2022 Annual Groundwater Monitoring Report

St. Clair Power Plant Former Bottom Ash Basins
4901 Pointe Drive
East China Township, Michigan

January 2023

Prepared For:

DTE Electric Company

Prepared By:

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Executive Summary

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. The CCR Rule, which became effective on October 19, 2015 (with amendments in 2018 and 2020), applies to the DTE Electric Company (DTE Electric) St. Clair Power Plant (SCPP) Bottom Ash Basins (BABs) CCR unit. Pursuant to the CCR Rule, no later than January 31, 2018, and annually thereafter, 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 DTE Electric, TRC Engineers Michigan, Inc., the engineering entity of TRC, has prepared this Annual Groundwater Monitoring Report for the calendar year 2022 activities at the SCPP BABs CCR Unit.

The SCPP BABs was operating under the detection monitoring program at the start of the 2022 annual reporting period and remained in the detection monitoring program through the end of the 2022 annual reporting period. The semiannual detection monitoring events for 2022 were completed in April and October 2022 and included sampling and analyzing groundwater within the groundwater monitoring system for the indicator parameters listed in Appendix III to the CCR Rule. As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify statistically significant increases (SSIs) in Appendix III parameters to determine if concentrations in groundwater exceed prediction limits. All the monitoring data that has been collected and evaluated under §257.90 through §257.98 in 2022 are presented in this report.

No SSIs over prediction limits were noted for the Appendix III constituents in the downgradient wells during the 2022 monitoring period. Therefore, detection monitoring will be continued at the SCPP BABs CCR unit in accordance with §257.94. In addition, based on the hydrogeology at the Site, with the presence of the vertically and horizontally extensive clay-rich confining till beneath the SCPP BABs CCR unit, there is no reasonable probability for the uppermost aquifer to have been affected by CCR from operations. Due to limitations on CCR Rule implementation timelines, the background data sets are of relatively short duration for capturing the occurrence of natural temporal changes in the aquifer.

In addition, DTE Electric ceased operation of the coal-fired boilers at the SCPP on May 31, 2022, completed washdowns of CCR containing equipment on August 12, 2022, and commenced physical isolation of the BAB from power plant infrastructure on September 1, 2022, and thus has permanently ceased receipt of CCR and non-CCR waste streams at the BAB and has initiated closure as described in 40 C.F.R. § 257.102(c). Closure by removal activities related to the BABs began on August 15, 2022 and are anticipated to be complete in January 2023.

1.0 Introduction

1.1 Program Summary

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. The CCR Rule, which became effective on October 19, 2015 (with amendments in 2018 and 2020), applies to the DTE Electric Company (DTE Electric) St. Clair Power Plant (SCPP) Bottom Ash Basins (BABs). Pursuant to the CCR Rule, no later than January 31, 2018, and annually thereafter, 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 DTE Electric, TRC Engineers Michigan, Inc., the engineering entity of TRC, has prepared this Annual Groundwater Monitoring Report for calendar year 2022 activities at the SCPP BABs CCR unit (2022 Annual Report).

In the *2021 Annual Groundwater Monitoring Report for the St. Clair Power Plant Bottom Ash Basins CCR Unit* (2021 Annual Report) (TRC, January 2022), DTE Electric reported no concentrations over the background limits for any of the Appendix III indicator parameters. Therefore, DTE Electric continued detection monitoring at the SCPP BABs CCR unit in 2022 pursuant to §257.94 of the CCR Rule. This 2022 Annual Report presents the monitoring results and the statistical evaluation of the detection monitoring parameters (Appendix III to Part 257 of the CCR Rule) for the April and October 2022 semiannual groundwater monitoring events for the SCPP BABs CCR unit. Detection monitoring for these events continued to be performed in accordance with the *CCR Groundwater Monitoring and Quality Assurance Project Plan – DTE Electric Company St. Clair Power Plant Bottom Ash Basins* (QAPP) (TRC, July 2016; revised August 2017) and statistically evaluated per the *Groundwater Statistical Evaluation Plan – St. Clair Power Plant Coal Combustion Residual Bottom Ash Basins* (Stats Plan) (TRC, October 2017). As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify statistically significant increases (SSIs) of detection monitoring parameters compared to background levels.

1.2 Site Overview

The SCPP BABs CCR unit is located in Section 19, Township 4 North, Range 17 East, at 4901 Pointe Drive, East China Township in St. Clair County, Michigan. The SCPP including the east BAB was constructed in the early 1950s and the west BAB was constructed in 1996, just south of the DTE Electric SCPP main building. The power plant is located on the peninsula formed by the St. Clair and Belle Rivers, approximately three miles south of St. Clair, Michigan immediately to the west of the St. Clair River.

The property had been used continuously as a coal fired power plant since Detroit Edison Company (now DTE Electric) began power plant operations at SCPP in 1953 and is constructed over a natural continuous clay-rich soil base as shown in historical soil borings performed at the SCPP property. DTE Electric ceased operation of the coal-fired boilers at the SCPP on May 31, 2022, completed washdowns of CCR containing equipment on August 12, 2022, and

commenced physical isolation of the BAB from power plant infrastructure on September 1, 2022, and thus has permanently ceased receipt of CCR and non-CCR waste streams at the BAB and has initiated closure as described in 40 C.F.R. § 257.102(c).

Closure by removal activities related to the BABs began on August 15, 2022 and are anticipated to be complete in January 2023. Dewatering of the BABs was completed from August 15 to approximately October 15, 2022 with CCR removal from the East BAB completed by December 16, 2022 and CCR removal from the West BAB anticipated to be complete in January 2023. Backfilling/restoration of the East BAB is underway and the backfilling/restoration of West BAB will be completed in Q1 2023.

1.3 Geology/Hydrogeology

The former SCPP BABs CCR unit is located immediately adjacent to the west edge of the St. Clair River. The SCPP CCR unit is underlain by glacial silty-clay till, with a few isolated sand lenses, and a silt and clay-rich hardpan base directly overlying the shale bedrock (likely the Bedford Shale). The shale bedrock lower confining unit is generally encountered at depths greater than 130 ft bgs. No significant soil or gravel intervals were encountered at any of the groundwater monitoring system well locations. However, during soil boring advancement for the groundwater monitoring system well locations, some signs of saturation were observed throughout a 5-foot interval along the interface between the overlying till/hardpan and the underlying shale bedrock. The underlying shale does not yield groundwater, rather it is an aquiclude that prevents groundwater flow (i.e., is not an aquifer).

Although the encountered zone of saturation along the interface did not yield significant groundwater, it was conservatively interpreted as the first underlying saturated zone that would presumably become affected with CCR constituents, since it was saturated, and although the hydraulic conductivity was low, exhibited a much higher conductivity than the clay-rich soils between the bottom of the basin and the monitored zone. Therefore, the potential uppermost aquifer as described above was present beneath at least 120 feet of vertically contiguous silty clay-rich till that serves as a natural confining hydraulic barrier that isolates the underlying uppermost potential aquifer. The first underlying saturated zone (the potential uppermost aquifer) that would presumably become affected with CCR constituents is located at the silty clay hardpan/shale bedrock interface (130.5 to 132 ft bgs) and is limited to no more than 4 feet thick.

A definitive groundwater flow direction to the east-southeast with a mean gradient of approximately 0.004 to 0.005 feet/feet within the uppermost aquifer is evident around the SCPP CCR BABs CCR unit, however potential groundwater flow within this uppermost aquifer is very low (less than 0.06 feet per year).

In addition, the elevation of CCR-affected water maintained within the SCPP BABs was very similar to the potentiometric surface elevations in the uppermost aquifer at the BABs CCR unit area. This suggests that if the CCR affected surface water in the BABs was able to penetrate the silty clay-rich underlying confining unit, the head on that release likely would travel radially away from the BABs within the uppermost aquifer. However, with the very thick continuous silty

clay-rich confining unit beneath the SCPP, there is no reasonable probability for the uppermost aquifer to have been affected by CCR from SCPP operations that began in the 1950s.

2.0 Groundwater Monitoring

2.1 Monitoring Well Network

A groundwater monitoring system has been established for the SCPP BABs CCR unit as detailed in the *Groundwater Monitoring System Summary Report – DTE Electric Company St. Clair Power Plant Bottom Ash Basins Coal Combustion Residual Unit* (GWMS Report) (TRC, October 2017). The detection monitoring well network for the BABs CCR unit currently consists of four monitoring wells that are screened in the uppermost aquifer. Monitoring wells MW-16-01 through MW-16-04 are located around the east and west perimeter of the former BABs and provide data on both background and downgradient groundwater quality that has not been affected by the CCR unit (total of four background/downgradient monitoring wells). The monitoring well locations are shown on Figure 2.

2.2 Semiannual Groundwater Monitoring

The semiannual monitoring parameters for the detection groundwater monitoring program were selected per the CCR Rule's Appendix III to Part 257 – Constituents for Detection Monitoring. The Appendix III indicator parameters consist of boron, calcium, chloride, fluoride, pH (field reading), sulfate, total dissolved solids (TDS) and were analyzed in accordance with the sampling and analysis plan included within the QAPP. In addition to pH, the collected field parameters included dissolved oxygen, oxidation reduction potential, specific conductivity, temperature, and turbidity.

2.2.1 Data Summary

The first semiannual groundwater monitoring event for 2022 was performed on April 7th and 8th, 2022 by TRC personnel and samples were analyzed by Eurofins Environment Testing America (Eurofins) in accordance with the QAPP. Static water elevation data were collected at all four monitoring well locations and surface water measuring point MP-01. Groundwater samples were collected from the four detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the April 2022 event is provided in Table 1 (static groundwater elevation data), Table 2 (field data), and Table 3 (analytical results).

The second semiannual groundwater monitoring event for 2022 was performed on October 12th, 13th, and 14th, 2022 by TRC personnel and samples were analyzed by Eurofins in accordance with the QAPP. Static water elevation data were collected at all four monitoring well locations and surface water measuring point MP-01. Groundwater samples were collected from the four detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the October 2022 event is provided in Table 1 (static groundwater elevation data), Table 2 (field data), and Table 4 (analytical results). The laboratory analytical reports are included in Appendix A.

2.2.2 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 B.

2.2.3 Groundwater Flow Rate and Direction

Groundwater elevation data collected during the April and October 2022 sampling events show that groundwater within the uppermost aquifer generally flows to the east-southeast across the SCPP BABs CCR unit. Groundwater potentiometric surface elevations measured across the SCPP BABs CCR unit during the April and October 2022 sampling events are provided in Table 1 and were used to construct the groundwater potentiometric surface maps shown on Figure 3 and Figure 4, respectively. The groundwater flow rate and direction is consistent with previous monitoring events. The average hydraulic gradients throughout the SCPP BABs were 0.0046 feet/feet during the first semiannual 2022 monitoring event and 0.0041 ft/ft during the second semiannual 2022 monitoring event, resulting in estimated average seepage velocities of approximately 0.00015 ft/day or 0.055 ft/year (approximately 0.65 inches/year) and 0.00013 ft/day or 0.049 ft/year (approximately 0.58 inches/year), respectively, using the average hydraulic conductivity of 0.013 ft/day (TRC, 2017) and an assumed effective porosity of 0.4.

As presented in the GWMS Report, there is a horizontally expansive clay with substantial vertical thickness that isolates the uppermost aquifer from the SCPP BABs CCR unit. The general flow rate and direction in the uppermost aquifer from both events are similar to that identified in previous monitoring rounds and continues to demonstrate that groundwater flows at a low rate and the compliance wells are appropriately positioned to detect the presence of Appendix III parameters that could potentially migrate from the SCPP BABs CCR unit.

3.0 Statistical Evaluation

3.1 Establishing Background Limits

As discussed in the Stats Plan, intrawell statistical methods for the BABs CCR unit were selected based on the geology and hydrogeology at the Site (primarily the presence of clay/hydraulic barrier, the relatively small footprint of the BABs, and the low vertical and horizontal groundwater flow velocity), 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). An intrawell statistical approach requires that each of the downgradient wells doubles as a 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.

Per the Stats Plan, background limits were established for the Appendix III indicator parameters following the collection of at least eight background monitoring events using data collected from each of the four established detection monitoring wells (MW-16-01 through MW-16-04). The statistical evaluation of the background data is presented in the 2017 Annual Report. The Appendix III background limits for each monitoring well will be used throughout the detection monitoring period to determine whether groundwater has been impacted from the SCPP BABs CCR unit by comparing concentrations in the detection monitoring wells to their respective background limits for each Appendix III indicator parameter.

3.2 Data Comparison to Background Limits – First Semiannual Event (April 2022)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-16-01 through MW-16-04) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from MW-16-01 is compared to the background limit developed using the background dataset from MW-16-01, and so forth).

The statistical evaluation of the April 2022 Appendix III indicator parameter data shows that there were no concentrations above background limits for any Appendix III indicator parameters during the first 2022 semiannual detection monitoring event. The data comparisons of the April 2022 data to background limits are presented in Table 3.

3.3 Data Comparison to Background Limits – Second Semiannual Event (October 2022)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-16-01 through MW-16-04) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from MW-16-01 is compared to the background limit developed using the background dataset from MW-16-01, and so forth).

The comparisons of the October 2022 monitoring event are presented on Table 4. The statistical evaluation of the October 2022 Appendix III indicator parameters showed a potential initial SSI over background for:

- Chloride at MW-16-01, MW-16-02, MW-16-03, and MW-16-04

There were no potential SSIs over background for boron, calcium, fluoride, pH, sulfate, or total dissolved solids (TDS).

3.4 Verification Resampling for the Second Semiannual Event

Verification resampling is performed per the Stats Plan 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 §257.93(g) in the CCR Rule. Per the Stats Plan, if there is an exceedance of a prediction limit for one or more of the parameters, 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.

Verification resampling for the October 2022 event was conducted on November 29, 2022 by TRC personnel. Groundwater samples were collected for chloride analysis from MW-16-01 through MW-16-04 in accordance with the QAPP. A summary of the analytical results collected during the resampling event is provided on Table 4. The associated data quality review is included in Appendix B.

The verification sampling results for chloride at MW-16-01, MW-16-02, MW-16-03, and MW-16-04 are below their respective prediction limits. Consequently, the initial potential SSIs for chloride from the October 2022 event are not confirmed. Therefore, in accordance with the Stats Plan and the Unified Guidance, the initial exceedance is not statistically significant, and no SSI will be recorded for chloride for the October 2022 detection monitoring event.

4.0 Conclusions and Recommendations

No SSIs over prediction limits were recorded for the Appendix III constituents in the downgradient wells during the 2022 monitoring period. Therefore, detection monitoring will be continued at the SCPP BABs CCR unit in accordance with §257.94. As discussed above, and in the GWMS Report, with the very thick continuous silty clay-rich confining unit beneath the SCPP BABs CCR unit, there is no reasonable probability for the uppermost aquifer to have been affected by CCR from SCPP operations.

No corrective actions were performed in 2022. The next semiannual monitoring event is scheduled for the second calendar quarter of 2023.

5.0 Groundwater Monitoring Report Certification

The U.S. EPA's Disposal of Coal Combustion Residuals from Electric Utilities Final Rule Title 40 CFR Part 257 §257.90(e) requires that the owner or operator of an existing CCR unit prepare an annual groundwater monitoring and corrective action report.

Annual Groundwater Monitoring Report Certification
St. Clair Power Plant Bottom Ash Basins
East China Township, Michigan

CERTIFICATION

I hereby certify that the annual groundwater and corrective action report presented within this document for the SCPP BABs CCR unit has been prepared to meet the requirements of Title 40 CFR §257.90(e) of the Federal CCR Rule. This document is accurate and has been prepared in accordance with good engineering practices, including the consideration of applicable industry standards, and with the requirements of Title 40 CFR §257.90(e).

Name: David B. McKenzie, P.E.	Expiration Date: December 17, 2023	
Company: TRC Engineers Michigan, Inc.	Date: January 31, 2023	

1/31/23

6.0 References

TRC. July 2016; Revised March and August. CCR Groundwater Monitoring and Quality Assurance Project Plan – DTE Electric Company St. Clair Power Plant Bottom Ash Basins, 4901 Pointe Drive, East China Township, Michigan. Prepared for DTE Electric Company.

TRC. October 2017. Groundwater Monitoring System Summary Report – DTE Electric Company St. Clair Power Plant Bottom Ash Basins Coal Combustion Residual Unit, 4901 Pointe Drive, East China Township, Michigan. Prepared for DTE Electric Company.

TRC. October 2017. Groundwater Statistical Evaluation Plan – DTE Electric Company St. Clair Power Plant Coal Combustion Residual Bottom Ash Basins, 4901 Pointe Drive, East China Township, Michigan. Prepared for DTE Electric Company.

TRC. January 2018. Annual Groundwater Monitoring Report – DTE Electric Company St. Clair Power Plant Coal Combustion Residual Bottom Ash Basins, 4901 Pointe Drive, East China Township, Michigan. Prepared for DTE Electric Company.

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USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA facilities, Unified Guidance. Office of Conservation and Recovery. EPA 530/R-09-007.

USEPA. April 2015. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. 80 Federal Register 74 (April 17, 2015), pp. 21301-21501 (80 FR 21301).

USEPA. July 2018. 40 CFR Part 257. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One); Final Rule. 83 Federal Register 146 (July 30, 2018), pp. 36435-36456 (83 FR 36435).

USEPA. April 2018. Barnes Johnson (Office of Resource Conservation and Recovery) to James Roewer (c/o Edison Electric Institute) and Douglas Green, Margaret Fawal (Venable LLP). Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements. April 30, 2018. United States Environmental Protection Agency, Washington, D.C. 20460. Office of Solid Waste and Emergency Response, now the Office of Land and Emergency Management.

Tables

Table 1
Groundwater Elevation Summary - April to October 2022
St. Clair Power Plant Bottom Ash Basins – RCRA CCR Monitoring Program
East China Township, Michigan

	MP-01		MW-16-01		MW-16-02		MW-16-03		MW-16-04	
Date Installed	3/23/2016		3/31/2016		3/29/2016		3/25/2016		3/23/2016	
TOC Elevation	580.84[(1)]		584.74		581.43		581.39		580.95	
Geologic Unit of Screened Interval	NA		Silty Clay Shale Interface		Silty Clay Shale Interface		Silty Clay/Hardpan Shale Interface		Silty Clay/Hardpan Shale Interface	
Screened Interval Elevation	NA		458.1 to 453.1		456.2 to 451.2		455.1 to 450.1		455.0 to 450.0	
Unit	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft
Measurement Date	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation
04/07/2022	4.60	576.24	2.71	582.03	1.25	580.18	1.75	579.64	1.65[(2)]	579.30
10/12/2022	4.85	575.99	3.12	581.62	1.64	579.79	1.78	579.61	1.79	579.16

Notes:

Elevations are reported in feet relative to the North American Vertical Datum of 1988.

ft BTOC - feet below top of casing

NA - not applicable

NM - not measured.

1) Elevation represents the point of reference used to collect surface water level measurements.

(2) Static water level measurement taken on 4/8/2022.

Table 2
Summary of Field Data – April to November 2022
St.Clair Power Plant Bottom Ash Basins – RCRA CCR Monitoring Program
East China Township, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (deg C)	Turbidity (NTU)
MW-16-01	4/8/2022	1.15	-226.8	8.0	4,427	10.0	17.8
	10/14/2022	1.00	-27.8	8.0	3,234	13.1	4.19
	11/29/2022(1)	0.73	-136.0	8.0	3,132	12.1	27.2
MW-16-02	4/8/2022	1.09	-223.0	8.1	6,418	8.9	20.0
	10/14/2022	0.90	30.2	8.0	4,863	14.5	17.7
	11/29/2022(1)	0.08	-175.3	8.1	4,512	12.3	39.8
MW-16-03	4/8/2022	1.15	-281.0	7.8	6,929	10.9	20.0
	10/13/2022	0.21	-124.3	7.7	6,360	13.6	15.0
	11/29/2022(1)	0.04	-152.4	7.9	4,866	12.1	15.5
MW-16-04	4/8/2022	1.70	-235.5	8.2	8,300	8.8	73.5
	10/13/2022	0.18	-138.5	7.9	7,855	14.1	55.0
	11/29/2022(1)	0.01	-158.3	8.1	5,650	11.1	1,069

Notes:
mg/L -Milligrams per Liter.
mV - Millivolts.
SU - Standard Units.
umhos/cm - Micromhos per centimeter.
°C - Degrees Celsius.
NTU - Nephelometric Turbidity Unit
(1) - Results shown for verification sampling performed on 11/29/2022.

Table 3
Comparison of Appendix III Parameter Results to Background Limits – April 2022
St. Clair Power Plant Bottom Ash Basins – RCRA CCR Monitoring Program
East China Township, Michigan

Sample Location:		MW-16-01		MW-16-02		MW-16-03		MW-16-04	
Sample Date:		4/8/2022	PL	4/8/2022	PL	4/8/2022	PL	4/8/2022	PL
Constituent	Unit	Data		Data		Data		Data	
Appendix III									
Boron	ug/L	2,400	2,600	2,200	2,400	2,300	2,300	2,600	2,600
Calcium	ug/L	19,000	24,000	36,000	69,000	50,000	61,000	39,000	57,000
Chloride	mg/L	1,300	1,400	2,000	2,100	2,100	2,200	2,500	2,800
Fluoride	mg/L	2.0	2.1	1.6	1.6	1.4	1.6	1.7	1.7
pH, Field	su	8.0	7.2 - 8.6	8.1	7.5 - 8.3	7.8	7.3 - 8.5	8.2	7.3 - 8.4
Sulfate	mg/L	< 2.0	62	< 2.0	25	< 2.0	25	< 5.0	25
Total Dissolved Solids	mg/L	2,200	2,500	3,200	3,600	3,500	4,000	4,100	4,400

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.

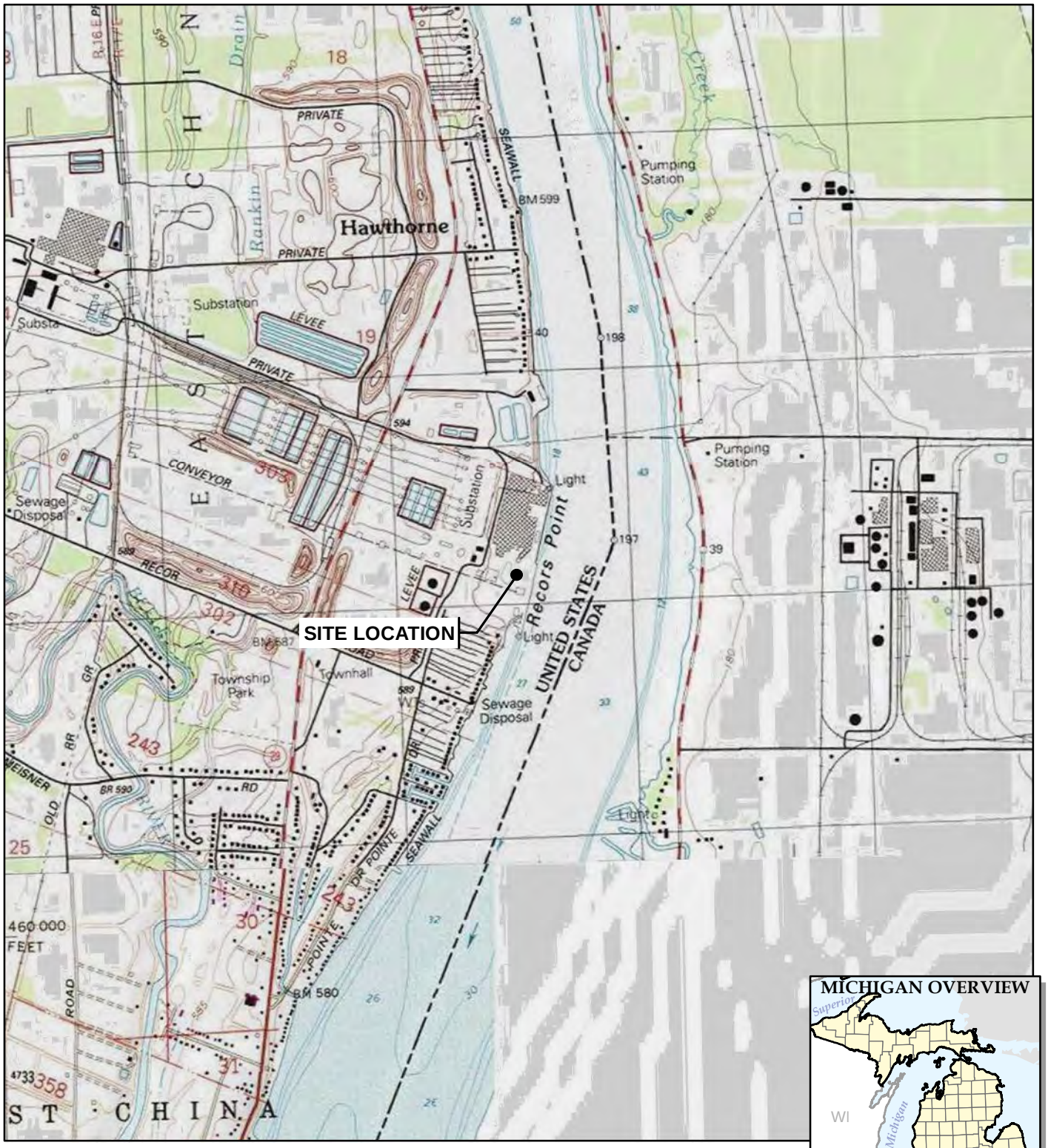
Bold font indicates an exceedance of the Prediction Limit (PL).

Table 4
Comparison of Appendix III Parameter Results to Background Limits – October and November 2022
St. Clair Power Plant Bottom Ash Basins – RCRA CCR Monitoring Program
East China Township, Michigan

Sample Location:		MW-16-01			MW-16-02			MW-16-03			MW-16-04		
Sample Date:		10/14/2022	11/29/2022(1)	PL	10/14/2022	11/29/2022(1)	PL	10/13/2022	11/29/2022(1)	PL	10/13/2022	11/29/2022(1)	PL
Constituent	Unit	Data			Data			Data			Data		
Appendix III													
Boron	ug/L	2,300	--	2,600	2,100	--	2,400	2,200	--	2,300	2,400	--	2,600
Calcium	ug/L	19,000	--	24,000	38,000	--	69,000	51,000	--	61,000	39,000	--	57,000
Chloride	mg/L	**1,500**	1,300	1,400	**2,300**	1,900	2,100	**2,500**	2,100	2,200	**3,000**	2,500	2,800
Fluoride	mg/L	1.9	--	2.1	1.5	--	1.6	1.3	--	1.6	1.6	--	1.7
pH, Field	su	8.0	--	7.2 - 8.6	8.0	--	7.5 - 8.3	7.7	--	7.3 - 8.5	7.9	--	7.3 - 8.4
Sulfate	mg/L	< 5	--	62	< 5	--	25	< 5	--	25	< 5	--	25
Total Dissolved Solids	mg/L	2,400	--	2,500	1,000	--	3,600	3,000	--	4,000	3,600	--	4,400

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).
(1) - Results shown for verification sampling performed on 11/29/2022.

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000 FEET

TRC

1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080
www.trccompanies.com

TRC - GIS

PROJECT:

DTE ELECTRIC COMPANY
FORMER ST. CLAIR POWER PLANT
4901 POINTE DRIVE
EAST CHINA TOWNSHIP, MICHIGAN

TITLE:

SITE LOCATION MAP

DRAWN BY:	A. FOJTIK
CHECKED BY:	J. KRENZ
APPROVED BY:	V. BUENING
DATE:	JANUARY 2022
PROJ. NO.:	461816.0004.0000
FILE:	461816-0004-001slmV2.mxd

FIGURE 1

S:\1-PROJECTS\DTE_Energy\320511_StClair\461816-0004-001slmV2.mxd -- Saved By: AFOJTIK on 1/6/2023, 16:09:53 PM

LEGEND

- MONITORING WELLS
- SURFACE WATER MEASURING POINT

NOTES

1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (08/13/2021).
2. WELL LOCATIONS SURVEYED BY BMJ ENGINEERS AND SURVEYORS INC. IN APRIL 2016.

0 100 200 Feet

1 " = 100 '

1:1,200

PROJECT:
DTE ELECTRIC COMPANY
FORMER ST. CLAIR POWER PLANT BOTTOM ASH BASINS
4901 POINTE DRIVE
EAST CHINA TOWNSHIP, MICHIGAN

TITLE:
SITE PLAN

DRAWN BY:	A. FOJTIK	PROJ NO.:	461816.0004.0000
CHECKED BY:	J. KRENZ		FIGURE 2
APPROVED BY:	V. BUENING		
DATE:	JANUARY 2023		

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080
www.trccompanies.com

FILE NO.: 461816-0004-002V2.mxd

TRC - GIS
Plot Date: 1/6/2023, 16:39:20 PM by AFOJTIK – LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\DTE_Energy\320511_StClair\461816-0004-002V2.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0

LEGEND

- MONITORING WELLS
- SURFACE WATER MEASURING POINT
  *MEASURES WATER ELEVATION IN ST. CLAIR RIVER
- (579.85) GROUNDWATER ELEVATION (FT NAVD88)
- GROUNDWATER ELEVATION CONTOUR
  (0.5-FT INTERVAL, DASHED WHERE INFERRED)

NOTES

1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (08/13/2021)
2. WELL LOCATIONS SURVEYED BY BMJ ENGINEERS AND SURVEYORS INC. IN APRIL 2016.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.
4. ELEVATION DATA FROM MP-01 IS REPRESENTATIVE OF SURFACE WATER THAT IS NOT HYDRAULICALLY CONNECTED TO THE UPPERMOST AQUIFER AND IS NOT USED TO DEVELOP GROUNDWATER CONTOURS.

N

0 100 200 Feet

1 " = 100 '
1:1,200

PROJECT:
DTE ELECTRIC COMPANY
FORMER ST. CLAIR POWER PLANT BOTTOM ASH BASINS
4901 POINTE DRIVE
EAST CHINA TOWNSHIP, MICHIGAN

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE MAP APRIL 2022

DRAWN BY:	A. FOJTIK	PROJ NO.:	461816.0004
CHECKED BY:	J. KRENZ		
APPROVED BY:	V. BUENING		**FIGURE 3**
DATE:	MAY 2022		

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
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FILE NO.: 461816-0004-003.mxd

Plot Date: 1/6/2023, 16:17:51 PM by AFOJTIK -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\DTE_Energy\320511_StClair\461816-0004-003.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0

TRC - GIS

LEGEND

- MONITORING WELLS
- SURFACE WATER MEASURING POINT *MEASURES WATER ELEVATION IN ST. CLAIR RIVER
- (579.85) GROUNDWATER ELEVATION (FT NAVD88)
- GROUNDWATER ELEVATION CONTOUR (0.5-FT INTERVAL, DASHED WHERE INFERRED)

NOTES

1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (08/13/2021)
2. WELL LOCATIONS SURVEYED BY BMJ ENGINEERS AND SURVEYORS INC. IN APRIL 2016.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.
4. ELEVATION DATA FROM MP-01 IS REPRESENTATIVE OF SURFACE WATER THAT IS NOT HYDRAULICALLY CONNECTED TO THE UPPERMOST AQUIFER AND IS NOT USED TO DEVELOP GROUNDWATER CONTOURS.

0 100 200 Feet

1 " = 100 '

1:1,200

PROJECT:
DTE ELECTRIC COMPANY
FORMER ST. CLAIR POWER PLANT BOTTOM ASH BASINS
4901 POINTE DRIVE
EAST CHINA TOWNSHIP, MICHIGAN

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE MAP OCTOBER 2022

DRAWN BY:	A. FOJTIK	PROJ NO.:	461816.0004
CHECKED BY:	J. KRENZ		
APPROVED BY:	V. BUENING		**FIGURE 4**
DATE:	JANUARY 2023		

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080
www.trccompanies.com

FILE NO.: 461816-0004-004.mxd

Plot Date: 1/13/2023, 09:27:29 AM by AFOJTIK -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\DTE_Energy\320511_StClair\461816-0004-004.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0

TRC - GIS

Appendix A
Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-164922-1
Client Project/Site: CCR DTE St. Clair Power

For:
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Attn: Mr. Vincent Buening

Patrick O'Meara

Authorized for release by:
4/24/2022 1:08:07 PM
Patrick O'Meara, Manager of Project Management
(330)966-5725
Patrick.O'Meara@et.eurofinsus.com

Designee for

Kris Brooks, Project Manager II
(330)966-9790
Kris.Brooks@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job ID: 240-164922-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-164922-1

Comments
No additional comments.

Receipt
The samples were received on 4/13/2022 @ 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.2º C and 0.4º C.

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

General Chemistry
Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-16-01 2204 (240-164922-1), MW-16-02 2204 (240-164922-2), MW-16-03 2204 (240-164922-3), MW-16-04 2204 (240-164922-4) and DUP-01 2204 (240-164922-5). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-164922-1	MW-16-01 2204	Water	04/08/22 08:45	04/13/22 08:00
240-164922-2	MW-16-02 2204	Water	04/08/22 09:50	04/13/22 08:00
240-164922-3	MW-16-03 2204	Water	04/08/22 10:40	04/13/22 08:00
240-164922-4	MW-16-04 2204	Water	04/08/22 11:44	04/13/22 08:00
240-164922-5	DUP-01 2204	Water	04/08/22 00:00	04/13/22 08:00
240-164922-6	EB-01 2204	Water	04/07/22 10:00	04/13/22 08:00

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: MW-16-01 2204 — Lab Sample ID: 240-164922-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2400		100	57	ug/L	1		6010B	Total Recoverable
Calcium	19000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	980		100	100	ug/L	1		6020	Total Recoverable
Chloride	1300		20	20	mg/L	20		9056A	Total/NA
Fluoride	2.0		0.10	0.10	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2200		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-02 2204 — Lab Sample ID: 240-164922-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2200		100	57	ug/L	1		6010B	Total Recoverable
Calcium	36000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	1400		100	100	ug/L	1		6020	Total Recoverable
Chloride	2000		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.6		0.10	0.10	mg/L	2		9056A	Total/NA
Total Dissolved Solids	3200		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-03 2204 — Lab Sample ID: 240-164922-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2300		100	57	ug/L	1		6010B	Total Recoverable
Calcium	50000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	1100		100	100	ug/L	1		6020	Total Recoverable
Chloride	2100		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.4		0.10	0.10	mg/L	2		9056A	Total/NA
Total Dissolved Solids	3500		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-04 2204 — Lab Sample ID: 240-164922-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2600		100	57	ug/L	1		6010B	Total Recoverable
Calcium	39000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	4700		100	100	ug/L	1		6020	Total Recoverable
Chloride	2500		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.7		0.25	0.25	mg/L	5		9056A	Total/NA
Total Dissolved Solids	4100		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01 2204 — Lab Sample ID: 240-164922-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2300		100	57	ug/L	1		6010B	Total Recoverable
Calcium	18000		1000	1000	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample ID: DUP-01 2204 (Continued)

Lab Sample ID: 240-164922-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	950		100	100	ug/L	1		6020	Total Recoverable
Chloride	1200		20	20	mg/L	20		9056A	Total/NA
Fluoride	2.0		0.10	0.10	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2100		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-01 2204

Lab Sample ID: 240-164922-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: MW-16-01 2204

Date Collected: 04/08/22 08:45
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164922-1

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2400		100	57	ug/L		04/14/22 10:00	04/20/22 15:06	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	19000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:42	1
Iron	980		100	100	ug/L		04/14/22 10:00	04/19/22 22:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300		20	20	mg/L			04/21/22 05:15	20
Fluoride	2.0		0.10	0.10	mg/L			04/21/22 04:09	2
Sulfate	2.0	U	2.0	2.0	mg/L			04/21/22 04:09	2
Total Dissolved Solids	2200		40	40	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: MW-16-02 2204

Date Collected: 04/08/22 09:50
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164922-2

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2200		100	57	ug/L		04/14/22 10:00	04/20/22 15:10	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:47	1
Iron	1400		100	100	ug/L		04/14/22 10:00	04/19/22 22:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2000		20	20	mg/L			04/21/22 05:58	20
Fluoride	1.6		0.10	0.10	mg/L			04/21/22 05:36	2
Sulfate	2.0	U	2.0	2.0	mg/L			04/21/22 05:36	2
Total Dissolved Solids	3200		50	50	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: MW-16-03 2204

Date Collected: 04/08/22 10:40
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164922-3

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2300		100	57	ug/L		04/14/22 10:00	04/20/22 15:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	50000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:51	1
Iron	1100		100	100	ug/L		04/14/22 10:00	04/19/22 22:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		20	20	mg/L			04/21/22 06:41	20
Fluoride	1.4		0.10	0.10	mg/L			04/21/22 06:20	2
Sulfate	2.0	U	2.0	2.0	mg/L			04/21/22 06:20	2
Total Dissolved Solids	3500		50	50	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: MW-16-04 2204

Date Collected: 04/08/22 11:44
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164922-4

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2600		100	57	ug/L		04/14/22 10:00	04/20/22 15:18	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	39000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:55	1
Iron	4700		100	100	ug/L		04/14/22 10:00	04/19/22 22:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2500		20	20	mg/L			04/21/22 08:08	20
Fluoride	1.7		0.25	0.25	mg/L			04/21/22 07:47	5
Sulfate	5.0	U	5.0	5.0	mg/L			04/21/22 07:47	5
Total Dissolved Solids	4100		50	50	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: DUP-01 2204

Date Collected: 04/08/22 00:00
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164922-5

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2300		100	57	ug/L		04/14/22 10:00	04/20/22 15:23	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	18000		1000	1000	ug/L		04/14/22 10:00	04/19/22 23:00	1
Iron	950		100	100	ug/L		04/14/22 10:00	04/19/22 23:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200		20	20	mg/L			04/21/22 08:52	20
Fluoride	2.0		0.10	0.10	mg/L			04/21/22 08:30	2
Sulfate	2.0	U	2.0	2.0	mg/L			04/21/22 08:30	2
Total Dissolved Solids	2100		40	40	mg/L			04/14/22 09:39	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: EB-01 2204

Date Collected: 04/07/22 10:00
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164922-6

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		04/14/22 10:00	04/20/22 15:27	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		04/14/22 10:00	04/19/22 23:04	1
Iron	100	U	100	100	ug/L		04/14/22 10:00	04/19/22 23:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/21/22 09:14	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/21/22 09:14	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/21/22 09:14	1
Total Dissolved Solids	10	U	10	10	mg/L			04/14/22 09:39	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-522705/1-A
Matrix: Water
Analysis Batch: 523367

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		04/14/22 10:00	04/20/22 13:24	1

Lab Sample ID: LCS 240-522705/2-A
Matrix: Water
Analysis Batch: 523367

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1050		ug/L		105	80 - 120

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-522705/1-A
Matrix: Water
Analysis Batch: 523282

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		04/14/22 10:00	04/19/22 20:48	1
Iron	100	U	100	100	ug/L		04/14/22 10:00	04/19/22 20:48	1

Lab Sample ID: LCS 240-522705/3-A
Matrix: Water
Analysis Batch: 523282

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24700		ug/L		99	80 - 120
Iron	5000	5260		ug/L		105	80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-523393/3
Matrix: Water
Analysis Batch: 523393

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/21/22 03:26	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/21/22 03:26	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/21/22 03:26	1

Lab Sample ID: LCS 240-523393/4
Matrix: Water
Analysis Batch: 523393

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.6		mg/L		101	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.0		mg/L		104	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-164922-1 MS
Matrix: Water
Analysis Batch: 523393

Client Sample ID: MW-16-01 2204
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	2.0		5.00	7.02		mg/L		101	80 - 120		
Sulfate	2.0	U	100	100		mg/L		100	80 - 120		

Lab Sample ID: 240-164922-1 MSD
Matrix: Water
Analysis Batch: 523393

Client Sample ID: MW-16-01 2204
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	2.0		5.00	7.06		mg/L		101	80 - 120	0	15
Sulfate	2.0	U	100	101		mg/L		101	80 - 120	1	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-522740/1
Matrix: Water
Analysis Batch: 522740

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			04/14/22 09:39	1

Lab Sample ID: LCS 240-522740/2
Matrix: Water
Analysis Batch: 522740

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			495	495		mg/L		100	80 - 120		

Lab Sample ID: 240-164922-6 DU
Matrix: Water
Analysis Batch: 522740

Client Sample ID: EB-01 2204
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	10	U		10	U	mg/L				NC	20

Metals

Prep Batch: 522705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164922-1	MW-16-01 2204	Total Recoverable	Water	3005A	
240-164922-2	MW-16-02 2204	Total Recoverable	Water	3005A	
240-164922-3	MW-16-03 2204	Total Recoverable	Water	3005A	
240-164922-4	MW-16-04 2204	Total Recoverable	Water	3005A	
240-164922-5	DUP-01 2204	Total Recoverable	Water	3005A	
240-164922-6	EB-01 2204	Total Recoverable	Water	3005A	
MB 240-522705/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-522705/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-522705/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 523282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164922-1	MW-16-01 2204	Total Recoverable	Water	6020	522705
240-164922-2	MW-16-02 2204	Total Recoverable	Water	6020	522705
240-164922-3	MW-16-03 2204	Total Recoverable	Water	6020	522705
240-164922-4	MW-16-04 2204	Total Recoverable	Water	6020	522705
240-164922-5	DUP-01 2204	Total Recoverable	Water	6020	522705
240-164922-6	EB-01 2204	Total Recoverable	Water	6020	522705
MB 240-522705/1-A	Method Blank	Total Recoverable	Water	6020	522705
LCS 240-522705/3-A	Lab Control Sample	Total Recoverable	Water	6020	522705

Analysis Batch: 523367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164922-1	MW-16-01 2204	Total Recoverable	Water	6010B	522705
240-164922-2	MW-16-02 2204	Total Recoverable	Water	6010B	522705
240-164922-3	MW-16-03 2204	Total Recoverable	Water	6010B	522705
240-164922-4	MW-16-04 2204	Total Recoverable	Water	6010B	522705
240-164922-5	DUP-01 2204	Total Recoverable	Water	6010B	522705
240-164922-6	EB-01 2204	Total Recoverable	Water	6010B	522705
MB 240-522705/1-A	Method Blank	Total Recoverable	Water	6010B	522705
LCS 240-522705/2-A	Lab Control Sample	Total Recoverable	Water	6010B	522705

General Chemistry

Analysis Batch: 522740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164922-1	MW-16-01 2204	Total/NA	Water	SM 2540C	
240-164922-2	MW-16-02 2204	Total/NA	Water	SM 2540C	
240-164922-3	MW-16-03 2204	Total/NA	Water	SM 2540C	
240-164922-4	MW-16-04 2204	Total/NA	Water	SM 2540C	
240-164922-5	DUP-01 2204	Total/NA	Water	SM 2540C	
240-164922-6	EB-01 2204	Total/NA	Water	SM 2540C	
MB 240-522740/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-522740/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-164922-6 DU	EB-01 2204	Total/NA	Water	SM 2540C	

Analysis Batch: 523393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164922-1	MW-16-01 2204	Total/NA	Water	9056A	
240-164922-1	MW-16-01 2204	Total/NA	Water	9056A	
240-164922-2	MW-16-02 2204	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 523393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164922-2	MW-16-02 2204	Total/NA	Water	9056A	
240-164922-3	MW-16-03 2204	Total/NA	Water	9056A	
240-164922-3	MW-16-03 2204	Total/NA	Water	9056A	
240-164922-4	MW-16-04 2204	Total/NA	Water	9056A	
240-164922-4	MW-16-04 2204	Total/NA	Water	9056A	
240-164922-5	DUP-01 2204	Total/NA	Water	9056A	
240-164922-5	DUP-01 2204	Total/NA	Water	9056A	
240-164922-6	EB-01 2204	Total/NA	Water	9056A	
MB 240-523393/3	Method Blank	Total/NA	Water	9056A	
LCS 240-523393/4	Lab Control Sample	Total/NA	Water	9056A	
240-164922-1 MS	MW-16-01 2204	Total/NA	Water	9056A	
240-164922-1 MSD	MW-16-01 2204	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: MW-16-01 2204

Lab Sample ID: 240-164922-1

Date Collected: 04/08/22 08:45

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 15:06	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:42	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523393	04/21/22 04:09	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523393	04/21/22 05:15	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-02 2204

Lab Sample ID: 240-164922-2

Date Collected: 04/08/22 09:50

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 15:10	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:47	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523393	04/21/22 05:36	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523393	04/21/22 05:58	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-03 2204

Lab Sample ID: 240-164922-3

Date Collected: 04/08/22 10:40

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 15:14	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:51	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523393	04/21/22 06:20	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523393	04/21/22 06:41	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-04 2204

Lab Sample ID: 240-164922-4

Date Collected: 04/08/22 11:44

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 15:18	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:55	DSH	TAL CAN
Total/NA	Analysis	9056A		5	523393	04/21/22 07:47	KMS	TAL CAN

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-164922-1

Client Sample ID: MW-16-04 2204

Lab Sample ID: 240-164922-4

Date Collected: 04/08/22 11:44
Matrix: Water
Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		20	523393	04/21/22 08:08	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: DUP-01 2204

Lab Sample ID: 240-164922-5

Date Collected: 04/08/22 00:00
Matrix: Water
Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 15:23	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 23:00	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523393	04/21/22 08:30	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523393	04/21/22 08:52	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: EB-01 2204

Lab Sample ID: 240-164922-6

Date Collected: 04/07/22 10:00
Matrix: Water
Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 15:27	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 23:04	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523393	04/21/22 09:14	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-164922-1
Project/Site: CCR DTE St. Clair Power

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22 *
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	11-06-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-16	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

0.6/0.4 **Chain of Custody Record** 0.4/0.2 190

MICHIGAN

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Client Information	Sampler: Jacob Krenz	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93722-33141.1
Client Contact: Jacob Krenz	Phone: 734 904 3716	E-Mail: Kris.Brooks@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: TRC Environmental Corporation	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:			
City: Ann Arbor	TAT Requested (days):			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179972 - 2022			
Email: JKrenz@trccompanies.com	WO #: 370029.0004 P1 T2			
Project Name: CCR DTE St. Clair Power	Project #: 24016804			
Site: Michigan	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd TDS, 9056A_28D Chloride, Flouride, Sulfate	6010B Bo, 6020 Ca, Fe	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D		
MW-16-01 2204	4/6/22	0844	G	Water	N	N	T	T	2	
MW-16-02 2204	" "	0950	G	Water	N	N	T	T	2	
MW-16-03 2204	" "	1040	G	Water	N	N	T	T	2	
MW-16-04 2204	" "	1144	G	Water	N	N	T	T	2	
DUP-01 2204	" "	—	C	Water	N	N	T	T	2	
EB-01 2204	4/7/22	1000	G	Water	N	N	T	T	2	
				Water						

240-164922 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		4/8/22 1400	TRC		4/8/22 1400	TRC
2		4/12/22 1027	TRC		4/12/22 1027	TRC
3		4/13/22 1400	EHP		4-13-22 800	EETNC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : 164922
Canton Facility

Client TRC Site Name _____ Cooler unpacked by: Tammy Poyo

Cooler Received on 4-13-22 Opened on 4-13-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # A Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water X None

1. Cooler temperature upon receipt — See Multiple Cooler Form
   IR GUN# IR-14 (CF -0.2 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #IR-15 (CF -0.7°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC157842
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : ______________

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
TA Client Box Other	IR-14 IR-15	0.6	0.4	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15	0.4	0.2	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-16-01 2204	240-164922-B-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-02 2204	240-164922-B-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-03 2204	240-164922-B-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-04 2204	240-164922-B-4	Plastic 500ml - with Nitric Acid	<2			
DUP-01 2204	240-164922-B-5	Plastic 500ml - with Nitric Acid	<2			
EB-01 2204	240-164922-B-6	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-174815-1
Client Project/Site: CCR DTE St. Clair Power

For:
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Attn: Mr. Vincent Buening

Authorized for release by:
11/3/2022 7:31:50 PM

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Definitions/Glossary

Client: TRC Environmental Corporation.
Job ID: 240-174815-1
Project/Site: CCR DTE St. Clair Power

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job ID: 240-174815-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-174815-1

Receipt
The samples were received on 10/15/2022 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C

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

General Chemistry
Method 2540C_Calcd: LCS failed high for the batch. Samples will be reported for in hold results. Samples will be re-analyzed out of hold with passing QCMW-16-03 (240-174815-3).

Method 2540C_Calcd: LCS failed high for the batch. Samples will be reported for in hold results. Samples will be re-analyzed out of hold with passing QCMW-16-01 (240-174815-1), MW-16-02 (240-174815-2), MW-16-04 (240-174815-4), DUP-01 (240-174815-5).

Method 2540C_Calcd: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. MW-16-01 (240-174815-1), MW-16-02 (240-174815-2) and DUP-01 (240-174815-5)

Method 2540C_Calcd: Reanalysis of the following sample(s) was performed outside of the analytical holding time to confirm initial analysis. : MW-16-03 (240-174815-3), MW-16-04 (240-174815-4) and (240-174815-A-3 DU).

Method 9056A_28D: The following samples were diluted due to the nature of the sample matrix: MW-16-01 (240-174815-1), MW-16-02 (240-174815-2), MW-16-03 (240-174815-3) and MW-16-04 (240-174815-4). Elevated reporting limits (RLs) are provided.

Method 9056A_28D: The following sample was diluted due to the nature of the sample matrix: DUP-01 (240-174815-5). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAN
6020	Metals (ICP/MS)	SW846	EET CAN
9056A	Anions, Ion Chromatography	SW846	EET CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Job ID: 240-174815-1
Project/Site: CCR DTE St. Clair Power

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-174815-1	MW-16-01	Water	10/14/22 09:41	10/15/22 10:30
240-174815-2	MW-16-02	Water	10/14/22 08:50	10/15/22 10:30
240-174815-3	MW-16-03	Water	10/13/22 09:45	10/15/22 10:30
240-174815-4	MW-16-04	Water	10/13/22 10:45	10/15/22 10:30
240-174815-5	DUP-01	Water	10/14/22 00:00	10/15/22 10:30
240-174815-6	EB-01	Water	10/13/22 11:00	10/15/22 10:30

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: MW-16-01 — Lab Sample ID: 240-174815-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2300		100	57	ug/L	1		6010B	Total Recoverable
Calcium	19000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	500		100	100	ug/L	1		6020	Total Recoverable
Chloride	1500		25	25	mg/L	25		9056A	Total/NA
Fluoride	1.9		0.25	0.25	mg/L	5		9056A	Total/NA
Total Dissolved Solids	2000	*+	40	40	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids - RA	2400	H	40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-02 — Lab Sample ID: 240-174815-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	38000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	1200		100	100	ug/L	1		6020	Total Recoverable
Chloride	2300		25	25	mg/L	25		9056A	Total/NA
Fluoride	1.5		0.25	0.25	mg/L	5		9056A	Total/NA
Total Dissolved Solids	3100	*+	50	50	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids - RA	1000	H	50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-03 — Lab Sample ID: 240-174815-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2200		100	57	ug/L	1		6010B	Total Recoverable
Calcium	51000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	770		100	100	ug/L	1		6020	Total Recoverable
Chloride	2500		25	25	mg/L	25		9056A	Total/NA
Fluoride	1.3		0.25	0.25	mg/L	5		9056A	Total/NA
Total Dissolved Solids	3400	*+	50	50	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids - RA	3000	H	50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-04 — Lab Sample ID: 240-174815-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2400		100	57	ug/L	1		6010B	Total Recoverable
Calcium	39000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	2400		100	100	ug/L	1		6020	Total Recoverable
Chloride	3000		25	25	mg/L	25		9056A	Total/NA
Fluoride	1.6		0.25	0.25	mg/L	5		9056A	Total/NA
Total Dissolved Solids	3800	*+	50	50	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids - RA	3600	H	50	50	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Environmental Corporation.
Job ID: 240-174815-1
Project/Site: CCR DTE St. Clair Power

Client Sample ID: DUP-01
Lab Sample ID: 240-174815-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2300		100	57	ug/L	1		6010B	Total Recoverable
Calcium	20000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	600		100	100	ug/L	1		6020	Total Recoverable
Chloride	1300		25	25	mg/L	25		9056A	Total/NA
Fluoride	2.0		0.25	0.25	mg/L	5		9056A	Total/NA
Total Dissolved Solids	2100	*+	40	40	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids - RA	1700	H	40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-01
Lab Sample ID: 240-174815-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Canton

11/3/2022

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: MW-16-01
Date Collected: 10/14/22 09:41
Date Received: 10/15/22 10:30

Lab Sample ID: 240-174815-1
Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2300		100	57	ug/L		10/18/22 12:00	10/19/22 18:21	1

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	19000		1000	1000	ug/L		10/18/22 12:00	10/20/22 22:24	1
Iron	500		100	100	ug/L		10/18/22 12:00	10/20/22 22:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1500		25	25	mg/L			10/31/22 21:08	25
Fluoride (SW846 9056A)	1.9		0.25	0.25	mg/L			10/31/22 20:48	5
Sulfate (SW846 9056A)	5.0	U	5.0	5.0	mg/L			10/31/22 20:48	5
Total Dissolved Solids (SM 2540C)	2000	*+	40	40	mg/L			10/20/22 10:44	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2400	H	40	40	mg/L			10/26/22 15:59	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: MW-16-02
Date Collected: 10/14/22 08:50
Date Received: 10/15/22 10:30

Lab Sample ID: 240-174815-2
Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2100		100	57	ug/L		10/18/22 12:00	10/19/22 18:26	1

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	38000		1000	1000	ug/L		10/18/22 12:00	10/20/22 22:29	1
Iron	1200		100	100	ug/L		10/18/22 12:00	10/20/22 22:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	2300		25	25	mg/L			10/31/22 21:48	25
Fluoride (SW846 9056A)	1.5		0.25	0.25	mg/L			10/31/22 21:28	5
Sulfate (SW846 9056A)	5.0	U	5.0	5.0	mg/L			10/31/22 21:28	5
Total Dissolved Solids (SM 2540C)	3100	*+	50	50	mg/L			10/20/22 10:44	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1000	H	50	50	mg/L			10/26/22 15:59	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: MW-16-03
Date Collected: 10/13/22 09:45
Date Received: 10/15/22 10:30

Lab Sample ID: 240-174815-3
Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2200		100	57	ug/L		10/18/22 12:00	10/19/22 18:30	1

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	51000		1000	1000	ug/L		10/18/22 12:00	10/20/22 22:33	1
Iron	770		100	100	ug/L		10/18/22 12:00	10/20/22 22:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	2500		25	25	mg/L			10/31/22 22:29	25
Fluoride (SW846 9056A)	1.3		0.25	0.25	mg/L			10/31/22 22:09	5
Sulfate (SW846 9056A)	5.0	U	5.0	5.0	mg/L			10/31/22 22:09	5
Total Dissolved Solids (SM 2540C)	3400	*+	50	50	mg/L			10/20/22 10:33	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3000	H	50	50	mg/L			11/01/22 11:02	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: MW-16-04
Date Collected: 10/13/22 10:45
Date Received: 10/15/22 10:30

Lab Sample ID: 240-174815-4
Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2400		100	57	ug/L		10/18/22 12:00	10/19/22 18:43	1

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	39000		1000	1000	ug/L		10/18/22 12:00	10/20/22 22:38	1
Iron	2400		100	100	ug/L		10/18/22 12:00	10/20/22 22:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	3000		25	25	mg/L			10/31/22 23:09	25
Fluoride (SW846 9056A)	1.6		0.25	0.25	mg/L			10/31/22 22:49	5
Sulfate (SW846 9056A)	5.0	U	5.0	5.0	mg/L			10/31/22 22:49	5
Total Dissolved Solids (SM 2540C)	3800	*+	50	50	mg/L			10/20/22 10:44	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3600	H	50	50	mg/L			11/01/22 11:02	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: DUP-01
Date Collected: 10/14/22 00:00
Date Received: 10/15/22 10:30

Lab Sample ID: 240-174815-5
Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2300		100	57	ug/L		10/18/22 12:00	10/19/22 18:47	1

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20000		1000	1000	ug/L		10/18/22 12:00	10/20/22 22:42	1
Iron	600		100	100	ug/L		10/18/22 12:00	10/20/22 22:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1300		25	25	mg/L			10/31/22 23:21	25
Fluoride (SW846 9056A)	2.0		0.25	0.25	mg/L			10/31/22 23:00	5
Sulfate (SW846 9056A)	5.0	U	5.0	5.0	mg/L			10/31/22 23:00	5
Total Dissolved Solids (SM 2540C)	2100	*+	40	40	mg/L			10/20/22 10:44	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1700	H	40	40	mg/L			10/26/22 15:59	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: EB-01

Date Collected: 10/13/22 11:00
Date Received: 10/15/22 10:30

Lab Sample ID: 240-174815-6

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		10/18/22 12:00	10/19/22 18:52	1

Method: SW846 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		10/18/22 12:00	10/20/22 22:46	1
Iron	100	U	100	100	ug/L		10/18/22 12:00	10/20/22 22:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1.0	U	1.0	1.0	mg/L			10/31/22 23:49	1
Fluoride (SW846 9056A)	0.050	U	0.050	0.050	mg/L			10/31/22 23:49	1
Sulfate (SW846 9056A)	1.0	U	1.0	1.0	mg/L			10/31/22 23:49	1
Total Dissolved Solids (SM 2540C)	10	U *+	10	10	mg/L			10/20/22 10:44	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-547580/1-A
Matrix: Water
Analysis Batch: 547801

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 547580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		10/18/22 12:00	10/19/22 17:01	1

Lab Sample ID: LCS 240-547580/2-A
Matrix: Water
Analysis Batch: 547801

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 547580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	987		ug/L		99	80 - 120

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-547580/1-A
Matrix: Water
Analysis Batch: 548140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 547580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		10/18/22 12:00	10/20/22 21:23	1
Iron	100	U	100	100	ug/L		10/18/22 12:00	10/20/22 21:23	1

Lab Sample ID: LCS 240-547580/23-A
Matrix: Water
Analysis Batch: 548140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 547580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24500		ug/L		98	80 - 120
Iron	5000	5080		ug/L		102	80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-549435/3
Matrix: Water
Analysis Batch: 549435

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			10/31/22 08:44	1
Fluoride	0.050	U	0.050	0.050	mg/L			10/31/22 08:44	1
Sulfate	1.0	U	1.0	1.0	mg/L			10/31/22 08:44	1

Lab Sample ID: LCS 240-549435/4
Matrix: Water
Analysis Batch: 549435

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.5		mg/L		101	90 - 110
Fluoride	2.50	2.50		mg/L		100	90 - 110
Sulfate	50.0	51.8		mg/L		104	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-549649/3
Matrix: Water
Analysis Batch: 549649

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			10/31/22 13:42	1
Fluoride	0.050	U	0.050	0.050	mg/L			10/31/22 13:42	1
Sulfate	1.0	U	1.0	1.0	mg/L			10/31/22 13:42	1

Lab Sample ID: LCS 240-549649/4
Matrix: Water
Analysis Batch: 549649

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.1		mg/L		102	90 - 110
Fluoride	2.50	2.68		mg/L		107	90 - 110
Sulfate	50.0	53.3		mg/L		107	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-547943/1
Matrix: Water
Analysis Batch: 547943

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/20/22 10:33	1

Lab Sample ID: LCS 240-547943/2
Matrix: Water
Analysis Batch: 547943

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	500	1070	*+	mg/L		214	80 - 120

Lab Sample ID: 240-174815-3 DU
Matrix: Water
Analysis Batch: 547943

Client Sample ID: MW-16-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3400	*+	3240	*+	mg/L		4	20

Lab Sample ID: MB 240-547947/1
Matrix: Water
Analysis Batch: 547947

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/20/22 10:44	1

Lab Sample ID: LCS 240-547947/2
Matrix: Water
Analysis Batch: 547947

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	452	*+	mg/L		181	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 240-548909/1
Matrix: Water
Analysis Batch: 548909

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/26/22 15:59	1

Lab Sample ID: LCS 240-548909/2
Matrix: Water
Analysis Batch: 548909

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			388	359		mg/L		93	80 - 120		

Lab Sample ID: MB 240-549787/1
Matrix: Water
Analysis Batch: 549787

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			11/01/22 11:02	1

Lab Sample ID: LCS 240-549787/2
Matrix: Water
Analysis Batch: 549787

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			388	340		mg/L		88	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS) - RA

Lab Sample ID: 240-174815-3 DU
Matrix: Water
Analysis Batch: 549787

Client Sample ID: MW-16-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids - RA	3000	H		3210		mg/L				8	20

Metals

Prep Batch: 547580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-1	MW-16-01	Total Recoverable	Water	3005A	
240-174815-2	MW-16-02	Total Recoverable	Water	3005A	
240-174815-3	MW-16-03	Total Recoverable	Water	3005A	
240-174815-4	MW-16-04	Total Recoverable	Water	3005A	
240-174815-5	DUP-01	Total Recoverable	Water	3005A	
240-174815-6	EB-01	Total Recoverable	Water	3005A	
MB 240-547580/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-547580/23-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-547580/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 547801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-1	MW-16-01	Total Recoverable	Water	6010B	547580
240-174815-2	MW-16-02	Total Recoverable	Water	6010B	547580
240-174815-3	MW-16-03	Total Recoverable	Water	6010B	547580
240-174815-4	MW-16-04	Total Recoverable	Water	6010B	547580
240-174815-5	DUP-01	Total Recoverable	Water	6010B	547580
240-174815-6	EB-01	Total Recoverable	Water	6010B	547580
MB 240-547580/1-A	Method Blank	Total Recoverable	Water	6010B	547580
LCS 240-547580/2-A	Lab Control Sample	Total Recoverable	Water	6010B	547580

Analysis Batch: 548140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-1	MW-16-01	Total Recoverable	Water	6020	547580
240-174815-2	MW-16-02	Total Recoverable	Water	6020	547580
240-174815-3	MW-16-03	Total Recoverable	Water	6020	547580
240-174815-4	MW-16-04	Total Recoverable	Water	6020	547580
240-174815-5	DUP-01	Total Recoverable	Water	6020	547580
240-174815-6	EB-01	Total Recoverable	Water	6020	547580
MB 240-547580/1-A	Method Blank	Total Recoverable	Water	6020	547580
LCS 240-547580/23-A	Lab Control Sample	Total Recoverable	Water	6020	547580

General Chemistry

Analysis Batch: 547943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-3	MW-16-03	Total/NA	Water	SM 2540C	
MB 240-547943/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-547943/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-174815-3 DU	MW-16-03	Total/NA	Water	SM 2540C	

Analysis Batch: 547947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-1	MW-16-01	Total/NA	Water	SM 2540C	
240-174815-2	MW-16-02	Total/NA	Water	SM 2540C	
240-174815-4	MW-16-04	Total/NA	Water	SM 2540C	
240-174815-5	DUP-01	Total/NA	Water	SM 2540C	
240-174815-6	EB-01	Total/NA	Water	SM 2540C	
MB 240-547947/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-547947/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 548909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-1 - RA	MW-16-01	Total/NA	Water	SM 2540C	
240-174815-2 - RA	MW-16-02	Total/NA	Water	SM 2540C	
240-174815-5 - RA	DUP-01	Total/NA	Water	SM 2540C	
MB 240-548909/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-548909/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 549435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-1	MW-16-01	Total/NA	Water	9056A	
240-174815-1	MW-16-01	Total/NA	Water	9056A	
240-174815-2	MW-16-02	Total/NA	Water	9056A	
240-174815-2	MW-16-02	Total/NA	Water	9056A	
240-174815-3	MW-16-03	Total/NA	Water	9056A	
240-174815-3	MW-16-03	Total/NA	Water	9056A	
240-174815-4	MW-16-04	Total/NA	Water	9056A	
240-174815-4	MW-16-04	Total/NA	Water	9056A	
240-174815-6	EB-01	Total/NA	Water	9056A	
MB 240-549435/3	Method Blank	Total/NA	Water	9056A	
LCS 240-549435/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 549649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-5	DUP-01	Total/NA	Water	9056A	
240-174815-5	DUP-01	Total/NA	Water	9056A	
MB 240-549649/3	Method Blank	Total/NA	Water	9056A	
LCS 240-549649/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 549787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174815-3 - RA	MW-16-03	Total/NA	Water	SM 2540C	
240-174815-4 - RA	MW-16-04	Total/NA	Water	SM 2540C	
MB 240-549787/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-549787/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-174815-3 DU - RA	MW-16-03	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power

Job ID: 240-174815-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-174815-1

Date Collected: 10/14/22 09:41

Matrix: Water

Date Received: 10/15/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6010B		1	547801	RKT	EET CAN	10/19/22 18:21
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6020		1	548140	DSH	EET CAN	10/20/22 22:24
Total/NA	Analysis	9056A		5	549435	JMB	EET CAN	10/31/22 20:48
Total/NA	Analysis	9056A		25	549435	JMB	EET CAN	10/31/22 21:08
Total/NA	Analysis	SM 2540C		1	547947	MS	EET CAN	10/20/22 10:44
Total/NA	Analysis	SM 2540C	RA	1	548909	MS	EET CAN	10/26/22 15:59

Client Sample ID: MW-16-02

Lab Sample ID: 240-174815-2

Date Collected: 10/14/22 08:50

Matrix: Water

Date Received: 10/15/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6010B		1	547801	RKT	EET CAN	10/19/22 18:26
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6020		1	548140	DSH	EET CAN	10/20/22 22:29
Total/NA	Analysis	9056A		5	549435	JMB	EET CAN	10/31/22 21:28
Total/NA	Analysis	9056A		25	549435	JMB	EET CAN	10/31/22 21:48
Total/NA	Analysis	SM 2540C		1	547947	MS	EET CAN	10/20/22 10:44
Total/NA	Analysis	SM 2540C	RA	1	548909	MS	EET CAN	10/26/22 15:59

Client Sample ID: MW-16-03

Lab Sample ID: 240-174815-3

Date Collected: 10/13/22 09:45

Matrix: Water

Date Received: 10/15/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6010B		1	547801	RKT	EET CAN	10/19/22 18:30
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6020		1	548140	DSH	EET CAN	10/20/22 22:33
Total/NA	Analysis	9056A		5	549435	JMB	EET CAN	10/31/22 22:09
Total/NA	Analysis	9056A		25	549435	JMB	EET CAN	10/31/22 22:29
Total/NA	Analysis	SM 2540C		1	547943	MS	EET CAN	10/20/22 10:33
Total/NA	Analysis	SM 2540C	RA	1	549787	MS	EET CAN	11/01/22 11:02

Client Sample ID: MW-16-04

Lab Sample ID: 240-174815-4

Date Collected: 10/13/22 10:45

Matrix: Water

Date Received: 10/15/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6010B		1	547801	RKT	EET CAN	10/19/22 18:43

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-174815-1
Project/Site: CCR DTE St. Clair Power

Client Sample ID: MW-16-04
Lab Sample ID: 240-174815-4
Date Collected: 10/13/22 10:45
Matrix: Water
Date Received: 10/15/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6020		1	548140	DSH	EET CAN	10/20/22 22:38
Total/NA	Analysis	9056A		5	549435	JMB	EET CAN	10/31/22 22:49
Total/NA	Analysis	9056A		25	549435	JMB	EET CAN	10/31/22 23:09
Total/NA	Analysis	SM 2540C		1	547947	MS	EET CAN	10/20/22 10:44
Total/NA	Analysis	SM 2540C	RA	1	549787	MS	EET CAN	11/01/22 11:02

Client Sample ID: DUP-01
Lab Sample ID: 240-174815-5
Date Collected: 10/14/22 00:00
Matrix: Water
Date Received: 10/15/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6010B		1	547801	RKT	EET CAN	10/19/22 18:47
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6020		1	548140	DSH	EET CAN	10/20/22 22:42
Total/NA	Analysis	9056A		5	549649	JMB	EET CAN	10/31/22 23:00
Total/NA	Analysis	9056A		25	549649	JMB	EET CAN	10/31/22 23:21
Total/NA	Analysis	SM 2540C		1	547947	MS	EET CAN	10/20/22 10:44
Total/NA	Analysis	SM 2540C	RA	1	548909	MS	EET CAN	10/26/22 15:59

Client Sample ID: EB-01
Lab Sample ID: 240-174815-6
Date Collected: 10/13/22 11:00
Matrix: Water
Date Received: 10/15/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6010B		1	547801	RKT	EET CAN	10/19/22 18:52
Total Recoverable	Prep	3005A			547580	SHB	EET CAN	10/18/22 12:00
Total Recoverable	Analysis	6020		1	548140	DSH	EET CAN	10/20/22 22:46
Total/NA	Analysis	9056A		1	549435	JMB	EET CAN	10/31/22 23:49
Total/NA	Analysis	SM 2540C		1	547947	MS	EET CAN	10/20/22 10:44

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation.
Job ID: 240-174815-1
Project/Site: CCR DTE St. Clair Power

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

3.0 | 3.7

MICHIGAN 190

Chain of Custody Record

MICHIGAN 190

eurofins Environment Testing America

Client Information	Sampler: Andrew whaley / Javier Josso	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93722-33141.1
Client Contact: Jacob Krenz	Phone: 734-210-9259	E-Mail: Kris.Brooks@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: TRC Environmental Corporation.	PWSID:			Job #:

Address: 1540 Eisenhower Place	Due Date Requested:
City: Ann Arbor	TAT Requested (days): STD
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179972 - 2022
Email: JKrenz@trccompanies.com	WO #: 370029.0004 P1 T2
Project Name: CCR DTE St. Clair Power	Project #: 24016804
Site: Michigan	SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd TDS, 9056A_28D Chloride, Flouride, Sulfate	6010B Bo, 6020 Ca, Fe	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D		
MW-16-01	10/14/22	941	G	Water	N	N	X	X	2	
MW-16-02	10/14/22	0850	G	Water	N	N	X	X	2	
MW-16-03	10/13/22	0945	G	Water	N	N	X	X	2	
MW-16-04	10/13/22	1045	G	Water	N	N	X	X	2	
DUP-01	10/14/22	—	G	Water	N	N	X	X	2	
EB-01	10/13/22	100	G	Water	N	N	X	X	2	
				Water						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Dispo[sal] ... [lo]*nger than 1 month)*
☐ *Return T*[o] ... For ______ Months

240-174815 Chain of Custody

Deliverable Requested: I, II, III, IV, Other (specify) TRC EDD

Special Instructi[ons]

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Andrew whaley	Date/Time: 10/14/22 1507	Company: TRC	Received by: [signature]	Date/Time: 10/14/22 1600	Company: EEXA
Relinquished by: [signature]	Date/Time: 10/14/22 1500	Company: EEXA	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 10-15-22 10:30	Company: EETA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins - Canton Sample Receipt Form/Narrative Login # : 174815
Barberton Facility

Client FAB Site Name _____ Cooler unpacked by: Chanuka

Cooler Received on 10-15-22 Opened on 10-15-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 174 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-13 (CF +0.7 °C) Observed Cooler Temp. 3.0 °C Corrected Cooler Temp. 3.7 °C
   IR GUN #IR-15 (CF 0.0°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC286797
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-16-01	240-174815-B-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-02	240-174815-B-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-03	240-174815-B-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-04	240-174815-B-4	Plastic 500ml - with Nitric Acid	<2			
DUP-01	240-174815-B-5	Plastic 500ml - with Nitric Acid	<2			
EB-01	240-174815-B-6	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Vincent Buening
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Generated 12/8/2022 8:01:07 PM

JOB DESCRIPTION

CCR DTE St. Clair Power Verification

JOB NUMBER

240-177375-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization

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12/8/2022 8:01:07 PM

Authorized for release by
Kris Brooks, Project Manager II
Kris.Brooks@et.eurofinsus.com
(330)966-9790

Table of Contents

Definitions/Glossary

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Job ID: 240-177375-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-177375-1

Receipt
The samples were received on 12/3/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.3°C and 1.5°C

General Chemistry
Method 9056A_28D: The following samples were diluted due to the nature of the sample matrix: MW-16-01 (240-177375-1), MW-16-02 (240-177375-2), MW-16-03 (240-177375-3) and MW-16-04 (240-177375-4). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: TRC Environmental Corporation.
Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CAN

Protocol References:

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

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-177375-1	MW-16-01	Water	11/29/22 11:57	12/03/22 08:00
240-177375-2	MW-16-02	Water	11/29/22 11:18	12/03/22 08:00
240-177375-3	MW-16-03	Water	11/29/22 10:55	12/03/22 08:00
240-177375-4	MW-16-04	Water	11/29/22 09:50	12/03/22 08:00
240-177375-5	DUP-01	Water	11/29/22 00:00	12/03/22 08:00
240-177375-6	EB-01	Water	11/28/22 12:05	12/03/22 08:00

Detection Summary

Client: TRC Environmental Corporation.
Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Client Sample ID: MW-16-01
Lab Sample ID: 240-177375-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1300		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.8		0.10	0.10	mg/L	2		9056A	Total/NA

Client Sample ID: MW-16-02
Lab Sample ID: 240-177375-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1900		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.4		0.10	0.10	mg/L	2		9056A	Total/NA

Client Sample ID: MW-16-03
Lab Sample ID: 240-177375-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2100		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.3		0.10	0.10	mg/L	2		9056A	Total/NA

Client Sample ID: MW-16-04
Lab Sample ID: 240-177375-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2500		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.7		0.10	0.10	mg/L	2		9056A	Total/NA

Client Sample ID: DUP-01
Lab Sample ID: 240-177375-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	350		5.0	5.0	mg/L	5		9056A	Total/NA
Fluoride	1.1		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	16		1.0	1.0	mg/L	1		9056A	Total/NA

Client Sample ID: EB-01
Lab Sample ID: 240-177375-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Client Sample ID: MW-16-01 Lab Sample ID: 240-177375-1

Date Collected: 11/29/22 11:57 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**1300**		20	20	mg/L			12/07/22 01:22	20
Fluoride (SW846 9056A)	**1.8**		0.10	0.10	mg/L			12/07/22 01:01	2
Sulfate (SW846 9056A)	2.0	U	2.0	2.0	mg/L			12/07/22 01:01	2

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Client Sample ID: MW-16-02 Lab Sample ID: 240-177375-2

Date Collected: 11/29/22 11:18 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**1900**		20	20	mg/L			12/07/22 02:02	20
Fluoride (SW846 9056A)	**1.4**		0.10	0.10	mg/L			12/07/22 01:42	2
Sulfate (SW846 9056A)	2.0	U	2.0	2.0	mg/L			12/07/22 01:42	2

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Client Sample ID: MW-16-03 Lab Sample ID: 240-177375-3

Date Collected: 11/29/22 10:55 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**2100**		20	20	mg/L			12/07/22 02:42	20
Fluoride (SW846 9056A)	**1.3**		0.10	0.10	mg/L			12/07/22 02:22	2
Sulfate (SW846 9056A)	2.0	U	2.0	2.0	mg/L			12/07/22 02:22	2

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Client Sample ID: MW-16-04 Lab Sample ID: 240-177375-4

Date Collected: 11/29/22 09:50 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**2500**		20	20	mg/L			12/07/22 04:02	20
Fluoride (SW846 9056A)	**1.7**		0.10	0.10	mg/L			12/07/22 03:02	2
Sulfate (SW846 9056A)	2.0	U	2.0	2.0	mg/L			12/07/22 03:02	2

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Client Sample ID: DUP-01
Date Collected: 11/29/22 00:00
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177375-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	350		5.0	5.0	mg/L			12/07/22 04:43	5
Fluoride (SW846 9056A)	1.1		0.050	0.050	mg/L			12/07/22 04:23	1
Sulfate (SW846 9056A)	16		1.0	1.0	mg/L			12/07/22 04:23	1

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Client Sample ID: EB-01 **Lab Sample ID: 240-177375-6**
Date Collected: 11/28/22 12:05 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1.0	U	1.0	1.0	mg/L			12/07/22 05:03	1
Fluoride (SW846 9056A)	0.050	U	0.050	0.050	mg/L			12/07/22 05:03	1
Sulfate (SW846 9056A)	1.0	U	1.0	1.0	mg/L			12/07/22 05:03	1

QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power Verification

Job ID: 240-177375-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-554788/3
Matrix: Water
Analysis Batch: 554788

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			12/06/22 20:00	1
Fluoride	0.050	U	0.050	0.050	mg/L			12/06/22 20:00	1
Sulfate	1.0	U	1.0	1.0	mg/L			12/06/22 20:00	1

Lab Sample ID: LCS 240-554788/4
Matrix: Water
Analysis Batch: 554788

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.6		mg/L		99	90 - 110
Fluoride	2.50	2.52		mg/L		101	90 - 110
Sulfate	50.0	50.9		mg/L		102	90 - 110

QC Association Summary

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

General Chemistry

Analysis Batch: 554788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-177375-1	MW-16-01	Total/NA	Water	9056A	
240-177375-1	MW-16-01	Total/NA	Water	9056A	
240-177375-2	MW-16-02	Total/NA	Water	9056A	
240-177375-2	MW-16-02	Total/NA	Water	9056A	
240-177375-3	MW-16-03	Total/NA	Water	9056A	
240-177375-3	MW-16-03	Total/NA	Water	9056A	
240-177375-4	MW-16-04	Total/NA	Water	9056A	
240-177375-4	MW-16-04	Total/NA	Water	9056A	
240-177375-5	DUP-01	Total/NA	Water	9056A	
240-177375-5	DUP-01	Total/NA	Water	9056A	
240-177375-6	EB-01	Total/NA	Water	9056A	
MB 240-554788/3	Method Blank	Total/NA	Water	9056A	
LCS 240-554788/4	Lab Control Sample	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE St. Clair Power Verification

Job ID: 240-177375-1

Client Sample ID: MW-16-01
Date Collected: 11/29/22 11:57
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177375-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		2	554788	JMB	EET CAN	12/07/22 01:01
Total/NA	Analysis	9056A		20	554788	JMB	EET CAN	12/07/22 01:22

Client Sample ID: MW-16-02
Date Collected: 11/29/22 11:18
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177375-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		2	554788	JMB	EET CAN	12/07/22 01:42
Total/NA	Analysis	9056A		20	554788	JMB	EET CAN	12/07/22 02:02

Client Sample ID: MW-16-03
Date Collected: 11/29/22 10:55
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177375-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		2	554788	JMB	EET CAN	12/07/22 02:22
Total/NA	Analysis	9056A		20	554788	JMB	EET CAN	12/07/22 02:42

Client Sample ID: MW-16-04
Date Collected: 11/29/22 09:50
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177375-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		2	554788	JMB	EET CAN	12/07/22 03:02
Total/NA	Analysis	9056A		20	554788	JMB	EET CAN	12/07/22 04:02

Client Sample ID: DUP-01
Date Collected: 11/29/22 00:00
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177375-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	554788	JMB	EET CAN	12/07/22 04:23
Total/NA	Analysis	9056A		5	554788	JMB	EET CAN	12/07/22 04:43

Client Sample ID: EB-01
Date Collected: 11/28/22 12:05
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177375-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	554788	JMB	EET CAN	12/07/22 05:03

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-177375-1
Project/Site: CCR DTE St. Clair Power Verification

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: Andrew Whaley	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-101770-36943.1
Client Contact: Henry Schnaidt	Phone: 734-210-9234	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:			
City: Ann Arbor	TAT Requested (days): THREE (3)			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179972 - 2022			
Email: HSchnaidt@trccompanies.com	WO #: 370029.0004 P1 T2			
Project Name: CCR DTE St. Clair Power Verification	Project #: 24016804			
Site: Michigan	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_28D - Chloride	Total Number of containers	Special Instructions/Note:
			Preservation Code:			N			
MW-16-01	11/29/22	1157	G	Water	N	N	X	1	3 Day TAT
MW-16-02	11/29/22	1118	G	Water	N	N	X	1	
MW-16-03	11/29/22	1033	G	Water	N	N	X	1	
MW-16-04	11/29/22	950	G	Water	N	N	X	1	
DUP-01	11/29/22	-	G	Water	N	N	X	1	
EB-01	11/28/22	1205	G	Water	N	N	X	1	
				Water					

240-177375 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) TRC EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11.29.22 1010	TRC		12-3-22 8:00	ERA
2		12/2/22 1208	TRC		12/2/22 1206	
3		12/2/22 1260				

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client TRC Site Name _____ Cooler unpacked by: Charles

Cooler Received on 12-3-22 Opened on 12-3-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 11 Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt — See Multiple Cooler Form
   IR GUN # IR-13 (CF **-0.2** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN # IR-16 (CF **-0.1**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN # IR-17 (CF **-0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC286797**
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : ____________

Eurofins - Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC (circled) Client Box Other	IR-13 IR-16 (circled) IR-17	1.4	1.3	Wet Ice (circled) Blue Ice Dry Ice Water None
EC (circled) Client Box Other	IR-13 IR-16 (circled) IR-17	1.6	1.5	Wet Ice (circled) Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
				☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

Appendix B
Data Quality Reviews

Laboratory Data Quality Review
Groundwater Monitoring Event April 2022
DTE Electric Company St. Clair Power Plant (DTE SCPP)

Groundwater samples were collected by TRC for the April 2022 sampling event. Samples were analyzed for anions, total recoverable metals, and total dissolved solids by Eurofins-Environment Testing America (Eurofins), located in North Canton, Ohio. The laboratory analytical results are reported in laboratory report 240-164922-1.

During the April 2022 sampling event, a groundwater sample was collected from each of the following wells:

- MW-16-01
- MW-16-02
- MW-16-03
- MW-16-04

Each sample was analyzed for one or more of the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total Recoverable Boron	SW846 3005A/6010B
Total Recoverable Calcium and Iron	SW846 3005A/6020
Total Dissolved Solids	SM 2540C

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:

- 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 and equipment blanks. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;
- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), when performed on project samples. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;
- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;

- 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.

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.

- Appendix III constituents and iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

QA/QC Sample Summary

- There was one equipment blank submitted with this dataset (EB-01_2204). No target analytes were detected in the equipment blank.
- Target analytes were not detected in the method blanks.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS and MSD analyses were performed on sample MW-16-01_2204 for fluoride and sulfate; the percent recoveries and relative percent differences (RPDs) were within criteria.
- Laboratory duplicate analyses were performed on sample EB-01_2204 for TDS; the RPD was within the QC limits.
- DUP-01_2204 corresponds with MW-16-01_2204 for anions, total recoverable metals, and TDS; RPDs between the parent and duplicate sample were within the QC limits.
- The nondetect reporting limit (2.0 mg/L) for sulfate in samples MW-16-01_2204, MW-16-02_2204, MW-16-03_2204, and DUP-01_2204 was above the QAPP-specified RL (1.0 mg/L) due to a 2-fold dilution likely performed due to elevated concentrations of chloride. The nondetect reporting limit (5.0 mg/L) for sulfate in sample MW-16-04_2204 was above the QAPP-specified RL (1.0 mg/L) due to a 5-fold dilution likely performed due to an elevated concentration of chloride.

Laboratory Data Quality Review
Groundwater Monitoring Event October 2022
DTE Electric Company St. Clair Power Plant (DTE SCPP)

Groundwater samples were collected by TRC for the October 2022 sampling event. Samples were analyzed for anions, total recoverable metals, and total dissolved solids by Eurofins Environment Testing, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-174815-1.

During the October 2022 sampling event, a groundwater sample was collected from each of the following wells:

- MW-16-01
- MW-16-02
- MW-16-03
- MW-16-04

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total Recoverable Boron	SW846 3005A/6010B
Total Recoverable Calcium and Iron	SW846 3005A/6020
Total Dissolved Solids	SM 2540C

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 Methods Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- 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. 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.

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, IV, and additional Part 115 constituents will be utilized for the purposes of an assessment monitoring program.
- Data are usable for the purposes of the assessment monitoring program.
- When the data are evaluated through an assessment monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- There was one equipment blank submitted with this dataset (EB-01). No target analytes were detected in the equipment blank.
- All groundwater samples were analyzed between five and 12 days outside of the holding time for TDS due to issues with the LCS. The results of the original analyses were reported and should be used for project objectives; therefore there was no adverse effect on the usability of the data due to the holding time exceedance.
- LCS recoveries for all target analytes were within laboratory control limits with the following exceptions. The recoveries of TDS in LCS 240-547943/2 (214%) and LCS 240-547947/2 (181%) associated with the original TDS analyses exceeded QC limits (80-120%). The laboratory re-analyzed all groundwater samples outside of the holding time due to this issue; the LCS recoveries associated with the reanalyses were within QC limits. The results of the original TDS analyses should be used for project objectives. Therefore, the positive results for TDS from the original analyses of samples MW-16-01, MW-16-02, MW-16-03, MW-16-04, and DUP-01 should be considered estimated with a potential high bias as summarized in the attached table, Attachment A.
- MS/MSD analyses were not performed on a sample from this data set.
- Laboratory duplicate analyses were performed for TDS on sample MW-16-03. The relative percent difference (RPD) met the acceptance criteria.
- Dup-01 corresponds with MW-16-01; RPDs between the parent and duplicate sample were within the QC limits with the exception of the TDS results from the re-analysis (RPD > 30).

However, the results of the TDS reanalyses were not used for project objectives so there is no adverse effect on the data usability due to this issue.

- The nondetect reporting limit for sulfate (5 mg/L) in all groundwater samples was above the QAPP-specified RL (1 mg/L) due to a 5-fold dilution performed due to the nature of the matrix.

Laboratory Data Quality Review
Groundwater Monitoring Event November 2022
DTE Electric Company St. Clair Power Plant (DTE SCPP)

Groundwater samples were collected by TRC for the November 2022 sampling event. Samples were analyzed for anions by Eurofins Environment Testing, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-177375-1.

During the November 2022 sampling event, a groundwater sample was collected from each of the following wells:

- MW-16-01
- MW-16-02
- MW-16-03
- MW-16-04

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A

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, 2017). The following items were included in the evaluation of the data:

- 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 and equipment blanks. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;
- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), where applicable. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;
- Data for laboratory duplicates, where applicable. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;
- 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.

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 will be utilized for the purposes of an assessment monitoring program.
- Data are usable for the purposes of the assessment monitoring program.
- When the data are evaluated through an assessment monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- There was one equipment blank submitted with this dataset (EB-01). No target analytes were detected in the equipment blank.
- MS/MSD analyses were not performed on a sample from this data set.
- Dup-01 corresponds with MW-16-01. RPDs between the parent and duplicate for chloride and fluoride were > 30; the positive results for chloride and fluoride in all groundwater samples should be considered estimated as summarized in the attached table, Attachment A. The absolute difference of the sulfate results was greater than the QL; the positive and nondetect results for sulfate should be considered estimated in all groundwater samples as summarized in the attached table, Attachment A.
- The RL for sulfate (2.0 mg/L) in samples MW-16-01, MW-16-02, MW-16-03, MW-16-04 was above the QAPP-specified RL (1.0 mg/L) due to a 2-fold dilution performed as a result of matrix interference (i.e., elevated concentrations of chloride).