.54	869.97	44.62	30.72	NP	NP	838.82
MW-03-02	4/24/2017	864.52	864.76	39.35	21.98	NP	NP	842.54
MW-03-04	4/24/2017	865.28	865.53	42.69	22.12	NP	NP	843.16
MW-03-05	4/24/2017	868.90	869.14	NM	NM	NA	NA	NM
MW-03-06	4/24/2017	870.45	870.80	40.57	36.20	NP	NP	834.25
MW-03-07	4/24/2017	866.88	867.02	40.50	26.16	NP	NP	840.72
MW-03-08	4/24/2017	869.03	869.39	44.93	33.38	NP	NP	835.65
MW-04-01(6)	4/24/2017	866.85	867.15	87.97	75.65	NP	NP	791.20
MW-04-04R	4/24/2017	873.31	870.64	111.08	81.43	NP	NP	791.88
MW-04-05(6)	4/24/2017	858.33	858.87	29.63	9.52	NP	NP	848.81
MW-04-06R	4/24/2017	861.56	858.59	78.02	71.01	NP	NP	790.55
MW-12-03	4/24/2017	859.10	856.71	82.31	68.80	NP	NP	790.30
MW-12-10	4/24/2017	860.89	858.82	17.97	10.29	NP	NP	850.60
MW-12-11	4/24/2017	857.26	857.68	16.79	2.06	NP	NP	855.20
MW-12-12	4/24/2017	874.34	874.61	17.21	6.28	NP	NP	868.06
MW-12-13	4/24/2017	882.60	880.51	25.41	9.80	NP	NP	872.80
MW-12-14	4/24/2017	872.56	869.28	32.05	23.94	NP	NP	848.62
MW-12-15	4/24/2017	865.23	865.49	22.66	19.66	NP	NP	845.57
MW-12-16	4/24/2017	864.24	864.73	32.18	22.99	NP	NP	841.25
MW-13-35	4/24/2017	864.81	865.23	29.50	23.74	NP	NP	841.07
MW-13-36R	4/24/2017	878.04	875.28	12.78	4.89	NP	NP	873.15
MW-13-50	4/24/2017	872.85	869.93	109.87	82.04	NP	NP	790.81
MW-13-52	4/24/2017	872.50	869.84	81.45	70.43	NP	NP	802.07
MW-13-53	4/24/2017	875.56	873.10	85.45	77.02	NP	NP	798.54
MW-14-66	4/24/2017	877.85	874.73	22.22	5.27	NP	NP	872.58
MW-14-67	4/24/2017	877.76	875.07	20.84	4.73	NP	NP	873.03
MW-14-68	4/24/2017	878.44	875.42	44.08	DRY	NP	NP	DRY
MW-14-69	4/24/2017	883.62	880.72	48.99	DRY	NP	NP	DRY
MW-14-70	4/24/2017	882.79	880.08	23.12	9.60	NP	NP	873.19
MWBP-10-UST5-6	4/24/2017	867.70	867.99	36.85	30.73	NP	NP	836.97

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MWBP-11-UST1-4	4/24/2017	868.66	869.07	11.22	2.65	NP	NP	866.01
MWBP-12A-UST1-4	4/24/2017	869.74	869.96	36.72	29.29	NP	NP	840.45
MWBP-12-UST1-4	4/24/2017	870.02	870.58	11.24	7.90	NP	NP	862.12
MWBP-12-UST5-6	4/24/2017	NM	NM	38.50	32.28	NP	NP	NM
MWBP-13A-UST1-4	4/24/2017	869.99	870.10	37.99	32.41	NP	NP	837.58
P6-MW-01	4/24/2017	870.10	866.87	31.23	28.96	NP	NP	841.14
P6-SB-07	4/24/2017	877.36	874.36	23.62	5.45	NP	NP	871.91
P6-SB-18	4/24/2017	878.46	874.60	12.15	4.46	NP	NP	874.00
P6-SB-21	4/24/2017	874.20	870.92	11.12	2.64	NP	NP	871.56
P6-SB-35	4/24/2017	877.76	874.28	11.97	3.96	NP	NP	873.80
P6-SB-37	4/24/2017	878.12	874.32	13.93	4.43	NP	NP	873.69
SME-MW-02	4/24/2017	869.30	NS	37.28	33.26	NP	NP	836.04

Notes:
*Groundwater elevations have been corrected for the presence of LNAPL using a measured LNAPL density of 0.8995 grams per milliliter.

ID = identification
ft = feet
TOC = top of casing
NA = not applicable
NP = no product
msl = mean sea level
LNAPL = light non-aqueous phase liquid
NM = not measured

Table 3
Summary of LNAPL Recovery
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Well ID	Recovery Date**	Reference Elevation (TOC)	Ground Surface Elevation	Total Well Depth (ft. below TOC)	Depth to Water (ft. below TOC)	Depth to LNAPL (ft. below TOC)	Starting LNAPL Thickness (ft)	Groundwater Elevation (ft msl)	Estimated LNAPL Volume Recovered (Gallons)	Cumulative LNAPL Volume Recovered (Gallons)	Liquid Recovered (Gallons) ****	Cumulative Liquid Recovery (Gallons)
LMW-12-03D	3/13/2017	864.99	862.08	NM	13.90	10.11	3.79	854.50*	0.50	0.50	0.50	0.50
LMW-12-03D	4/25/2017	864.99	862.08	NM	12.45	9.75	2.70	854.97*	0.40	0.90	0.40	0.90
LMW-12-03D	5/26/2017	864.99	862.08	NM	12.35	10.40	1.95	854.39*	0.32	1.22	0.32	1.22
LMW-12-03D	6/28/2017	864.99	862.08	NM	13.51	11.10	2.41	853.65*	0.40	1.62	0.40	1.62
LMW-12-10	3/6/2017	866.82	863.60	21.40	NM	9.70	NM	NM	2.00	2.00	2.00	2.00
LMW-12-10	4/25/2017	866.82	863.60	NM	15.82	8.38	7.44	857.69*	1.15	3.15	1.15	3.15
LMW-12-10	6/28/2017	866.82	863.60	NM	11.15	10.04	1.11	856.67*	0.15	3.30	0.15	3.30
LMW-14-12D	3/13/2017	864.59	862.11	NM	24.80	8.35	16.45	854.59*	2.50	2.50	2.50	2.50
LMW-14-12D	4/25/2017	864.59	862.11	NM	24.79	7.85	16.94	855.04*	2.60	5.10	2.60	5.10
LMW-14-12D	5/26/2017	864.59	862.11	NM	24.80	8.41	16.39	854.53*	2.70	7.80	2.70	7.80
LMW-14-12D	6/28/2017	864.59	862.11	NM	24.82	9.26	15.56	853.77*	2.50	10.30	2.50	10.30
LMW-14-15D	3/13/2017	865.11	861.66	22.60	NA	9.19	13.41	NA	2.00	2.00	2.00	2.00
LMW-14-15D	4/25/2017	865.11	861.66	22.50	NA	9.60	12.90	NA	2.00	4.00	2.00	4.00
LMW-14-15D	5/26/2017	865.11	861.66	NM	22.65	9.96	12.69	853.87*	2.00	6.00	2.00	6.00
LMW-14-15D	6/28/2017	865.11	861.66	NM	22.63	10.61	12.02	853.29*	2.00	8.00	2.00	8.00
LMW-15-16D	3/13/2017	865.20	862.24	NM	21.25	12.30	8.95	852.00*	1.50	1.50	1.50	1.50
LMW-15-16D	5/26/2017	865.20	862.24	NM	24.10	11.56	12.54	852.38*	2.00	3.50	2.00	3.50
LMW-15-16D	6/28/2017	865.20	862.24	NM	18.40	13.13	5.27	851.54*	0.90	4.40	0.90	4.40

Per Well Totals (January through June 2017)

Well ID:	LNAPL Volume Recovered (Gallons):	Total Liquid Recovered (Gallons):
LMW-12-03D	1.62	1.62
LMW-12-10	3.30	3.30
LMW-14-12D	10.30	10.30
LMW-14-15D	8.00	8.00
LMW-15-16D	4.40	4.40
Total:	27.62	27.62

Quarterly Event Totals

Quarter:	LNAPL Volume Recovered (Gallons): ***	Total Liquid Recovered (Gallons):
1st Quarter 2017	8.50	8.50
2nd Quarter 2017	19.12	19.12
Total:	27.62	27.62

Cumulative Totals (June 2015 through June 2017)

Well ID:	LNAPL Volume Recovered (Gallons):	Total Liquid Recovered (Gallons):
LMW-12-03D	9.62	13.66
LMW-12-10	3.30	3.30
LMW-14-12D	34.50	38.34
LMW-14-15D	20.37	24.03
LMW-15-16D	14.95	16.68
Total:	82.74	96.01

Notes:
* Groundwater elevations have been corrected for the presence of LNAPL using a measured LNAPL density of 0.8995 grams per milliliter.
** Depth-to-water and depth-to-LNAPL measurements were collected at beginning of the associated quarterly groundwater sampling event.
*** Volume calculations based on an internal well volume of 0.1686 gallon per foot in a 2-inch-diameter well. All wells in this table are 2 inches in diameter.
**** Recovery performed via 1.5-inch-diameter weighted PVC bailers. Volume includes groundwater and LNAPL recovered.

ft. = feet
ID = Identification
msl = mean sea level
NA = Not Applicable
NM = Not Measured
NP = No Product
TOC = Top of Casing
LNAPL = light non-aqueous phase liquid
PVC = polyvinyl chloride

Table 4
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RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	AS-16-01 04/27/17 AS-16-01_042717	AS-16-02 04/27/17 AS-16-02_042717	CH-14-RO 05/01/17 CH-14-RO_050117	MW-01(2) 05/01/17 MW-01(2)_050117	MW-02-02(3) 05/02/17 MW-02-02(3)_050217	MW-02-03(6) 05/01/17 MW-02-03(6)_050117	MW-02-04(3) 05/03/17 MW-02-04(3)_050317	MW-03-04 04/26/17 MW-03-04_042617	MW-03-05 06/20/17 MW-03-05(062017)
Field												
Conductance, specific	- -	- -	umhos/cm	1,600	2,130	1,020	5,560	7,580	8,872	2,190	1,880	3,740
Dissolved oxygen (DO)	- -	- -	mg/L	0.26	0.32	0.21	0.38	1.1	NA	1.15	0.23	5.95
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-46.30	-52.70	327.1	-39.40	-3.30	NA	-35.80	-66.80	90.3
pH	- -	- -	s.u.	6.8	6.94	7.18	6.79	6.48	6.66	6.93	7.13	7.40
Temperature, field	- -	- -	Deg C	15.9	14.3	12.6	15.7	11.9	19.1	13.1	13.6	17.71
Turbidity (field)	- -	- -	NTU	21.3	7.31	0.26	9.89	64.7	NA	118	8.46	149
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,2-Dichlorobenzene	600	13	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,4-Dichlorobenzene	75	17	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,4-Dioxane	7.2	2,800	ug/L	**158**	**200 Y**	NA	NA	<3	**21**	<3	**36**	<3
1,1,1-Trichloroethane	200	89	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
2-Hexanone	50	- -	ug/L	NA	NA	NA	<10	NA	<10	NA	NA	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Acetone	5,300	1,700	ug/L	NA	NA	NA	<10	NA	<10	NA	NA	<10
1,1,2-Trichloroethane	5	330	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Bromodichloromethane	80	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,1-Dichloroethane	1,200	740	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Bromoform	80	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,1-Dichloroethene	7	130	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Bromomethane (Methyl bromide)	120	5	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,2-Dichloroethane	5	360	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Carbon disulfide	440	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Carbon tetrachloride	5	38	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
cis-1,2-Dichloroethene	70	620	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Chlorobenzene	100	25	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Chloroform (Trichloromethane)	80	350	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Trichloroethene	5	200	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Tetrachloroethene	5	60	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Vinyl chloride	2	13	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Chloroethane	240	1,100	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Benzene	5	200	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Methyl acetate	- -	- -	ug/L	NA	NA	NA	<10	NA	<10	NA	NA	<10
Ethylbenzene	66	18	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Methylene chloride	5	1,500	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Styrene	100	80	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Toluene	470	270	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	NA	NA	**22**	NA	<1	NA	NA	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	NA	NA	<10	NA	<10	NA	NA	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	NA	NA	<10	NA	<10	NA	NA	<10
1,2,4-Trichlorobenzene	70	99	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,2-Dichloropropane	5	230	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
1,3-Dichlorobenzene	12	28	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Cyclohexane	- -	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Methyl cyclohexane	- -	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Dibromochloromethane	80	- -	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
Isopropyl benzene	590	28	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
o-Xylene	41	280	ug/L	NA	NA	NA	<1	NA	<1	NA	NA	<1
m&p-Xylene	41	280	ug/L	NA	NA	NA	<2	NA	<2	NA	NA	<2
Total Xylenes	41	280	ug/L	NA	NA	NA	<3	NA	<3	NA	NA	<3

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	AS-16-01 04/27/17 AS-16-01_042717	AS-16-02 04/27/17 AS-16-02_042717	CH-14-RO 05/01/17 CH-14-RO_050117	MW-01(2) 05/01/17 MW-01(2)_050117	MW-02-02(3) 05/02/17 MW-02-02(3)_050217	MW-02-03(6) 05/01/17 MW-02-03(6)_050117	MW-02-04(3) 05/03/17 MW-02-04(3)_050317	MW-03-04 04/26/17 MW-03-04_042617	MW-03-05 06/20/17 MW-03-05(062017)
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	<0.002	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	**12.6**	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	**12.6**	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	<0.005	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	<0.003	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	**0.020**	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	<0.005	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-03-06 04/27/17 MW-03-06_042717	MW-03-08 04/27/17 MW-03-08_042717	MW-04-05(6) 04/26/17 MW-04-05(6)_042617	MW-05(3) 05/02/17 MW-05(3)_050217	MW-06(3) 05/03/17 MW-06(3)_050317	MW-12-01 03/31/17 MW-12-01_033117	MW-12-02 03/30/17 MW-12-02_033017	MW-12-04 04/26/17 MW-12-04_042617	MW-12-05R 04/26/17 MW-12-05R_042617
Field												
Conductance, specific	- -	- -	umhos/cm	11,574	2,152	7,720	1.58	4,670	NA	NA	1,630	1,460
Dissolved oxygen (DO)	- -	- -	mg/L	0.17	0.13	0.51	2.42	0.41	NA	NA	0.81	0.35
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-39.0	-78.10	-43.30	14.3	-36.60	NA	NA	-48.60	-524.20
pH	- -	- -	s.u.	6.77	7.21	7.02	7.24	7.39	NA	NA	6.9	8.08
Temperature, field	- -	- -	Deg C	14.3	13	12.3	11	11.2	NA	NA	13.3	16.2
Turbidity (field)	- -	- -	NTU	10	9.7	14.9	51	8.1	NA	NA	8.97	7.79
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,2-Dichlorobenzene	600	13	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,4-Dichlorobenzene	75	17	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,4-Dioxane	7.2	2,800	ug/L	**9**	**<3 [8]**	<3	NA	NA	<0.20	**0.42**	**0.86**	**0.63**
1,1,1-Trichloroethane	200	89	ug/L	<1	<1 [<1]	<1	<1	**20**	NA	NA	NA	<1
2-Hexanone	50	- -	ug/L	<10	<10 [<10]	<10	<10	<10	NA	NA	NA	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Acetone	5,300	1,700	ug/L	<10	<10 [<10]	<10	<10	<10	NA	NA	NA	**10**
1,1,2-Trichloroethane	5	330	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Bromodichloromethane	80	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,1-Dichloroethane	1,200	740	ug/L	<1	<1 [<1]	<1	<1	**2**	NA	NA	NA	<1
Bromoform	80	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,1-Dichloroethene	7	130	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Bromomethane (Methyl bromide)	120	5	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,2-Dichloroethane	5	360	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Carbon disulfide	440	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Carbon tetrachloride	5	38	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
cis-1,2-Dichloroethene	70	620	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Chlorobenzene	100	25	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Chloroform (Trichloromethane)	80	350	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Trichloroethene	5	200	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Tetrachloroethene	5	60	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Vinyl chloride	2	13	ug/L	**11**	**<1 [11]**	<1	<1	<1	NA	NA	NA	<1
Chloroethane	240	1,100	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Benzene	5	200	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Methyl acetate	- -	- -	ug/L	<10	<10 [<10]	<10	<10	<10	NA	NA	NA	<10
Ethylbenzene	66	18	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Methylene chloride	5	1,500	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Styrene	100	80	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Toluene	470	270	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	<10	<10 [<10]	<10	<10	<10	NA	NA	NA	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	<10	<10 [<10]	<10	<10	<10	NA	NA	NA	<10
1,2,4-Trichlorobenzene	70	99	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,2-Dichloropropane	5	230	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
1,3-Dichlorobenzene	12	28	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Cyclohexane	- -	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Methyl cyclohexane	- -	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Dibromochloromethane	80	- -	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
Isopropyl benzene	590	28	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
o-Xylene	41	280	ug/L	<1	<1 [<1]	<1	<1	<1	NA	NA	NA	<1
m&p-Xylene	41	280	ug/L	<2	<2 [<2]	<2	<2	<2	NA	NA	NA	<2
Total Xylenes	41	280	ug/L	<3	<3 [<3]	<3	<3	<3	NA	NA	NA	<3

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Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-12-05R 05/30/17 MW-12-05R_053017	MW-12-06 03/31/17 MW-12-06_033117	MW-12-09 05/01/17 MW-12-09_050117	MW-12-11 04/25/17 MW-12-11_042517	MW-12-12 04/25/17 MW-12-12_042517	MW-12-13 04/25/17 MW-12-13_042517	MW-12-16 04/28/17 MW-12-16_042817	MW-12-18 05/01/17 MW-12-18_050117	MW-12-21 04/28/17 MW-12-21_042817
Field												
Conductance, specific	- -	- -	umhos/cm	1,057	NA	3,020	790	920	1,240	1,951	2,580	1,720
Dissolved oxygen (DO)	- -	- -	mg/L	0.23	NA	0.46	0.28	0.26	0.26	0.36	0.37	0.7
Oxidation reduction potential (ORP), field	- -	- -	millivolts	29.6	NA	-29.30	-94.10	85	-31.0	-19.90	-10.90	-39.40
pH	- -	- -	s.u.	10.18	NA	6.78	7.13	7.4	7.34	6.86	6.9	6.84
Temperature, field	- -	- -	Deg C	19.04	NA	13.6	11.3	11.4	11.1	13.2	13.1	10.9
Turbidity (field)	- -	- -	NTU	5.81	NA	19.3	1.8	8.41	7.2	4.57	9.81	80.1
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,2-Dichlorobenzene	600	13	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,4-Dichlorobenzene	75	17	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,4-Dioxane	7.2	2,800	ug/L	**0.52**	<0.20	<3	NA	NA	NA	NA	NA	**360 Y**
1,1,1-Trichloroethane	200	89	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
2-Hexanone	50	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<10	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Acetone	5,300	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	<10	<10
1,1,2-Trichloroethane	5	330	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Bromodichloromethane	80	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,1-Dichloroethane	1,200	740	ug/L	NA	NA	NA	NA	NA	NA	NA	**2**	<1
Bromoform	80	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,1-Dichloroethene	7	130	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Bromomethane (Methyl bromide)	120	5	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,2-Dichloroethane	5	360	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Carbon disulfide	440	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Carbon tetrachloride	5	38	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
cis-1,2-Dichloroethene	70	620	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Chlorobenzene	100	25	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Chloroform (Trichloromethane)	80	350	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Trichloroethene	5	200	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Tetrachloroethene	5	60	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Vinyl chloride	2	13	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Chloroethane	240	1,100	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Benzene	5	200	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Methyl acetate	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<10	<10
Ethylbenzene	66	18	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Methylene chloride	5	1,500	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Styrene	100	80	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Toluene	470	270	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<10	<10
1,2,4-Trichlorobenzene	70	99	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,2-Dichloropropane	5	230	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
1,3-Dichlorobenzene	12	28	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Cyclohexane	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Methyl cyclohexane	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Dibromochloromethane	80	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
Isopropyl benzene	590	28	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
o-Xylene	41	280	ug/L	NA	NA	NA	NA	NA	NA	NA	<1	<1
m&p-Xylene	41	280	ug/L	NA	NA	NA	NA	NA	NA	NA	<2	<2
Total Xylenes	41	280	ug/L	NA	NA	NA	NA	NA	NA	NA	<3	<3

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-12-05R 05/30/17 MW-12-05R_053017	MW-12-06 03/31/17 MW-12-06_033117	MW-12-09 05/01/17 MW-12-09_050117	MW-12-11 04/25/17 MW-12-11_042517	MW-12-12 04/25/17 MW-12-12_042517	MW-12-13 04/25/17 MW-12-13_042517	MW-12-16 04/28/17 MW-12-16_042817	MW-12-18 05/01/17 MW-12-18_050117	MW-12-21 04/28/17 MW-12-21_042817
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	0.007	<0.002	<0.002	**0.017**	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	0.011	<0.005	0.010	<0.005	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	<0.003	**0.004**	<0.003	<0.003	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	0.011	0.010	**0.071**	<0.005	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-13-22 04/28/17 MW-13-22_042817	MW-13-23 05/03/17 MW-13-23_050317	MW-13-24 05/02/17 MW-13-24_050217	MW-13-25 05/03/17 MW-13-25_050317	MW-13-28 03/29/17 MW-13-28_032917	MW-13-29 05/02/17 MW-13-29_050217	MW-13-31 05/03/17 MW-13-31_050317	MW-13-32 05/03/17 MW-13-32_050317	MW-13-34 05/02/17 MW-13-34_050217
Field												
Conductance, specific	- -	- -	umhos/cm	1,930	1,610	1,530	2,560	NA	2,670	3,720	3,340	1,720
Dissolved oxygen (DO)	- -	- -	mg/L	0.35	1.21	0.98	1.04	NA	0.17	0.94	0.27	1.01
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-84.60	50.5	-42.0	-47.80	NA	-38.50	196.5	161	-31.0
pH	- -	- -	s.u.	6.87	6.77	6.84	6.7	NA	6.51	7.02	6.95	7.19
Temperature, field	- -	- -	Deg C	14.6	9.9	10.1	12.4	NA	13.4	12.6	9.8	10.9
Turbidity (field)	- -	- -	NTU	4.11	307	0.59	97.9	NA	9.24	0.42	4.61	9.81
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,2-Dichlorobenzene	600	13	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,4-Dichlorobenzene	75	17	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,4-Dioxane	7.2	2,800	ug/L	**154**	<3	<3	**17**	**1.9**	**23 [26]**	NA	NA	**82**
1,1,1-Trichloroethane	200	89	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
2-Hexanone	50	- -	ug/L	<10	NA	NA	NA	NA	NA	NA	NA	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Acetone	5,300	1,700	ug/L	<10	NA	NA	NA	NA	NA	NA	NA	<10
1,1,2-Trichloroethane	5	330	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Bromodichloromethane	80	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,1-Dichloroethane	1,200	740	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Bromoform	80	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,1-Dichloroethene	7	130	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Bromomethane (Methyl bromide)	120	5	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,2-Dichloroethane	5	360	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Carbon disulfide	440	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Carbon tetrachloride	5	38	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
cis-1,2-Dichloroethene	70	620	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Chlorobenzene	100	25	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Chloroform (Trichloromethane)	80	350	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Trichloroethene	5	200	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Tetrachloroethene	5	60	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Vinyl chloride	2	13	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Chloroethane	240	1,100	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Benzene	5	200	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Methyl acetate	- -	- -	ug/L	<10	NA	NA	NA	NA	NA	NA	NA	<10
Ethylbenzene	66	18	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Methylene chloride	5	1,500	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Styrene	100	80	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Toluene	470	270	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	<10	NA	NA	NA	NA	NA	NA	NA	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	<10	NA	NA	NA	NA	NA	NA	NA	<10
1,2,4-Trichlorobenzene	70	99	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,2-Dichloropropane	5	230	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
1,3-Dichlorobenzene	12	28	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Cyclohexane	- -	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Methyl cyclohexane	- -	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Dibromochloromethane	80	- -	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
Isopropyl benzene	590	28	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
o-Xylene	41	280	ug/L	<1	NA	NA	NA	NA	NA	NA	NA	<1
m&p-Xylene	41	280	ug/L	<2	NA	NA	NA	NA	NA	NA	NA	<2
Total Xylenes	41	280	ug/L	<3	NA	NA	NA	NA	NA	NA	NA	<3

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Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	<0.002	<0.002 [<0.002]	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	<0.005	<0.005 [<0.005]	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	<0.005	<0.005 [<0.005]	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	<0.003	<0.003 [<0.003]	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	**0.013**	**0.542 [0.551]**	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	<0.005	<0.005 [<0.005]	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-13-35 04/28/17 MW-13-35_042817	MW-13-36R 04/25/17 MW-13-36R_042517	MW-13-38 05/01/17 MW-13-38_050117	MW-13-39B 03/28/17 MW-13-39B_032817	MW-13-40 05/01/17 MW-13-40_050117	MW-13-41 05/01/17 MW-13-41_050117	MW-13-43 05/02/17 MW-13-43_050217	MW-13-44 03/30/17 MW-13-44_033017	MW-13-45 04/26/17 MW-13-45_042617
Field												
Conductance, specific	- -	- -	umhos/cm	1,792	1,650	1,910	NA	7,487	5,690	2,980	NA	1,130
Dissolved oxygen (DO)	- -	- -	mg/L	0.12	1.22	0.11	NA	0.24	0.22	1.91	NA	4.17
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-28.90	81.2	-232.0	NA	-108.50	-105.70	-17.10	NA	-70.10
pH	- -	- -	s.u.	6.88	12.11	8.39	NA	6.86	7.19	7.04	NA	7.3
Temperature, field	- -	- -	Deg C	13.1	9.9	13.3	NA	13.6	13.6	8.7	NA	15.1
Turbidity (field)	- -	- -	NTU	8.82	0.5	126	NA	185	98.6	130	NA	10.1
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	600	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	7.2	2,800	ug/L	NA	NA	<3	**4**	**0.33**	**18**	**240 Y**	**0.46 [0.47]**	**56**
1,1,1-Trichloroethane	200	89	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	5,300	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	5	330	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	80	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,200	740	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	80	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7	130	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	120	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	5	360	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	440	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	5	38	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	620	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	80	350	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	2	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	240	1,100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	5	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	66	18	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	5	1,500	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100	80	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	470	270	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	70	99	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	5	230	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	12	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	- -	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	80	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	590	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	41	280	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	41	280	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	41	280	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-13-35 04/28/17 MW-13-35_042817	MW-13-36R 04/25/17 MW-13-36R_042517	MW-13-38 05/01/17 MW-13-38_050117	MW-13-39B 03/28/17 MW-13-39B_032817	MW-13-40 05/01/17 MW-13-40_050117	MW-13-41 05/01/17 MW-13-41_050117	MW-13-43 05/02/17 MW-13-43_050217	MW-13-44 03/30/17 MW-13-44_033017	MW-13-45 04/26/17 MW-13-45_042617
Inorganics												
Arsenic	0.01	0.01	mg/L	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	<0.005	0.005	NA	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	<0.005	0.014	NA	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	<0.003	<0.003	NA	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	<0.005	<0.005	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	<0.005	**0.008**	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-13-46 05/02/17 MW-13-46_050217	MW-13-47 03/30/17 MW-13-47_033017	MW-13-48 05/02/17 MW-13-48_050217	MW-13-49 05/02/17 MW-13-49_050217	MW-13-50 03/30/17 MW-13-50_033017	MW-14-54 05/01/17 MW-14-54_050117	MW-14-55 04/28/17 MW-14-55_042817	MW-14-56 04/26/17 MW-14-56_042617	MW-14-57 04/28/17 MW-14-57_042817
Field												
Conductance, specific	- -	- -	umhos/cm	3,440	NA	2,370	1,690	NA	1,620	675	5,860	830
Dissolved oxygen (DO)	- -	- -	mg/L	1.5	NA	0.25	4.6	NA	0.19	7.91	0.68	3.28
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-47.60	NA	-65.10	-70.10	NA	-279.10	58.3	-22.40	45.9
pH	- -	- -	s.u.	6.71	NA	6.76	7.19	NA	8.27	7.25	6.71	7.38
Temperature, field	- -	- -	Deg C	11.7	NA	11.5	10.6	NA	12.7	10.6	18.2	12.7
Turbidity (field)	- -	- -	NTU	59.9	NA	11.1	6.06	NA	2.26	40.1	43.8	13.9
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,2-Dichlorobenzene	600	13	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,4-Dichlorobenzene	75	17	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,4-Dioxane	7.2	2,800	ug/L	<3	**1.3**	**250 Y [200 Y]**	<3	<0.20	NA	NA	**10**	<3
1,1,1-Trichloroethane	200	89	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
2-Hexanone	50	- -	ug/L	NA	NA	<10 [<10]	NA	NA	<100 Y	<10	NA	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Acetone	5,300	1,700	ug/L	NA	NA	<10 [<10]	NA	NA	<100 Y	<10	NA	<10
1,1,2-Trichloroethane	5	330	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Bromodichloromethane	80	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,1-Dichloroethane	1,200	740	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	**1**
Bromoform	80	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,1-Dichloroethene	7	130	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Bromomethane (Methyl bromide)	120	5	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,2-Dichloroethane	5	360	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Carbon disulfide	440	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Carbon tetrachloride	5	38	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
cis-1,2-Dichloroethene	70	620	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Chlorobenzene	100	25	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Chloroform (Trichloromethane)	80	350	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Trichloroethene	5	200	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Tetrachloroethene	5	60	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	**1**	NA	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Vinyl chloride	2	13	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Chloroethane	240	1,100	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Benzene	5	200	ug/L	NA	NA	<1 [<1]	NA	NA	**770 Y**	<1	NA	<1
Methyl acetate	- -	- -	ug/L	NA	NA	<10 [<10]	NA	NA	<100 Y	<10	NA	<10
Ethylbenzene	66	18	ug/L	NA	NA	<1 [<1]	NA	NA	**1,380 Y**	<1	NA	<1
Methylene chloride	5	1,500	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Styrene	100	80	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Toluene	470	270	ug/L	NA	NA	<1 [<1]	NA	NA	**120 Y**	<1	NA	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	NA	<10 [<10]	NA	NA	<100 Y	<10	NA	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	NA	<10 [<10]	NA	NA	<100 Y	<10	NA	<10
1,2,4-Trichlorobenzene	70	99	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,2-Dichloropropane	5	230	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
1,3-Dichlorobenzene	12	28	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Cyclohexane	- -	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Methyl cyclohexane	- -	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Dibromochloromethane	80	- -	ug/L	NA	NA	<1 [<1]	NA	NA	<10 Y	<1	NA	<1
Isopropyl benzene	590	28	ug/L	NA	NA	<1 [<1]	NA	NA	**50 Y**	<1	NA	<1
o-Xylene	41	280	ug/L	NA	NA	<1 [<1]	NA	NA	**60 Y**	<1	NA	<1
m&p-Xylene	41	280	ug/L	NA	NA	<2 [<2]	NA	NA	**860 Y**	<2	NA	<2
Total Xylenes	41	280	ug/L	NA	NA	<3 [<3]	NA	NA	**920 Y**	<3	NA	<3

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-13-46 05/02/17 MW-13-46_050217	MW-13-47 03/30/17 MW-13-47_033017	MW-13-48 05/02/17 MW-13-48_050217	MW-13-49 05/02/17 MW-13-49_050217	MW-13-50 03/30/17 MW-13-50_033017	MW-14-54 05/01/17 MW-14-54_050117	MW-14-55 04/28/17 MW-14-55_042817	MW-14-56 04/26/17 MW-14-56_042617	MW-14-57 04/28/17 MW-14-57_042817
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-14-58 04/27/17 MW-14-58_042717	MW-14-59 04/25/17 MW-14-59_042517	MW-14-60 04/25/17 MW-14-60_042517	MW-14-61 04/27/17 MW-14-61_042717	MW-14-62 04/28/17 MW-14-62_042817	MW-14-63 05/02/17 MW-14-63_050217	MW-14-64 03/29/17 MW-14-64_032917	MW-14-65 05/02/17 MW-14-65_050217	MW-15-71 05/02/17 MW-15-71_050217
Field												
Conductance, specific	- -	- -	umhos/cm	4,950	820	1,240	950	710	1,180	NA	950	1,560
Dissolved oxygen (DO)	- -	- -	mg/L	0.16	0.08	0.15	3.15	0.1	0.34	NA	2.9	0.45
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-75.10	-60.30	-99.90	-75.0	-244.0	-52.70	NA	167.8	-79.20
pH	- -	- -	s.u.	6.74	7.2	7.27	7.17	11.89	6.89	NA	7.25	7.1
Temperature, field	- -	- -	Deg C	13.7	13.7	13.4	15	10.8	8.7	NA	7.8	10.2
Turbidity (field)	- -	- -	NTU	20.1	57.3	10.9	19.6	2.1	500	NA	6.39	9.55
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,2-Dichlorobenzene	600	13	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,4-Dichlorobenzene	75	17	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,4-Dioxane	7.2	2,800	ug/L	**71**	**103**	**133**	**28**	**47 [46]**	<3	**0.39**	NA	<3
1,1,1-Trichloroethane	200	89	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
2-Hexanone	50	- -	ug/L	<10	<10	<10	NA	<10 [<10]	NA	NA	<10	NA
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Acetone	5,300	1,700	ug/L	<10	<10	<10	NA	<10 [<10]	NA	NA	<10	NA
1,1,2-Trichloroethane	5	330	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Bromodichloromethane	80	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,1-Dichloroethane	1,200	740	ug/L	<1	**6**	<1	NA	**52 [47]**	NA	NA	<1	NA
Bromoform	80	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,1-Dichloroethene	7	130	ug/L	<1	**28**	<1	NA	<1 [<1]	NA	NA	<1	NA
Bromomethane (Methyl bromide)	120	5	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,2-Dichloroethane	5	360	ug/L	<1	<1	**1**	NA	<1 [<1]	NA	NA	<1	NA
Carbon disulfide	440	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Carbon tetrachloride	5	38	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
cis-1,2-Dichloroethene	70	620	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Chlorobenzene	100	25	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
trans-1,2-Dichloroethene	100	1,500	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Chloroform (Trichloromethane)	80	350	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Trichloroethene	5	200	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Chloromethane (Methyl chloride)	220	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Tetrachloroethene	5	60	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
cis-1,3-Dichloropropene	- -	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Vinyl chloride	2	13	ug/L	<1	<1	**7**	NA	**<1 [1]**	NA	NA	<1	NA
Chloroethane	240	1,100	ug/L	<1	**2**	**33**	NA	**5 [<1]**	NA	NA	<1	NA
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Benzene	5	200	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Methyl acetate	- -	- -	ug/L	<10	<10	<10	NA	<10 [<10]	NA	NA	<10	NA
Ethylbenzene	66	18	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Methylene chloride	5	1,500	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Styrene	100	80	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Toluene	470	270	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
trans-1,3-Dichloropropene	- -	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	<10	<10	<10	NA	<10 [<10]	NA	NA	<10	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	<10	<10	<10	NA	<10 [<10]	NA	NA	<10	NA
1,2,4-Trichlorobenzene	70	99	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,2-Dichloropropane	5	230	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
1,3-Dichlorobenzene	12	28	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Cyclohexane	- -	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Methyl cyclohexane	- -	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Dibromochloromethane	80	- -	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
Isopropyl benzene	590	28	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
o-Xylene	41	280	ug/L	<1	<1	<1	NA	<1 [<1]	NA	NA	<1	NA
m&p-Xylene	41	280	ug/L	<2	<2	<2	NA	<2 [<2]	NA	NA	<2	NA
Total Xylenes	41	280	ug/L	<3	<3	<3	NA	<3 [<3]	NA	NA	<3	NA

Table 4
Summary of Groundwater Analytical Results
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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-14-58 04/27/17 MW-14-58_042717	MW-14-59 04/25/17 MW-14-59_042517	MW-14-60 04/25/17 MW-14-60_042517	MW-14-61 04/27/17 MW-14-61_042717	MW-14-62 04/28/17 MW-14-62_042817	MW-14-63 05/02/17 MW-14-63_050217	MW-14-64 03/29/17 MW-14-64_032917	MW-14-65 05/02/17 MW-14-65_050217	MW-15-71 05/02/17 MW-15-71_050217
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Summary of Groundwater Analytical Results
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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-15-72 04/26/17 MW-15-72_042617	MW-15-73 05/01/17 MW-15-73_050117	MW-16-74 04/25/17 MW-16-74_042517	MW-16-75 04/26/17 MW-16-75_042617	MW-16-76 04/26/17 MW-16-76_042617	MW-16-77 04/25/17 MW-16-77_042517	MW-16-78 04/25/17 MW-16-78_042517	MW-16-79 04/26/17 MW-16-79_042617	MW-16-80 05/01/17 MW-16-80_050117
Field												
Conductance, specific	- -	- -	umhos/cm	1,800	2,850	2,270	1,860	2,140	1,730	1,730	890	2,310
Dissolved oxygen (DO)	- -	- -	mg/L	0.23	0.47	0.24	0.88	1.27	1.2	1.41	0.94	0.34
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-98.50	-75.40	-44.50	-95.70	-76.80	-62.40	-55.60	-99.0	-89.40
pH	- -	- -	s.u.	6.95	6.82	6.89	7.01	7.15	7.11	6.89	7.26	6.97
Temperature, field	- -	- -	Deg C	18	13.6	15.1	15	13.8	17.4	15.8	19.4	12.1
Turbidity (field)	- -	- -	NTU	21.1	35.7	39.6	9.1	15.4	23	49.3	546	61.2
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	600	13	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	75	17	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	7.2	2,800	ug/L	**240 Y [320 Y]**	**6**	<3	<3	<3	<3	<3	<3	**30**
1,1,1-Trichloroethane	200	89	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	50	- -	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	5,300	1,700	ug/L	<10 [<10]	<10	<10	<10	<10	**10**	<10	<10	<10
1,1,2-Trichloroethane	5	330	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	80	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	1,200	740	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	80	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	7	130	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane (Methyl bromide)	120	5	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	5	360	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	440	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	5	38	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	70	620	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	100	25	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform (Trichloromethane)	80	350	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	200	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	60	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	2	13	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	240	1,100	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Benzene	5	200	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Methyl acetate	- -	- -	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	66	18	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	5	1,500	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	100	80	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	470	270	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	<10 [<10]	<10	<10	<10	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	70	99	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	230	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	12	28	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	- -	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Methyl cyclohexane	- -	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	80	- -	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
Isopropyl benzene	590	28	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	41	280	ug/L	<1 [<1]	<1	<1	<1	<1	<1	<1	<1	<1
m&p-Xylene	41	280	ug/L	<2 [<2]	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	41	280	ug/L	<3 [<3]	<3	<3	<3	<3	<3	<3	<3	<3

Table 4
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January 2017 to June 2017
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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-15-72 04/26/17 MW-15-72_042617	MW-15-73 05/01/17 MW-15-73_050117	MW-16-74 04/25/17 MW-16-74_042517	MW-16-75 04/26/17 MW-16-75_042617	MW-16-76 04/26/17 MW-16-76_042617	MW-16-77 04/25/17 MW-16-77_042517	MW-16-78 04/25/17 MW-16-78_042517	MW-16-79 04/26/17 MW-16-79_042617	MW-16-80 05/01/17 MW-16-80_050117
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Summary of Groundwater Analytical Results
January 2017 to June 2017
2017 Semi-Annual Groundwater Report
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-16-81 03/06/17 MW-16-81_030617	MW-16-81 04/28/17 MW-16-81_042817	MW-16-82 03/06/17 MW-16-82_030617	MW-16-82 05/01/17 MW-16-82_050117	MW-16-83 05/02/17 MW-16-83_050217	MW-16-84 03/06/17 MW-16-84_030617	MW-16-84 04/26/17 MW-16-84_042617	MW-16-85 04/25/17 MW-16-85_042517	MW-17-86 04/25/17 MW-17-86_042517
Field												
Conductance, specific	- -	- -	umhos/cm	3,665	3,240	1,318	1,120	2,540	1,598	1,240	950	1,020
Dissolved oxygen (DO)	- -	- -	mg/L	0.90	0.26	1.11	3.03	1.23	1.40	1.04	0.47	5.67
Oxidation reduction potential (ORP), field	- -	- -	millivolts	-87.98	-83.40	-81.64	-95.70	-66.70	-78.31	-89.90	-98.10	-86.40
pH	- -	- -	s.u.	7.00	6.92	7.23	7.29	6.96	7.16	7.09	7.27	7.26
Temperature, field	- -	- -	Deg C	14.28	15.9	13.98	15.8	10.6	14.27	26.3	16	15.2
Turbidity (field)	- -	- -	NTU	115.01	60.3	11.62	5.05	150	31.74	114	284	7.75
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,2-Dichlorobenzene	600	13	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,4-Dichlorobenzene	75	17	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,4-Dioxane	7.2	2,800	ug/L	**550 Y [540 Y]**	**630 Y [540 Y]**	<3	<3	<3	**47**	**46**	**7**	**11**
1,1,1-Trichloroethane	200	89	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
2-Hexanone	50	- -	ug/L	NA	<10 [<10]	NA	<10	<10	NA	<10	<10	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Acetone	5,300	1,700	ug/L	NA	<10 [<10]	NA	<10	<10	NA	<10	<10	<10
1,1,2-Trichloroethane	5	330	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Bromodichloromethane	80	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,1-Dichloroethane	1,200	740	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Bromoform	80	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,1-Dichloroethene	7	130	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Bromomethane (Methyl bromide)	120	5	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,2-Dichloroethane	5	360	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Carbon disulfide	440	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Carbon tetrachloride	5	38	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
cis-1,2-Dichloroethene	70	620	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Chlorobenzene	100	25	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Chloroform (Trichloromethane)	80	350	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Trichloroethene	5	200	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Tetrachloroethene	5	60	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Vinyl chloride	2	13	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Chloroethane	240	1,100	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Benzene	5	200	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Methyl acetate	- -	- -	ug/L	NA	<10 [<10]	NA	<10	<10	NA	<10	<10	<10
Ethylbenzene	66	18	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Methylene chloride	5	1,500	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Styrene	100	80	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Toluene	470	270	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	<10 [<10]	NA	<10	**14**	NA	<10	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	<10 [<10]	NA	<10	<10	NA	<10	<10	<10
1,2,4-Trichlorobenzene	70	99	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,2-Dichloropropane	5	230	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
1,3-Dichlorobenzene	12	28	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Cyclohexane	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Methyl cyclohexane	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Dibromochloromethane	80	- -	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
Isopropyl benzene	590	28	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
o-Xylene	41	280	ug/L	NA	<1 [<1]	NA	<1	<1	NA	<1	<1	<1
m&p-Xylene	41	280	ug/L	NA	<2 [<2]	NA	<2	<2	NA	<2	<2	<2
Total Xylenes	41	280	ug/L	NA	<3 [<3]	NA	<3	<3	NA	<3	<3	<3

Table 4
Summary of Groundwater Analytical Results
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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-16-81 03/06/17 MW-16-81_030617	MW-16-81 04/28/17 MW-16-81_042817	MW-16-82 03/06/17 MW-16-82_030617	MW-16-82 05/01/17 MW-16-82_050117	MW-16-83 05/02/17 MW-16-83_050217	MW-16-84 03/06/17 MW-16-84_030617	MW-16-84 04/26/17 MW-16-84_042617	MW-16-85 04/25/17 MW-16-85_042517	MW-17-86 04/25/17 MW-17-86_042517
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-17-86 05/30/17 MW-17-86_053017	MW-17-87 04/26/17 MW-17-87_042617	MW-17-87 05/30/17 MW-17-87_053017	MW-19 05/03/17 MW-19_050317	MW-22 05/03/17 MW-22_050317	MW-23 05/03/17 MW-23_050317	MW-91-2 05/01/17 MW-91-2_050117	MW-91-4 03/28/17 MW-91-4_032817	MW-91-5 03/28/17 MW-91-5_032817
Field												
Conductance, specific	- -	- -	umhos/cm	NA	3,500	3,059	235	2,770	1,480	55	NA	NA
Dissolved oxygen (DO)	- -	- -	mg/L	NA	0.71	-0.13	5.68	0.69	0.24	1.23	NA	NA
Oxidation reduction potential (ORP), field	- -	- -	millivolts	NA	-256.80	-202.3	34.7	-29.90	-95.60	287.7	NA	NA
pH	- -	- -	s.u.	NA	7.08	8.52	2.69	6.91	7.07	5.93	NA	NA
Temperature, field	- -	- -	Deg C	NA	19	16.70	14.1	15.2	13.1	16.2	NA	NA
Turbidity (field)	- -	- -	NTU	NA	6.58	9.60	423	8.31	8.96	2.51	NA	NA
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	600	13	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	17	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	7.2	2,800	ug/L	**12**	**2.3**	**2.1**	<3	NA	NA	<3	**1.3**	**0.37 [0.28]**
1,1,1-Trichloroethane	200	89	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	- -	ug/L	NA	<10	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Acetone	5,300	1,700	ug/L	NA	<10	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	5	330	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	80	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,200	740	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Bromoform	80	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7	130	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	120	5	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	5	360	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	440	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	5	38	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	620	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	25	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	80	350	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	200	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	60	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	2	13	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Chloroethane	240	1,100	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Benzene	5	200	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	ug/L	NA	<10	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	66	18	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	5	1,500	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Styrene	100	80	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Toluene	470	270	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	<10	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	<10	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	70	99	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	5	230	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	12	28	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	- -	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	80	- -	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	590	28	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
o-Xylene	41	280	ug/L	NA	<1	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	41	280	ug/L	NA	<2	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	41	280	ug/L	NA	<3	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-17-86 05/30/17 MW-17-86_053017	MW-17-87 04/26/17 MW-17-87_042617	MW-17-87 05/30/17 MW-17-87_053017	MW-19 05/03/17 MW-19_050317	MW-22 05/03/17 MW-22_050317	MW-23 05/03/17 MW-23_050317	MW-91-2 05/01/17 MW-91-2_050117	MW-91-4 03/28/17 MW-91-4_032817	MW-91-5 03/28/17 MW-91-5_032817
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	<0.002	**0.009**	<0.002	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	<0.005	<0.005	**0.009**	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	<0.01	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	<0.005	<0.005	**0.013**	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	<0.003	<0.003	**0.003**	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	**0.008**	<0.005	<0.005	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	<0.005	<0.005	<0.005	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-91-6 03/30/17 MW-91-6_033017	MWBP-10-UST5-6 04/27/17 MWBP-10-UST5-6_042717	MWBP-10-UST5-6 04/28/17 MWBP-10-UST5-6_042817	MWBP-11-UST1-4 04/27/17 MWBP-11-UST1-4_042717	MWBP-12A-UST1-4 04/27/17 MWBP-12A-UST1-4_042717	MWBP-12-UST1-4 04/27/17 MWBP-12-UST1-4_042717	P2-MW-04 04/27/17 P2-MW-04_042717
Field										
Conductance, specific	- -	- -	umhos/cm	NA	4,800	4,800	1,030	3,200	1,970	1,440
Dissolved oxygen (DO)	- -	- -	mg/L	NA	0.81	0.81	1.68	0.3	0.36	5.98
Oxidation reduction potential (ORP), field	- -	- -	millivolts	NA	-18.60	-18.6	28.5	-44.50	-50.20	-69.50
pH	- -	- -	s.u.	NA	6.91	6.91	9.86	6.81	7.28	7.22
Temperature, field	- -	- -	Deg C	NA	7.2	7.2	11.9	13.6	10.8	14.6
Turbidity (field)	- -	- -	NTU	NA	5.01	5.01	1.99	1.13	1.01	30.8
Volatile Organics										
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,2-Dichlorobenzene	600	13	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,4-Dichlorobenzene	75	17	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,4-Dioxane	7.2	2,800	ug/L	**0.61**	NA	NA	NA	NA	NA	**31**
1,1,1-Trichloroethane	200	89	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
2-Hexanone	50	- -	ug/L	NA	<10 [<10]	NA	<10	<10	<10	NA
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Acetone	5,300	1,700	ug/L	NA	<10 [<10]	NA	<10	<10	<25 X	NA
1,1,2-Trichloroethane	5	330	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Bromodichloromethane	80	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,1-Dichloroethane	1,200	740	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Bromoform	80	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,1-Dichloroethene	7	130	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Bromomethane (Methyl bromide)	120	5	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,2-Dichloroethane	5	360	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Carbon disulfide	440	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Carbon tetrachloride	5	38	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
cis-1,2-Dichloroethene	70	620	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Chlorobenzene	100	25	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Chloroform (Trichloromethane)	80	350	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Trichloroethene	5	200	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Tetrachloroethene	5	60	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Vinyl chloride	2	13	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Chloroethane	240	1,100	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Benzene	5	200	ug/L	NA	<1 [<1]	NA	<1	<1	**117**	NA
Methyl acetate	- -	- -	ug/L	NA	<10 [<10]	NA	<10	<10	<10	NA
Ethylbenzene	66	18	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Methylene chloride	5	1,500	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Styrene	100	80	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Toluene	470	270	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	<10 [<10]	NA	<10	<10	<10	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	<10 [<10]	NA	<10	<10	<10	NA
1,2,4-Trichlorobenzene	70	99	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,2-Dichloropropane	5	230	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
1,3-Dichlorobenzene	12	28	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Cyclohexane	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Methyl cyclohexane	- -	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Dibromochloromethane	80	- -	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
Isopropyl benzene	590	28	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
o-Xylene	41	280	ug/L	NA	<1 [<1]	NA	<1	<1	<1	NA
m&p-Xylene	41	280	ug/L	NA	<2 [<2]	NA	<2	<2	<2	NA
Total Xylenes	41	280	ug/L	NA	<3 [<3]	NA	<3	<3	<3	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	MW-91-6 03/30/17 MW-91-6_033017	MWBP-10-UST5-6 04/27/17 MWBP-10-UST5-6_042717	MWBP-10-UST5-6 04/28/17 MWBP-10-UST5-6_042817	MWBP-11-UST1-4 04/27/17 MWBP-11-UST1-4_042717	MWBP-12A-UST1-4 04/27/17 MWBP-12A-UST1-4_042717	MWBP-12-UST1-4 04/27/17 MWBP-12-UST1-4_042717	P2-MW-04 04/27/17 P2-MW-04_042717
Inorganics										
Arsenic	0.01	0.01	mg/L	NA	NA	**0.038**	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	<0.005	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	<0.005	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	<0.003	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	<0.005	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	<0.005	NA	NA	NA	NA
Inorganics-Filtered										
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	**0.014**	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	<0.005	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	<0.005	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	<0.003	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	<0.005	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	<0.005	NA	NA	NA	NA

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Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	P2-SB-20 04/27/17 P2-SB-20_042717	PW-14-01 04/27/17 PW-14-01_042717	PW-14-02 05/02/17 PW-14-02_050217	PW-14-03 05/03/17 PW-14-03_050317	TW-14-01 04/26/17 TW-14-01_042617	TW-14-02 04/27/17 TW-14-02_042717	TW-16-01 04/27/17 TW-16-01_042717	UNK-10 05/02/17 UNK-10_050217	UNK-11 05/02/17 UNK-11_050217
Field												
Conductance, specific	- -	- -	umhos/cm	310	1,870	3,210	3,700	3,110	3,740	2,490	4,480	750
Dissolved oxygen (DO)	- -	- -	mg/L	0.21	0.36	5.65	1.04	0.26	0.58	0.42	2.09	0.27
Oxidation reduction potential (ORP), field	- -	- -	millivolts	0.8	-63.0	-26.90	-51.30	-53.80	-40.0	-37.90	-53.80	-101.10
pH	- -	- -	s.u.	9.87	6.87	7.54	6.49	6.78	6.7	6.93	7.25	7.2
Temperature, field	- -	- -	Deg C	14.8	18.7	10.1	14.3	19	16.1	14.4	10.9	10.6
Turbidity (field)	- -	- -	NTU	12.2	3.4	37.6	3.76	2.11	19.7	23.4	9.7	5.4
Volatile Organics												
1,2-Dibromo-3-chloropropane (DBCP)	0.2	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,2-Dibromoethane (Ethylene dibromide)	0.05	5.7	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,2-Dichlorobenzene	600	13	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,4-Dichlorobenzene	75	17	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,4-Dioxane	7.2	2,800	ug/L	<3	**530 Y**	**103**	**140 Y**	**80**	**2,450 Y [2,270 Y]**	**220 Y**	NA	NA
1,1,1-Trichloroethane	200	89	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
2-Hexanone	50	- -	ug/L	NA	NA	<10	<10	<10	<10 [<10]	NA	<10	<10
1,1,2,2-Tetrachloroethane	3.6	78	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Acetone	5,300	1,700	ug/L	NA	NA	<10	<10	<10	<10 [<10]	NA	<10	<10
1,1,2-Trichloroethane	5	330	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Bromodichloromethane	80	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,1-Dichloroethane	1,200	740	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Bromoform	80	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,1-Dichloroethene	7	130	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Bromomethane (Methyl bromide)	120	5	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,2-Dichloroethane	5	360	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Carbon disulfide	440	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Carbon tetrachloride	5	38	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
cis-1,2-Dichloroethene	70	620	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Chlorobenzene	100	25	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
trans-1,2-Dichloroethene	100	1,500	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Chloroform (Trichloromethane)	80	350	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Trichloroethene	5	200	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Chloromethane (Methyl chloride)	220	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Tetrachloroethene	5	60	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
cis-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Vinyl chloride	2	13	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Chloroethane	240	1,100	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Dichlorodifluoromethane (CFC-12)	30	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Benzene	5	200	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Methyl acetate	- -	- -	ug/L	NA	NA	<10	<10	<10	<10 [<10]	NA	<10	<10
Ethylbenzene	66	18	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Methylene chloride	5	1,500	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Styrene	100	80	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Toluene	470	270	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
trans-1,3-Dichloropropene	- -	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Methyl tert butyl ether (MTBE)	40	7,100	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Trichlorofluoromethane (CFC-11)	1,800	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Trifluorotrichloroethane (Freon 113)	160,000	32	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
2-Butanone (Methyl ethyl ketone) (MEK)	2,400	2,200	ug/L	NA	NA	<10	<10	<10	<10 [<10]	NA	<10	<10
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	300	- -	ug/L	NA	NA	<10	<10	<10	<10 [<10]	NA	<10	<10
1,2,4-Trichlorobenzene	70	99	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,2-Dichloropropane	5	230	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
1,3-Dichlorobenzene	12	28	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Cyclohexane	- -	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Methyl cyclohexane	- -	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Dibromochloromethane	80	- -	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
Isopropyl benzene	590	28	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	**3**
o-Xylene	41	280	ug/L	NA	NA	<1	<1	<1	<1 [<1]	NA	<1	<1
m&p-Xylene	41	280	ug/L	NA	NA	<2	<2	<2	<2 [<2]	NA	<2	<2
Total Xylenes	41	280	ug/L	NA	NA	<3	<3	<3	<3 [<3]	NA	<3	<3

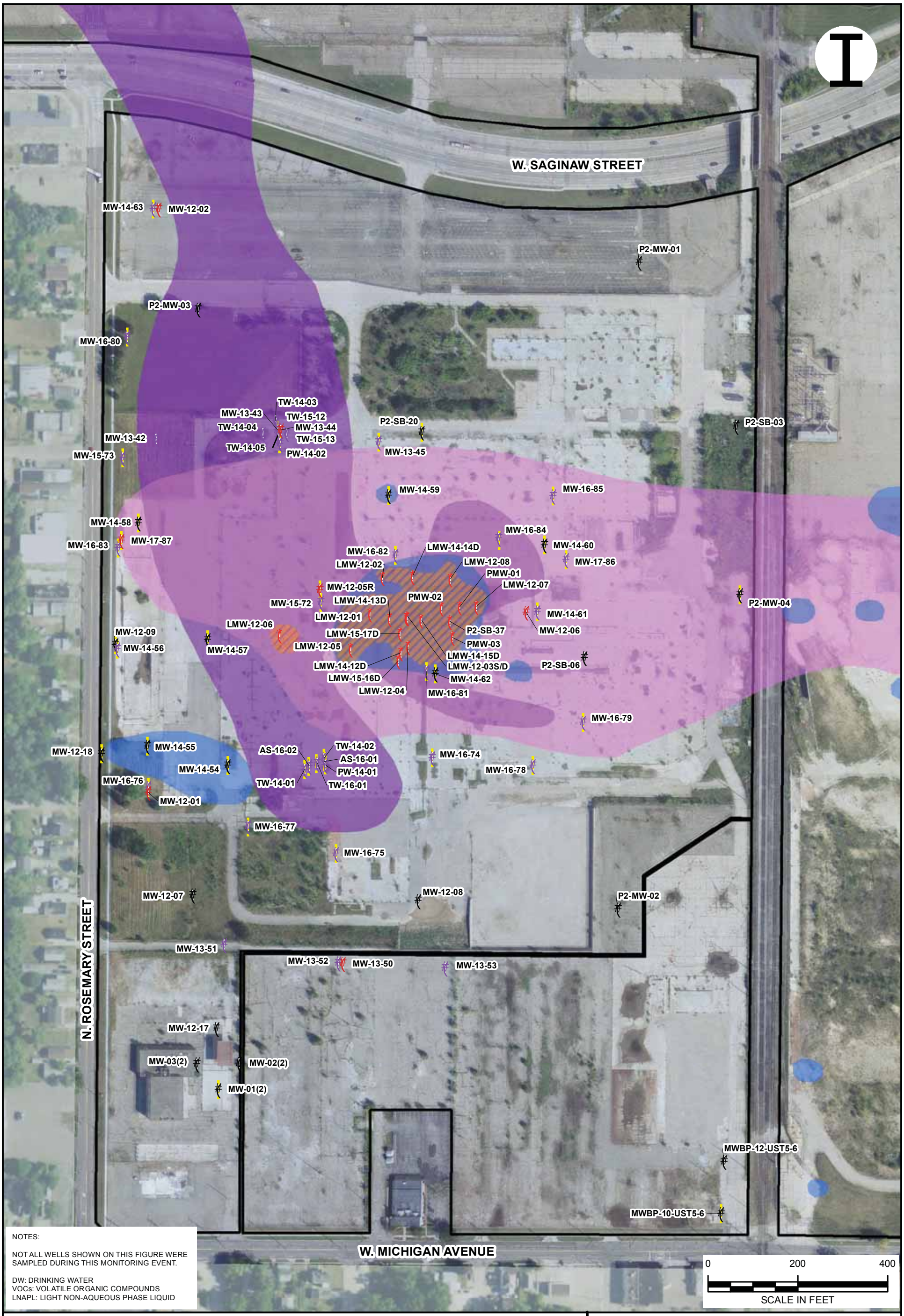
Table 4
Summary of Groundwater Analytical Results
January 2017 to June 2017
2017 Semi-Annual Groundwater Report
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Location ID: Date Collected: Sample Name:	MI GW (DEQ2016D) RES DW	MI GW (DEQ2016D) GSI	Units	P2-SB-20 04/27/17 P2-SB-20_042717	PW-14-01 04/27/17 PW-14-01_042717	PW-14-02 05/02/17 PW-14-02_050217	PW-14-03 05/03/17 PW-14-03_050317	TW-14-01 04/26/17 TW-14-01_042617	TW-14-02 04/27/17 TW-14-02_042717	TW-16-01 04/27/17 TW-16-01_042717	UNK-10 05/02/17 UNK-10_050217	UNK-11 05/02/17 UNK-11_050217
Inorganics												
Arsenic	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI (hexavalent)	0.1	0.011	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered												
Arsenic (dissolved)	0.01	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (dissolved)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (dissolved)	0.03	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (dissolved)	0.001	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (dissolved)	0.036	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (dissolved)	0.004	0.027	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table Notes:
-- Shading indicates result exceeding one or more MDEQ Part 201 Generic Cleanup Criteria and Screening Levels, Dated December 30, 2013.
-- Bold fonts represent data where detections were noted above the laboratory method detection limit.
-- Data shown in [ ] represent duplicate sample analytical results.
- - = Not listed in the MDEQ Criteria Tables.
mg/L - milligrams per liter
s.u. - standard unit
Deg. C. - degrees celcius
NTU - Nephelometric Turbidity Unit
ug/L - micrograms per liter
umhos/cm - micromhos per centimeter
a - Sample exceeds Residential Drinking Water (DW) Criteria
b - Sample exceeds Groundwater Surface Water Interface (GSI) Criteria
NA - Not Analyzed

Lab and Validation Data Qualifiers:
B = Compounds also found in associated method blank.
X = Elevated reporting limit due to matrix interference.
Y = Elevated reporting limit due to high target concentration.
O = Analysis performed by outside laboratory.

FIGURES



NOTES:

NOT ALL WELLS SHOWN ON THIS FIGURE WERE SAMPLED DURING THIS MONITORING EVENT.

DW: DRINKING WATER
VOCs: VOLATILE ORGANIC COMPOUNDS
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID

LEGEND

EXISTING MONITORING WELLS

- NAPL MONITORING WELL
- PERCHED MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- 1Q AND 2Q 2017 SAMPLED MONITORING WELL

- APPROXIMATE EXTENT LNAPL
- APPROX. EXTENT VOCs IN PERCHED ZONE
- PERCHED 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L)
- LOWER 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L) *
- PROPERTY BOUNDARY

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

FIRST AND SECOND QUARTER 2017 SAMPLING LOCATIONS PLANT 2 AND W. PLANT 6

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: Novi DIV: ENV DB: D. OLEXA PIC: D. KAIDING PM: C. KIKER TM: K. PADRON TR: P. CURRY PROJECT NUMBER: B0064479.2016 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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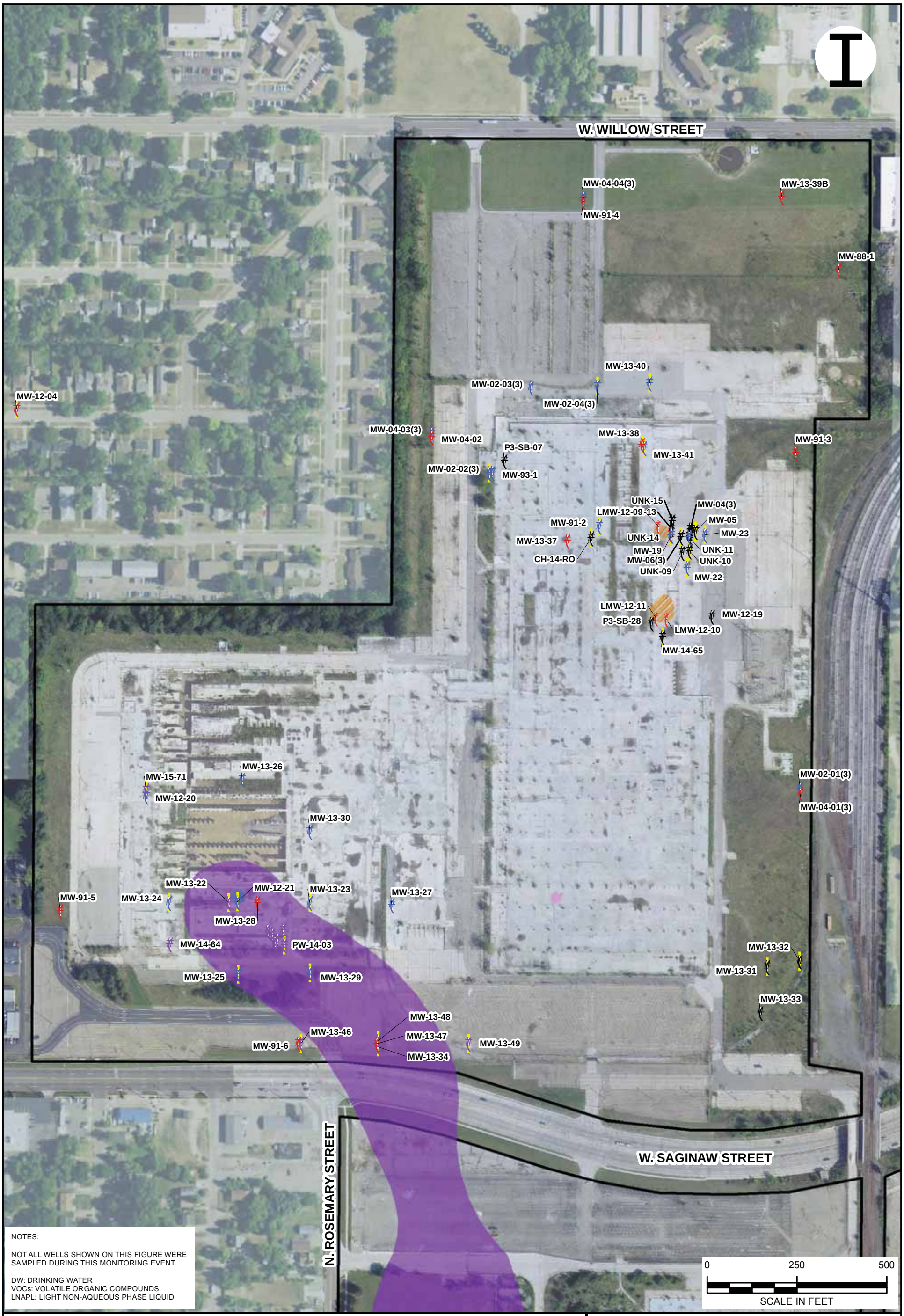

NOTES:

NOT ALL WELLS SHOWN ON THIS FIGURE WERE SAMPLED DURING THIS MONITORING EVENT.

DW: DRINKING WATER
VOCs: VOLATILE ORGANIC COMPOUNDS
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID

LEGEND

EXISTING MONITORING WELLS

- NAPL MONITORING WELL
- PERCHED MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL; TEST MW
- BEDROCK MONITORING WELL
- 1Q AND 2Q 2017 SAMPLED MONITORING WELL

- APPROXIMATE EXTENT LNAPL
- APPROXIMATE EXTENT OF VOCs IN PERCHED GW > DW CRITERIA
- PERCHED 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L)
- LOWER 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L) *
- PROPERTY BOUNDARY

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

FIRST AND SECOND QUARTER 2017 SAMPLING LOCATIONS PLANT 3

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2

CITY: Novi DIV: ENV DB: D. OLEXA PIC: D. KAIDING PM: C. KIKER TM: K. PADRON TR: P. CURRY PROJECT NUMBER: B0064479.2016 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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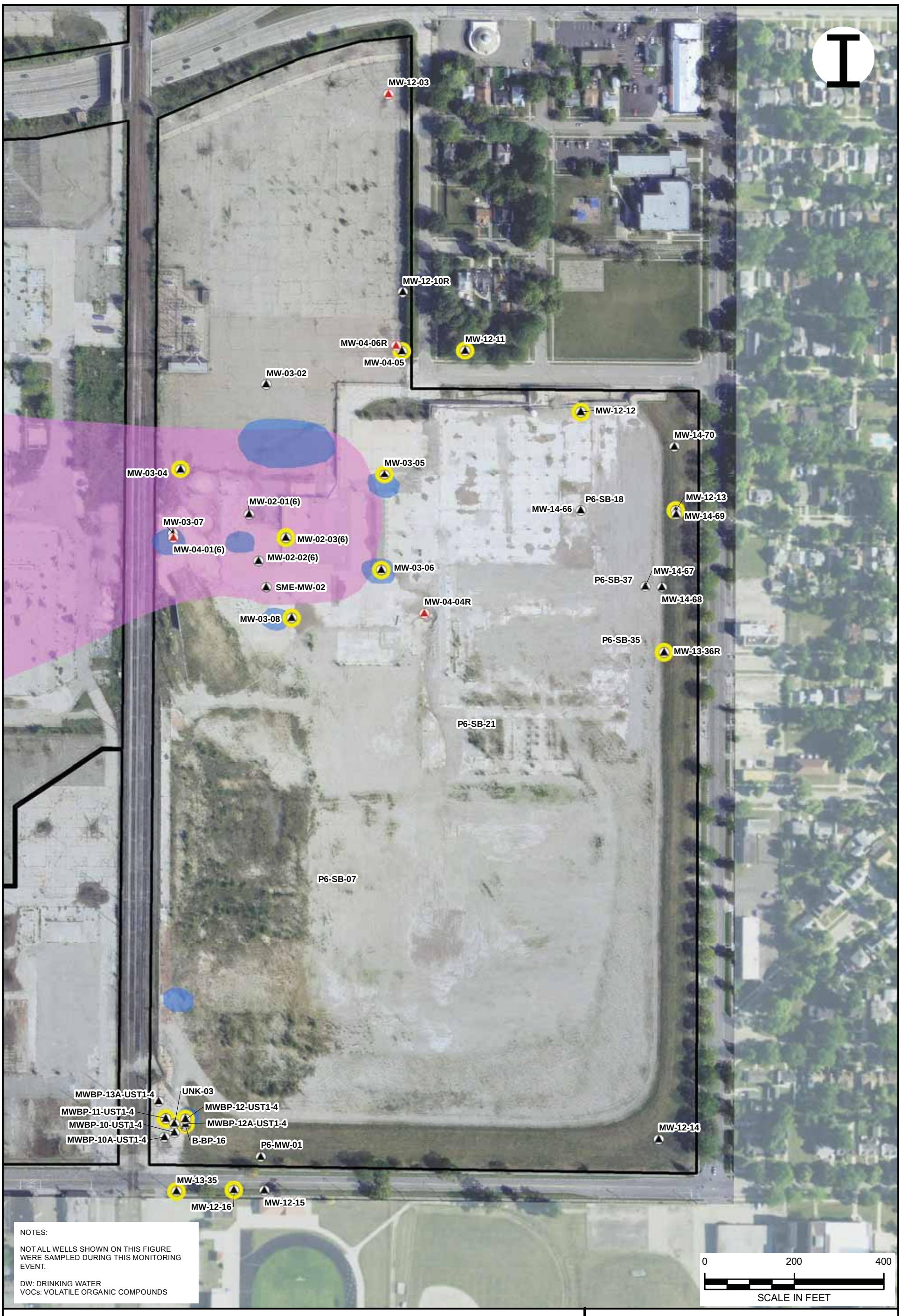

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LEGEND

EXISTING MONITORING WELLS

- # PERCHED MONITORING WELL
- # BEDROCK MONITORING WELL
- ! 1Q AND 2Q 2017 SAMPLED MONITORING WELL

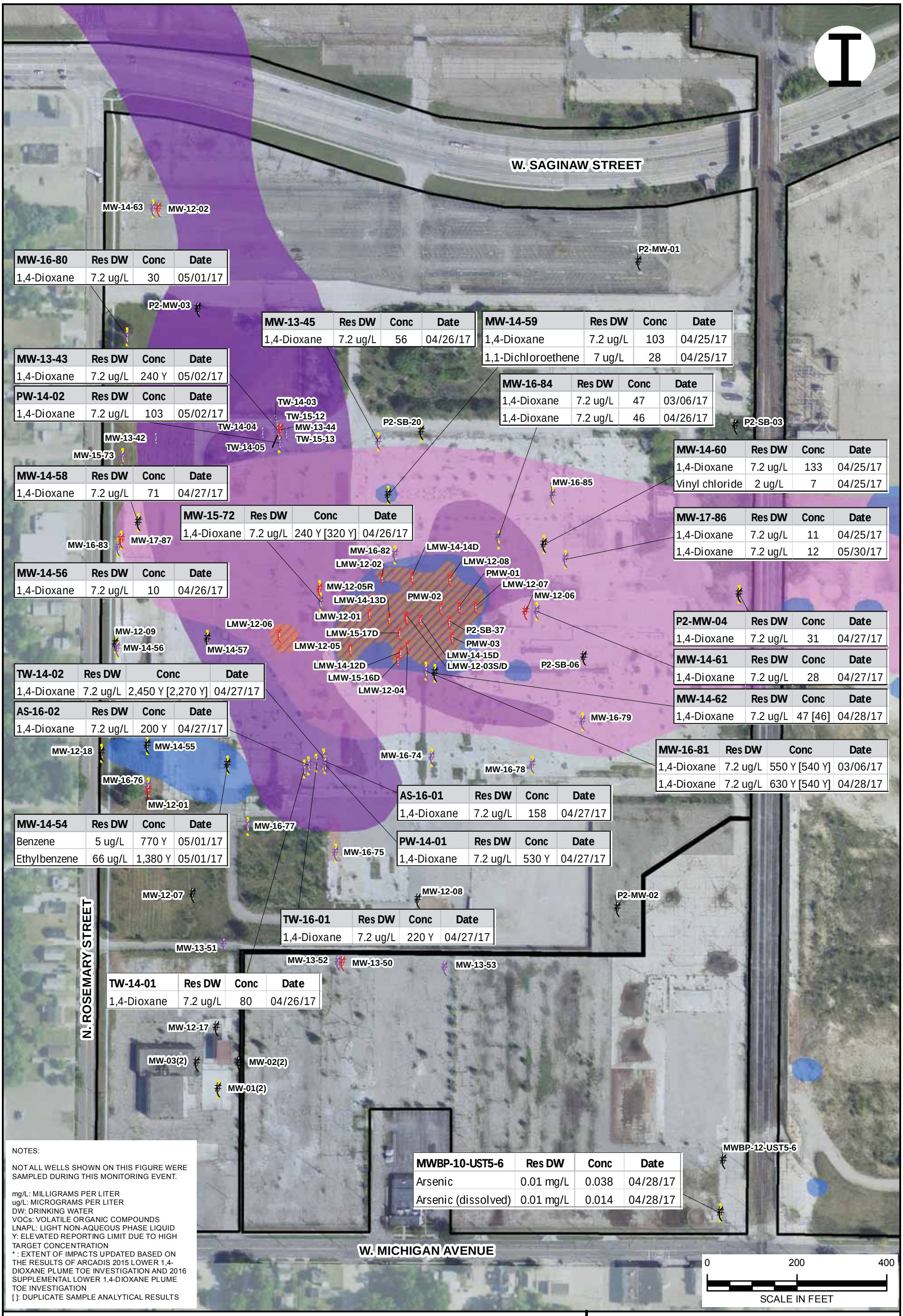
- APPROXIMATE EXTENT OF VOCs IN PERCHED GW > DW CRITERIA
- PERCHED 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L)
- PROPERTY BOUNDARY

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

FIRST AND SECOND QUARTER 2017 SAMPLING LOCATIONS E. PLANT 6

ARCADIS Design & Consultancy for natural and built assets

FIGURE
6



MW-16-80	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	30	05/01/17

MW-13-45	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	56	04/26/17

MW-14-59	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	103	04/25/17
1,1-Dichloroethene	7 ug/L	28	04/25/17

MW-13-43	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	240 Y	05/02/17

MW-16-84	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	47	03/06/17
1,4-Dioxane	7.2 ug/L	46	04/26/17

PW-14-02	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	103	05/02/17

MW-14-60	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	133	04/25/17
Vinyl chloride	2 ug/L	7	04/25/17

MW-14-58	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	71	04/27/17

MW-15-72	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	240 Y [320 Y]	04/26/17

MW-17-86	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	11	04/25/17
1,4-Dioxane	7.2 ug/L	12	05/30/17

MW-14-56	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	10	04/26/17

P2-MW-04	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	31	04/27/17

MW-14-61	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	28	04/27/17

TW-14-02	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	2,450 Y [2,270 Y]	04/27/17

MW-14-62	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	47 [46]	04/28/17

AS-16-02	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	200 Y	04/27/17

MW-16-81	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	550 Y [540 Y]	03/06/17
1,4-Dioxane	7.2 ug/L	630 Y [540 Y]	04/28/17

AS-16-01	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	158	04/27/17

MW-14-54	Res DW	Conc	Date
Benzene	5 ug/L	770 Y	05/01/17
Ethylbenzene	66 ug/L	1,380 Y	05/01/17

PW-14-01	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	530 Y	04/27/17

TW-16-01	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	220 Y	04/27/17

TW-14-01	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	80	04/26/17

MWBP-10-UST5-6	Res DW	Conc	Date
Arsenic	0.01 mg/L	0.038	04/28/17
Arsenic (dissolved)	0.01 mg/L	0.014	04/28/17

NOTES:

NOT ALL WELLS SHOWN ON THIS FIGURE WERE SAMPLED DURING THIS MONITORING EVENT.

mg/L: MILLIGRAMS PER LITER
ug/L: MICROGRAMS PER LITER
DW: DRINKING WATER
VOCs: VOLATILE ORGANIC COMPOUNDS
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID
Y: ELEVATED REPORTING LIMIT DUE TO HIGH TARGET CONCENTRATION
* : EXTENT OF IMPACTS UPDATED BASED ON THE RESULTS OF ARCADIS 2015 LOWER 1,4-DIOXANE PLUME TOE INVESTIGATION AND 2016 SUPPLEMENTAL LOWER 1,4-DIOXANE PLUME TOE INVESTIGATION
[ ]: DUPLICATE SAMPLE ANALYTICAL RESULTS

0 200 400
SCALE IN FEET

LEGEND

EXISTING MONITORING WELLS

- NAPL MONITORING WELL
- PERCHED MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- 1Q AND 2Q 2017 SAMPLED MONITORING WELL

- APPROXIMATE EXTENT LNAPL
- APPROX. EXTENT VOCs IN PERCHED ZONE
- PERCHED 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L)
- LOWER 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L) *
- PROPERTY BOUNDARY

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

FIRST AND SECOND QUARTER 2017 DRINKING WATER EXCEEDANCES PLANT 2 AND W. PLANT 6

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

CITY: Novi DIV: ENV DB: D. OLEXA PIC: D. KAIDING PM: C. KIKER TM: K. PADRON TR: P. CURRY PROJECT NUMBER: B0064479.2016 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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W. WILLOW STREET

MW-04-04(3)
MW-91-4
MW-13-39B
MW-88-1
MW-13-40
MW-02-03(3)
MW-02-04(3)
MW-12-04
MW-04-03(3)
MW-04-02
P3-SB-07
MW-02-02(3)
MW-93-1
MW-13-38
MW-91-3

MW-13-41	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	18	05/01/17

MW-91-2	Res DW	Conc	Date
Lead	0.001 mg/L	0.003	05/01/17

UNK-15
LMW-12-09-13
MW-04(3)
MW-05
MW-23
UNK-14
MW-19
MW-06(3)
UNK-09
UNK-11
UNK-10
MW-22
MW-13-37

CH-14-RO	Res DW	Conc	Date
Chromium VI	0.1 mg/L	12.6	05/01/17

LMW-12-11
P3-SB-28
MW-12-19
LMW-12-10
MW-14-65
MW-13-26
MW-15-71
MW-12-20
MW-02-01(3)
MW-04-01(3)
MW-13-30

MW-13-22	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	154	04/28/17

MW-12-21	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	360 Y	04/28/17

MW-13-32	Res DW	Conc	Date
Nickel	0.036 mg/L	0.542 [0.551]	05/03/17

MW-91-5
MW-13-24
MW-13-23
MW-13-27
MW-13-28
MW-14-64
MW-13-25

PW-14-03	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	140 Y	05/03/17

MW-13-29	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	23 [26]	05/02/17

MW-13-31
MW-13-33

MW-13-48	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	250 Y [200 Y]	05/02/17

MW-13-25	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	17	05/03/17

MW-13-46
MW-91-6
MW-13-47
MW-13-49

MW-13-34	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	82	05/02/17

W. SAGINAW STREET

N. ROSEMARY STREET

NOTES:

NOT ALL WELLS SHOWN ON THIS FIGURE WERE SAMPLED DURING THIS MONITORING EVENT.

mg/L: MILLIGRAMS PER LITER
ug/L: MICROGRAMS PER LITER
DW: DRINKING WATER
VOCs: VOLATILE ORGANIC COMPOUNDS
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID
Y: ELEVATED REPORTING LIMIT DUE TO HIGH TARGET CONCENTRATION
[ ]: DUPLICATE SAMPLE ANALYTICAL RESULTS

0 250 500
SCALE IN FEET

LEGEND

EXISTING MONITORING WELLS

- NAPL MONITORING WELL
- PERCHED MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL; TEST MW
- BEDROCK MONITORING WELL
- 1Q AND 2Q 2017 SAMPLED MONITORING WELL

- APPROXIMATE EXTENT LNAPL
- APPROXIMATE EXTENT OF VOCs IN PERCHED GW > DW CRITERIA
- PERCHED 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L)
- LOWER 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L) *
- PROPERTY BOUNDARY

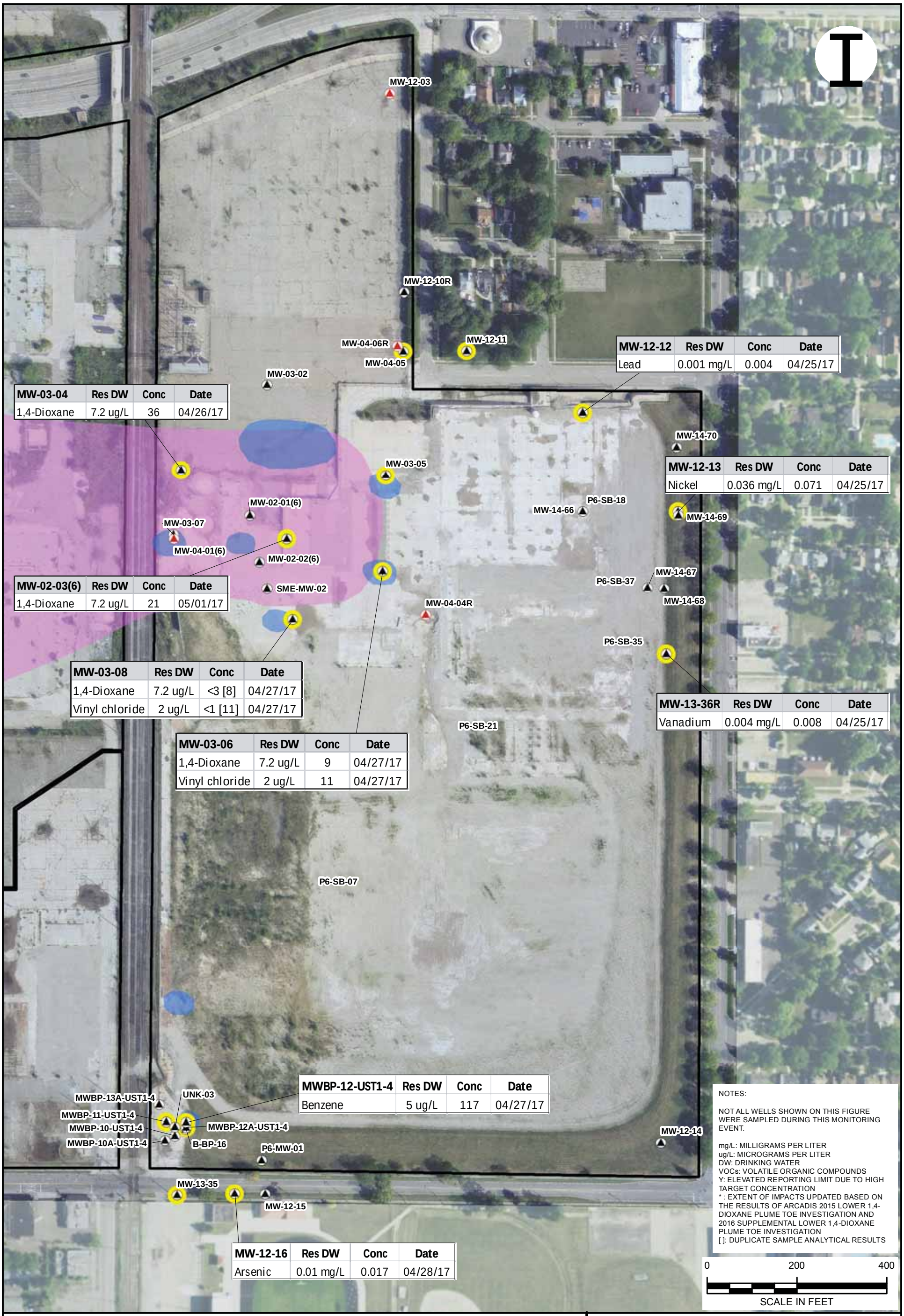
RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

FIRST AND SECOND QUARTER 2017 DRINKING WATER EXCEEDANCES PLANT 3

ARCADIS Design & Consultancy for natural and built assets

FIGURE
5

CITY: Novi DIV: ENV DB: D. OLEXA PIC: D. KAIDING PM: C. KIKER TM: K. PADRON TR: P. CURRY PROJECT NUMBER: B0064479.2016 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
\\corpstorage\Data\ArcGisData\GISProjects_ENV\RACER_Lansing\Docs\2017 Semi-Annual Report\Fig5_Q1Q2_DWexceedances_ P3.mxd PLOTTED: 8/16/2017 4:24:52 PM BY: dolexa



MW-12-12	Res DW	Conc	Date
Lead	0.001 mg/L	0.004	04/25/17

MW-03-04	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	36	04/26/17

MW-12-13	Res DW	Conc	Date
Nickel	0.036 mg/L	0.071	04/25/17

MW-02-03(6)	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	21	05/01/17

MW-03-08	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	<3 [8]	04/27/17
Vinyl chloride	2 ug/L	<1 [11]	04/27/17

MW-03-06	Res DW	Conc	Date
1,4-Dioxane	7.2 ug/L	9	04/27/17
Vinyl chloride	2 ug/L	11	04/27/17

MW-13-36R	Res DW	Conc	Date
Vanadium	0.004 mg/L	0.008	04/25/17

MWBP-12-UST1-4	Res DW	Conc	Date
Benzene	5 ug/L	117	04/27/17

MW-12-16	Res DW	Conc	Date
Arsenic	0.01 mg/L	0.017	04/28/17

NOTES:

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mg/L: MILLIGRAMS PER LITER
ug/L: MICROGRAMS PER LITER
DW: DRINKING WATER
VOCs: VOLATILE ORGANIC COMPOUNDS
Y: ELEVATED REPORTING LIMIT DUE TO HIGH TARGET CONCENTRATION
* : EXTENT OF IMPACTS UPDATED BASED ON THE RESULTS OF ARCADIS 2015 LOWER 1,4-DIOXANE PLUME TOE INVESTIGATION AND 2016 SUPPLEMENTAL LOWER 1,4-DIOXANE PLUME TOE INVESTIGATION
[ ]: DUPLICATE SAMPLE ANALYTICAL RESULTS

LEGEND

EXISTING MONITORING WELLS

- PERCHED MONITORING WELL
- BEDROCK MONITORING WELL
- 1Q AND 2Q 2017 SAMPLED MONITORING WELL

- APPROXIMATE EXTENT OF VOCs IN PERCHED GW > DW CRITERIA
- PERCHED 1,4-DIOXANE IMPACTS > PROPOSED DW CRITERIA (7.2 µg/L)
- PROPERTY BOUNDARY

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

FIRST AND SECOND QUARTER 2017 DRINKING WATER EXCEEDANCES E. PLANT 6

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FIGURE 6

CITY: Novi DIV: ENV DB: D. OLEXA PIC: D. KAIDING PM: C. KIKER TM: K. PADRON TR: P. CURRY
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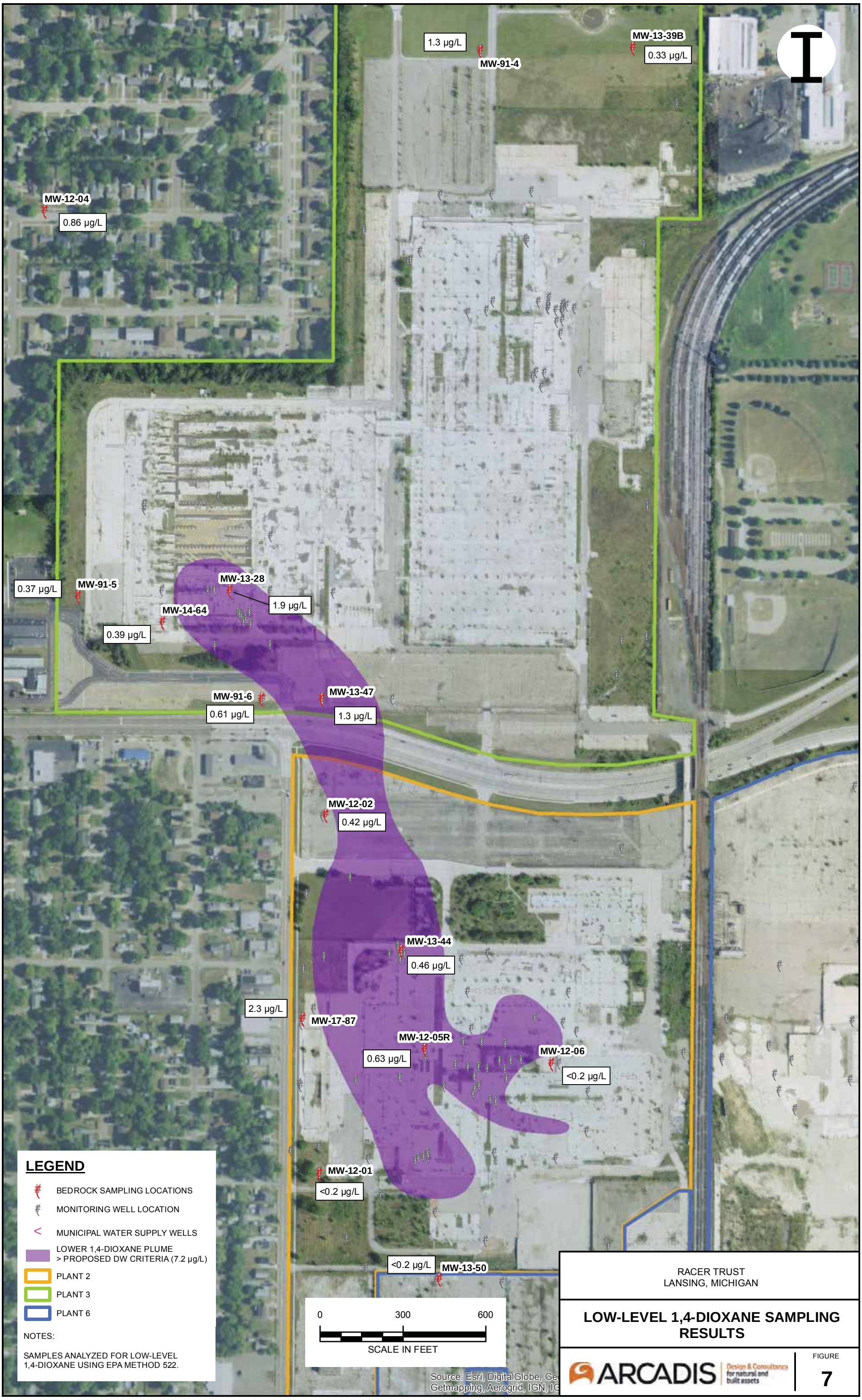

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RACER TRUST
LANSING, MICHIGAN

LOW-LEVEL 1,4-DIOXANE SAMPLING RESULTS

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FIGURE
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