

January 31, 2026

Subject:

2025 Annual Groundwater Monitoring and Corrective Action Report
Former JR Whiting Power Plant
Pond 1 & 2 and Pond 6

Enclosures:

Document	Date
CCR Annual Groundwater Report Requirements: § 257.90(e). Checklist for the JR Whiting Pond 1 & 2 CCR Unit	January 31, 2026
CCR Annual Groundwater Report Requirements: § 257.90(e). Checklist for the JR Whiting Pond 6 CCR Unit	January 31, 2026
2025 Annual Groundwater Monitoring and Corrective Action Report, Former JR Whiting Power Plant, Pond 1 & 2 and Pond 6	January 31, 2026

The attached document(s) are prepared in conformance with:

Document	Date
§ 257.90(e) of 40 CFR Part 257, Disposal of Coal Combustion Residuals from Electric Utilities, under Subpart D of the Resource Conservation and Recovery Act (RCRA)	April 17, 2015



2025 Annual Groundwater Monitoring and Corrective Action Report

Former JR Whiting Power Plant
Pond 1 & 2 and Pond 6

Erie, Michigan

January 2026

A handwritten signature in black ink, appearing to read "Sarah B. Holmstrom", written over a horizontal line.

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Project Manager/Sr. Hydrogeologist

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Ashlyn R. Kast
Staff Geologist

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1.0 Program Summary

Coal Combustion Residuals (CCR) are regulated under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule) (USEPA, April 2015, as amended). Standards for groundwater monitoring and corrective action codified in the CCR Rule (40 CFR 257.90-98), apply to the Consumers Energy Company (Consumers Energy) Pond 1 & 2 and Pond 6 at the former JR Whiting (JRW) Power Plant Site. Pursuant to the CCR Rule, the owner or operator of a CCR unit must prepare an annual groundwater monitoring and corrective action report for the CCR unit documenting the status of groundwater monitoring and corrective action for the preceding year in accordance with §257.90(e). On behalf of Consumers Energy, TRC has prepared this Annual Groundwater Monitoring Report for JRW Pond 1 & 2 and Pond 6 to cover the period of January 1, 2025 to December 31, 2025. The reporting schedules for Pond 1 & 2 and Pond 6 have been aligned to be due no later than January 31 of each year.

This 2025 Pond 1 & 2 and Pond 6 Annual Report was prepared in accordance with the requirements of §257.90(e) and presents the monitoring results and the statistical evaluation of the detection monitoring constituents (Appendix III to Part 257 of the CCR Rule) for the April and October 2025 semiannual groundwater monitoring events for Pond 1 & 2 and Pond 6. As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify statistically significant increases (SSIs) in detection monitoring constituents to determine if concentrations in detection monitoring well samples exceed background levels.

No SSIs over background limits attributable to Pond 1 & 2 or Pond 6 were identified for any of the Appendix III constituents during the 2025 monitoring events. Pond 1 & 2 and Pond 6 remained in detection monitoring through the period covered by this report. As such, Consumers Energy will continue with the detection monitoring program at the JRW Pond 1 & 2 and Pond 6 in conformance with §257.90 - §257.94.

2.0 Groundwater Monitoring

The semiannual monitoring events were completed in April and October 2025 to comply with both the CCR Rule and the Michigan Department of Environment, Great Lakes, and Energy (EGLE)-approved monitoring program established for Pond 1 & 2 and Pond 6 in early 2020. Given the congruencies between the two programs, data collected and evaluated under both programs are presented together in two semiannual reports to document the 2025 monitoring activities.

No monitoring wells were installed or decommissioned in 2025. Key actions in the 2025 reporting period included performing detection monitoring for Pond 1 & 2 and Pond 6. No problems were encountered and thus no actions were needed to resolve problems. Key activities projected for 2026 include semi-annual detection monitoring.

2.1 First Semiannual Monitoring Event

A summary of the first semiannual groundwater monitoring event is provided in Appendix A.

2.2 Second Semiannual Monitoring Event

A summary of the second semiannual groundwater monitoring event is provided in Appendix B.

3.0 Corrective Action

There were no corrective actions needed or performed for either Pond 1 & 2 or Pond 6 within the calendar year 2025. No SSIs were recorded for the monitoring period that were attributable to either Pond 1 & 2 or Pond 6; therefore, Consumers Energy will continue with the detection monitoring program at the JRW Pond 1 & 2 and Pond 6 CCR unit in conformance with §257.90 - §257.94.

Appendix A

First Semiannual Monitoring Report

July 29, 2025

Brett Coulter, CPG, District Geologist
 EGLE, Materials Management Division
 State Office Building
 301 East Louis Glick Highway
 Jackson, MI 49201

via email: CoulterB1@michigan.gov

TRANSMITTAL OF GROUNDWATER MONITORING RESULTS FOR JR WHITING SOLID WASTE DISPOSAL AREA; WDS NO. 397664

Dear Mr. Coulter,

Please find attached the following:

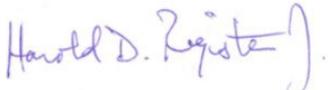
Document	Date
First Semiannual 2025 Groundwater Monitoring Report for the JR Whiting Solid Waste Disposal Area	July 29, 2025
First Semiannual 2025 Laboratory Analysis Data Spreadsheet	July 29, 2025

The attached document(s) are prepared in conformance with:

Document	Date
Solid Waste Disposal Area Operating License; Consumers Whiting Plant Impoundments; Waste Disposal System Number 397664; License Number 9601	May 11, 2020
Hydrogeological Monitoring Plan, Consumers Power Company, dated May 6, 2020	May 6, 2020
Michigan Department of Environment, Great Lakes, and Energy Policy Memorandum OWMRP-115-29: Format for Solid Waste Disposal Facility Monitoring Submittals	July 5, 2013

Please contact me if you have any questions regarding this transmittal.

Sincerely,



Harold D. Register, Jr., P.E.
Sr. Principal Environmental Engineer
Phone: (517) 788-2982
Email: harold.registerjr@cmsenergy.com

cc Gary Schwerin, EGLE (via email)
EGLE-MMD-CCR@michigan.gov



First Semiannual 2025 Groundwater Monitoring Report

Former JR Whiting Power Plant
Pond 1 & 2 and Pond 6
Erie, MI

July 2025

A handwritten signature in black ink, appearing to read "Sarah B. Holmstrom".

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Staff Geologist

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- Figure 2 Site Plan with CCR Monitoring Well Locations
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APPENDICES

- Appendix A Data Quality Reviews
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1.0 Introduction

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule), as amended. Standards for groundwater monitoring and corrective action codified in the CCR Rule (40 CFR 257.90-98) apply to the Consumers Energy Company (Consumers Energy) Ponds 1 and 2 (closed surface impoundment monitored as Pond 1 & 2 using a multiunit groundwater monitoring system) and Pond 6 (closed inactive surface impoundment) at the former JR Whiting (JRW) Power Plant Site (the Site). Prior to the CCR Rule, from about 2009 to 2016, JR Whiting followed the approved groundwater monitoring waiver.

On December 28, 2018, the State of Michigan enacted Public Act No. 640 of 2018 (PA 640) to amend the Natural Resources and Environmental Protection Act, also known as Part 115 of PA 451 of 1994, as amended (a.k.a., Michigan Part 115 Solid Waste Management). The December 2018 amendments to Part 115 were developed to provide the State of Michigan oversight of CCR impoundments and landfills and to better align existing state solid waste management rules and statutes with the CCR Rule. On August 8, 2019, Consumers Energy submitted a revised *JR Whiting Hydrogeological Monitoring Plan, former JR Whiting Power Plant, Erie, Michigan (2020 HMP)* (TRC, May 2020 Revision) to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to comply with the requirements of Part 115, Rule 299.4905, and the CCR Rule. The HMP was approved by the EGLE on May 11, 2020.

1.1 Statement of Adherence to Approved Hydrogeological Monitoring Plan

This JR Whiting First Semiannual 2025 Groundwater Monitoring Report (Report) has been prepared by TRC on behalf of Consumers Energy to present groundwater monitoring data collected from the JR Whiting Pond 1 & 2 and Pond 6 during the second calendar quarter of 2025. This report was prepared in accordance with the items listed in Appendix A (Solid Waste Monitoring Submittal Components) of the July 5, 2013 Michigan Department of Environmental Quality – Office of Waste Management and Radiological Protection (MDEQ-OWMRP), now the EGLE Materials Management Division (MMD), communication prescribing the format for solid waste disposal facility monitoring submittals as published in OWMRP-115-29, Format for Solid Waste Disposal Monitoring Submittals. All references herein to the EGLE are inclusive of the MDEQ. Groundwater sampling, analysis, and information contained in this report was prepared in adherence to the 2020 HMP.

1.2 Program Summary

Historically groundwater monitoring at JRW was performed under the HMP last revised on November 26, 1997, until the groundwater monitoring waiver was approved on September 2, 2009. It was then again performed pursuant to the CCR Rule beginning in 2016 until implementation of the 2020 HMP, at which time monitoring began to be conducted in accordance with both regulatory programs. In the *Second Semiannual 2024 Groundwater Monitoring Report* for the JRW Pond 1 & 2 and Pond 6 (Second Semiannual 2024 Report) (TRC, January 2025), Consumers Energy reported that no potential statistically significant increases (SSIs) were noted during the second 2024 semiannual detection monitoring event.

Therefore, Consumers Energy continued detection monitoring in the second half of 2024 at Pond 1 & 2 and Pond 6 pursuant to §257.94 of the CCR Rule and the HMP.

This Report presents the monitoring results and the statistical evaluation of the detection monitoring constituents (Section 11511a(3)(c) of Part 115) for the April 2025 semiannual groundwater monitoring event for Pond 1 & 2 and Pond 6. Detection monitoring was performed in accordance with the 2020 HMP. As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify SSIs of detection monitoring constituents compared to background levels.

1.3 Site Overview

The JR Whiting Plant was a coal-fired power generation facility located in Erie, Michigan, on the western shore of Lake Erie (Figure 1). The plant began producing electricity in 1952 from Units 1 and 2, with Unit 3 beginning operation in 1953. The plant ceased operation in April 2016. Figure 1 is the site location map showing the facility and the surrounding area. Site features are shown on Figure 2.

The JR Whiting Ash Disposal Area is licensed under Michigan Part 115 of the Natural Resources and Environmental Protection Act (NREPA), PA 451 of 1994, as amended.

Pond 1 & 2 is located to the east of the plant, north of the discharge canal, south of Erie Road, and west of Lake Erie and constructed in native clay soil. It was historically used for wet ash sluicing. In 2019, it received its final cover system constructed pursuant to 40 CFR 257.102(a); the Pond 1 & 2 Closure Construction Quality Assurance (CQA) Plan dated August 31, 2017; the Part 115 Administrative Rules; and Pond 1 & 2 Closure Plan submitted to the EGLE on December 18, 2017. The closure of Pond 1 & 2 was certified by the EGLE in a letter dated August 27, 2020.

Pond 6 is located to the north of the plant and was constructed in native clay soil. It was an inactive surface impoundment at the time the CCR Rule became effective on October 19, 2015, and was capped with a final cover certified pursuant to the CCR Rule on December 5, 2017, and certified by the EGLE on August 24, 2018.

1.4 Geology/Hydrogeology

Pond 1 & 2 and Pond 6 are located adjacent to Lake Erie. The subsurface materials encountered at the JR Whiting site are predominately clay-rich till. The surficial CCR fill material is underlain by approximately 40 to 50 feet of laterally extensive clay-rich till that acts as a natural hydraulic barrier across the Site. Limestone bedrock is present beneath the till and is considered the uppermost aquifer at the Site.

Groundwater present within the uppermost aquifer is typically encountered at Pond 1 & 2 and Pond 6 around 70 to 80 feet below ground surface (ft bgs), approximately 510 to 520 feet above mean sea level (AMSL), in the limestone (beneath the till). The uppermost aquifer is confined and protected from CCR constituents by the 40- to 50-foot-thick overlying clay-rich aquitard that interfaces with the limestone at the elevation range of 510 to 520 feet AMSL. Potentiometric

surface elevation data from groundwater within the CCR monitoring wells represents the levels in which groundwater rises under hydrostatic pressure within each well and exhibit an extremely low hydraulic gradient across the Site with no consistent or discernible flow direction.

2.0 Groundwater Monitoring

2.1 Monitoring Well Network

A groundwater monitoring system has been established for Pond 1 & 2 and Pond 6 for the purpose of detection monitoring. The detection monitoring well network for Pond 1 & 2 and Pond 6 currently consists of six monitoring wells for each CCR unit that are screened in the uppermost aquifer. Monitoring well locations are shown on Figure 2.

As discussed in the HMP, intrawell statistical methods for JR Whiting were selected based on the geology and hydrogeology at the Site (primarily the presence of clay/hydraulic barrier, no apparent flow direction and lack of flow potential across the aquifer), in addition to other supporting lines of evidence that the aquifer is unaffected by the CCR unit (such as the consistency in concentrations of water quality data and similarities in concentrations in wells JRW-MW-16007 through JRW-MW-16009 and the Pond 1 & 2 and Pond 6 monitoring wells).

An intrawell statistical approach requires that each downgradient well doubles as the background and compliance well, where data from each individual well during a detection monitoring event is compared to a statistical limit developed using the background dataset from that same well. Monitoring wells JRW-MW-15001 through JRW-MW-15006 are located around the perimeter of Pond 1 & 2 and monitoring wells JRW-MW-16001 through JRW-MW-16006 are located around the perimeter of Pond 6. These monitoring wells provide data on both background and downgradient groundwater quality that has not been affected by the CCR unit (a total of six background/downgradient monitoring wells for each pond).

As shown on Figure 2, monitoring wells JRW-MW-16007 through JRW-MW-16009 are used for water level measurements only. These wells were initially installed as potential background monitoring wells during the initial stages of characterizing the Site. However, based on further hydrogeological characterization of the uppermost aquifer, an intrawell statistical approach was selected, which does not rely on JRW-MW-16007 through JRW-MW-16009 for statistical evaluation.

No monitoring wells have been installed or decommissioned since the previous monitoring event.

2.2 April 2025 Groundwater Monitoring

Consumers Energy Laboratory Services personnel performed gauging and sampling of monitoring wells associated with Pond 1 & 2 and Pond 6 on April 9, 2025. Groundwater monitoring was performed in accordance with the HMP. Groundwater samples collected during the April 2025 event were submitted to Consumers Energy Laboratory Services in Jackson, Michigan, for analysis of the following metals and inorganic indicator constituents:

Section 11511a(3)(c) – Detection Monitoring Constituents
Boron
Calcium
Chloride
Fluoride
Iron
pH
Sulfate
Total Dissolved Solids (TDS)

Static water level measurements that represent the potentiometric surface were collected at all locations after equilibration to atmospheric pressure. The depth to water was measured according to ASTM D 4750, “Standard Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well” and recorded to the nearest 0.01 foot. Static water elevation data are summarized in Table 1.

Groundwater samples were collected using a peristaltic pump or submersible pump in accordance with low flow sampling protocol and were not field filtered to allow for total metals analysis. Groundwater field parameters included dissolved oxygen, oxidation reduction potential, pH, specific conductivity, temperature, and turbidity and are summarized on Table 2. All samples were collected in vendor-provided, nitric acid pre-preserved (metals only) and unpreserved sample containers and submitted to the laboratory for analysis. Consumers Energy followed chain of custody procedures to document the sample handling.

Consumers Energy collected quality assurance/quality control (QA/QC) samples from both CCR units, Pond 1 & 2 and Pond 6, during the April 2025 groundwater sampling event. The QA/QC samples per CCR unit consisted of one field blank, one equipment blank, one field duplicate (JRW-MW-15003 at Pond 1 & 2 and JRW-MW-16002 at Pond 6), and one field matrix spike/matrix spike duplicate (MS/MSD) sample (JRW-MW-15006 at Pond 1 & 2 and JRW-MW-16003 at Pond 6).

Groundwater analytical results from the semiannual monitoring event are summarized in Table 3 (Pond 1 & 2) and Table 4 (Pond 6). The laboratory analytical reports are included in Appendix B. Field records are included in Appendix C.

2.2.1 Data Quality Review

Data from each round were evaluated for completeness, overall quality and usability, method-specified sample holding times, precision and accuracy, and potential sample contamination. The data were found to be complete and usable for the purposes of the CCR monitoring program. Data quality reviews are summarized in Appendix A.

2.2.2 Groundwater Flow Rate and Direction

Groundwater elevation data collected within the uppermost aquifer indicates groundwater flow across Pond 1 & 2 and Pond 6 is frequently incalculable and often stagnant. As demonstrated in prior semiannual reports and the HMP, the hydraulic head differential across the monitoring wells at both units is minimal (with head level differences between wells frequently equal to zero or within the margin of error of the measurement instrument), resulting in a relatively flat potentiometric surface with no consistent or discernable groundwater flow direction. Data have shown this to be the case since background data collection commenced in 2016.

Consequently, it is not appropriate to infer horizontal flow gradients across either CCR unit. In previous semiannual reports, groundwater elevation data have been used to establish that if there were a discernable flow direction, the resulting hydraulic gradient would be very low, on the order of 1×10^{-4} to 1×10^{-5} ft/ft.

Water level data from the April 2025 monitoring event are summarized in Table 3 and in plan view on Figure 3. These data continue to show groundwater conditions within the uppermost aquifer are consistent with previous monitoring events and continue to demonstrate that the monitoring wells are appropriately positioned to detect the presence of detection monitoring parameters that could potentially migrate from the Pond 1 & 2 and Pond 6 CCR unit.

3.0 Statistical Evaluation

Detection monitoring is continuing at JR Whiting Pond 1 & 2 and Pond 6 in accordance with the HMP. The following section summarizes the statistical approach applied to assess the semiannual groundwater data in accordance with the detection monitoring program.

3.1 Establishing Background Limits

3.1.1 Pond 1 & 2

Per the HMP, background limits were established for the detection monitoring constituents using data collected from each of the six established detection monitoring wells (JRW-MW-15001 through JRW-MW-15006). The background limits for each monitoring well have been calculated using thirteen rounds of data collected from November 2016 through March 2019 as presented in detail in the 2019 Annual Report (TRC, January 2020). These background limits will continue to be used throughout the detection monitoring program to determine whether groundwater has been impacted from Pond 1 & 2 by comparing concentrations in the detection monitoring wells to their respective background limits for each detection monitoring constituent, with the exception of iron.

Iron was incorporated into the monitoring program as part of the 2020 HMP. The initial background limits for iron have been calculated using data collected through the October 2023 event as presented in detail in the Second Semiannual 2023 Report (TRC, 2023). These iron background limits are used to compare to iron groundwater results beginning with the first semiannual 2024 detection monitoring event.

3.1.2 Pond 6

Per the HMP, background limits were established for the detection monitoring constituents using data collected from each of the six established detection monitoring wells (JRW-MW-16001 through JRW-MW-16006). The statistical evaluation of the background data is presented in the Pond 6 July 2019 Annual Report (TRC, 2019). The detection monitoring background limits for each monitoring well will continue to be used throughout the detection monitoring period to determine whether groundwater has been impacted from Pond 6 by comparing concentrations in the detection monitoring wells to their respective background limits for each detection monitoring constituent, with the exception of iron.

Iron was incorporated into the monitoring program as part of the 2020 HMP. The initial background limits for iron have been calculated using data collected through the October 2023 event as presented in detail in the Second Semiannual 2023 Report (TRC, 2023). These iron background limits will be used to compare to iron groundwater results beginning with the first semiannual 2024 detection monitoring event.

3.2 Data Comparison to Background Limits – Pond 1 & 2 Semiannual Event (April 2025)

The concentrations of the constituents in each of the Pond 1 & 2 detection monitoring wells (JRW-MW-15001 through JRW-MW-15006) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from JRW-MW-15001 is compared to the background limit developed using the background dataset from JRW-MW-15001, and so forth). The comparisons are presented on Table 3.

There were no exceedances relative to the statistical limits; therefore, there are no SSIs compared to background for any of the constituents. As no SSIs were identified, detection monitoring will be continued in accordance with the HMP. Per the EGLE prescribed submittal format, a statistical exceedances summary is included as Table 5 that reflects the four most recent monitoring events.

3.3 Data Comparison to Background Limits – Pond 6 Semiannual Event (April 2025)

The data comparisons of the Pond 6 monitoring wells JRW-MW-16001 through JRW-MW-16006 to their respective statistical background limits are presented on Table 4.

There were no exceedances relative to the statistical limits; therefore, there are no SSIs compared to background for any of the constituents. As no SSIs were found, detection monitoring will be continued at the Pond 6 CCR unit in accordance with the HMP. Per the EGLE prescribed submittal format, a statistical exceedances summary is included as Table 5 that reflects the four most recent monitoring events.

4.0 Conclusions and Recommendations

No SSIs occurred at Pond 1 & 2 or Pond 6 during the April 2025 monitoring event; therefore, Consumers Energy will continue with the detection monitoring program in conformance with the HMP. No corrective actions were needed or performed for either Pond 1 & 2 or Pond 6. The next semiannual monitoring event at the JR Whiting Pond 1 & 2 and Pond 6 CCR units is scheduled for the fourth calendar quarter of 2025.

5.0 References

- ARCADIS. May 13, 2016. Summary of Monitoring Well Design, Installation, and Development. JR Whiting Electric Generation Facility – Erie, Michigan. Prepared for Consumers Energy Company.
- TRC Environmental Corporation. December 2016. 2016 Monitoring Well Design, Installation, Development, and Decommissioning. JR Whiting Electric Generation Facility – Erie, Michigan. Prepared for Consumers Energy Company.
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- TRC. January 2020. 2019 Annual Groundwater Monitoring and Corrective Action Report – Former JR Whiting Power Plant Pond 1 & 2 and Pond 6, Erie, Michigan. Prepared for Consumers Energy Company.
- TRC. February 2020a. Electric Generation Facilities RCRA CCR Detection Monitoring Program for the Pond 1 & 2 and Pond 6 Areas. Sample and Analysis Plan. JR Whiting Monitoring Program – Erie, Michigan. Prepared for Consumers Energy Company.
- TRC. February 2020b. Groundwater Statistical Evaluation Plan – Former JR Whiting Power Plant, Pond 1 & 2 and Pond 6, Erie, Michigan. Prepared for Consumers Energy Company.
- TRC. May 2020 Revision. Consumers Energy JR Whiting Hydrogeologic Monitoring Plan (HMP). Prepared for Consumers Energy Company.
- TRC. October 2023. Second Semiannual 2023 Groundwater Monitoring Report – Former JR Whiting Power Plant, Pond 1 & 2 and Pond 6 CCR Unit, Erie, Michigan. Prepared for Consumers Energy Company.
- TRC. October 2024. Second Semiannual 2024 Groundwater Monitoring Report – Former JR Whiting Power Plant, Pond 1 & 2 and Pond 6 CCR Unit, Erie, Michigan. Prepared for Consumers Energy Company.
- USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA facilities, Unified Guidance. Office of Conservation and Recovery. EPA 530/R-09-007.

Tables

Table 1
 Potentiometric Groundwater Elevation Summary – April 2025
 JR Whiting Pond 1 & 2 and Pond 6
 Erie, Michigan

Well Location	Ground Surface Elevation (ft)	TOC Elevation (ft)	Geologic Unit of Screen Interval	Screen Interval Depth (ft BGS)	Screen Interval Elevation (ft)	April 9, 2025	
						Depth to Water (ft BTOC)	Groundwater Elevation (ft)
Static Water Level Monitoring Wells							
JRW-MW-16007	579.47	582.31	Limestone	68.0 to 78.0	511.5 to 501.5	6.51	575.80
JRW-MW-16008	579.95	582.83	Limestone	68.0 to 73.0	512.0 to 507.0	7.05	575.78
JRW-MW-16009	579.90	582.60	Limestone	69.0 to 79.0	510.9 to 500.9	6.80	575.80
Pond 1 & 2							
JRW-MW-15001 ⁽¹⁾	590	581.39	Limestone	78.0 to 88.0	512.7 to 502.7	5.56	575.83
JRW-MW-15002 ⁽¹⁾	590	590.17	Limestone	81.0 to 91.0	511.3 to 501.3	14.33	575.84
JRW-MW-15003 ⁽¹⁾	590	587.23	Limestone	81.0 to 91.0	510.4 to 500.4	11.38	575.85
JRW-MW-15004 ⁽¹⁾	590	589.32	Limestone	86.0 to 96.0	506.5 to 496.5	13.47	575.85
JRW-MW-15005 ⁽¹⁾	590	588.28	Limestone	86.0 to 96.0	508.3 to 498.3	12.42	575.86
JRW-MW-15006 ⁽¹⁾	590	580.48	Limestone	81.0 to 91.0	511.0 to 501.0	4.73	575.75
Pond 6							
JRW-MW-16001	589.19	592.33	Limestone	71.0 to 81.0	518.2 to 508.2	16.48	575.85
JRW-MW-16002	585.78	588.69	Limestone	81.0 to 91.0	504.8 to 494.8	12.84	575.85
JRW-MW-16003	586.19	589.01	Limestone	73.0 to 83.0	513.2 to 503.2	13.13	575.88
JRW-MW-16004	586.48	589.34	Limestone	75.0 to 85.0	511.5 to 501.5	13.52	575.82
JRW-MW-16005	589.29	592.14	Limestone	78.0 to 88.0	511.3 to 501.3	16.31	575.83
JRW-MW-16006	588.26	591.04	Limestone	79.0 to 89.0	509.3 to 499.3	15.20	575.84

Notes:

Top of casing elevation survey was conducted by Rowe Professional Services Company in July 2020.

Elevation in feet relative to North American Vertical Datum 1988 (NAVD 88).

TOC: Top of well casing.

ft BTOC: Feet below top of well casing.

ft BGS: Feet below ground surface.

(1) Screen interval depth below ground surface for Pond 1&2 monitoring wells approximated using an estimated final capped ground surface elevation of 590 feet above mean sea level. Screen interval elevations were measured using the original survey conducted by Sheridan Surveying Co. November 2015 at the time of monitoring well installation.

Table 2
 Summary of Field Parameters
 JR Whiting Pond 1 & 2 and Pond 6
 Erie, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)
JR Whiting Pond 1 and 2							
JRW-MW-15001	4/9/2025	0.09	-142.0	7.7	1,087	11.4	4.8
JRW-MW-15002	4/9/2025	0.11	-169.4	7.7	1,134	11.5	2.9
JRW-MW-15003	4/9/2025	0.07	-27.2	7.7	1,005	11.6	6.9
JRW-MW-15004	4/9/2025	1.54	78.9	7.6	969	11.0	2.9
JRW-MW-15005	4/9/2025	1.75	108.0	7.9	890	12.5	3.4
JRW-MW-15006	4/9/2025	0.08	-182.7	8.0	982	11.6	3.2
JR Whiting Pond 6							
JRW-MW-16001	4/9/2025	0.11	-161.7	8.0	752	11.1	3.4
JRW-MW-16002	4/9/2025	0.09	-176.7	7.8	963	11.2	1.9
JRW-MW-16003	4/9/2025	0.09	-181.8	7.7	967	11.8	1.7
JRW-MW-16004	4/9/2025	0.23	-209.4	7.7	1,127	12.1	2.3
JRW-MW-16005	4/9/2025	0.00	10.9	7.5	820	11.6	1.0
JRW-MW-16006	4/9/2025	0.20	-178.2	7.9	801	11.5	1.7

Notes:

mg/L - Milligrams per Liter.

mV - Millivolts.

SU - Standard Units.

umhos/cm - Micromhos per centimeter.

°C - Degrees Celsius.

NTU - Nephelometric Turbidity Unit.

Table 3
 Comparison of Detection Monitoring Parameter Results to Background Limits – April 2025
 JR Whiting Pond 1 & 2
 Erie, Michigan

Sample Location:		JRW-MW-15001		JRW-MW-15002		JRW-MW-15003		JRW-MW-15004		JRW-MW-15005		JRW-MW-15006	
Sample Date:		4/9/2025	PL										
Constituent	Unit	Data											
Appendix III													
Boron	ug/L	203	240	220	220	228	230	232	270	205	270	210	250
Calcium	mg/L	140	180	126	180	118	160	117	140	111	120	124	140
Chloride	mg/L	48.7	55	46	56	45.9	55	49	56	33.9	46	45.8	53
Fluoride	ug/L	1,300	1,600	1,480	1,900	1,410	1,800	1,360	1,800	1,220	1,700	1,310	1,700
pH, Field	su	7.7	6.8 - 8.2	7.7	7.2 - 7.9	7.7	7.3 - 8.3	7.6	7.0 - 8.0	7.9	7.3 - 8.6	8.0	7.0 - 9.0
Sulfate	mg/L	434	470	405	500	341	440	325	390	321	350	336	410
Total Dissolved Solids	mg/L	804	1,000	816	1,100	712	940	646	880	636	840	720	920
Part 115 Parameters													
Iron	ug/L	980	1,800	751	1,200	146	820	86	490	31	660	1,480	1,900

Notes:

ug/L - micrograms per liter.

mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

All metals were analyzed as total unless otherwise specified.

Bold font indicates an exceedance of the Prediction Limit (PL).

RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).

Table 4
 Comparison of Detection Monitoring Parameter Results to Background Limits – April 2025
 JR Whiting Pond 6
 Erie, Michigan

Sample Location:		JRW-MW-16001		JRW-MW-16002		JRW-MW-16003		JRW-MW-16004		JRW-MW-16005		JRW-MW-16006	
Sample Date:		4/9/2025		4/9/2025		4/9/2025		4/9/2025		4/9/2025		4/9/2025	
Constituent	Unit	Data	PL										
Appendix III													
Boron	ug/L	185	203	183	209	229	257	218	262	222	244	177	226
Calcium	mg/L	83.1	111	133	149	120	156	148	181	97.6	182	98.9	117
Chloride	mg/L	19.1	23.6	21.5	25.4	27.2	32.4	37.7	43.7	24.4	29.4	24.6	38.6
Fluoride	ug/L	1,420	2,300	< 1,000	1,400	1,150	1,600	1,220	1,700	1,290	1,800	1,270	2,200
pH, Field	su	8.0	7.5 - 8.9	7.8	7.5 - 8.3	7.7	7.4 - 7.9	7.7	7.4 - 8.2	7.5	7.0 - 8.0	7.9	7.5 - 8.2
Sulfate	mg/L	248	278	384	426	378	470	457	507	282	498	287	399
Total Dissolved Solids	mg/L	540	770	722	832	712	1,040	882	1,110	604	1,030	574	904
Part 115 Parameters													
Iron	ug/L	120	230	306	510	409	630	346	750	< 20	940	282	400

Notes:

ug/L - micrograms per liter.

mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

All metals were analyzed as total unless otherwise specified.

Bold font indicates an exceedance of the Prediction Limit (PL).

RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).

Table 5
 Summary of Statistical Exceedances – April 2025
 JR Whiting Pond 1 & 2 and Pond 6
 Erie, Michigan

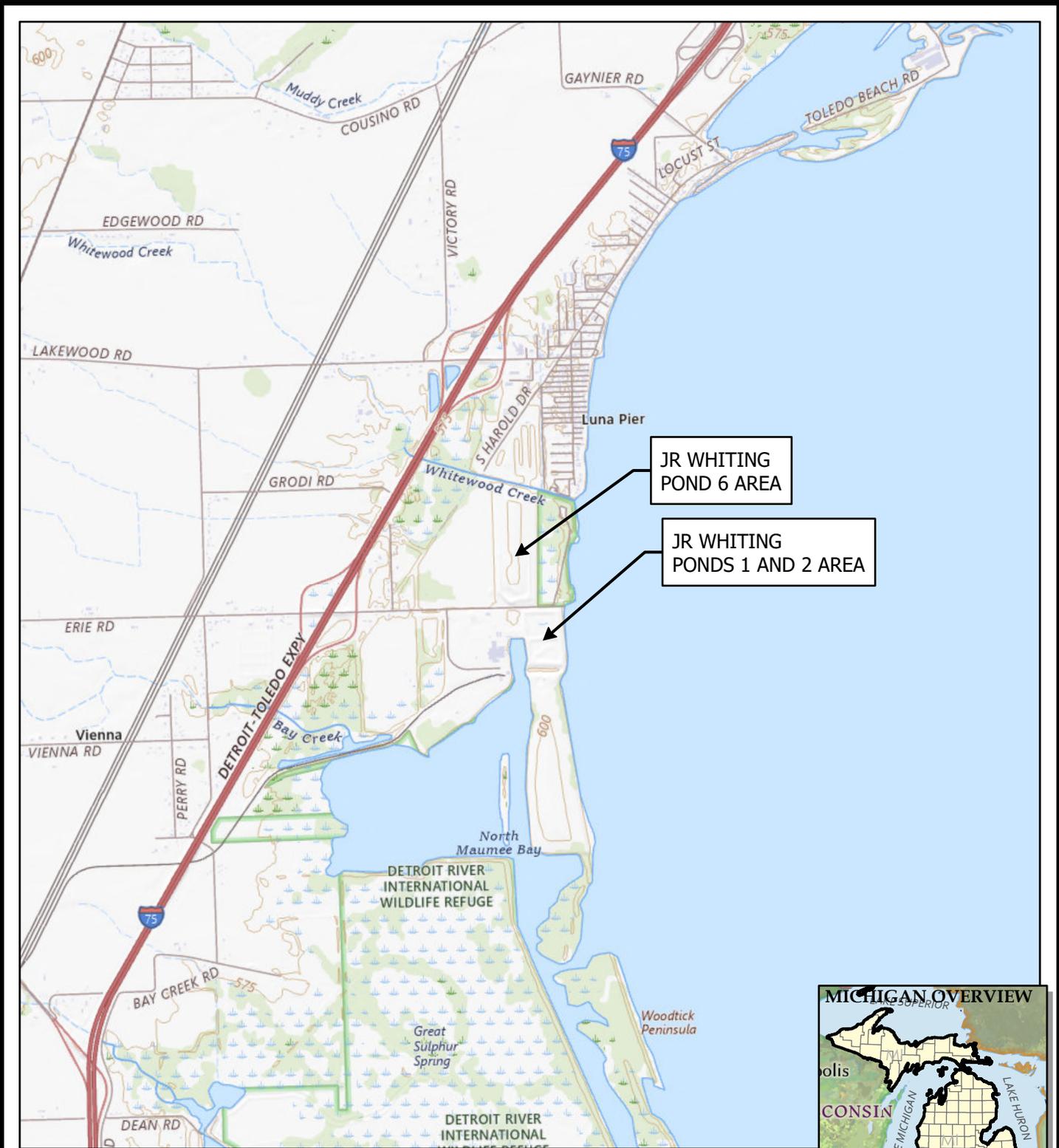
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
 SUMMARY OF STATISTICAL EXCEEDANCES

Data is in (X) ug/L or () mg/L unless otherwise stated
--

Facility: JR Whiting – WDS# 397664

Well #	Location	Parameter	Part 201 GRCC	Statistical Limit (or 'CC' for Control Charts)	2 Qtr. 2025 (bold >201)	4 Qtr. 2024 (bold >201)	2 Qtr. 2024 (bold >201)	4 Qtr. 2023 (bold >201)
No Exceedances								

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

PROJECT:

**CONSUMERS ENERGY COMPANY
JR WHITING POWER PLANT
ERIE, MICHIGAN**

TITLE:

SITE LOCATION MAP

DRAWN BY:

A. ADAIR

CHECKED BY:

A. KAST

APPROVED BY:

S. HOLMSTROM

DATE:

JULY 2025

PROJ. NO.:

634697

FILE:

JRWhiting.aprx

FIGURE 1

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl; Map Rotation: 0
 -- Saved By: A.ADAIR on 6/23/2025, 17:06:26 PM; File Path: T:\PROJECTS\Consumers_Energy\1514397_JRWhiting\2-APR\URWhiting.aprx; Layout Name: 2025_01_Figure 2



LEGEND

-  MONITORING WELL (STATIC WATER LEVEL ONLY)
-  CCR UNIT MONITORING WELL

NOTES:

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO AND PARTNERS, (4/17/2024).
2. STATIC WATER ONLY WELL LOCATIONS SURVEYED BY SHERIDAN SURVEYING CO. ON 11/19/2015.
3. PONDS 1 AND 2 WELL LOCATIONS SURVEYED BY ROWE PROFESSIONAL SERVICES CO. ON 11/27/2019.



1:6,000
 1" = 500'



PROJECT:		CONSUMERS ENERGY COMPANY JR WHITING POWER PLANT ERIE, MICHIGAN	
TITLE:		SITE PLAN WITH CCR MONITORING WELL LOCATIONS	
DRAWN BY:	A. ADAIR	PROJ. NO.:	634697
CHECKED BY:	A. KAST	FIGURE 2	
APPROVED BY:	S. HOLMSTROM		
DATE:	JULY 2025		
		1540 EISENHOWER PLACE ANN ARBOR, MI 48108-3284 PHONE: 734.971.7080	
FILE:		JRWhiting.aprx	

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl; Map Rotation: 0
 -- Saved By: A.ADAIR on 6/23/2025 17:06:26 PM; File Path: T:\PROJECTS\Consumers_Energy\1514397_JRWhiting\2-APR-XUR\Whiting.aprx; Layout Name: 2025_01_Figure 3

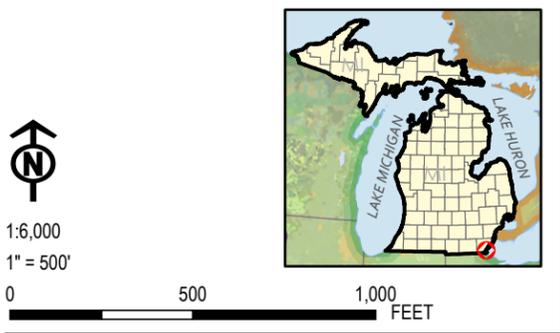


- LEGEND**
- MONITORING WELL (STATIC WATER LEVEL ONLY)
 - CCR UNIT MONITORING WELL

LABEL FORMAT

MONITORING WELL ID
 GROUNDWATER ELEVATION FT (MEASUREMENT DATE)

- NOTES:**
- 1: BASE MAP IMAGERY FROM GOOGLE EARTH PRO AND PARTNERS, (4/17/2024).
 - 2: WELL LOCATIONS SURVEYED BY SHERIDAN SURVEYING CO. ON 11/19/2015.
 - 3: PONDS 1 AND 2 WELL LOCATIONS SURVEYED BY ROWE PROFESSIONAL SERVICES CO. ON 11/27/2019.
 - 4: MONITORING WELL TOP OF CASING SURVEYED BY ROWE PROFESSIONAL SERVICES CO. ON 7/14/2020. VERTICAL DATUM IS NAVD88.



PROJECT:		CONSUMERS ENERGY COMPANY JR WHITING POWER PLANT ERIE, MICHIGAN	
TITLE:		GROUNDWATER POTENTIOMETRIC ELEVATION SUMMARY APRIL 2025	
DRAWN BY:	A. ADAIR	PROJ. NO.:	634697
CHECKED BY:	A. KAST	FIGURE 3	
APPROVED BY:	S. HOLMSTROM		
DATE:	JULY 2025		
		1540 EISENHOWER PLACE ANN ARBOR, MI 48108-3284 PHONE: 734.971.7080	
FILE:	JRWhiting.aprx		

Appendix A

Data Quality Reviews

Pond 1 & 2

Laboratory Data Quality Review Groundwater Sampling Event April 2025 Consumers Energy JR Whiting Pond 1 & 2

Groundwater samples were collected by Consumers Energy (CE) Laboratory Services for the April 2025 groundwater monitoring sampling event. Samples were analyzed for anions, total metals, and total dissolved solids by CE Laboratory Services, located in Jackson, Michigan. The laboratory analytical results were reported in laboratory project number 25-0210.

During the April 2025 sampling event, a groundwater sample was collected from each of the following wells:

- JRW-MW-15001
- JRW-MW-15002
- JRW-MW-15003
- JRW-MW-15004
- JRW-MW-15005
- JRW-MW-15006

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	EPA 300.0
Total Dissolved Solids (TDS)	SM 2540C
Total Metals (Boron, Calcium, Iron)	SW-846 6020B

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Chain-of-custody (COC) and data completeness;
- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for equipment blanks and field blanks. Field and equipment blanks are used to assess potential contamination arising from field procedures;
- Percent recoveries for matrix spike (MS) and matrix spike duplicates (MSD), when performed on project samples. Percent recoveries are calculated for each analyte spiked and used to assess bias due to sample matrix effects;
- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are replicate analyses of one sample and are used to assess the precision of the analytical method;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and

- Overall usability of the data.

It should be noted that results for method blanks and laboratory control samples were not provided for review by the laboratory. Therefore, potential contamination arising from laboratory sample preparation and/or analytical procedures and the accuracy of the analytical method using a clean matrix could not be evaluated.

- This data usability report addresses the following items:
- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation, are noted below.

- The reviewed Appendix III constituents as well as iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.
- When the data are evaluated through a detection monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- Sample reports were checked to verify that the results corresponded to analytical requests as designated on the COC. No issues were noted.
- The preservation was assumed to be acceptable based on case narrative and COC preservation information; the cooler temperatures were between 0-6°C and acid was used for sample preservation, as applicable.
- One equipment blank (EB-01) and one field blank (FB-01) were collected. Target analytes were not detected in these blank samples.
- The preparation times and dates for all analyses were provided in the electronic data deliverables (EDDs) for this data set. All preparation and analysis holding time requirements were met.
- MS and MSD analyses were performed on sample JRW-MW-15006 for total metals and anions. The recoveries were within the acceptance limits. Relative percent differences (RPDs) were not provided by the laboratory and therefore were not evaluated; further, MS/MSD concentrations were not provided by the laboratory. However, since all MS/MSD recoveries were within the acceptance limits, there is no impact on data usability due to this issue.
- A laboratory duplicate analysis was not performed on a sample from this data set.
- Samples DUP-01/JRW-MW-15003 were submitted as the field duplicate pair with this data set; all criteria were met.
- The RLs met the project requirements and were deemed suitable for data use.

- Dilution factors for all analyses were provided in the EDDs for this data set; all dilution factors were listed as 1-fold.

Pond 6

Laboratory Data Quality Review Groundwater Sampling Event April 2025 Consumers Energy JR Whiting Pond 6

Groundwater samples were collected by Consumers Energy (CE) Laboratory Services for the April 2025 groundwater monitoring sampling event. Samples were analyzed for anions, total metals, and total dissolved solids by CE Laboratory Services, located in Jackson, Michigan. The laboratory analytical results were reported in laboratory project number 25-0211.

During the April 2025 sampling event, a groundwater sample was collected from each of the following wells:

- JRW-MW-16001
- JRW-MW-16002
- JRW-MW-16003
- JRW-MW-16004
- JRW-MW-16005
- JRW-MW-16006

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	EPA 300.0
Total Dissolved Solids (TDS)	SM 2540C
Total Metals (Boron, Calcium, Iron)	SW-846 6020B

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Chain-of-custody (COC) and data completeness;
- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for equipment blanks and field blanks. Field and equipment blanks are used to assess potential contamination arising from field procedures;
- Percent recoveries for matrix spike (MS) and matrix spike duplicates (MSD), when performed on project samples. Percent recoveries are calculated for each analyte spiked and used to assess bias due to sample matrix effects;
- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are replicate analyses of one sample and are used to assess the precision of the analytical method;

- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

It should be noted that results for method blanks and laboratory control samples were not provided for review by the laboratory. Therefore, potential contamination arising from laboratory sample preparation and/or analytical procedures and the accuracy of the analytical method using a clean matrix could not be evaluated.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation, are noted below.

- The reviewed Appendix III constituents as well as iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.
- When the data are evaluated through a detection monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- Sample reports were checked to verify that the results corresponded to analytical requests as designated on the COC. The following was noted.
 - The collection time for sample JRW-MW-16004 was listed on the COC as 15:31; however, the laboratory initially logged in this sample with a collection time of 20:03. The laboratory was contacted about the discrepancy and the lab report was revised to reflect the time recorded on the COC. There is no impact on data usability.
- The preservation was assumed to be acceptable based on case narrative and COC preservation information; the cooler temperatures were between 0-6°C and acid was used for sample preservation, as applicable.
- One equipment blank (EB-02) and one field blank (FB-02) were collected. Target analytes were not detected in these blank samples.
- The preparation times and dates for all analyses were provided in the electronic data deliverables (EDDs) for this data set. All preparation and analysis holding time requirements were met.
- MS/MSD analyses were performed on sample JRW-MW-16003 for total metals and anions. The recoveries were within the acceptance limits. Relative percent differences were not provided by the laboratory and therefore were not evaluated; further, MS/MSD concentrations were not provided by the laboratory. However, since MS/MSD recoveries were within the acceptance limits, there is no impact on data usability due to this issue.

- A laboratory duplicate analysis was not performed on a sample from this data set.
- Samples DUP-02/JRW-MW-16002 were submitted as the field duplicate pair with this data set; all criteria were met.
- The RLs met the project requirements and were deemed suitable for data use.
- Dilution factors for all analyses were provided in the EDDs for this data set; all dilution factors were listed as 1-fold.

Appendix B Laboratory Reports

Pond 1 & 2

To: HDRegister, P22-521

From: EBlaj, T-258

Date: April 26, 2025

Subject: RCRA GROUNDWATER MONITORING – JR WHITING POND 1 & 2 – 2025 Q2

CC: Sarah Holmstrom, Project Manager
TRC Environmental Corporation
1540 Eisenhower Place
Ann Arbor, MI 48108

Chemistry Project: 25-0210

CE Laboratory Services conducted groundwater monitoring at JR Whiting, Pond 1 & 2 on 04/09/2025, for the 1st Semiannual monitoring requirement, and as specified in the Sampling and Analysis Plan for the site. The samples were received for analysis by the Chemistry department of Laboratory Services on 04/09/2025.

The report that follows presents the results of the requested analytical testing; the results apply only to the samples as received. All samples have been analyzed in accordance with the 2016 TNI Standard and the applicable A2LA accreditation scope for Laboratory Services. Any exceptions to applicable test method criteria and standard compliance are noted in the Case Narrative or flagged with applicable qualifiers in the analytical results section.

Reviewed and approved by:

Emil Blaj
Sr. Technical Analyst
Project Lead



Testing performed in accordance with the A2LA scope of accreditation specified in the listed certificate. The information contained in this report is the sole property of Consumers Energy. It cannot be reproduced except in full, and with consent from Consumers Energy, or the customer for which this report was issued.

CASE NARRATIVE

I. Sample Receipt

All samples were received within hold time and in good conditions; no anomalies were noted on the attached Sample Log-In Shipment Inspection Form during sample check-in. Identification of all samples included in the work order/project is provided in the sample summary section. All sample preservation and temperature upon receipt was verified by the sample custodian and confirmed to meet method requirements.

II. Methodology

Unless otherwise indicated, sample preparation and analysis was performed in accordance with the corresponding test methods from “Methods for the Determination of Inorganic Substances in Environmental Samples (EPA/600/R-93/100); SW-846, “Test Methods for Evaluating Solid Waste – Physical/Chemical Methods”, USEPA (latest revisions), and Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WPCF, 22nd Edition, 2012.

III. Results/Quality Control

Analytical results for this report are presented by laboratory sample ID, container, & aliquot number. Results for the field blanks, field duplicates, and recoveries of the field matrix spike & matrix spike duplicate samples are included in the results section; all other quality control data is listed in the Quality Control Summary associated with the particular test method, as appropriate. Unless specifically noted in the case narrative, all method quality control requirements have been met. If any results are qualified, the corresponding data flags/qualifiers are listed on the last page of the results section. Any additional information on method performance, when applicable, is presented in this section of the case narrative. When data flags are not needed, the qualifiers text box on the last page is left blank, and a statement confirms that no exceptions occurred.

DEFINITIONS / QUALIFIERS

The following qualifiers and/or acronyms are used in the report, where applicable:

<u>Acronym</u>	<u>Description</u>
RL	Reporting Limit
ND	Result not detected or below Reporting Limit
NT	Non TNI analyte
LCS	Laboratory Control Sample
LRB	Laboratory Reagent Blank (also referred to as Method Blank)
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
TDL	Target Detection Limit
SM	Standard Methods Compendium

<u>Qualifier</u>	<u>Description</u>
*	Generic data flag, applicable description added in the corresponding notes section
B	The analyte was detected in the LRB at a level which is significant relative to sample result
D	Reporting limit elevated due to dilution
E	Estimated due to result exceeding the linear range of the analyzer
H	The maximum recommended hold time was exceeded
I	Dilution required due to matrix interference; reporting limit elevated
J	Estimated due to result found above MDL but below PQL (or RL)
K	Reporting limit raised due to matrix interference
M	The precision for duplicate analysis was not met; RPD outside acceptance criteria
N	Non-homogeneous sample made analysis questionable
PI	Possible interference may have affected the accuracy of the laboratory result
Q	Matrix Spike or Matrix Spike Duplicate recovery outside acceptance criteria
R	Result confirmed by new sample preparation and reanalysis
X	Other notation required; comment listed in sample notes and/or case narrative

Customer Name: JR Whiting Complex
Work Order ID: JRW RCRA GW Monitoring - Pond 1&2 - April 2025
Date Received: 4/9/2025
Chemistry Project: 25-0210

<u>Sample #</u>	<u>Field Sample ID</u>	<u>Matrix</u>	<u>Sample Date</u>	<u>Site</u>
25-0210-01	JRW-MW-15001	Groundwater	04/09/2025 16:00	JRW RCRA GW Monitoring - Pond 1&2
25-0210-02	JRW-MW-15002	Groundwater	04/09/2025 10:50	JRW RCRA GW Monitoring - Pond 1&2
25-0210-03	JRW-MW-15003	Groundwater	04/09/2025 12:05	JRW RCRA GW Monitoring - Pond 1&2
25-0210-04	JRW-MW-15004	Groundwater	04/09/2025 13:01	JRW RCRA GW Monitoring - Pond 1&2
25-0210-05	JRW-MW-15005	Groundwater	04/09/2025 14:04	JRW RCRA GW Monitoring - Pond 1&2
25-0210-06	JRW-MW-15006	Groundwater	04/09/2025 15:04	JRW RCRA GW Monitoring - Pond 1&2
25-0210-07	DUP-01	Groundwater	04/09/2025 00:00	JRW RCRA GW Monitoring - Pond 1&2
25-0210-08	EB-01	Water	04/09/2025 16:10	JRW RCRA GW Monitoring - Pond 1&2
25-0210-09	FB-01	Water	04/09/2025 15:55	JRW RCRA GW Monitoring - Pond 1&2
25-0210-10	JRW-MW-15006 Field MS	Groundwater	04/09/2025 15:04	JRW RCRA GW Monitoring - Pond 1&2
25-0210-11	JRW-MW-15006 Field MSD	Groundwater	04/09/2025 15:04	JRW RCRA GW Monitoring - Pond 1&2



Analytical Report

Report Date: 04/26/25

Laboratory Services A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15001**
Lab Sample ID: 25-0210-01
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 04:00 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-01-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	203		ug/L	20	04/18/2025	AB25-0420-01
Calcium	140000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	980		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-01-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	48700		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1300		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	434000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-01-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	804		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **JRW-MW-15002**
 Lab Sample ID: 25-0210-02
 Matrix: Groundwater

Laboratory Project: **25-0210**
 Collect Date: 04/09/2025
 Collect Time: 10:50 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-02-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	220		ug/L	20	04/18/2025	AB25-0420-01
Calcium	126000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	751		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-02-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	46000		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1480		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	405000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-02-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	816		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15003**
Lab Sample ID: 25-0210-03
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 12:05 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-03-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	228		ug/L	20	04/18/2025	AB25-0420-01
Calcium	118000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	146		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-03-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	45900		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1410		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	341000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-03-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	712		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15004**
Lab Sample ID: 25-0210-04
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 01:01 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-04-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	232		ug/L	20	04/18/2025	AB25-0420-01
Calcium	117000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	86		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-04-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	49000		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1360		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	325000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-04-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	646		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15005**
Lab Sample ID: 25-0210-05
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 02:04 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-05-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	205		ug/L	20	04/18/2025	AB25-0420-01
Calcium	111000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	31		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-05-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	33900		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1220		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	321000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-05-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	636		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15006**
Lab Sample ID: 25-0210-06
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 03:04 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-06-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	210		ug/L	20	04/18/2025	AB25-0420-01
Calcium	124000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	1480		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-06-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	45800		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1310		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	336000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-06-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	720		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **DUP-01**
Lab Sample ID: 25-0210-07
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 12:00 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-07-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	227		ug/L	20	04/18/2025	AB25-0420-01
Calcium	120000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	155		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-07-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	45900		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1390		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	343000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-07-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	710		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **EB-01**
Lab Sample ID: 25-0210-08
Matrix: Water

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 04:10 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-08-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	04/18/2025	AB25-0420-01
Calcium	ND		ug/L	1000	04/18/2025	AB25-0420-01
Iron	ND		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-08-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	ND		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-08-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **FB-01**
 Lab Sample ID: 25-0210-09
 Matrix: Water

Laboratory Project: **25-0210**
 Collect Date: 04/09/2025
 Collect Time: 03:55 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-09-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	04/18/2025	AB25-0420-01
Calcium	ND		ug/L	1000	04/18/2025	AB25-0420-01
Iron	ND		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-09-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	ND		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0210-09-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15006 Field MS**
Lab Sample ID: 25-0210-10
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 03:04 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-10-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	104		%	20	04/18/2025	AB25-0420-01
Calcium	91		%	1000	04/18/2025	AB25-0420-01
Iron	89		%	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-10-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	113		%	1000	04/11/2025	AB25-0410-01
Fluoride	95		%	1000	04/11/2025	AB25-0410-01
Sulfate	100		%	1000	04/11/2025	AB25-0410-01



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15006 Field MSD**
Lab Sample ID: 25-0210-11
Matrix: Groundwater

Laboratory Project: **25-0210**
Collect Date: 04/09/2025
Collect Time: 03:04 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0210-11-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	103		%	20	04/18/2025	AB25-0420-01
Calcium	95		%	1000	04/18/2025	AB25-0420-01
Iron	89		%	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0210-11-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	115		%	1000	04/11/2025	AB25-0410-01
Fluoride	96		%	1000	04/11/2025	AB25-0410-01
Sulfate	105		%	1000	04/11/2025	AB25-0410-01



Laboratory Services
A CENTURY OF EXCELLENCE

Analytical Report

Report Date: 04/26/25

Data Qualifiers	Exception Summary
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No exceptions occurred.

TITLE: SAMPLE LOG-IN – SHIPMENT INSPECTION FORM

Project Number: 25-0210 Inspection Date: 4-9-25 Inspection By: KDR
Sample Origin/Project Name: JRW Pond 1 & 2 GW Monitoring - April 2025

Shipment Delivered By: Enter the type of shipment carrier.

Inter-Company Mail _____ FedEx _____ UPS _____ USPS _____
Tracking Number: _____ Other/Carry In (whom) KDR

Shipping Containers: Enter the type and number of shipping containers received.

Cooler Cardboard Box _____ Custom Case _____ Envelope/Mailer _____
Loose/Unpackaged Containers _____ Other _____

Condition of Shipment: Enter the as-received condition of the shipment container.

Damaged Shipment Observed: None Dented _____ Leaking _____
Other _____

Shipment Security: Enter if any of the shipping containers were opened before receipt.

Shipping Containers Received: Opened _____ Sealed N/A _____

Enclosed Documents: Enter the type of documents enclosed with the shipment.

CoC Work Request _____ Air Data Sheet _____ Other _____

Temperature of Containers: Measure the temperature of several sample containers.

As-Received Temperature Range 5.5 - 5.9 °C Samples Received on Ice: Yes No _____
M&TE # and Expiration 45027723 / 6-27-25

Number and Type of Containers: Enter the type and total number of sample containers received.

Container Type	Water	Soil	Other	Broken	Leaking
VOA (40mL or 60mL)	_____	_____	_____	_____	_____
Quart/Liter (g / p)	_____	_____	_____	_____	_____
9-oz (amber glass jar)	_____	_____	_____	_____	_____
2-oz (amber glass)	_____	_____	_____	_____	_____
125 mL (plastic)	<u>22</u>	_____	_____	_____	_____
24 mL vial (glass)	_____	_____	_____	_____	_____
250 mL (plastic)	<u>9</u>	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

All sample pH meeting criteria? Yes No _____ N/A _____ pH paper lot # 210224 Exp. Date 12-1-26

Indicate if an Exception Report (Page 2 of 2) is needed: Yes _____ No

Pond 6

To: HDRegister, P22-521

From: EBlaj, T-258

Date: April 26, 2025

Subject: RCRA GROUNDWATER MONITORING – JR WHITING POND 6 – 2025 Q2

CC: Sarah Holmstrom, Project Manager
TRC Environmental Corporation
1540 Eisenhower Place
Ann Arbor, MI 48108

Chemistry Project: 25-0211R

CE Laboratory Services conducted groundwater monitoring at JR Whiting, Pond 6 on 04/09/2025, for the 1st Semiannual monitoring requirement, and as specified in the Sampling and Analysis Plan for the site. The samples were received for analysis in the Chemistry department of Laboratory Services on 04/09/2025.

The report that follows presents the results of the requested analytical testing; the results apply only to the samples as received. All samples have been analyzed in accordance with the 2016 TNI Standard and the applicable A2LA accreditation scope for Laboratory Services. Any exceptions to applicable test method criteria and standard compliance are noted in the Case Narrative or flagged with applicable qualifiers in the analytical results section.

Reviewed and approved by:

Emil Blaj
Sr. Technical Analyst
Project Lead



Testing performed in accordance with the A2LA scope of accreditation specified in the listed certificate. The information contained in this report is the sole property of Consumers Energy. It cannot be reproduced except in full, and with consent from Consumers Energy, or the customer for which this report was issued.

CASE NARRATIVE

I. Sample Receipt

All samples were received within hold time and in good conditions; no anomalies were noted on the attached Sample Log-In Shipment Inspection Form during sample check-in. Identification of all samples included in the work order/project is provided in the sample summary section. All sample preservation and temperature upon receipt was verified by the sample custodian and confirmed to meet method requirements.

II. Methodology

Unless otherwise indicated, sample preparation and analysis was performed in accordance with the corresponding test methods from “Methods for the Determination of Inorganic Substances in Environmental Samples (EPA/600/R-93/100); SW-846, “Test Methods for Evaluating Solid Waste – Physical/Chemical Methods”, USEPA (latest revisions), and Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WPCF, 22nd Edition, 2012.

III. Results/Quality Control

Analytical results for this report are presented by laboratory sample ID, container, & aliquot number. Results for the field blanks, field duplicates, and recoveries of the field matrix spike & matrix spike duplicate samples are included in the results section; all other quality control data is listed in the Quality Control Summary associated with the particular test method, as appropriate. Unless specifically noted in the case narrative, all method quality control requirements have been met. If any results are qualified, the corresponding data flags/qualifiers are listed on the last page of the results section. Any additional information on method performance, when applicable, is presented in this section of the case narrative. When data flags are not needed, the qualifiers text box on the last page is left blank, and a statement confirms that no exceptions occurred.

DEFINITIONS / QUALIFIERS

The following qualifiers and/or acronyms are used in the report, where applicable:

<u>Acronym</u>	<u>Description</u>
RL	Reporting Limit
ND	Result not detected or below Reporting Limit
NT	Non TNI analyte
LCS	Laboratory Control Sample
LRB	Laboratory Reagent Blank (also referred to as Method Blank)
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
TDL	Target Detection Limit
SM	Standard Methods Compendium

<u>Qualifier</u>	<u>Description</u>
*	Generic data flag, applicable description added in the corresponding notes section
B	The analyte was detected in the LRB at a level which is significant relative to sample result
D	Reporting limit elevated due to dilution
E	Estimated due to result exceeding the linear range of the analyzer
H	The maximum recommended hold time was exceeded
I	Dilution required due to matrix interference; reporting limit elevated
J	Estimated due to result found above MDL but below PQL (or RL)
K	Reporting limit raised due to matrix interference
M	The precision for duplicate analysis was not met; RPD outside acceptance criteria
N	Non-homogeneous sample made analysis questionable
PI	Possible interference may have affected the accuracy of the laboratory result
Q	Matrix Spike or Matrix Spike Duplicate recovery outside acceptance criteria
R	Result confirmed by new sample preparation and reanalysis
X	Other notation required; comment listed in sample notes and/or case narrative

Work Order Sample Summary

Customer Name: JR Whiting Complex
Work Order ID: JRW RCRA GW Monitoring - Pond 6 - April 2025
Date Received: 4/9/2025
Chemistry Project: 25-0211

<u>Sample #</u>	<u>Field Sample ID</u>	<u>Matrix</u>	<u>Sample Date</u>	<u>Site</u>
25-0211-01	JRW-MW-16001	Groundwater	04/09/2025 12:01	JRW RCRA GW Monitoring - Pond 6
25-0211-02	JRW-MW-16002	Groundwater	04/09/2025 11:16	JRW RCRA GW Monitoring - Pond 6
25-0211-03	JRW-MW-16003	Groundwater	04/09/2025 14:41	JRW RCRA GW Monitoring - Pond 6
25-0211-04	JRW-MW-16004	Groundwater	04/09/2025 15:31 R	JRW RCRA GW Monitoring - Pond 6
25-0211-05	JRW-MW-16005	Groundwater	04/09/2025 13:06	JRW RCRA GW Monitoring - Pond 6
25-0211-06	JRW-MW-16006	Groundwater	04/09/2025 13:56	JRW RCRA GW Monitoring - Pond 6
25-0211-07	DUP-02	Groundwater	04/09/2025 00:00	JRW RCRA GW Monitoring - Pond 6
25-0211-08	EB-02	Water	04/09/2025 15:44	JRW RCRA GW Monitoring - Pond 6
25-0211-09	FB-02	Water	04/09/2025 15:50	JRW RCRA GW Monitoring - Pond 6
25-0211-10	JRW-MW-16003 Field MS	Groundwater	04/09/2025 14:41	JRW RCRA GW Monitoring - Pond 6
25-0211-11	JRW-MW-16003 Field MSD	Groundwater	04/09/2025 14:41	JRW RCRA GW Monitoring - Pond 6



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16001**
Lab Sample ID: 25-0211-01
Matrix: Groundwater

Laboratory Project: **25-0211**
Collect Date: 04/09/2025
Collect Time: 12:01 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-01-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	185		ug/L	20	04/18/2025	AB25-0420-01
Calcium	83100		ug/L	1000	04/18/2025	AB25-0420-01
Iron	120		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-01-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	19100		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1420		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	248000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-01-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	540		mg/L	10	04/11/2025	AB25-0410-03

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16002**
 Lab Sample ID: 25-0211-02
 Matrix: Groundwater

Laboratory Project: **25-0211**
 Collect Date: 04/09/2025
 Collect Time: 11:16 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-02-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	183		ug/L	20	04/18/2025	AB25-0420-01
Calcium	133000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	306		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-02-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	21500		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	384000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-02-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	722		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16003**
Lab Sample ID: 25-0211-03
Matrix: Groundwater

Laboratory Project: **25-0211**
Collect Date: 04/09/2025
Collect Time: 02:41 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-03-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	229		ug/L	20	04/18/2025	AB25-0420-01
Calcium	120000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	409		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-03-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	27200		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1150		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	378000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-03-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	712		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16004**
 Lab Sample ID: 25-0211-04
 Matrix: Groundwater

Laboratory Project: **25-0211**
 Collect Date: 04/09/2025
 Collect Time: 03:31 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-04-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	218		ug/L	20	04/18/2025	AB25-0420-01
Calcium	148000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	346		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-04-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	37700		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1220		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	457000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-04-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	882		mg/L	10	04/11/2025	AB25-0410-03

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16005**
 Lab Sample ID: 25-0211-05
 Matrix: Groundwater

Laboratory Project: **25-0211**
 Collect Date: 04/09/2025
 Collect Time: 01:06 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-05-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	222		ug/L	20	04/18/2025	AB25-0420-01
Calcium	97600		ug/L	1000	04/18/2025	AB25-0420-01
Iron	ND		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-05-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	24400		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1290		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	282000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-05-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	604		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16006**
Lab Sample ID: 25-0211-06
Matrix: Groundwater

Laboratory Project: **25-0211**
Collect Date: 04/09/2025
Collect Time: 01:56 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-06-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	177		ug/L	20	04/18/2025	AB25-0420-01
Calcium	98900		ug/L	1000	04/18/2025	AB25-0420-01
Iron	282		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-06-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	24600		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	1270		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	287000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-06-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	574		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **DUP-02**
 Lab Sample ID: 25-0211-07
 Matrix: Groundwater

Laboratory Project: **25-0211**
 Collect Date: 04/09/2025
 Collect Time: 12:00 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-07-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	177		ug/L	20	04/18/2025	AB25-0420-01
Calcium	132000		ug/L	1000	04/18/2025	AB25-0420-01
Iron	303		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-07-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	21500		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	383000		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-07-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	724		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **EB-02**
Lab Sample ID: 25-0211-08
Matrix: Water

Laboratory Project: **25-0211**
Collect Date: 04/09/2025
Collect Time: 03:44 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-08-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	04/18/2025	AB25-0420-01
Calcium	ND		ug/L	1000	04/18/2025	AB25-0420-01
Iron	ND		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-08-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	ND		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-08-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **FB-02**
Lab Sample ID: 25-0211-09
Matrix: Water

Laboratory Project: **25-0211**
Collect Date: 04/09/2025
Collect Time: 03:50 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-09-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	04/18/2025	AB25-0420-01
Calcium	ND		ug/L	1000	04/18/2025	AB25-0420-01
Iron	ND		ug/L	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-09-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Fluoride	ND		ug/L	1000	04/11/2025	AB25-0410-01
Sulfate	ND		ug/L	1000	04/11/2025	AB25-0410-01

Total Dissolved Solids by SM 2540C Aliquot: 25-0211-09-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	04/11/2025	AB25-0410-03



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16003 Field MS**
Lab Sample ID: 25-0211-10
Matrix: Groundwater

Laboratory Project: **25-0211**
Collect Date: 04/09/2025
Collect Time: 02:41 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-10-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	103		%	20	04/18/2025	AB25-0420-01
Calcium	93		%	1000	04/18/2025	AB25-0420-01
Iron	93		%	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-10-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	112		%	1000	04/11/2025	AB25-0410-01
Fluoride	98		%	1000	04/11/2025	AB25-0410-01
Sulfate	102		%	1000	04/11/2025	AB25-0410-01



Analytical Report

Report Date: 04/26/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16003 Field MSD**
Lab Sample ID: 25-0211-11
Matrix: Groundwater

Laboratory Project: **25-0211**
Collect Date: 04/09/2025
Collect Time: 02:41 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0211-11-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	105		%	20	04/18/2025	AB25-0420-01
Calcium	93		%	1000	04/18/2025	AB25-0420-01
Iron	93		%	20	04/18/2025	AB25-0420-01

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0211-11-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	116		%	1000	04/11/2025	AB25-0410-01
Fluoride	98		%	1000	04/11/2025	AB25-0410-01
Sulfate	103		%	1000	04/11/2025	AB25-0410-01

Data Qualifiers	Exception Summary
-----------------	-------------------

No exceptions occurred.

TITLE: SAMPLE LOG-IN – SHIPMENT INSPECTION FORM

Project Number: 25-0211 Inspection Date: 4.9.25 Inspection By: CIE

Sample Origin/Project Name: JRW CW Q2-2025

Shipment Delivered By: Enter the type of shipment carrier.

Inter-Company Mail _____ FedEx _____ UPS _____ USPS _____

Tracking Number: _____ Other/Carry In (whom) CIE-CONSUMERS

Shipping Containers: Enter the type and number of shipping containers received.

Cooler (1) Cardboard Box _____ Custom Case _____ Envelope/Mailer _____

Loose/Unpackaged Containers _____ Other _____

Condition of Shipment: Enter the as-received condition of the shipment container.

Damaged Shipment Observed: None Dented _____ Leaking _____

Other _____

Shipment Security: Enter if any of the shipping containers were opened before receipt.

Shipping Containers Received: Opened _____ Sealed N/A _____

Enclosed Documents: Enter the type of documents enclosed with the shipment.

CoC Work Request _____ Air Data Sheet _____ Other _____

Temperature of Containers: Measure the temperature of several sample containers.

As-Received Temperature Range 4.9-5.3°C °C Samples Received on Ice: Yes No _____

M&TE # and Expiration LS027723 / 10.27.25

Number and Type of Containers: Enter the type and total number of sample containers received.

Container Type	Water	Soil	Other	Broken	Leaking
VOA (40mL or 60mL)	_____	_____	_____	_____	_____
Quart/Liter (g / p)	_____	_____	_____	_____	_____
9-oz (amber glass jar)	_____	_____	_____	_____	_____
2-oz (amber glass)	_____	_____	_____	_____	_____
125 mL (plastic)	<u>22</u>	_____	_____	_____	_____
24 mL vial (glass)	_____	_____	_____	_____	_____
250 mL (plastic)	<u>9</u>	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

All sample pH meeting criteria? Yes No _____ N/A _____ pH paper lot # 210224 Exp. Date 12.1.26

Indicate if an Exception Report (Page 2 of 2) is needed: Yes _____ No

CHAIN OF CUSTODY



CONSUMERS ENERGY COMPANY – LABORATORY SERVICES

135 WEST TRAIL ST., JACKSON, MI 49201 • (517) 788-1251

Page 1 of 1

SAMPLING SITE / CUSTOMER: JRW Pond 6 GW Monitoring – April 2025			PROJECT NUMBER: 25-0211		SAP CC or WO#: REQUESTER: JR Register		ANALYSIS REQUESTED (Attach List if More Space is Needed)							QA REQUIREMENT: <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> TNI <input type="checkbox"/> ISO 17025 <input type="checkbox"/> 10 CFR 50 APP. B <input type="checkbox"/> INTERNAL INFO <input type="checkbox"/> OTHER _____																																	
SAMPLING TEAM: CIE			TURNAROUND TIME REQUIRED: <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 3 DAYS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> OTHER _____					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="2">Total Metals</th> <th rowspan="2">Anions</th> <th rowspan="2">TDS</th> <th colspan="7"></th> </tr> <tr> <th></th><th></th><th></th><th></th><th></th><th></th><th></th> </tr> </table>							Total Metals	Anions	TDS																														
Total Metals	Anions	TDS																																													
SEND REPORT TO: JR Register		email:		phone:			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="2">LAB SAMPLE ID</th> <th colspan="2">SAMPLE COLLECTION</th> <th rowspan="2">MATRIX</th> <th rowspan="2">FIELD SAMPLE ID / LOCATION</th> <th rowspan="2">TOTAL #</th> <th colspan="7">PRESERVATIVE</th> <th rowspan="2">Total Metals</th> <th rowspan="2">Anions</th> <th rowspan="2">TDS</th> <th rowspan="2"></th> <th rowspan="2">REMARKS</th> </tr> <tr> <th>DATE</th> <th>TIME</th> <th>None</th> <th>HNO₃</th> <th>H₂SO₄</th> <th>NaOH</th> <th>HCl</th> <th>MeOH</th> <th>Other</th> </tr> </table>							LAB SAMPLE ID	SAMPLE COLLECTION		MATRIX	FIELD SAMPLE ID / LOCATION	TOTAL #	PRESERVATIVE							Total Metals	Anions	TDS									REMARKS	DATE	TIME	None	HNO ₃	H ₂ SO ₄	NaOH	HCl	MeOH	Other
LAB SAMPLE ID	SAMPLE COLLECTION		MATRIX	FIELD SAMPLE ID / LOCATION	TOTAL #	PRESERVATIVE									Total Metals	Anions				TDS																					REMARKS						
	DATE	TIME				None	HNO ₃	H ₂ SO ₄	NaOH	HCl	MeOH	Other																																			
COPY TO: TRC		MATRIX CODES: GW = Groundwater OX = Other WW = Wastewater SL = Sludge W = Water / Aqueous Liquid A = Air S = Soil / General Solid WP = Wipe O = Oil WT = General Waste			CONTAINERS																																										

RELINQUISHED BY: CABUNGANUT		DATE/TIME: 4.9.25 1810		RECEIVED BY: 		COMMENTS: Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No M&TE #: L5027723 Temperature: 4.9-5.3 °C Cal. Due Date: 4-27-25					
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:							

Appendix C

Field Notes

Sonde ID	15H
Start Date	4.9.25
Project #	25-0210,-0211
Site	JRW
Reviewed By & Date:	J. 04-18-25

Equipment Details	Model & S/N
Monitor Brand	YSI ProDSS S/N 19F104713
Sonde Brand	YSI ProDSS S/N 15H101425 262909-1
Flow Cell	EXO1 599080
DO Probe 97.0	YSI ProDSS S/N 15G103714
Turbidity Probe	YSI ProDSS S/N 21H105795
pH With ORP	YSI ProDSS S/N 22D102306
Conductivity & Temperature Probe	YSI ProDSS S/N 22G103712

pH Standard (±0.1)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
4.0	GFS # 1634	24012658	5.31.26	4.01					3.97
7.0	GFS # 1639	24015210	9.1.26	7.02					7.00
10.0	GFS # 1645	24011537	5.11.26	10.04					9.99
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±0.10 of the standard? Y or N (if no, recalibration is required)

ORP Standard (±10 mV)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
+228.0 (mV)	GFS# 5525	24014269	5.3.25	+228.0					227.6
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±10% of the standard? Y or N (if no, recalibration is required)

DO	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
90-110% saturation	DI Water	N/A	N/A	97.0					97.4
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within 90-110%? Y or N (if no, recalibration is required)

Sonde ID	15H	Project #:	
Start Date	4.9.25		25-0210, -0211
Reviewed By & Date:	<i>J</i> 04-18-25	Site:	JRW

Specific Conductance (uS/cm)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
1413 (1399-1427)	GFS# 2174	24012460	6.3.25	1405					1406
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within $\pm 3\%$ of the standard? Y or N (if no, recalibration is required)

Turbidity (NTUs)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
0	DI Water	--	--	0.01					0.03
40.0 (± 4.0 NTUs)	Hach 2746356	A3093	4.25	39.44					39.81
800.0 (± 80.0 NTUs)	Hach 2660553	A3310	11.25	821.59					810.29
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within $\pm 10\%$ of the standard? Y or N (if no, recalibration is required)

Additional Information for calibration standards

Standard	Source	Source Lot #	Source Exp. Date	Standard	Source	Source Lot #	Source Exp. Date
pH 4.0				pH 9.0			
pH 7.0				ORP			
pH 10.0							
Sp. Conductivity							
10.0 Turbidity							
40.0 Turbidity							

Sonde ID	19M
Start Date	4.9.25
Project #	25-0210, -0211
Site	JRW
Reviewed By & Date	J 04-18-25

Equipment Details	Model & S/N
Monitor Brand	YSI ProDSS S/N 19M100493
Sonde Brand	YSI ProDSS S/N 19M100509
Flow Cell	EXO1 599080
DO Probe	YSI ProDSS S/N 19L103208
Turbidity Probe	YSI ProDSS S/N 19L103271
pH With ORP	YSI ProDSS S/N 24K103291
Conductivity & Temperature Probe	YSI ProDSS S/N 19L101251

pH Standard (± 0.1)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
4.0	GFS # 1634	24012658	5.31.26	3.90					3.98
7.0	GFS # 1639	24015210	9.1.26	6.94					7.03
10.0	GFS # 1645	24011537	5.11.26	9.93					10.04
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±0.10 of the standard? Y or N (if no, recalibration is required)

ORP Standard (± 10mV)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
+228.0 (mV)	GFS # 5525	24014269 5.3.25 KDR 4.8.25	5.3.25	227.8					229.1
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±10% of the standard? Y or N (if no, recalibration is required).

DO	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
90-110% saturation	DI Water	N/A	N/A	98.1					98.9
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within 90-110%? Y or N (if no, recalibration is required)

Sonde ID	19M	Project # :	
Start Date	4.9.25		25-0210, -0211
Reviewed By & Date:	J' 04-18-25	Site:	JRW

Specific Conductance (uS/cm)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Field Checks Completed	End Project Calibration Value
1413 (1399-1427)	GPS # 2174	24012460	6.3.25	1419					1409
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within range of the standard? Y or N (if no, recalibration is required)

Turbidity (NTUs)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Field Checks Completed	End Project Calibration Value
0	DI Water	--	--	0.01					0.02
40.0 (± 4.0 NTUs)	Hach 2746356	A3093	4.25	40.65					40.16
800.0 (± 80.0 NTUs)	Hach 2660553	A3310	11.25	818.29					800.09
Initials & Date:				KDR 4.8.25					KDR 4.10.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±10% of the standard? Y or N (if no, recalibration is required)

Additional Information for calibration standards

Standard	Source	Source Lot #	Source Exp. Date	Standard	Source	Source Lot #	Source Exp. Date
pH 4.0				pH 9.0 Check			
pH 7.0				ORP			
pH 10.0							
Sp. Conductivity							
40.0 Turbidity							
10.0 Turbidity							

Pond 1 & 2

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-15001 Date 4.9.25 Control Number 25-0210-01
 Location JRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: Solinst 101 P7 S/N: L5030623

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 5.61 Depth-To-Bottom T/PVC (ft) 81.94 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1525	Started pump						280	5.72	
1529	7.64	11.4	1108	10.7	1.12	-105.6	280	5.73	4.66
1534	7.69	11.3	1105	2.9	0.31	-131.3	280	5.73	4.60
1539	7.70	11.3	1101	1.6	0.17	-137.9	280	5.73	4.68
1544	7.70	11.4	1097	1.2	0.13	-140.0	280	5.73	4.73
1549	7.70	11.4	1097	0.9	0.10	-140.9	280	5.73	4.66
1554	7.70	11.3	1092	0.9	0.10	-141.7	280	5.73	4.73
1559	7.70	11.4	1087	0.9	0.09	-142.0	280	5.73	4.79
1600	Collected sample								
1605	End sample collection								

Total Pump Time (min): 35 Total Purge Volume (gal): ~2.5 Review Date: 04-18-25

Weather: Sunny, windy, 45°F Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	N					
1	250mL	↓	A	N					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-15002 Date 4.9.25 Control Number 25-0210-02
 Location JRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: Solinst 101 P7 S/N: L5030623

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 14.30 Depth-To-Bottom T/PVC (ft) 92.26 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1014	Started pump						204	14.33	
1019	7.58	11.7	1136	17.0	1.81	-140.9	204	14.33	2.16
1024	7.65	11.3	1136	5.6	0.62	-175.2	204	14.33	2.51
1029	7.65	11.3	1133	2.6	0.28	-174.4	204	14.33	2.65
1034	7.65	11.3	1131	1.9	0.20	-173.0	204	14.33	2.70
1039	7.65	11.3	1132	1.2	0.13	-170.8	204	14.33	2.79
1044	7.65	11.4	1135	1.1	0.12	-169.8	204	14.33	2.74
1049	7.65	11.5	1134	1.1	0.11	-169.4	204	14.33	2.89
1050	Collected sample								
1055	End sample collection								

Total Pump Time (min): 36 Total Purge Volume (gal): ~2.0 Review Date: 04-18-25

Weather: Sunny, windy, 46°F Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125 mL	HDPE	B	N					
1	125 mL	I	A	N					
1	250 mL	I	A	N					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-NW-15003 Date 4.9.25 Control Number 25-0210-03-07
 Location JRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: Solinst 101 P7 S/N: L5030623

QC SAMPLE: MS/MSD DUP 01 Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 11.39 Depth-To-Bottom T/PVC (ft) 90.24 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1108	Started pump						232	11.45	
1114	7.64	11.7	1012	15.8	1.68	92.0	232	11.46	4.66
1119	7.66	11.8	1008	4.1	0.44	72.2	232	11.46	6.31
1124	7.67	11.8	1068	2.3	0.25	53.6	232	11.46	6.25
1129	7.68	11.9	1009	1.6	0.17	33.9	232	11.46	6.88
1134	7.69	11.9	1005	1.2	0.13	18.4	232	11.46	7.01
1139	7.72	11.8	1007	0.9	0.10	4.3	232	11.46	6.92
1144	7.73	11.8	1009	0.8	0.08	-7.5	232	11.46	6.71
1149	7.73	11.8	1005	0.7	0.08	-12.6	232	11.46	6.65
1154	7.73	11.7	1005	0.7	0.07	-18.4	232	11.46	6.75
1159	7.73	11.7	1007	0.7	0.07	-24.6	232	11.46	6.79
1204	7.73	11.6	1005	0.7	0.07	-27.2	232	11.46	6.91
1205	Collected sample								
1212	End sample collection								

Total Pump Time (min): 57 Total Purge Volume (gal): ~3.5 Review Date: 04-18-25

Weather: Sunny, windy, 40°F Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
2	125mL	HDPE	B	N					
2	125mL	I	A	N					
2	250mL	I	A	N					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID SRW-MW-15004 Date 4.9.25 Control Number 25-0210-04
 Location SRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: Solinst 101 P7 S/N: LS030623

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 13.54 Depth-To-Bottom T/PVC (ft) 96.42 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1227	Started pump						244	13.55	
1230	7.65	10.9	974	35.3	3.80	82.4	244	13.55	4.07
1235	7.65	11.1	975	18.9	2.07	81.5	244	13.55	2.99
1240	7.65	11.0	973	16.0	1.75	80.9	244	13.55	3.05
1245	7.65	11.1	974	14.8	1.63	80.3	244	13.55	2.89
1250	7.64	11.2	971	14.3	1.58	80.2	244	13.55	2.83
1255	7.64	11.0	971	14.2	1.56	80.2	244	13.55	2.75
1300	7.64	11.0	969	14.0	1.54	78.9	244	13.55	2.88
1301	Collected Sample								
1306	End sample collection								

Total Pump Time (min): 34 Total Purge Volume (gal): ~2.0 Review Date: 04-18-25

Weather: Sunny, windy, 40°F Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	N					
1	250mL	↓	A	N					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID SRW-MW-15005 Date 4.9.25 Control Number 25-0210-05
 Location SRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: Solinst 101 P7 S/N: L5030623

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 12.50 Depth-To-Bottom T/PVC (ft) 93.65 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1329	Started pump						256	12.58	
1333	7.84	12.4	897	32.2	3.41	113.9	256	12.58	2.68
1338	7.85	12.5	894	19.9	2.11	114.2	256	12.58	2.96
1343	7.86	12.4	893	18.6	1.97	112.6	256	12.58	3.16
1348	7.85	12.4	893	18.2	1.94	111.1	256	12.58	3.22
1353	7.85	12.5	892	17.7	1.88	109.9	256	12.58	3.29
1358	7.86	12.6	892	17.3	1.84	108.6	256	12.58	3.32
1403	7.85	12.5	890	16.6	1.75	108.0	256	12.58	3.38
1404	Collected sample								
1409	End sample collection								

Total Pump Time (min): 35 Total Purge Volume (gal): ~2.5 Review Date: 04-18-25

Weather: Sunny, windy, 45°F Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	N					
1	250mL	↓	A	N					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID SRW-MW-15006 Date 4.9.25 Control Number 25-0210-06, 10-11
 Location SRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: Solinst 101 P7 S/N: L5030623

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 4.79 Depth-To-Bottom T/PVC (ft) 83.04 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1425	Started pump						272	4.84	
1428	7.89	11.8	996	13.4	1.41	-155.9	272	4.84	3.13
1433	7.92	11.8	990	2.9	0.31	-173.7	272	4.84	2.53
1438	7.93	11.8	990	1.8	0.20	-177.0	272	4.84	2.62
1443	7.92	11.9	991	1.2	0.13	-178.8	272	4.84	2.88
1448	7.94	11.6	988	0.9	0.10	-180.6	272	4.84	2.91
1453	7.94	11.6	984	0.8	0.09	-181.3	272	4.84	2.99
1458	7.94	11.8	985	0.8	0.09	-182.4	272	4.84	3.07
1503	7.95	11.6	982	0.8	0.08	-182.7	272	4.84	3.18
1504	Collected sample								
1510	End sample collection								

Total Pump Time (min): 39 Total Purge Volume (gal): ~3.0 Review Date: 04-18-25

Weather: Sunny, windy, 45°F Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
3	125 mL	HDPE	B	N					
3	125 mL	↓	A	N					
1	250 mL	↓	A	N					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Pond 6

Consumers Energy Company
Monitoring Well Sampling Worksheet

Well ID JRW-MW-16002 Date 4.9.25 Control Number 25-0211-02, -D7
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: Geotech S/N: 7371

QC SAMPLE: MS/MSD DUP 02 SR 062625 Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 12.84 Depth-To-Bottom T/PVC (ft) 94.38 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1040	Started pump						180	12.91	
1050	7.82	11.2	973	1.2	0.13	-170.0	180	12.92	4.74
1055	7.79	11.0	973	1.1	0.12	-172.3	180	12.92	4.34
1100	7.79	11.0	970	1.0	0.10	-174.1	180	12.92	2.39
1105	7.79	11.0	969	0.9	0.09	-174.9	180	12.92	1.91
1110	7.78	11.1	966	0.9	0.09	-176.0	180	12.92	2.03
1115	7.78	11.2	963	0.9	0.09	-176.7	180	12.92	1.89
1116	collected sample								
1128	end								
ue 040925									

Total Pump Time (min): 36 Total Purge Volume (gal): 21.75 Review Date: 04-18-25

Weather: 45°F, Sunny, Windy Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F -							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
2	125mL	HDPE	A	N					
2	↓		B						
2	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-16002 Date 4.9.25 Control Number 25-0211-02, -07
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: Geotech S/N: 7311

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 12.84 Depth-To-Bottom T/PVC (ft) 94.38 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1040	Started pump						180	12.91	
1050	7.82	11.2	973	1.2	0.13	-170.0	180	12.92	4.74
1055	7.79	11.0	973	1.1	0.12	-172.3	180	12.92	4.34
1100	7.79	11.0	970	1.0	0.10	-174.1	180	12.92	2.39
1105	7.79	11.0	969	0.9	0.09	-174.9	180	12.92	1.91
1110	7.78	11.1	966	0.9	0.09	-176.0	180	12.92	2.03
1115	7.78	11.2	963	0.9	0.09	-176.7	180	12.92	1.89
1116	collected sample								
1128	end								
040925									

Total Pump Time (min): 36 Total Purge Volume (gal): ~1.75 Review Date: 04-18-25

Weather: 45°F, sunny, windy Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
2	125mL	HDPE	A	N					
2	↓	↓	B	↓					
2	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-14003 Date 4.9.25 Control Number 25-0211-03, ^{MS}-10, ^{MSD}-11
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: GeoTech S/N: 7371
 QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 13.13 Depth-To-Bottom T/PVC (ft) 86.01 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stablization parameters for the last three readings

1405	started pump						250	13.16	
1410	7.72	11.8	974	1.8	0.19	-174.5	250	13.17	6.08
1415	7.72	11.9	974	1.6	0.15	-178.8	250	13.17	3.80
1420	7.74	11.9	973	1.6	0.15	-181.8	250	13.17	2.45
1425	7.73	11.9	972	1.5	0.14	-181.9	250	13.17	2.38
1430	7.73	11.8	970	1.1	0.10	-181.6	250	13.17	1.87
1435	7.74	11.8	969	1.1	0.10	-181.7	250	13.17	1.59
1440	7.74	11.8	967	1.0	0.09	-181.8	250	13.17	1.71
1441	collected sample								
1449	end								

Total Pump Time (min): 30 Total Purge Volume (gal): ~25 Review Date: 04.18.25

Weather: 42°F, partly cloudy, wind Review By: [Signature]

Comments: collected Field MS/MSD

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
3	125mL	HDPE	B	N					
3	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-14004 Date 4.9.25 Control Number 25-0211-04
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: GeoTech S/N: 7371
 QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 13.52 Depth-To-Bottom T/PVC (ft) 88.86 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1500	Started pump						250	13.53	
1505	7.70	12.2	1145	2.9	0.31	-194.7	250	13.53	4.66
1510	7.70	12.2	1141	2.7	0.29	-199.0	250	13.53	3.69
1515	7.70	12.1	1134	2.5	0.27	-206.3	250	13.53	2.83
1520	7.70	12.1	1129	2.2	0.25	-208.1	250	13.53	2.56
1525	7.70	12.1	1128	2.2	0.24	-209.1	250	13.53	2.37
1530	7.70	12.1	1127	2.1	0.23	-209.4	250	13.53	2.28
1531	collected sample								
1534	end								

Total Pump Time (min): 31 Total Purge Volume (gal): 22.0 Review Date: 04-18-25

Weather: 42°F, partly sunny, wind Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125ml	HDPE	B	N					
1	↓	↓	A	↓					
1	250ml	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID: JRW-MW-16005 Date: 4.9.25 Control Number: 25-0211-05
 Location: JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: Geotech S/N: 7373

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 16.31 Depth-To-Bottom T/PVC (ft) 91.38 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1220	started pump						240	16.34	
1225	7.41	11.7	832	0.11	0.12	+21.5	240	16.34	4.08
1230	7.45	11.7	830	0.10	0.09	+19.6	240	16.34	3.88
1235	7.48	11.8	829	0.05	0.00	+16.0	240	16.34	2.61
1240	7.48	11.8	828	0.05	0.00	+15.1	240	16.34	2.42
1245	7.49	11.7	827	0.03	0.00	+13.2	240	16.34	1.73
1250	7.50	11.6	825	0.03	0.00	12.2	240	16.34	1.08
1255	7.50	11.5	823	0.03	0.00	+11.8	240	16.34	1.05
1300	7.50	11.6	821	0.03	0.00	+11.0	240	16.34	1.07
1305	7.50	11.6	820	0.02	0.00	+10.9	240	16.34	1.02
1306	collected sample								
1313	end								

Total Pump Time (min): 44 Total Purge Volume (gal): 13.0 Review Date: 04-18-25

Weather: 42°F, WINDY, CLOUDY Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125ml	HDPE	B	N					
1	↓	↓	A	↓					
1	250ml	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-16006 Date 4-9-25 Control Number 25-0211-06
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: Geotech S/N: 7371

QC SAMPLE: MS/MSD DUP Sonde ID: 15H 19M 20M 21G 22J

Depth-to-water T/PVC (ft) 15.20 Depth-To-Bottom T/PVC (ft) 91.71 Completed by CIG

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stablization parameters for the last three readings

1330	Started		pump				250	15.22	
1335	7.83	11.5	812	2.7	0.30	-162.7	250	15.23	4.01
1340	7.83	11.6	811	2.6	0.29	-164.9	250	15.23	3.54
1345	7.85	11.6	807	2.0	0.22	-173.1	250	15.23	2.58
1350	7.85	11.7	803	2.0	0.21	-176.6	250	15.23	1.86
1355	7.86	11.5	801	1.9	0.20	-178.2	250	15.23	1.74
1356	collected sample								
1400	end								

Total Pump Time (min): 24 Total Purge Volume (gal): ~1.75 Review Date: 04-18-25

Weather: 42°F, cloudy, windy Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	↓	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Appendix B

Second Semiannual Monitoring Report

January 30, 2026

Brett Coulter, CPG, District Geologist
 EGLE, Materials Management Division
 State Office Building
 301 East Louis Glick Highway
 Jackson, MI 49201

via email: CoulterB1@michigan.gov

TRANSMITTAL OF GROUNDWATER MONITORING RESULTS FOR JR WHITING SOLID WASTE DISPOSAL AREA; WDS NO. 397664

Dear Mr. Coulter,

Please find attached the following:

Document	Date
Second Semiannual 2025 Groundwater Monitoring Report for the JR Whiting Solid Waste Disposal Area	January 30, 2026
Second Semiannual 2025 Laboratory Analysis Data Spreadsheet	January 30, 2026

The attached document(s) are prepared in conformance with:

Document	Date
Solid Waste Disposal Area Operating License; Consumers Whiting Plant Impoundments; Waste Disposal System Number 397664; License Number 9601	May 11, 2020
Hydrogeological Monitoring Plan, Consumers Power Company, dated May 6, 2020	May 6, 2020
Michigan Department of Environment, Great Lakes, and Energy Policy Memorandum OWMRP-115-29: Format for Solid Waste Disposal Facility Monitoring Submittals	July 5, 2013

Please contact me if you have any questions regarding this transmittal.

Sincerely,



Harold D. Register, Jr., P.E.
Sr. Principal Environmental Engineer
Phone: (517) 788-2982
Email: harold.registerjr@cmsenergy.com

cc Gary Schwerin, EGLE (via email)
EGLE-MMD-CCR@michigan.gov



Second Semiannual 2025 Groundwater Monitoring Report

**Former JR Whiting Power Plant
Pond 1 & 2 and Pond 6
Erie, MI**

January 2026

A handwritten signature in black ink, appearing to read "Sarah B. Holmstrom".

Sarah B. Holmstrom, P.G.
Sr. Project Manager/Hydrogeologist

Prepared For:

Consumers Energy

Prepared By:

TRC
1540 Eisenhower Pl.
Ann Arbor, MI 48108

A handwritten signature in black ink, appearing to read "Ashlyn R. Kast".

Ashlyn R. Kast
Staff Geologist

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1.0 Introduction

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule), as amended. Standards for groundwater monitoring and corrective action codified in the CCR Rule (40 CFR 257.90-98) apply to the Consumers Energy Company (Consumers Energy) Ponds 1 and 2 (closed surface impoundment monitored as Pond 1 & 2 using a multiunit groundwater monitoring system) and Pond 6 (closed inactive surface impoundment) at the former JR Whiting (JRW) Power Plant Site (the Site). Prior to the CCR Rule, from about 2009 to 2016, JR Whiting followed the approved groundwater monitoring waiver.

On December 28, 2018, the State of Michigan enacted Public Act No. 640 of 2018 (PA 640) to amend the Natural Resources and Environmental Protection Act, also known as Part 115 of PA 451 of 1994, as amended (a.k.a., Michigan Part 115 Solid Waste Management). The December 2018 amendments to Part 115 were developed to provide the State of Michigan oversight of CCR impoundments and landfills and to better align existing state solid waste management rules and statutes with the CCR Rule. On August 8, 2019, Consumers Energy submitted a revised *JR Whiting Hydrogeological Monitoring Plan, former JR Whiting Power Plant, Erie, Michigan (2020 HMP)* (TRC, May 2020 Revision) to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to comply with the requirements of Part 115, Rule 299.4905, and the CCR Rule. The HMP was approved by the EGLE on May 11, 2020.

1.1 Statement of Adherence to Approved Hydrogeological Monitoring Plan

This JR Whiting Second Semiannual 2025 Groundwater Monitoring Report (Report) has been prepared by TRC on behalf of Consumers Energy to present groundwater monitoring data collected from the JR Whiting Pond 1 & 2 and Pond 6 during the fourth calendar quarter of 2025. This report was prepared in accordance with the items listed in Appendix A (Solid Waste Monitoring Submittal Components) of the July 5, 2013 Michigan Department of Environmental Quality – Office of Waste Management and Radiological Protection (MDEQ-OWMRP), now the EGLE Materials Management Division (MMD), communication prescribing the format for solid waste disposal facility monitoring submittals as published in OWMRP-115-29, Format for Solid Waste Disposal Monitoring Submittals. All references herein to the EGLE are inclusive of the MDEQ. Groundwater sampling, analysis, and information contained in this report was prepared in adherence to the 2020 HMP.

1.2 Program Summary

Historically groundwater monitoring at JRW was performed under the HMP last revised on November 26, 1997, until the groundwater monitoring waiver was approved on September 2, 2009. It was then again performed pursuant to the CCR Rule beginning in 2016 until implementation of the 2020 HMP, at which time monitoring began to be conducted in accordance with both regulatory programs. In the *First Semiannual 2025 Groundwater Monitoring Report* for the JRW Pond 1 & 2 and Pond 6 (First Semiannual 2025 Report) (TRC, July 2025), Consumers Energy reported that no potential statistically significant increases (SSIs) were noted during the second 2025 semiannual detection monitoring event. Therefore,

Consumers Energy continued detection monitoring in the second half of 2025 at Pond 1 & 2 and Pond 6 pursuant to §257.94 of the CCR Rule and the HMP.

This Report presents the monitoring results and the statistical evaluation of the detection monitoring constituents (Section 11511a(3)(c) of Part 115) for the October 2025 semiannual groundwater monitoring event for Pond 1 & 2 and Pond 6. Detection monitoring was performed in accordance with the 2020 HMP. As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify SSIs of detection monitoring constituents compared to background levels.

1.3 Site Overview

The JR Whiting Plant was a coal-fired power generation facility located in Erie, Michigan, on the western shore of Lake Erie (Figure 1). The plant began producing electricity in 1952 from Units 1 and 2, with Unit 3 beginning operation in 1953. The plant ceased operation in April 2016. Figure 1 is the site location map showing the facility and the surrounding area. Site features are shown on Figure 2.

The JR Whiting Ash Disposal Area is licensed under Michigan Part 115 of the Natural Resources and Environmental Protection Act (NREPA), PA 451 of 1994, as amended.

Pond 1 & 2 is located to the east of the plant, north of the discharge canal, south of Erie Road, and west of Lake Erie and constructed in native clay soil. It was historically used for wet ash sluicing. In 2019, it received its final cover system constructed pursuant to 40 CFR 257.102(a); the Pond 1 & 2 Closure Construction Quality Assurance (CQA) Plan dated August 31, 2017; the Part 115 Administrative Rules; and Pond 1 & 2 Closure Plan submitted to the EGLE on December 18, 2017. The closure of Pond 1 & 2 was certified by the EGLE in a letter dated August 27, 2020.

Pond 6 is located to the north of the plant and was constructed in native clay soil. It was an inactive surface impoundment at the time the CCR Rule became effective on October 19, 2015, and was capped with a final cover certified pursuant to the CCR Rule on December 5, 2017, and certified by the EGLE on August 24, 2018.

1.4 Geology/Hydrogeology

Pond 1 & 2 and Pond 6 are located adjacent to Lake Erie. The subsurface materials encountered at the JR Whiting site are predominately clay-rich till. The surficial CCR fill material is underlain by approximately 40 to 50 feet of laterally extensive clay-rich till that acts as a natural hydraulic barrier across the Site. Limestone bedrock is present beneath the till and is considered the uppermost aquifer at the Site.

Groundwater present within the uppermost aquifer is typically encountered at Pond 1 & 2 and Pond 6 around 70 to 80 feet below ground surface (ft bgs), approximately 510 to 520 feet above mean sea level (AMSL), in the limestone (beneath the till). The uppermost aquifer is confined and protected from CCR constituents by the 40- to 50-foot-thick overlying clay-rich aquitard that interfaces with the limestone at the elevation range of 510 to 520 feet AMSL. Potentiometric

surface elevation data from groundwater within the CCR monitoring wells represents the levels in which groundwater rises under hydrostatic pressure within each well and exhibit an extremely low hydraulic gradient across the Site with no consistent or discernible flow direction.

2.0 Groundwater Monitoring

2.1 Monitoring Well Network

A groundwater monitoring system has been established for Pond 1 & 2 and Pond 6 for the purpose of detection monitoring. The detection monitoring well network for Pond 1 & 2 and Pond 6 currently consists of six monitoring wells for each CCR unit that are screened in the uppermost aquifer. Monitoring well locations are shown on Figure 2.

As discussed in the HMP, intrawell statistical methods for JR Whiting were selected based on the geology and hydrogeology at the Site (primarily the presence of clay/hydraulic barrier, no apparent flow direction and lack of flow potential across the aquifer), in addition to other supporting lines of evidence that the aquifer is unaffected by the CCR unit (such as the consistency in concentrations of water quality data and similarities in concentrations in wells JRW-MW-16007 through JRW-MW-16009 and the Pond 1 & 2 and Pond 6 monitoring wells).

An intrawell statistical approach requires that each downgradient well doubles as the background and compliance well, where data from each individual well during a detection monitoring event is compared to a statistical limit developed using the background dataset from that same well. Monitoring wells JRW-MW-15001 through JRW-MW-15006 are located around the perimeter of Pond 1 & 2 and monitoring wells JRW-MW-16001 through JRW-MW-16006 are located around the perimeter of Pond 6. These monitoring wells provide data on both background and downgradient groundwater quality that has not been affected by the CCR unit (a total of six background/downgradient monitoring wells for each pond).

As shown on Figure 2, monitoring wells JRW-MW-16007 through JRW-MW-16009 are used for water level measurements only. These wells were initially installed as potential background monitoring wells during the initial stages of characterizing the Site. However, based on further hydrogeological characterization of the uppermost aquifer, an intrawell statistical approach was selected, which does not rely on JRW-MW-16007 through JRW-MW-16009 for statistical evaluation.

No monitoring wells have been installed or decommissioned since the previous monitoring event.

2.2 October 2025 Groundwater Monitoring

Consumers Energy Laboratory Services personnel performed gauging and sampling of monitoring wells associated with Pond 1 & 2 and Pond 6 on October 22, 2025. Groundwater monitoring was performed in accordance with the HMP. Groundwater samples collected during the October 2025 event were submitted to Consumers Energy Laboratory Services in Jackson, Michigan, for analysis of the following metals and inorganic indicator constituents:

Section 11511a(3)(c) – Detection Monitoring Constituents

Boron
Calcium
Chloride
Fluoride
Iron
pH
Sulfate
Total Dissolved Solids (TDS)

Static water level measurements that represent the potentiometric surface were collected at all locations after equilibration to atmospheric pressure. The depth to water was measured according to ASTM D 4750, “Standard Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well” and recorded to the nearest 0.01 foot. Static water elevation data are summarized in Table 1.

Groundwater samples were collected using a peristaltic pump or submersible pump in accordance with low flow sampling protocol and were not field filtered to allow for total metals analysis. Groundwater field parameters included dissolved oxygen, oxidation reduction potential, pH, specific conductivity, temperature, and turbidity and are summarized on Table 2. All samples were collected in vendor-provided, nitric acid pre-preserved (metals only) and unpreserved sample containers and submitted to the laboratory for analysis. Consumers Energy followed chain of custody procedures to document the sample handling.

Consumers Energy collected quality assurance/quality control (QA/QC) samples from both CCR units, Pond 1 & 2 and Pond 6, during the October 2025 groundwater sampling event. The QA/QC samples per CCR unit consisted of one field blank, one equipment blank, one field duplicate (JRW-MW-15004 at Pond 1 & 2 and JRW-MW-16005 at Pond 6), and one field matrix spike/matrix spike duplicate (MS/MSD) sample (JRW-MW-15006 at Pond 1 & 2 and JRW-MW-16003 at Pond 6).

Groundwater analytical results from the semiannual monitoring event are summarized in Table 3 (Pond 1 & 2) and Table 4 (Pond 6). The laboratory analytical reports are included in Appendix B. Field records are included in Appendix C.

2.2.1 Data Quality Review

Data from each round were evaluated for completeness, overall quality and usability, method-specified sample holding times, precision and accuracy, and potential sample contamination. The data were found to be complete and usable for the purposes of the CCR monitoring program. Data quality reviews are summarized in Appendix A.

2.2.2 Groundwater Flow Rate and Direction

Groundwater elevation data collected within the uppermost aquifer indicates groundwater flow across Pond 1 & 2 and Pond 6 is frequently incalculable and often stagnant. As demonstrated in prior semiannual reports and the HMP, the hydraulic head differential across the monitoring wells at both units is minimal (with head level differences between wells frequently equal to zero or within the margin of error of the measurement instrument), resulting in a relatively flat potentiometric surface with no consistent or discernable groundwater flow direction. Data have shown this to be the case since background data collection commenced in 2016.

Consequently, it is not appropriate to infer horizontal flow gradients across either CCR unit. In previous semiannual reports, groundwater elevation data have been used to establish that if there were a discernable flow direction, the resulting hydraulic gradient would be very low, on the order of 1×10^{-4} to 1×10^{-5} ft/ft.

Water level data from the October 2025 monitoring event are summarized in Table 3 and in plan view on Figure 3. These data continue to show groundwater conditions within the uppermost aquifer are consistent with previous monitoring events and continue to demonstrate that the monitoring wells are appropriately positioned to detect the presence of detection monitoring parameters that could potentially migrate from the Pond 1 & 2 and Pond 6 CCR unit.

3.0 Statistical Evaluation

Detection monitoring is continuing at JR Whiting Pond 1 & 2 and Pond 6 in accordance with the HMP. The following section summarizes the statistical approach applied to assess the semiannual groundwater data in accordance with the detection monitoring program.

3.1 Establishing Background Limits

3.1.1 Pond 1 & 2

Per the HMP, background limits were established for the detection monitoring constituents using data collected from each of the six established detection monitoring wells (JRW-MW-15001 through JRW-MW-15006). The background limits for each monitoring well have been calculated using thirteen rounds of data collected from November 2016 through March 2019 as presented in detail in the 2019 Annual Report (TRC, January 2020). Iron was incorporated into the monitoring program as part of the 2020 HMP. The initial background limits for iron were calculated using data collected through the October 2023 event as presented in detail in the Second Semiannual 2023 Report (TRC, 2023). These background limits will continue to be used throughout the detection monitoring program to determine whether groundwater has been impacted from Pond 1 & 2 by comparing concentrations in the detection monitoring wells to their respective background limits for each detection monitoring constituent.

3.1.2 Pond 6

Per the HMP, background limits were established for the detection monitoring constituents using data collected from each of the six established detection monitoring wells (JRW-MW-16001 through JRW-MW-16006). The statistical evaluation of the background data is presented in the Pond 6 July 2019 Annual Report (TRC, 2019). Iron was incorporated into the monitoring program as part of the 2020 HMP. The initial background limits for iron were calculated using data collected through the October 2023 event as presented in detail in the Second Semiannual 2023 Report (TRC, 2023). The detection monitoring background limits for each monitoring well will continue to be used throughout the detection monitoring period to determine whether groundwater has been impacted from Pond 6 by comparing concentrations in the detection monitoring wells to their respective background limits for each detection monitoring constituent.

3.2 Data Comparison to Background Limits – Pond 1 & 2 Semiannual Event (October 2025)

The concentrations of the constituents in each of the Pond 1 & 2 detection monitoring wells (JRW-MW-15001 through JRW-MW-15006) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from JRW-MW-15001 is compared to the background limit developed using the background dataset from JRW-MW-15001, and so forth). The comparisons are presented on Table 3.

Based on the statistical evaluation of the October 2025 detection monitoring parameters, a resample for the following parameters were collected in accordance with the HMP:

- Boron at JRW-MW-15002.

The initial observation of a constituent concentration above the established background limits does not necessarily constitute an SSI. Per the Stats Plan, if there is an exceedance of a prediction limit for one or more of the constituents, the well(s) of concern can be resampled within 30 days of the completion of the initial statistical analysis for verification purposes. Results of the verification sampling for JRW-MW-15002 are detailed below.

There were no exceedances relative to the statistical limits, and therefore no SSIs, for the remaining constituents and sampling locations. Per the EGLE prescribed submittal format, a statistical exceedances summary is included as Table 5 that reflects the four most recent monitoring events.

3.2.1 Verification Sampling for the Pond 1 & 2 Second 2025 Semiannual Event

Verification resampling is recommended per the HMP and the USEPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (Unified Guidance, USEPA, 2009) to achieve performance standards as specified by Part 115 Rule 299.4908 and §257.93(g) in the CCR Rule. Per the HMP, if there is an exceedance of a prediction limit for one or more of the constituents, the well(s) of concern will be resampled within 30 days of the completion of the initial statistical analysis. Only constituents that initially exceed their statistical limit (i.e., have no previously recorded SSIs) will be analyzed for verification purposes.

As such, verification samples were collected on November 19, 2025 by Consumers Energy Laboratory Services personnel for boron analysis at monitoring well JRW-MW-15002. A summary of the groundwater analytical results collected during the verification resampling event is provided on Table 3. The associated data quality review is included in Appendix A.

The JRW-MW-15002 boron verification result is within the prediction limits; therefore, no SSI exists from the October 2025 event for boron in accordance with the HMP and the Unified Guidance.

3.3 Data Comparison to Background Limits – Pond 6 Semiannual Event (October 2025)

The data comparisons of the Pond 6 monitoring wells JRW-MW-16001 through JRW-MW-16006 to their respective statistical background limits are presented on Table 4.

There were no exceedances relative to the statistical limits; therefore, there are no SSIs compared to background for any of the constituents. As no SSIs were found, detection monitoring will be continued at the Pond 6 CCR unit in accordance with the HMP. Per the EGLE prescribed submittal format, a statistical exceedances summary is included as Table 5 that reflects the four most recent monitoring events.

4.0 Conclusions and Recommendations

No SSIs occurred at Pond 1 & 2 or Pond 6 during the October 2025 monitoring event; therefore, Consumers Energy will continue with the detection monitoring program in conformance with the HMP. No corrective actions were needed or performed for either Pond 1 & 2 or Pond 6. The next semiannual monitoring event at the JR Whiting Pond 1 & 2 and Pond 6 CCR units is scheduled for the second calendar quarter of 2026.

5.0 References

- ARCADIS. May 13, 2016. Summary of Monitoring Well Design, Installation, and Development. JR Whiting Electric Generation Facility – Erie, Michigan. Prepared for Consumers Energy Company.
- TRC Environmental Corporation. December 2016. 2016 Monitoring Well Design, Installation, Development, and Decommissioning. JR Whiting Electric Generation Facility – Erie, Michigan. Prepared for Consumers Energy Company.
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- TRC. January 2020. 2019 Annual Groundwater Monitoring and Corrective Action Report – Former JR Whiting Power Plant Pond 1 & 2 and Pond 6, Erie, Michigan. Prepared for Consumers Energy Company.
- TRC. February 2020a. Electric Generation Facilities RCRA CCR Detection Monitoring Program for the Pond 1 & 2 and Pond 6 Areas. Sample and Analysis Plan. JR Whiting Monitoring Program – Erie, Michigan. Prepared for Consumers Energy Company.
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- TRC. May 2020 Revision. Consumers Energy JR Whiting Hydrogeologic Monitoring Plan (HMP). Prepared for Consumers Energy Company.
- TRC. October 2023. Second Semiannual 2023 Groundwater Monitoring Report – Former JR Whiting Power Plant, Pond 1 & 2 and Pond 6 CCR Unit, Erie, Michigan. Prepared for Consumers Energy Company.
- TRC. October 2024. Second Semiannual 2024 Groundwater Monitoring Report – Former JR Whiting Power Plant, Pond 1 & 2 and Pond 6 CCR Unit, Erie, Michigan. Prepared for Consumers Energy Company.
- USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA facilities, Unified Guidance. Office of Conservation and Recovery. EPA 530/R-09-007.

Tables

Table 1
 Potentiometric Groundwater Elevation Summary – October 2025
 JR Whiting Pond 1 & 2 and Pond 6
 Erie, Michigan

Well Location	Ground Surface Elevation (ft)	TOC Elevation (ft)	Geologic Unit of Screen Interval	Screen Interval Depth (ft BGS)	Screen Interval Elevation (ft)	October 22, 2025	
						Depth to Water (ft BTOC)	Groundwater Elevation (ft)
Static Water Level Monitoring Wells							
JRW-MW-16007	579.47	582.31	Limestone	68.0 to 78.0	511.5 to 501.5	7.25	575.06
JRW-MW-16008	579.95	582.83	Limestone	68.0 to 73.0	512.0 to 507.0	7.77	575.06
JRW-MW-16009	579.90	582.60	Limestone	69.0 to 79.0	510.9 to 500.9	7.53	575.07
Pond 1 & 2							
JRW-MW-15001 ⁽¹⁾	590	581.39	Limestone	78.0 to 88.0	512.7 to 502.7	6.12	575.27
JRW-MW-15002 ⁽¹⁾	590	590.17	Limestone	81.0 to 91.0	511.3 to 501.3	14.91	575.26
JRW-MW-15003 ⁽¹⁾	590	587.23	Limestone	81.0 to 91.0	510.4 to 500.4	11.94	575.29
JRW-MW-15004 ⁽¹⁾	590	589.32	Limestone	86.0 to 96.0	506.5 to 496.5	13.97	575.35
JRW-MW-15005 ⁽¹⁾	590	588.28	Limestone	86.0 to 96.0	508.3 to 498.3	12.90	575.38
JRW-MW-15006 ⁽¹⁾	590	580.48	Limestone	81.0 to 91.0	511.0 to 501.0	5.23	575.25
Pond 6							
JRW-MW-16001	589.19	592.33	Limestone	71.0 to 81.0	518.2 to 508.2	17.07	575.26
JRW-MW-16002	585.78	588.69	Limestone	81.0 to 91.0	504.8 to 494.8	13.46	575.23
JRW-MW-16003	586.19	589.01	Limestone	73.0 to 83.0	513.2 to 503.2	13.79	575.22
JRW-MW-16004	586.48	589.34	Limestone	75.0 to 85.0	511.5 to 501.5	14.15	575.19
JRW-MW-16005	589.29	592.14	Limestone	78.0 to 88.0	511.3 to 501.3	16.95	575.19
JRW-MW-16006	588.26	591.04	Limestone	79.0 to 89.0	509.3 to 499.3	15.89	575.15

Notes:

Top of casing elevation survey was conducted by Rowe Professional Services Company in July 2020.

Elevation in feet relative to North American Vertical Datum 1988 (NAVD 88).

TOC: Top of well casing.

ft BTOC: Feet below top of well casing.

ft BGS: Feet below ground surface.

(1) Screen interval depth below ground surface for Pond 1&2 monitoring wells approximated using an estimated final capped ground surface elevation of 590 feet above mean sea level. Screen interval elevations were measured using the original survey conducted by Sheridan Surveying Co. November 2015 at the time of monitoring well installation.

Table 2
 Summary of Field Parameters
 JR Whiting Pond 1 and 2 - Pond 1 and 2
 Erie, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)
JR Whiting Pond 1 and 2							
JRW-MW-15001	10/22/2025	0.02	-121.7	7.6	1,075	12.9	9.5
JRW-MW-15002	10/22/2025	0.02	-174.1	7.7	1,102	12.2	3.9
JRW-MW-15003	10/22/2025	1.28	-100.8	7.7	975	12.4	5.8
JRW-MW-15004	10/22/2025	0.92	57.6	7.5	945	12.4	4.0
JRW-MW-15005	10/22/2025	0.41	36.0	7.7	874	13.0	3.2
JRW-MW-15006	10/22/2025	0.01	-176.5	7.9	961	12.7	2.9
JR Whiting Pond 6							
JRW-MW-16001	10/22/2025	0.02	-153.7	8.0	740	11.8	0.7
JRW-MW-16002	10/22/2025	0.01	-237.6	7.7	949	12.0	0.9
JRW-MW-16003	10/22/2025	0.01	-217.7	7.7	981	12.0	1.2
JRW-MW-16004	10/22/2025	0.02	-264.8	7.7	1,119	12.2	1.8
JRW-MW-16005	10/22/2025	0.06	-197.1	7.7	829	12.0	0.6
JRW-MW-16006	10/22/2025	0.17	-173.6	7.8	794	11.8	1.8

Notes:

mg/L - Milligrams per Liter.
 mV - Millivolts.
 SU - Standard Units.
 umhos/cm - Micromhos per centimeter.
 °C - Degrees Celsius.
 NTU - Nephelometric Turbidity Unit

Table 3
 Comparison of Detection Monitoring Parameter Results to Background Limits – October 2025
 JR Whiting Pond 1 and 2
 Erie, Michigan

Sample Location:		JRW-MW-15001		JRW-MW-15002			JRW-MW-15003		JRW-MW-15004		JRW-MW-15005		JRW-MW-15006	
Sample Date:		10/22/2025	PL	10/22/2025	11/19/2025 ⁽¹⁾	PL	10/22/2025	PL	10/22/2025	PL	10/22/2025	PL	10/22/2025	PL
Constituent	Unit	Data		Data			Data		Data		Data		Data	
Appendix III														
Boron	ug/L	206	240	223	216	220	228	230	234	270	206	270	225	250
Calcium	mg/L	150	180	131	--	180	123	160	123	140	118	120	129	140
Chloride	mg/L	49.3	55	47.9	--	56	48.6	55	49.1	56	36.5	46	46.7	53
Fluoride	ug/L	1,210	1,600	1,440	--	1,900	1,310	1,800	1,230	1,800	1,300	1,700	1,250	1,700
pH, Field	su	7.6	6.8 - 8.2	7.7	7.5	7.2 - 7.9	7.7	7.3 - 8.3	7.5	7.0 - 8.0	7.7	7.3 - 8.6	7.9	7.0 - 9.0
Sulfate	mg/L	437	470	428	--	500	378	440	355	390	323	350	371	410
Total Dissolved Solids	mg/L	828	1,000	798	--	1,100	698	940	784	880	780	840	772	920
Part 115 Parameters														
Iron	ug/L	786	1,800	677	--	1,200	448	820	125	490	< 20	660	1,090	1,900

Notes:
 ug/L - micrograms per liter.
 mg/L - milligrams per liter.
 SU - standard units; pH is a field parameter.
 All metals were analyzed as total unless otherwise specified.
Bold font indicates an exceedance of the Prediction Limit (PL).
RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).
 (1) Results from 11/19/2025 verification sampling event.

Table 4
 Comparison of Detection Monitoring Parameter Results to Background Limits – October 2025
 JR Whiting Pond 6
 Erie, Michigan

Sample Location:		JRW-MW-16001		JRW-MW-16002		JRW-MW-16003		JRW-MW-16004		JRW-MW-16005		JRW-MW-16006	
Sample Date:		10/22/2025		10/22/2025		10/22/2025		10/22/2025		10/22/2025		10/22/2025	
Constituent	Unit	Data	PL										
Appendix III													
Boron	ug/L	182	203	188	209	231	257	225	262	240	244	190	226
Calcium	mg/L	90	111	137	149	132	156	153	181	103	182	107	117
Chloride	mg/L	20.9	23.6	23.7	25.4	30.3	32.4	41.8	43.7	26.5	29.4	26.6	38.6
Fluoride	ug/L	1,320	2,300	1,080	1,400	1,120	1,600	1,190	1,700	1,290	1,800	1,300	2,200
pH, Field	su	8.0	7.5 - 8.9	7.7	7.5 - 8.3	7.7	7.4 - 7.9	7.7	7.4 - 8.2	7.7	7.0 - 8.0	7.8	7.5 - 8.2
Sulfate	mg/L	270	278	420	426	424	470	500	507	308	498	317	399
Total Dissolved Solids	mg/L	500	770	690	832	716	1,040	844	1,110	562	1,030	570	904
Part 115 Parameters													
Iron	ug/L	113	230	266	510	396	630	330	750	191	940	259	400

Notes:

ug/L - micrograms per liter.

mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

All metals were analyzed as total unless otherwise specified.

Bold font indicates an exceedance of the Prediction Limit (PL).

RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).

Table 5
 Summary of Statistical Exceedances – October 2025
 JR Whiting Pond 1 & 2 and Pond 6
 Erie, Michigan

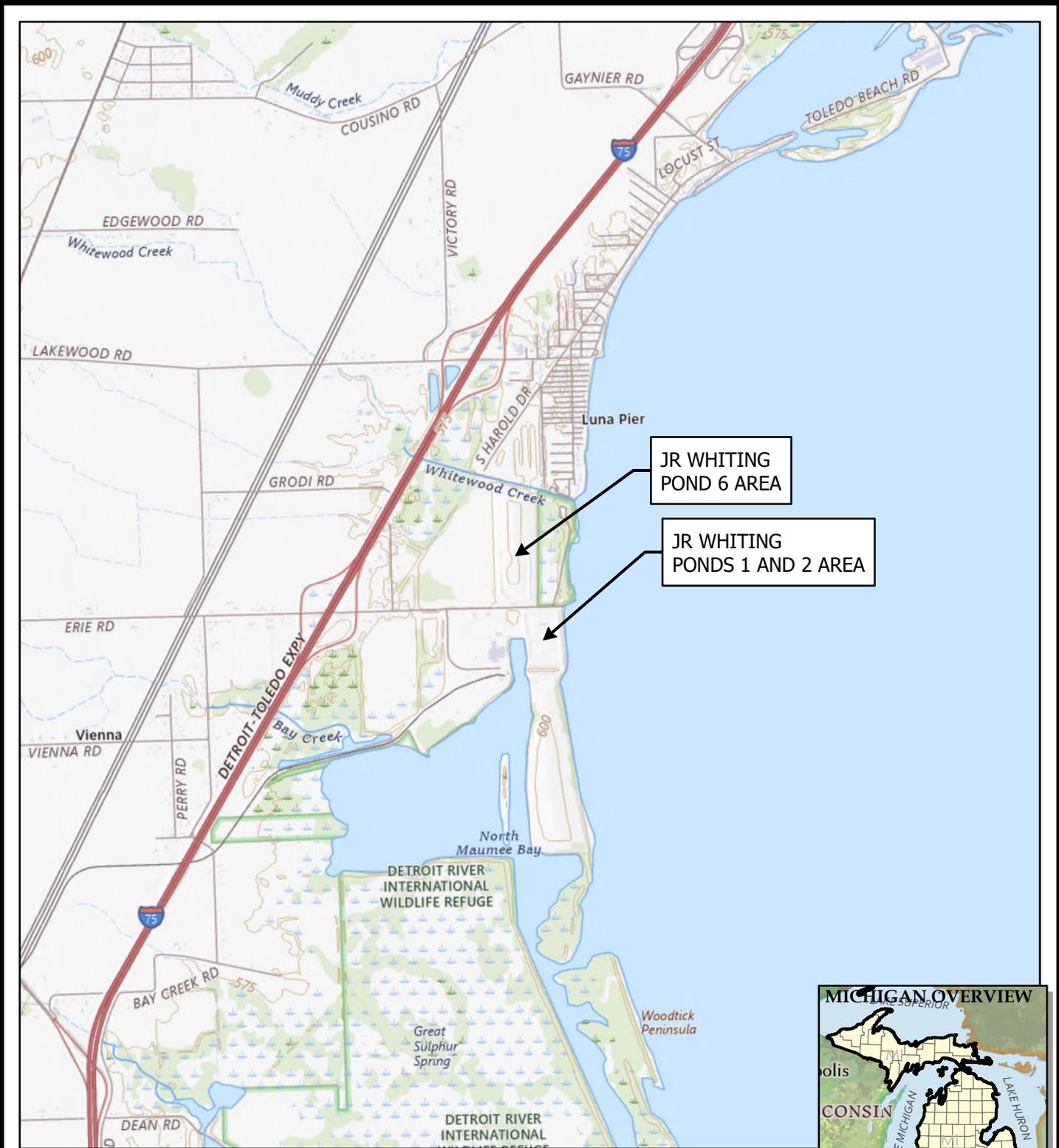
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
 SUMMARY OF STATISTICAL EXCEEDANCES

**Data is in (X) ug/L or
 () mg/L
 unless otherwise stated**

Facility: JR Whiting – WDS# 397664

Well #	Location	Parameter	Part 201 GRCC	Statistical Limit (or 'CC' for Control Charts)	4 Qtr. 2025 (bold >201)	2 Qtr. 2025 (bold >201)	4 Qtr. 2024 (bold >201)	2 Qtr. 2024 (bold >201)
No Exceedances								

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.




1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

PROJECT:	CONSUMERS ENERGY COMPANY JR WHITING POWER PLANT ERIE, MICHIGAN
TITLE:	SITE LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	A. KAST
APPROVED BY:	S. HOLMSTROM
DATE:	JANUARY 2026
PROJ. NO.:	634697
FILE:	JRWhiting.aprx

FIGURE 1

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl; Map Rotation: 0
 -- Saved By: WDAVIS on 7/15/2025, 09:23:02 AM; File Path: T:\PROJECTS\Consumers_Energy\514397_JRWWhiting2-APRX\JRWhiting.aprx; Layout Name: 2026_01 Figure 2



LEGEND

-  MONITORING WELL (STATIC WATER LEVEL ONLY)
-  CCR UNIT MONITORING WELL

NOTES:

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO AND PARTNERS, (4/17/2024).
2. STATIC WATER ONLY WELL LOCATIONS SURVEYED BY SHERIDAN SURVEYING CO. ON 11/19/2015.
3. PONDS 1 AND 2 WELL LOCATIONS SURVEYED BY ROWE PROFESSIONAL SERVICES CO. ON 11/27/2019.



1:6,000
 1" = 500'



PROJECT:		CONSUMERS ENERGY COMPANY JR WHITING POWER PLANT ERIE, MICHIGAN	
TITLE:		SITE PLAN WITH CCR MONITORING WELL LOCATIONS	
DRAWN BY:	A. ADAIR	PROJ. NO.:	634697
CHECKED BY:	A. KAST	FIGURE 2	
APPROVED BY:	S. HOLMSTROM		
DATE:	JANUARY 2026		
		1540 EISENHOWER PLACE ANN ARBOR, MI 48108-3284 PHONE: 734.971.7080	
		FILE: JRWhiting.aprx	

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl; Map Rotation: 0
 -- Saved By: WDAVIS on 7/15/2025, 09:23:02 AM; File Path: T:\PROJECTS\Consumers_Energy\514397_JRWWhiting\2-APRX\JRWhiting.aprx; Layout Name: 2026_01 Figure 3

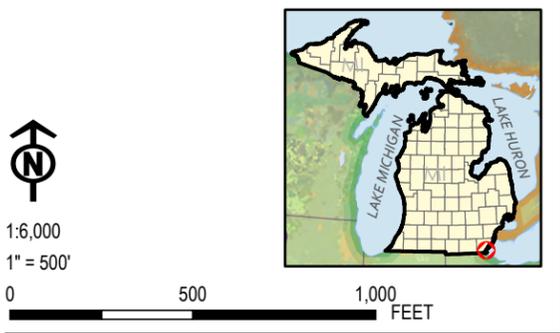


- LEGEND**
- MONITORING WELL (STATIC WATER LEVEL ONLY)
 - CCR UNIT MONITORING WELL

LABEL FORMAT

MONITORING WELL ID
GROUNDWATER ELEVATION FT (MEASUREMENT DATE)

- NOTES:**
- 1: BASE MAP IMAGERY FROM GOOGLE EARTH PRO AND PARTNERS, (4/17/2024).
 - 2: WELL LOCATIONS SURVEYED BY SHERIDAN SURVEYING CO. ON 11/19/2015.
 - 3: PONDS 1 AND 2 WELL LOCATIONS SURVEYED BY ROWE PROFESSIONAL SERVICES CO. ON 11/27/2019.
 - 4: MONITORING WELL TOP OF CASING SURVEYED BY ROWE PROFESSIONAL SERVICES CO. ON 7/14/2020. VERTICAL DATUM IS NAVD88.



PROJECT:		CONSUMERS ENERGY COMPANY JR WHITING POWER PLANT ERIE, MICHIGAN	
TITLE: GROUNDWATER POTENTIOMETRIC ELEVATION SUMMARY OCTOBER 2025			
DRAWN BY:	A. ADAIR	PROJ. NO.:	634697
CHECKED BY:	A. KAST	FIGURE 3	
APPROVED BY:	S. HOLMSTROM		
DATE:	JANUARY 2026		
		1540 EISENHOWER PLACE ANN ARBOR, MI 48108-3284 PHONE: 734.971.7080	
FILE:	JRWhiting.aprx		

Appendix A

Data Quality Reviews

Pond 1 & 2

Laboratory Data Quality Review Groundwater Sampling Event October 2025 Consumers Energy JR Whiting Pond 1 & 2

Groundwater samples were collected by Consumers Energy (CE) Laboratory Services for the October 2025 groundwater monitoring sampling event. Samples were analyzed for anions, total metals, and total dissolved solids by CE Laboratory Services, located in Jackson, Michigan. The laboratory analytical results were reported in laboratory project number 25-0827.

During the October 2025 sampling event, a groundwater sample was collected from each of the following wells:

- JRW-MW-15001
- JRW-MW-15002
- JRW-MW-15003
- JRW-MW-15004
- JRW-MW-15005
- JRW-MW-15006

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	EPA 300.0
Total Dissolved Solids (TDS)	SM 2540C
Total Metals (Boron, Calcium, Iron)	SW-846 6020B

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Chain-of-custody (COC) and data completeness;
- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks, equipment blanks, and field blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Field and equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs), when performed. The LCSs and/or LCSDs are used to assess the accuracy of the analytical method using a clean matrix;
- Percent recoveries for matrix spike (MS) and matrix spike duplicates (MSD), when performed on project samples. Percent recoveries are calculated for each analyte spiked and used to assess bias due to sample matrix effects;

- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are replicate analyses of one sample and are used to assess the precision of the analytical method;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

It should be noted that results for method blanks and laboratory control samples were not provided for review by the laboratory. Therefore, potential contamination arising from laboratory sample preparation and/or analytical procedures and the accuracy of the analytical method using a clean matrix could not be evaluated.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation, are noted below.

- The reviewed Appendix III constituents as well as iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.
- When the data are evaluated through a detection monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- Sample reports were checked to verify that the results corresponded to analytical requests as designated on the COC. No issues were noted.
- The preservation was assumed to be acceptable based on case narrative and COC preservation information; the cooler temperatures were between 0-6°C and acid was used for sample preservation, as applicable.
- The preparation times and dates for all analyses were provided in the electronic data deliverable (EDD) for this data set. All preparation and analysis holding time requirements were met.
- One equipment blank (EB-01) and one field blank (FB-01) were collected. Target analytes were not detected in these blank samples.
- MS and MSD analyses were performed on sample JRW-MW-15006 for total metals and anions. The recoveries were within the acceptance limits. Relative percent differences (RPDs) were not provided by the laboratory and therefore were not evaluated; further, MS/MSD concentrations were not provided by the laboratory. However, since all MS/MSD recoveries were within the acceptance limits, there is no impact on data usability due to this issue.

- A laboratory duplicate analysis was not performed on a sample from this data set.
- Samples DUP-01/JRW-MW-15004 were submitted as the field duplicate pair with this data set; all criteria were met.
- The nondetect RLs for TDS (10 mg/L) and sulfate (1,000 µg/L) in samples EB-01 and FB-01 were below the RLs specified in the Sample and Analysis Plan (SAP), May 2017; Revised February 2020, (20 mg/L and 2,000 µg/L, respectively). There is no adverse impact on data usability since reported RLs are lower than SAP RLs.
- Dilution factors for all analyses were provided in the EDD in this data set; all dilution factors were listed as 1-fold.

Laboratory Data Quality Review Groundwater Sampling Event November 2025 Consumers Energy JR Whiting Pond 1 & 2

A groundwater sample was collected by Consumers Energy (CE) Laboratory Services for the November 2025 groundwater monitoring verification sampling event. The sample was analyzed for total boron by CE Laboratory Services, located in Jackson, Michigan. The laboratory analytical results were reported in laboratory project number 25-0911.

During the November 2025 verification sampling event, a groundwater sample was collected from the following well:

- JRW-MW-15002

The sample was analyzed for the following constituent:

Analyte Group	Method
Total Boron	SW-846 6020B

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Chain-of-custody (COC) and data completeness;
- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks, equipment blanks, and field blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Field and equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs), when performed. The LCSs and/or LCSDs are used to assess the accuracy of the analytical method using a clean matrix;
- Percent recoveries for matrix spike (MS) and matrix spike duplicates (MSD), when performed on project samples. Percent recoveries are calculated for each analyte spiked and used to assess bias due to sample matrix effects;
- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are replicate analyses of one sample and are used to assess the precision of the analytical method;

- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

It should be noted that results for method blanks and laboratory control samples were not provided for review by the laboratory. Therefore, potential contamination arising from laboratory sample preparation and/or analytical procedures and the accuracy of the analytical method using a clean matrix could not be evaluated.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation, are noted below.

- The reviewed Appendix III constituent will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.
- When the data are evaluated through a detection monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- Sample reports were checked to verify that the results corresponded to analytical requests as designated on the COC. No issues were noted.
- The preservation was assumed to be acceptable based on case narrative and COC preservation information; the cooler temperatures were between 0-6°C and acid was used for sample preservation.
 - The sample was relinquished to the laboratory one day after collection. The field staff has stated during previous rounds of data review that when this occurs, samples are stored in coolers, on ice until shipment to the lab. There is no impact on data usability.
- The preparation times and dates for all analyses were provided in the electronic data deliverable (EDD) for this data set. All preparation and analysis holding time requirements were met.
- One equipment blank (EB-01) and one field blank (FB-01) were collected. Total boron was not detected in these blank samples.
- MS and MSD analyses were performed on sample JRW-MW-15002 for total boron. The recoveries were within the acceptance limits. Relative percent differences (RPDs) were not provided by the laboratory and therefore were not evaluated; further, MS/MSD concentrations were not provided by the laboratory. However, since all MS/MSD recoveries were within the acceptance limits, there is no impact on data usability due to this issue.
- A laboratory duplicate analysis was not performed on a sample from this data set.

- Samples DUP-01/JRW-MW-15002 were submitted as the field duplicate pair with this data set; all criteria were met.
- The RLs were compared to the “Reporting Limits” column from the Detection Monitoring Constituents Table of the Electric Generation Facilities RCRA CCR Detection Monitoring Program for the Pond 1&2 and Pond 6 Areas Sampling and Analysis Plan (SAP) (dated May 2017; Revised February 2020). No issues were noted.
- Dilution factors for all analyses were provided in the EDD in this data set; all dilution factors were listed as 1-fold.

Pond 6

Laboratory Data Quality Review Groundwater Sampling Event October 2025 Consumers Energy JR Whiting Pond 6

Groundwater samples were collected by Consumers Energy (CE) Laboratory Services for the October 2025 groundwater monitoring sampling event. Samples were analyzed for anions, total metals, and total dissolved solids by CE Laboratory Services, located in Jackson, Michigan. The laboratory analytical results were reported in laboratory project number 25-0828.

During the October 2025 sampling event, a groundwater sample was collected from each of the following wells:

- JRW-MW-16001
- JRW-MW-16002
- JRW-MW-16003
- JRW-MW-16004
- JRW-MW-16005
- JRW-MW-16006

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	EPA 300.0
Total Dissolved Solids (TDS)	SM 2540C
Total Metals (Boron, Calcium, Iron)	SW-846 6020B

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Chain-of-custody (COC) and data completeness;
- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks, equipment blanks, and field blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Field and equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs), when performed. The LCSs and/or LCSDs are used to assess the accuracy of the analytical method using a clean matrix;
- Percent recoveries for matrix spike (MS) and matrix spike duplicates (MSD), when performed on project samples. Percent recoveries are calculated for each analyte spiked and used to assess bias due to sample matrix effects;

- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are replicate analyses of one sample and are used to assess the precision of the analytical method;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

It should be noted that results for method blanks and laboratory control samples were not provided for review by the laboratory. Therefore, potential contamination arising from laboratory sample preparation and/or analytical procedures and the accuracy of the analytical method using a clean matrix could not be evaluated.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation, are noted below.

- The reviewed Appendix III constituents as well as iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.
- When the data are evaluated through a detection monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- Sample reports were checked to verify that the results corresponded to analytical requests as designated on the COC. No issues were noted.
- The preservation was assumed to be acceptable based on case narrative and COC preservation information; the cooler temperatures were between 0-6°C and acid was used for sample preservation, as applicable.
- The preparation times and dates for all analyses were provided in the electronic data deliverable (EDD) for this data set. All preparation and analysis holding time requirements were met.
- One equipment blank (EB-02) and one field blank (FB-02) were collected. Target analytes were not detected in these blank samples.
- MS/MSD analyses were performed on sample JRW-MW-16003 for total metals and anions. The recoveries were within the acceptance limits. Relative percent differences were not provided by the laboratory and therefore were not evaluated; further, MS/MSD concentrations were not provided by the laboratory. However, since MS/MSD recoveries were within the acceptance limits, there is no impact on data usability due to this issue.

- A laboratory duplicate analysis was not performed on a sample from this data set.
- Samples DUP-02/JRW-MW-16005 were submitted as the field duplicate pair with this data set; all criteria were met.
- The nondetect RLs for TDS (10 mg/L) and sulfate (1,000 µg/L) in samples EB-02 and FB-02 were below the RLs specified in the Sample and Analysis Plan (SAP), May 2017; Revised February 2020, (20 mg/L and 2,000 µg/L, respectively). There is no adverse impact on data usability since reported RLs are lower than SAP RLs.
- Dilution factors for all analyses were provided in the EDD in this data set; all dilution factors were listed as 1-fold.

Appendix B

Laboratory Reports

Pond 1 & 2

To: HDRegister, P22-521

From: EBlaj, T-258

Date: November 05, 2025

Subject: RCRA GROUNDWATER MONITORING – JR WHITING POND 1 & 2 – 2025 Q4

CC: Sarah Holmstrom, Project Manager
TRC Environmental Corporation
1540 Eisenhower Place
Ann Arbor, MI 48108

Chemistry Project: 25-0827

CE Laboratory Services conducted groundwater monitoring at JR Whiting, Pond 1 & 2 on 10/22/2025, for the 2nd Semiannual monitoring requirement, and as specified in the Sampling and Analysis Plan for the site. The samples were received for analysis by the Chemistry department of Laboratory Services on 10/22/2025.

The report that follows presents the results of the requested analytical testing; the results apply only to the samples as received. All samples have been analyzed in accordance with the 2016 TNI Standard and the applicable A2LA accreditation scope for Laboratory Services. Any exceptions to applicable test method criteria and standard compliance are noted in the Case Narrative or flagged with applicable qualifiers in the analytical results section.

Reviewed and approved by:

Emil Blaj
Sr. Technical Analyst
Project Lead



Testing performed in accordance with the A2LA scope of accreditation specified in the listed certificate. The information contained in this report is the sole property of Consumers Energy. It cannot be reproduced except in full, and with consent from Consumers Energy, or the customer for which this report was issued.

CASE NARRATIVE

I. Sample Receipt

All samples were received within hold time and in good conditions; no anomalies were noted on the attached Sample Log-In Shipment Inspection Form during sample check-in. Identification of all samples included in the work order/project is provided in the sample summary section. All sample preservation and temperature upon receipt was verified by the sample custodian and confirmed to meet method requirements.

II. Methodology

Unless otherwise indicated, sample preparation and analysis was performed in accordance with the corresponding test methods from “Methods for the Determination of Inorganic Substances in Environmental Samples (EPA/600/R-93/100); SW-846, “Test Methods for Evaluating Solid Waste – Physical/Chemical Methods”, USEPA (latest revisions), and Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WPCF, 22nd Edition, 2012.

III. Results/Quality Control

Analytical results for this report are presented by laboratory sample ID, container, & aliquot number. Results for the field blanks, field duplicates, and recoveries of the field matrix spike & matrix spike duplicate samples are included in the results section; all other quality control data is listed in the Quality Control Summary associated with the particular test method, as appropriate. Unless specifically noted in the case narrative, all method quality control requirements have been met. If any results are qualified, the corresponding data flags/qualifiers are listed on the last page of the results section. Any additional information on method performance, when applicable, is presented in this section of the case narrative. When data flags are not needed, the qualifiers text box on the last page is left blank, and a statement confirms that no exceptions occurred.

DEFINITIONS / QUALIFIERS

The following qualifiers and/or acronyms are used in the report, where applicable:

<u>Acronym</u>	<u>Description</u>
RL	Reporting Limit
ND	Result not detected or below Reporting Limit
NT	Non TNI analyte
LCS	Laboratory Control Sample
LRB	Laboratory Reagent Blank (also referred to as Method Blank)
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
TDL	Target Detection Limit
SM	Standard Methods Compendium

<u>Qualifier</u>	<u>Description</u>
*	Generic data flag, applicable description added in the corresponding notes section
B	The analyte was detected in the LRB at a level which is significant relative to sample result
D	Reporting limit elevated due to dilution
E	Estimated due to result exceeding the linear range of the analyzer
H	The maximum recommended hold time was exceeded
I	Dilution required due to matrix interference; reporting limit elevated
J	Estimated due to result found above MDL but below PQL (or RL)
K	Reporting limit raised due to matrix interference
M	The precision for duplicate analysis was not met; RPD outside acceptance criteria
N	Non-homogeneous sample made analysis questionable
PI	Possible interference may have affected the accuracy of the laboratory result
Q	Matrix Spike or Matrix Spike Duplicate recovery outside acceptance criteria
R	Result confirmed by new sample preparation and reanalysis
X	Other notation required; comment listed in sample notes and/or case narrative

Customer Name: JR Whiting Complex
Work Order ID: JRW RCRA GW Monitoring - Pond 1&2 - October 2025
Date Received: 10/22/2025
Chemistry Project: 25-0827

<u>Sample #</u>	<u>Field Sample ID</u>	<u>Matrix</u>	<u>Sample Date</u>	<u>Site</u>
25-0827-01	JRW-MW-15001	Groundwater	10/22/2025 10:49	JRW RCRA GW Monitoring - Pond 1&2
25-0827-02	JRW-MW-15002	Groundwater	10/22/2025 15:50	JRW RCRA GW Monitoring - Pond 1&2
25-0827-03	JRW-MW-15003	Groundwater	10/22/2025 15:09	JRW RCRA GW Monitoring - Pond 1&2
25-0827-04	JRW-MW-15004	Groundwater	10/22/2025 13:51	JRW RCRA GW Monitoring - Pond 1&2
25-0827-05	JRW-MW-15005	Groundwater	10/22/2025 12:53	JRW RCRA GW Monitoring - Pond 1&2
25-0827-06	JRW-MW-15006	Groundwater	10/22/2025 11:44	JRW RCRA GW Monitoring - Pond 1&2
25-0827-07	DUP-01	Groundwater	10/22/2025 00:00	JRW RCRA GW Monitoring - Pond 1&2
25-0827-08	EB-01	Water	10/22/2025 15:28	JRW RCRA GW Monitoring - Pond 1&2
25-0827-09	FB-01	Water	10/22/2025 15:24	JRW RCRA GW Monitoring - Pond 1&2
25-0827-10	JRW-MW-15006 Field MS	Groundwater	10/22/2025 11:44	JRW RCRA GW Monitoring - Pond 1&2
25-0827-11	JRW-MW-15006 Field MSD	Groundwater	10/22/2025 11:44	JRW RCRA GW Monitoring - Pond 1&2



Analytical Report

Report Date: 11/05/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **JRW-MW-15001**
 Lab Sample ID: 25-0827-01
 Matrix: Groundwater

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 10:49 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-01-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	206		ug/L	20	11/04/2025	AB25-1104-03
Calcium	150000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	786		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-01-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	49300		ug/L	1000	10/24/2025	AB25-1024-05
Fluoride	1210		ug/L	1000	10/24/2025	AB25-1024-05
Sulfate	437000		ug/L	1000	10/24/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-01-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	828		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **JRW-MW-15002**
 Lab Sample ID: 25-0827-02
 Matrix: Groundwater

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 03:50 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-02-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	223		ug/L	20	11/04/2025	AB25-1104-03
Calcium	131000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	677		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-02-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	47900		ug/L	1000	10/24/2025	AB25-1024-05
Fluoride	1440		ug/L	1000	10/24/2025	AB25-1024-05
Sulfate	428000		ug/L	1000	10/24/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-02-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	798		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15003**
Lab Sample ID: 25-0827-03
Matrix: Groundwater

Laboratory Project: **25-0827**
Collect Date: 10/22/2025
Collect Time: 03:09 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-03-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	228		ug/L	20	11/04/2025	AB25-1104-03
Calcium	123000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	448		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-03-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	48600		ug/L	1000	10/24/2025	AB25-1024-05
Fluoride	1310		ug/L	1000	10/24/2025	AB25-1024-05
Sulfate	378000		ug/L	1000	10/24/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-03-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	698		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **JRW-MW-15004**
 Lab Sample ID: 25-0827-04
 Matrix: Groundwater

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 01:51 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-04-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	234		ug/L	20	11/04/2025	AB25-1104-03
Calcium	123000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	125		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-04-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	49100		ug/L	1000	10/24/2025	AB25-1024-05
Fluoride	1230		ug/L	1000	10/24/2025	AB25-1024-05
Sulfate	355000		ug/L	1000	10/24/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-04-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	784		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **JRW-MW-15005**
 Lab Sample ID: 25-0827-05
 Matrix: Groundwater

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 12:53 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-05-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	206		ug/L	20	11/04/2025	AB25-1104-03
Calcium	118000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	ND		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-05-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	36500		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1300		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	323000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-05-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	780		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15006**
Lab Sample ID: 25-0827-06
Matrix: Groundwater

Laboratory Project: **25-0827**
Collect Date: 10/22/2025
Collect Time: 11:44 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-06-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	225		ug/L	20	11/04/2025	AB25-1104-03
Calcium	129000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	1090		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-06-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	46700		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1250		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	371000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-06-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	772		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **DUP-01**
 Lab Sample ID: 25-0827-07
 Matrix: Groundwater

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 12:00 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-07-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	245		ug/L	20	11/04/2025	AB25-1104-03
Calcium	123000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	107		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-07-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	49100		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1320		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	356000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-07-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	746		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **EB-01**
 Lab Sample ID: 25-0827-08
 Matrix: Water

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 03:28 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-08-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	11/04/2025	AB25-1104-03
Calcium	ND		ug/L	1000	11/04/2025	AB25-1104-03
Iron	ND		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-08-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	ND		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-08-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **FB-01**
 Lab Sample ID: 25-0827-09
 Matrix: Water

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 03:24 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-09-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	11/04/2025	AB25-1104-03
Calcium	ND		ug/L	1000	11/04/2025	AB25-1104-03
Iron	ND		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-09-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	ND		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0827-09-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
Field Sample ID: **JRW-MW-15006 Field MS**
Lab Sample ID: 25-0827-10
Matrix: Groundwater

Laboratory Project: **25-0827**
Collect Date: 10/22/2025
Collect Time: 11:44 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-10-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	107		%	20	11/04/2025	AB25-1104-03
Calcium	101		%	1000	11/04/2025	AB25-1104-03
Iron	104		%	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-10-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	105		%	1000	10/25/2025	AB25-1024-05
Fluoride	107		%	1000	10/25/2025	AB25-1024-05
Sulfate	106		%	1000	10/25/2025	AB25-1024-05

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 1&2**
 Field Sample ID: **JRW-MW-15006 Field MSD**
 Lab Sample ID: 25-0827-11
 Matrix: Groundwater

Laboratory Project: **25-0827**
 Collect Date: 10/22/2025
 Collect Time: 11:44 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0827-11-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	107		%	20	11/04/2025	AB25-1104-03
Calcium	102		%	1000	11/04/2025	AB25-1104-03
Iron	110		%	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0827-11-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	110		%	1000	10/25/2025	AB25-1024-05
Fluoride	105		%	1000	10/25/2025	AB25-1024-05
Sulfate	108		%	1000	10/25/2025	AB25-1024-05

Data Qualifiers	Exception Summary
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No exceptions occurred.

TITLE: SAMPLE LOG-IN – SHIPMENT INSPECTION FORM

Project Number: 25-0027 Inspection Date: 10/22/26 Inspection By: KDR

Sample Origin/Project Name: JRW ponds 1+2 EIW

Shipment Delivered By: Enter the type of shipment carrier.

Inter-Company Mail _____ FedEx _____ UPS _____ USPS _____

Tracking Number: _____ Other/Carry In (whom) KDR-CONSUMERS

Shipping Containers: Enter the type and number of shipping containers received.

Cooler (1) Cardboard Box _____ Custom Case _____ Envelope/Mailer _____

Loose/Unpackaged Containers _____ Other _____

Condition of Shipment: Enter the as-received condition of the shipment container.

Damaged Shipment Observed: None Dented _____ Leaking _____

Other _____

Shipment Security: Enter if any of the shipping containers were opened before receipt.

Shipping Containers Received: Opened _____ Sealed N/A _____

Enclosed Documents: Enter the type of documents enclosed with the shipment.

CoC Work Request _____ Air Data Sheet _____ Other _____

Temperature of Containers: Measure the temperature of several sample containers.

As-Received Temperature Range 2.8-5.1 °C Samples Received on Ice: Yes No _____

M&TE # and Expiration 015402 / 5-27-26

Number and Type of Containers: Enter the type and total number of sample containers received.

Container Type	Water	Soil	Other	Broken	Leaking
VOA (40mL or 60mL)	_____	_____	_____	_____	_____
Quart/Liter (g / p)	_____	_____	_____	_____	_____
9-oz (amber glass jar)	_____	_____	_____	_____	_____
2-oz (amber glass)	_____	_____	_____	_____	_____
125 mL (plastic)	<u>22</u>	_____	_____	_____	_____
24 mL vial (glass)	_____	_____	_____	_____	_____
250 mL (plastic)	<u>9</u>	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

All sample pH meeting criteria? Yes No _____ N/A _____ pH paper lot # 210224 Exp. Date 12-1-26

Indicate if an Exception Report (Page 2 of 2) is needed: Yes _____ No

Pond 6

To: HDRegister, P22-521

From: EBlaj, T-258

Date: November 05, 2025

Subject: RCRA GROUNDWATER MONITORING – JR WHITING POND 6 – 2025 Q4

CC: Sarah Holmstrom, Project Manager
TRC Environmental Corporation
1540 Eisenhower Place
Ann Arbor, MI 48108

Chemistry Project: 25-0828

CE Laboratory Services conducted groundwater monitoring at JR Whiting, Pond 6 on 10/22/2025, for the 2nd Semiannual monitoring requirement, and as specified in the Sampling and Analysis Plan for the site. The samples were received for analysis in the Chemistry department of Laboratory Services on 10/22/2025.

The report that follows presents the results of the requested analytical testing; the results apply only to the samples as received. All samples have been analyzed in accordance with the 2016 TNI Standard and the applicable A2LA accreditation scope for Laboratory Services. Any exceptions to applicable test method criteria and standard compliance are noted in the Case Narrative or flagged with applicable qualifiers in the analytical results section.

Reviewed and approved by:

Emil Blaj
Sr. Technical Analyst
Project Lead



Testing performed in accordance with the A2LA scope of accreditation specified in the listed certificate. The information contained in this report is the sole property of Consumers Energy. It cannot be reproduced except in full, and with consent from Consumers Energy, or the customer for which this report was issued.

CASE NARRATIVE

I. Sample Receipt

All samples were received within hold time and in good conditions; no anomalies were noted on the attached Sample Log-In Shipment Inspection Form during sample check-in. Identification of all samples included in the work order/project is provided in the sample summary section. All sample preservation and temperature upon receipt was verified by the sample custodian and confirmed to meet method requirements.

II. Methodology

Unless otherwise indicated, sample preparation and analysis was performed in accordance with the corresponding test methods from “Methods for the Determination of Inorganic Substances in Environmental Samples (EPA/600/R-93/100); SW-846, “Test Methods for Evaluating Solid Waste – Physical/Chemical Methods”, USEPA (latest revisions), and Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WPCF, 22nd Edition, 2012.

III. Results/Quality Control

Analytical results for this report are presented by laboratory sample ID, container, & aliquot number. Results for the field blanks, field duplicates, and recoveries of the field matrix spike & matrix spike duplicate samples are included in the results section; all other quality control data is listed in the Quality Control Summary associated with the particular test method, as appropriate. Unless specifically noted in the case narrative, all method quality control requirements have been met. If any results are qualified, the corresponding data flags/qualifiers are listed on the last page of the results section. Any additional information on method performance, when applicable, is presented in this section of the case narrative. When data flags are not needed, the qualifiers text box on the last page is left blank, and a statement confirms that no exceptions occurred.

DEFINITIONS / QUALIFIERS

The following qualifiers and/or acronyms are used in the report, where applicable:

<u>Acronym</u>	<u>Description</u>
RL	Reporting Limit
ND	Result not detected or below Reporting Limit
NT	Non TNI analyte
LCS	Laboratory Control Sample
LRB	Laboratory Reagent Blank (also referred to as Method Blank)
DUP	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
TDL	Target Detection Limit
SM	Standard Methods Compendium

<u>Qualifier</u>	<u>Description</u>
*	Generic data flag, applicable description added in the corresponding notes section
B	The analyte was detected in the LRB at a level which is significant relative to sample result
D	Reporting limit elevated due to dilution
E	Estimated due to result exceeding the linear range of the analyzer
H	The maximum recommended hold time was exceeded
I	Dilution required due to matrix interference; reporting limit elevated
J	Estimated due to result found above MDL but below PQL (or RL)
K	Reporting limit raised due to matrix interference
M	The precision for duplicate analysis was not met; RPD outside acceptance criteria
N	Non-homogeneous sample made analysis questionable
PI	Possible interference may have affected the accuracy of the laboratory result
Q	Matrix Spike or Matrix Spike Duplicate recovery outside acceptance criteria
R	Result confirmed by new sample preparation and reanalysis
X	Other notation required; comment listed in sample notes and/or case narrative

Customer Name: JR Whiting Complex
Work Order ID: JRW RCRA GW Monitoring - Pond 6 - October 2025
Date Received: 10/22/2025
Chemistry Project: 25-0828

<u>Sample #</u>	<u>Field Sample ID</u>	<u>Matrix</u>	<u>Sample Date</u>	<u>Site</u>
25-0828-01	JRW-MW-16001	Groundwater	10/22/2025 11:41	JRW RCRA GW Monitoring - Pond 6
25-0828-02	JRW-MW-16002	Groundwater	10/22/2025 12:21	JRW RCRA GW Monitoring - Pond 6
25-0828-03	JRW-MW-16003	Groundwater	10/22/2025 12:56	JRW RCRA GW Monitoring - Pond 6
25-0828-04	JRW-MW-16004	Groundwater	10/22/2025 13:46	JRW RCRA GW Monitoring - Pond 6
25-0828-05	JRW-MW-16005	Groundwater	10/22/2025 11:01	JRW RCRA GW Monitoring - Pond 6
25-0828-06	JRW-MW-16006	Groundwater	10/22/2025 14:56	JRW RCRA GW Monitoring - Pond 6
25-0828-07	DUP-02	Groundwater	10/22/2025 00:00	JRW RCRA GW Monitoring - Pond 6
25-0828-08	EB-02	Water	10/22/2025 15:04	JRW RCRA GW Monitoring - Pond 6
25-0828-09	FB-02	Water	10/22/2025 15:10	JRW RCRA GW Monitoring - Pond 6
25-0828-10	JRW-MW-16003 Field MS	Groundwater	10/22/2025 12:56	JRW RCRA GW Monitoring - Pond 6
25-0828-11	JRW-MW-16003 Field MSD	Groundwater	10/22/2025 12:56	JRW RCRA GW Monitoring - Pond 6



Analytical Report

Report Date: 11/05/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16001**
Lab Sample ID: 25-0828-01
Matrix: Groundwater

Laboratory Project: **25-0828**
Collect Date: 10/22/2025
Collect Time: 11:41 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-01-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	182		ug/L	20	11/04/2025	AB25-1104-03
Calcium	90000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	113		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-01-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	20900		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1320		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	270000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-01-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	500		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16002**
 Lab Sample ID: 25-0828-02
 Matrix: Groundwater

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 12:21 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-02-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	188		ug/L	20	11/04/2025	AB25-1104-03
Calcium	137000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	266		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-02-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	23700		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1080		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	420000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-02-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	690		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16003**
 Lab Sample ID: 25-0828-03
 Matrix: Groundwater

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 12:56 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-03-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	231		ug/L	20	11/04/2025	AB25-1104-03
Calcium	132000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	396		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-03-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	30300		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1120		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	424000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-03-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	716		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16004**
Lab Sample ID: 25-0828-04
Matrix: Groundwater

Laboratory Project: **25-0828**
Collect Date: 10/22/2025
Collect Time: 01:46 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-04-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	225		ug/L	20	11/04/2025	AB25-1104-03
Calcium	153000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	330		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-04-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	41800		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1190		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	500000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-04-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	844		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16005**
 Lab Sample ID: 25-0828-05
 Matrix: Groundwater

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 11:01 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-05-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	240		ug/L	20	11/04/2025	AB25-1104-03
Calcium	103000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	191		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-05-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	26500		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1290		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	308000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-05-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	562		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services

A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
Field Sample ID: **JRW-MW-16006**
Lab Sample ID: 25-0828-06
Matrix: Groundwater

Laboratory Project: **25-0828**
Collect Date: 10/22/2025
Collect Time: 02:56 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-06-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	190		ug/L	20	11/04/2025	AB25-1104-03
Calcium	107000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	259		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-06-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	26600		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1300		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	317000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-06-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	570		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **DUP-02**
 Lab Sample ID: 25-0828-07
 Matrix: Groundwater

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 12:00 AM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-07-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	237		ug/L	20	11/04/2025	AB25-1104-03
Calcium	101000		ug/L	1000	11/04/2025	AB25-1104-03
Iron	200		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-07-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	26600		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	1350		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	314000		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-07-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	600		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **EB-02**
 Lab Sample ID: 25-0828-08
 Matrix: Water

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 03:04 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-08-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	11/04/2025	AB25-1104-03
Calcium	ND		ug/L	1000	11/04/2025	AB25-1104-03
Iron	ND		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-08-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	ND		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-08-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	10/24/2025	AB25-1024-04



Analytical Report

Report Date: 11/05/25

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **FB-02**
 Lab Sample ID: 25-0828-09
 Matrix: Water

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 03:10 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-09-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	ND		ug/L	20	11/04/2025	AB25-1104-03
Calcium	ND		ug/L	1000	11/04/2025	AB25-1104-03
Iron	ND		ug/L	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-09-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Fluoride	ND		ug/L	1000	10/25/2025	AB25-1024-05
Sulfate	ND		ug/L	1000	10/25/2025	AB25-1024-05

Total Dissolved Solids by SM 2540C Aliquot: 25-0828-09-C03-A01 Analyst: LMO

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Total Dissolved Solids	ND		mg/L	10	10/24/2025	AB25-1024-04

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16003 Field MS**
 Lab Sample ID: 25-0828-10
 Matrix: Groundwater

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 12:56 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-10-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	109		%	20	11/04/2025	AB25-1104-03
Calcium	100		%	1000	11/04/2025	AB25-1104-03
Iron	98		%	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-10-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	117		%	1000	10/25/2025	AB25-1024-05
Fluoride	107		%	1000	10/25/2025	AB25-1024-05
Sulfate	118		%	1000	10/25/2025	AB25-1024-05

Laboratory Services
A CENTURY OF EXCELLENCE

Sample Site: **JRW RCRA GW Monitoring - Pond 6**
 Field Sample ID: **JRW-MW-16003 Field MSD**
 Lab Sample ID: 25-0828-11
 Matrix: Groundwater

Laboratory Project: **25-0828**
 Collect Date: 10/22/2025
 Collect Time: 12:56 PM

Metals by EPA 6020B: CCR Rule Appendix III and Fe Total Metals Aliquot: 25-0828-11-C01-A01 Analyst: EB

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Boron	106		%	20	11/04/2025	AB25-1104-03
Calcium	102		%	1000	11/04/2025	AB25-1104-03
Iron	100		%	20	11/04/2025	AB25-1104-03

Anions by EPA 300.0 CCR Rule Analyte List, Cl, F, SO4, Aqueous Aliquot: 25-0828-11-C02-A01 Analyst: KDR

Parameter(s)	Result	Flag	Units	RL	Analysis Date	Tracking #
Chloride	118		%	1000	10/25/2025	AB25-1024-05
Fluoride	106		%	1000	10/25/2025	AB25-1024-05
Sulfate	115		%	1000	10/25/2025	AB25-1024-05

Data Qualifiers	Exception Summary
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No exceptions occurred.

TITLE: SAMPLE LOG-IN – SHIPMENT INSPECTION FORM

Project Number: 25-0828 Inspection Date: 10/22/25 Inspection By: CIE

Sample Origin/Project Name: JRW POND to GW

Shipment Delivered By: Enter the type of shipment carrier.

Inter-Company Mail _____ FedEx _____ UPS _____ USPS _____

Tracking Number: _____ Other/Carry In (whom) CIE - CONSUMERS

Shipping Containers: Enter the type and number of shipping containers received.

Cooler (1) Cardboard Box _____ Custom Case _____ Envelope/Mailer _____

Loose/Unpackaged Containers _____ Other _____

Condition of Shipment: Enter the as-received condition of the shipment container.

Damaged Shipment Observed: None Dented _____ Leaking _____

Other _____

Shipment Security: Enter if any of the shipping containers were opened before receipt.

Shipping Containers Received: Opened _____ Sealed N/A _____

Enclosed Documents: Enter the type of documents enclosed with the shipment.

CoC Work Request _____ Air Data Sheet _____ Other _____

Temperature of Containers: Measure the temperature of several sample containers.

As-Received Temperature Range 4.6-5.1 °C Samples Received on Ice: Yes No _____

M&TE # and Expiration 015402 / 5-27-26

Number and Type of Containers: Enter the type and total number of sample containers received.

Container Type	Water	Soil	Other	Broken	Leaking
VOA (40mL or 60mL)	_____	_____	_____	_____	_____
Quart/Liter (g / p)	_____	_____	_____	_____	_____
9-oz (amber glass jar)	_____	_____	_____	_____	_____
2-oz (amber glass)	_____	_____	_____	_____	_____
125 mL (plastic)	<u>22</u>	_____	_____	_____	_____
24 mL vial (glass)	_____	_____	_____	_____	_____
250 mL (plastic)	<u>9</u>	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

All sample pH meeting criteria? Yes No _____ N/A _____ pH paper lot # 210 224 Exp. Date 12-1-26

Indicate if an Exception Report (Page 2 of 2) is needed: Yes _____ No

Appendix C Field Notes

WATER LEVEL DATA

Site: JR Whiting
 Project No: 25-0827,-0828
 Analyst: KDR
 Date: 10.22.2025
 Method: Electronic Tape
 Tape ID: Solinst 101 P7
 Reviewed by:
 Review Date:
 S/N: L5030623

Well ID	Time	DTW Trial 1 (ft)	DTW Trial 2 (ft)	DTB (ft)	Remarks
JRW MW-15001	0944	6.12	6.12	81.93	
JRW MW-15002	0916	14.91	14.91	92.27	
JRW MW-15003	0923	11.94	11.94	90.26	
JRW MW-15004	0928	13.97	13.97	96.45	
JRW MW-15005	0934	12.90	12.90	93.62	
JRW MW-15006	0940	5.23	5.23	83.04	
JRW MW-16001	0841	17.07	17.07	84.00	marked TOC
JRW MW-16002	0845	13.46	13.46	94.40	marked TOC
JRW MW-16003	0849	13.79	13.79	86.03	marked TOC
JRW MW-16004	0853	14.15	14.15	88.82	marked TOC
JRW MW-16005	0835	16.95	16.95	91.42	marked TOC
JRW MW-16006	0831	15.89	15.89	91.70	marked TOC
JRW MW-16007	0754	7.25	7.25	80.99	marked TOC
JRW MW-16008	0759	7.77	7.77	76.31	marked TOC
JRW MW-16009	0803	7.53	7.53	81.94	marked TOC

NOTES: TOC reference point
 DTW = Depth to Water
 DTB = Depth to Bottom

Sonde ID	15H
Start Date	10.22.25
Project #	25-0827
Site	JRW
Reviewed By & Date:	g 10/05/25

Equipment Details	Model & S/N
Monitor Brand	YSI ProDSS S/N 19F104713
Sonde Brand	YSI ProDSS S/N 15H101425 262909-1
Flow Cell	EXO1 599080
DO Probe 100.0	YSI ProDSS S/N 15G103714
Turbidity Probe	YSI ProDSS S/N 21H105795
pH With ORP	YSI ProDSS S/N 22D102306
Conductivity & Temperature Probe	YSI ProDSS S/N 22G103712

pH Standard (±0.1)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1st Daily Field Checks Completed	2nd Daily Field Checks Completed	3rd Daily Field Checks Completed	4th Daily Filed Checks Completed	End Project Calibration Value
4.0	GFS # 1634	24012658	5.31.26	4.00	4.00				
7.0	GFS # 1639	24019194	2.16.27	7.00	7.01				
10.0	GFS # 1645	24011537	5.11.26	10.00	9.99				
Initials & Date:				KDR 10.21.25	CLE 10.22.25				

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±0.10 of the standard? Y or N (if no, recalibration is required)

ORP Standard (±10 mV)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1st Daily Field Checks Completed	2nd Daily Field Checks Completed	3rd Daily Field Checks Completed	4th Daily Filed Checks Completed	End Project Calibration Value
+228.0 (mV)	GFS # 5525 24023356 KDR	24023356	KDR 4.13.26 10.21.25	228.0	228.1				
Initials & Date:				KDR 10.21.25	CLE 10.22.25				

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±10% of the standard? Y or N (if no, recalibration is required)

DO	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1st Daily Field Checks Completed	2nd Daily Field Checks Completed	3rd Daily Field Checks Completed	4th Daily Filed Checks Completed	End Project Calibration Value
90-110% saturation	DI Water	N/A	N/A	100.0	100.0				
Initials & Date:				KDR 10.21.25	CLE 10.22.25				

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within 90-110%? Y or N (if no, recalibration is required)

Sonde ID	15H	Project #:	
Start Date	10.22.25		25-0827
Reviewed By & Date:	<i>J</i> 11/05/25	Site:	JRW

Specific Conductance (uS/cm)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
1413 (1399-1427)	GFS # 2174	24016995	11.25.25	1413	1413				
Initials & Date:				<i>KOR</i> 10.21.25	<i>10.22.25</i> <i>ell</i>				

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within $\pm 3\%$ of the standard? Y or N (if no, recalibration is required)

Turbidity (NTUs)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
0	DI Water	--	--	0.00	0.03				
40.0 (± 4.0 NTUs)	Hach 2746356	A4162	6.26	40.00	39.67				
800.0 (± 80.0 NTUs)	Hach 2660553	A5055	2.27	800.00	793.41				
Initials & Date:				<i>KOR</i> 10.21.25	<i>10.22.25</i> <i>ell</i>				

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within $\pm 10\%$ of the standard? Y or N (if no, recalibration is required)

Additional Information for calibration standards

Standard	Source	Source Lot #	Source Exp. Date	Standard	Source	Source Lot #	Source Exp. Date
pH 4.0				pH 9.0			
pH 7.0				ORP			
pH 10.0							
Sp. Conductivity							
10.0 Turbidity							
40.0 Turbidity							

Sonde ID	22J
Start Date	10.22.25
Project #	25-0827
Site	JRW
Reviewed By & Date	JRW 11/05/25

Equipment Details	Model & S/N
Monitor Brand	YSI ProDSS S/N 22L102214
Sonde Brand	YSI ProDSS S/N 22J103704
Flow Cell	EXO1 599080
DO Probe 95.7	YSI ProDSS S/N 23B101266
Turbidity Probe	YSI ProDSS S/N 22K100049
pH With ORP	YSI ProDSS S/N 23A103253
Conductivity & Temperature Probe	YSI ProDSS S/N 23C105385

pH Standard (± 0.1)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
4.0	GFS # 1634	24012658	5.31.26	4.00					4.02
7.0	GFS # 1639	24019114	2.16.27	7.00					7.04
10.0	GFS # 1645	24011537	5.11.26	10.00					9.98
Initials & Date:				KDR 10.21.25					KDR 10.23.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±0.10 of the standard? Y or N (if no, recalibration is required)

ORP Standard (± 10mV)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
+228.0 (mV)	GFS # 5525	24023356	4.13.26	228.0					227.9
Initials & Date:				KDR 10.21.25					KDR 10.23.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±10% of the standard? Y or N (if no, recalibration is required)

DO	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Filed Checks Completed	End Project Calibration Value
90-110% saturation	DI Water	N/A	N/A	95.7					97.1
Initials & Date:				KDR 10.21.25					KDR 10.23.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within 90-110%? Y or N (if no, recalibration is required)

Sonde ID	22J	Project #:	
Start Date	10.22.25		25-0827
Reviewed By & Date:	J. 11/05/25		Site: JRW

Specific Conductance (uS/cm)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Field Checks Completed	End Project Calibration Value
1413 (1399-1427)	GFS# 2174	24016995	11.25.25	1413					1416
Initials & Date:				KDR 10.21.25					KDR 10.23.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within range of the standard? Y or N (if no, recalibration is required)

Turbidity (NTUs)	Source	Source Lot #	Source Exp. Date	Pre-Project Calibration Value	1 st Daily Field Checks Completed	2 nd Daily Field Checks Completed	3 rd Daily Field Checks Completed	4 th Daily Field Checks Completed	End Project Calibration Value
0	DI Water	--	--	0.00					0.03
40.0 (± 4.0 NTUs)	Hach 2746356	A4162	6.26	40.00					40.35
800.0 (± 80.0 NTUs)	Hach 2660553	A5055	2.27	800.00					799.56
Initials & Date:				KDR 10.21.25					KDR 10.23.25

- Is the same standard used for calibration and as-found? Y or N (if no, document on pg. 2)
- Are the calibration values within ±10% of the standard? Y or N (if no, recalibration is required)

Additional Information for calibration standards

Standard	Source	Source Lot #	Source Exp. Date	Standard	Source	Source Lot #	Source Exp. Date
pH 4.0				pH 9.0 Check			
pH 7.0				ORP			
pH 10.0							
Sp. Conductivity							
40.0 Turbidity							
10.0 Turbidity							

Pond 1 & 2

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-15001 Date 10-22-25 Control Number 25-0827-01
 Location JRW Well Material: PVC SS Iron Galv. Steel

Purge Method: Peristaltic Submersible Bladder Fultz Bailor

Depth to Water Tape: Solinst 161 P7 S/N: L5030623

QC SAMPLE: MS/MSD DUP Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 6.13 Depth-To-Bottom T/PVC (ft) 81.93 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1005	Started pump						279	6.25	
1008	7.52	13.2	1078	13.8	1.38	-16.1	279	6.26	6.28
1012	7.58	13.1	1076	2.8	0.29	-93.8	279	6.26	10.45
1016	7.57	13.1	1074	1.4	0.15	-112.1	279	6.30	9.30
1020	7.56	13.1	1074	2.8	0.29	-117.5	279	6.30	9.02
1024	7.58	13.1	1074	0.6	0.06	-121.8	279	6.30	8.25
1028	7.59	13.0	1076	0.3	0.03	-124.1	279	6.30	9.61
1032	7.60	13.0	1078	0.2	0.02	-125.6	279	6.30	8.78
1036	7.61	12.9	1072	0.2	0.02	-126.1	279	6.30	8.10
1040	7.61	12.9	1080	0.2	0.02	-125.0	279	6.30	9.09
1044	7.61	12.9	1077	0.2	0.02	-122.8	279	6.30	9.30
1048	7.61	12.9	1075	0.2	0.02	-121.7	279	6.30	9.53
1049	Collected sample								
1053	End sample collection								

Total Pump Time (min): 48 Total Purge Volume (gal): ~3.5 Review Date: 11/05/25

Weather: 50°F, cloudy, windy Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-15002 Date 10.22.25 Control Number 25-0827-02
 Location JRW Well Material: PVC SS Iron Galv. Steel

Purge Method: Peristaltic Submersible Bladder Fultz Bailor

Depth to Water Tape: Solinst 101 P7 S/N: LS030623

QC SAMPLE: MS/MSD DUP Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 15.23 Depth-To-Bottom T/PVC (ft) 92.27 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	<0.33	+/- 10%

Stabilization parameters for the last three readings

1523	Started pump						255	15.25	
1525	7.58	12.4	1027	14.1	1.43	-123.8	255	15.25	2.58
1529	7.61	12.3	1076	1.5	0.15	-153.4	255	15.25	3.01
1533	7.63	12.3	1093	6.9	0.10	-158.9	255	15.25	3.21
1537	7.64	12.3	1100	0.6	0.06	-165.3	255	15.25	3.45
1541	7.65	12.3	1103	0.2	0.02	-168.9	255	15.25	3.63
1545	7.65	12.2	1103	0.2	0.02	-170.7	255	15.25	3.69
1549	7.66	12.2	1102	0.2	0.02	-174.1	255	15.25	3.87
1550	Collected sample								
1553	End sample collection								

Total Pump Time (min): 27 Total Purge Volume (gal): ~2.0 Review Date: 11/05/25

Weather: 45°F, windy, light rain Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
Monitoring Well Sampling Worksheet

Well ID SRW-MW-15003 Date 10-22-25 Control Number 25-0827-03
 Location SRW Well Material: PVC SS Iron Galv. Steel

Purge Method: Peristaltic Submersible Bladder Fultz Bailor

Depth to Water Tape: Solinst 101 P7 S/N: LS030623

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 12.37 Depth-To-Bottom T/PVC (ft) 90.26 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1421	started pump						252	12.43	
1424	7.65	12.5	983	34.4	3.62	46.4	252	12.43	4.30
1428	7.65	12.4	982	29.6	3.15	23.8	252	12.43	4.76
1432	7.65	12.4	981	29.9	3.19	26.4	252	12.43	4.87
1436	7.65	12.4	981	30.1	3.21	27.5	252	12.43	4.99
1440	7.65	12.4	979	30.8	3.28	25.6	252	12.43	5.08
1444	7.65	12.4	978	28.8	3.07	-16.6	252	12.43	5.22
1448	7.66	12.4	980	22.2	2.40	-49.8	252	12.43	5.13
1452	7.67	12.4	982	19.0	2.02	-72.4	252	12.43	5.34
1456	7.68	12.4	982	16.6	1.78	-80.7	252	12.43	5.50
1500	7.69	12.4	978	13.8	1.46	-91.6	252	12.43	5.55
1504	7.69	12.4	977	13.1	1.39	-98.5	252	12.43	5.67
1508	7.69	12.4	975	12.5	1.28	-100.8	252	12.43	5.81
1509	collected sample								
1511	End sample collection								

Total Pump Time (min): 48 Total Purge Volume (gal): ~3.0 Review Date: 11/05/25

Weather: 45°F, windy, light rain Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125 mL	HDPE	B	N					
1	125 mL	↓	A	↓					
1	250 mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID SRW-MW-15004 Date 10.22.25 Control Number 25-0827-04-07
 Location SRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: Solinst 101 P7 S/N: LS030623
 QC SAMPLE: MS/MSD DUP 01 Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 14.41 Depth-To-Bottom T/PVC (ft) 96.45 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1316	Started Pump						279	14.43		
1318	7.57	12.6	951	27.0	2.80	75.4	279	14.43	3.55	
1322	7.54	12.4	952	12.0	1.28	70.6	279	14.43	3.21	
1326	7.54	12.3	951	10.5	1.11	67.6	279	14.43	3.32	
1330	7.54	12.3	951	10.1	1.08	65.5	279	14.43	3.55	
1334	7.54	12.3	950	9.7	1.04	64.9	279	14.43	3.62	
1338	7.54	12.3	949	9.6	1.02	63.8	279	14.43	3.71	
1342	7.54	12.4	947	9.1	0.97	62.1	279	14.43	3.82	
1346	7.54	12.4	946	8.9	0.95	57.8	279	14.43	3.85	
1350	7.54	12.4	945	8.7	0.92	57.6	279	14.43	3.95	
1351	Collected sample									
1357	End sample collected									

Total Pump Time (min): 35 Total Purge Volume (gal): ~2.5 Review Date: 11/05/25

Weather: 50°F, windy, rain Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
2	125 mL	HDPE	B	N					
2	125 mL	I	A	I					
2	250 mL	I	A	I					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID SRW-MW-15005 Date 10.22.25 Control Number 25-0827-05
 Location SRW Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: Solinst 101 P7 S/N: LS030623

QC SAMPLE: MS/MSD DUP Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 13.30 Depth-To-Bottom T/PVC (ft) 93.62 Completed by LCR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1225	started pump						258	13.39	
1228	7.65	13.3	885	15.7	1.60	1.5	258	13.39	2.20
1232	7.66	13.1	878	6.7	0.70	24.2	258	13.39	3.06
1236	7.66	13.0	877	5.0	0.53	30.0	258	13.39	3.15
1240	7.66	13.1	877	4.6	0.48	33.0	258	13.39	3.30
1244	7.67	13.0	875	4.1	0.44	35.1	258	13.39	3.39
1248	7.68	13.0	875	4.0	0.43	35.6	258	13.39	3.31
1252	7.69	13.0	874	3.9	0.41	36.0	258	13.39	3.22
1253	collected sample								
1257	END sample collection								

Total Pump Time (min): 28 Total Purge Volume (gal): ~2.0 Review Date: 11/05/25

Weather: 50°F, Rain, windy Review By: J.

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - <u> </u>							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-15006 Date 10.22.25 Control Number 25-0827-06,-10,-11
 Location JRW Well Material: PVC SS Iron Galv. Steel

Purge Method: Peristaltic Submersible Bladder Fultz Bailor

Depth to Water Tape: Solinst 101 P7 S/N: L5030623

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 5.49 Depth-To-Bottom T/PVC (ft) 83.04 Completed by KDR

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1112	Started pump						249	5.52	
1115	7.83	13.1	976	15.4	1.55	-149.9	249	5.53	3.91
1119	7.85	12.8	967	1.7	0.17	-168.9	249	5.53	2.85
1123	7.86	12.8	965	0.9	0.09	-171.3	249	5.53	3.21
1127	7.86	12.7	966	0.5	0.05	-173.2	249	5.53	3.98
1131	7.86	12.7	962	0.3	0.03	-174.4	249	5.53	4.16
1135	7.86	12.7	967	0.1	0.01	-175.4	249	5.53	2.65
1139	7.87	12.7	964	0.1	0.01	-176.1	249	5.53	2.80
1143	7.87	12.7	961	0.1	0.01	-176.5	249	5.53	2.87
1144	Collected sample								
1150	End sample collection								

Total Pump Time (min): 32 Total Purge Volume (gal): ~2.0 Review Date: 11/05/25

Weather: 56°F, windy, Rain Review By: [Signature]

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
3	125mL	HDPE	B	N					
3	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Pond 6

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-16001 Date 10-22-25 Control Number 25-0828-01
 Location JR whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: Geotech S/N: 7371

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 17.10 Depth-To-Bottom T/PVC (ft) 84.02 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stablization parameters for the last three readings

*1020	started pump								
* ↓	11.13	11.8	727	39.9	4.16	+441.9	1040	17.13	2.67
*1115	8.03	11.6	748	2.5	6.27	-114.2	1040	17.13	1.01
1125	8.05	11.7	745	0.3	0.03	-143.7	350	17.13	0.89
1130	8.04	11.8	743	0.1	0.01	-146.1	350	17.13	1.06
1135	8.03	11.8	741	0.3	0.03	-151.2	350	17.13	1.00
1140	8.03	11.8	740	0.2	0.02	-153.7	350	17.13	0.73
1141	collected sample								
1143	end								

Total Pump Time (min): 81 Total Purge Volume (gal): ~17.65 Review Date: 11/05/25

Weather: 50°F, wind, slight rain Review By: [Signature]

Comments: * High purge @ 1040 LPM From 1020-1115 = ~15.25 gallons / pH = 7.5-8.0

Bottles Filled Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____

Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-14002 Date 10-22-25 Control Number 25-0828-02
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: GeoTech S/N: 7371

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 13.47 Depth-To-Bottom T/PVC (ft) 94.39 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	<0.33	+/- 10%

Stabilization parameters for the last three readings

1150	Started pump						225	13.49	
1155	7.83	12.0	948	1.8	0.19	-239.5	225	13.49	2.71
1200	7.87	12.0	952	0.4	0.04	-246.1	225	13.49	1.19
1205	7.80	12.1	955	0.2	0.02	-243.2	225	13.49	1.04
1210	7.76	12.0	954	0.1	0.01	-240.0	225	13.49	1.03
1215	7.75	12.0	950	0.2	0.02	-238.9	225	13.49	0.93
1220	7.74	12.0	949	0.1	0.01	-237.6	225	13.49	0.90
1221	Collected sample								
1223	end								

Total Pump Time (min): 31 Total Purge Volume (gal): ~2.0 Review Date: 11/05/25

Weather: 50°F, wind, light rain Review By: [Signature]

pH = 7.5 - 8.3

Comments:

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JKW-MW-16003 Date 10-22-25 Control Number 25-0828-03, -10^{MS}, -11^{MSD}
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: GeoTech S/N: 7371

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 13.90 Depth-To-Bottom T/PVC (ft) 46.04 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1230	started pump						250	13.81	
1235	7.48	12.1	970	0.1	0.01	-228.0	250	13.81	1.22
1240	7.47	12.0	984	0.1	0.01	-224.5	250	13.81	1.24
1245	7.46	12.0	985	0.2	0.02	-219.7	250	13.81	1.26
1250	7.46	12.1	984	0.2	0.02	-218.2	250	13.81	1.24
1255	7.46	12.0	981	0.1	0.01	-217.7	250	13.81	1.23
1256	collected sample								
1259	end								

Total Pump Time (min): 26 Total Purge Volume (gal): ~1.75 Review Date: 11/05/25

Weather: 50°F, wind, slight rain Review By: [Signature]

pH = 7.4 - 7.9

Comments: collected field MS/MSD

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
3	125mL	HDPE	B	N					
3	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-16004 Date 10.22.25 Control Number 25-0828-04
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: GeoTech S/N: 7371

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 14.15 Depth-To-Bottom T/PVC (ft) 88.81 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stablization parameters for the last three readings

1310	Started pump						250	14.16	
1315	7.41	12.2	1103	0.5	0.05	-114.6	250	14.16	2.92
1320	7.44	12.2	1123	0.2	0.03	-198.1	250	14.14	2.53
1325	7.46	12.2	1131	0.1	0.01	-242.1	250	14.14	1.70
1330	7.47	12.3	1130	0.1	0.01	-258.1	250	14.16	1.34
1335	7.47	12.2	1125	0.1	0.01	-244.3	250	14.16	1.29
1340	7.47	12.3	1122	0.1	0.01	-245.3	250	14.16	1.65
1345	7.47	12.2	1119	0.2	0.02	-264.8	250	14.16	1.79
1346	collected sample								
1350	-end								

Total Pump Time (min): 36 Total Purge Volume (gal): ~ 2.5 Review Date: 11/05/25

Weather: 50°F, wind, rain Review By: [Signature]

Comments: pH = 7.4 - 8.2

Bottles Filled		Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____							
Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
1	125mL	HDPE	B	N					
1	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-16005 Date 10.22.25 Control Number 25-0828-05,-07
 Location JR Whiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailor
 Depth to Water Tape: Geotech S/N: 7372

QC SAMPLE: MS/MSD DUP-02 Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 17.04 Depth-To-Bottom T/PVC (ft) 91.42 Completed by CIE

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	mL/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1030	started pump						200	17.09	
1035	7.56	12.2	822	10.0	1.03	-12.1	200	17.09	2.84
1040	7.48	12.1	825	3.5	0.36	-137.0	200	17.09	1.80
1045	7.56	12.1	825	2.0	0.21	-160.7	200	17.09	1.06
1050	7.68	12.1	820	0.6	0.06	-195.9	200	17.09	0.90
1055	7.70	12.1	831	0.6	0.06	-199.3	200	17.09	0.64
1100	7.71	12.0	829	0.6	0.06	-197.1	200	17.09	0.59
1105 ^{at 102225}	collected samples								
1109	end								

Total Pump Time (min): 31 Total Purge Volume (gal): 21.75 Review Date: 11/05/25

Weather: 50°F, Wind, light rain Review By: [Signature]

Comments: collected field duplicate-02 PH 7.3-8.0

Bottles Filled Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____

Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
2	125mL	HDPE	B	N					
2	125mL	↓	A	↓					
2	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

Consumers Energy Company
 Monitoring Well Sampling Worksheet

Well ID JRW-MW-16006 Date 10.22.25 Control Number 25-0828-dp
 Location JRWWhiting Well Material: PVC SS Iron Galv. Steel
 Purge Method: Peristaltic Submersible Bladder Fultz Bailer
 Depth to Water Tape: GeoTech S/N: 7371

QC SAMPLE: MS/MSD DUP _____ Sonde ID: 15H 19M 20G 21G 22J

Depth-to-water T/PVC (ft) 15.90 Depth-To-Bottom T/PVC (ft) 91.68 Completed by CIG

Time	pH	Temp	Sp Cond	DO	DO	ORP	Pump Rate	Water level	Turbidity
min	units	°C	uS/cm	% sat.	ppm	mV	ml/min	Drawdown ft	NTU
3-5 min	+/- 0.1	NA	+/- 3%	+/- 10%	+/- 0.3ppm	+/- 10mV	*	< 0.33	+/- 10%

Stabilization parameters for the last three readings

1400	started pump						250	15.90	
1405	7.57	11.8	803	45.9	4.80	+28.2	250	15.90	3.30
1410	7.57	11.9	803	39.2	4.09	-15.0	250	15.90	2.77
1415	7.42	11.8	804	23.6	2.44	-41.4	250	15.90	2.67
1420	7.70	11.8	804	10.9	1.14	-117.8	250	15.90	2.47
1425	7.73	11.8	803	7.4	0.79	-136.4	250	15.90	2.40
1430	7.77	11.8	802	4.2	0.44	-155.1	250	15.90	2.43
1435	7.77	11.9	800	3.4	0.35	-142.0	250	15.90	2.37
1440	7.78	11.8	798	2.7	0.29	-149.8	250	15.90	2.12
1445	7.79	11.8	795	2.1	0.22	-173.0	250	15.90	2.10
1450	7.78	11.9	793	1.8	0.19	-173.3	250	15.90	1.83
1455	7.80	11.8	794	1.7	0.17	-173.6	250	15.90	1.76
1454	collected sample								
1458	end								

Total Pump Time (min): 56 Total Purge Volume (gal): ~3.75 Review Date: 11/05/25

Weather: 50°F, wind, slight rain Review By: [Signature]

Comments: pH = 7.5-8.2

Bottles Filled Preservative Codes: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCl F - _____

Quantity	Size	Type	Preservative Code	Filtered Y/N	Quantity	Size	Type	Preservative Code	Filtered Y/N
2	125mL	HDPE	B	N					
1	125mL	↓	A	↓					
1	250mL	↓	A	↓					

* Pump rate should be <500 mL/min for low-flow and <1 gal/min for high Volume.

