

# 2024 Annual Groundwater Monitoring Report

Belle River Power Plant Bottom Ash Basins 4505 King Road China Township, Michigan

January 2025

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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, applies to the DTE Electric Company (DTE Electric) Belle River Power Plant (BRPP) 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 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 2024 activities at the BRPP BABs CCR unit.

The BRPP BABs CCR unit was operating under the detection monitoring program at the start of the 2024 annual reporting period and remained in the detection monitoring program through the end of the 2024 annual reporting period. The semiannual detection monitoring events for 2024 were completed in April and October 2024 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 have been collected and evaluated under §257.90 through §257.98 in 2024 are presented in this report.

No initial SSIs over prediction limits were recorded for Appendix III constituents in the monitoring wells during the April and October 2024 monitoring events. A potential SSI for calcium was detected in one monitoring well, MW-16-03, during the October 2024 monitoring event. This potential SSI was not statistically significant (i.e. verification resampling did not confirm the exceedance). Therefore, detection monitoring will continue at the BRPP BABs CCR unit in accordance with §257.94.



# 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, applies to the DTE Electric Company (DTE Electric) Belle River Power Plant (BRPP) 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 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 2024 activities at the BRPP BABs CCR unit (2024 Annual Report).

This 2024 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 2024 semiannual groundwater monitoring events for the BRPP 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 Belle River Power Plant Bottom Ash Basins and Diversion Basin* (QAPP) (TRC, July 2016; revised August 2017) and statistically evaluated per the Stats Plan (TRC, October 2017). As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify SSIs of detection monitoring parameters compared to background levels.

Additional site characterization was completed in late 2020 and in 2021 with soil hydraulic conductivity testing extending into December 2022 including additional soil borings, cone penetrometer testing (CPT), soil sample collection for additional clay-rich soil, laboratory hydraulic conductivity testing, and additional slug testing (to measure the hydraulic conductivity of the uppermost aquifer in wells not previously tested) in support of the Alternative Liner Demonstration (ALD) that was submitted to the EPA on April 10, 2023 (Geosyntec, 2023). The ALD concludes that there is no reasonable probability that water from the BABs will cause releases to groundwater throughout the active life of the CCR unit at concentrations that will exceed the groundwater protection standard at the waste boundary.

From December 2022 to April 2023 DTE Electric performed an additional uppermost aquifer characterization as detailed in the April 2023 Additional Uppermost Aquifer Characterization Study, Belle River Power Plant Bottom Ash Basins CCR Unit, 4505 King Road, China Township, Michigan (Aquifer Characterization Study) prepared by TRC (TRC, April 2023) that was included in the 2023 Annual Groundwater Monitoring Report (TRC, January 2024). The Aquifer Characterization Study presents an analysis of geochemical, stable isotopic, and tritium data collected in December 2022 along with pre-existing data from the BRPP BABs CCR unit that confirms the uppermost aquifer is not in hydraulic communication with the CCR unit and further demonstrates that the uppermost aquifer groundwater is unaffected by the CCR unit water.



In addition, in 2023, DTE Electric retrofitted the BRPP BABs CCR unit by removing the existing CCR from both the north and south BABs down to the clay-rich native soil, removing any potentially impacted subgrade material, and constructing an alternative composite liner system as described in the June and November 2023 *Construction Quality Assurance Report Belle River Bottom Ash Impoundment South Basin Retrofit and North Basin Retrofit* reports prepared by Burns & McDonnell, June and November 2023, respectively). The north and south BABs were retrofitted sequentially so that one BAB could be retrofitted while the other remained in service. Since October 2023, the BRPP BABs have been in service as a lined CCR surface impoundment.

# 1.2 Site Overview

The BRPP is located in Section 13, Township 4 North, Range 16 East, at 4505 King Road, China Township in St. Clair County, Michigan. The BRPP was constructed in the early 1980s with plant operations beginning in 1984. Prior to Detroit Edison Company's operations commencing in the 1980s, the BRPP property was generally wooded and farmland. The property has been used continuously as a coal fired power plant since Detroit Edison Company (now DTE Electric) began power plant operations at BRPP in 1984 and is generally constructed over a natural clay-rich soil base. The BABs, which were retrofitted with a liner system in 2023, have been in use by the BRPP since it began operation to collect CCR bottom ash that is periodically cleaned out and either sold for beneficial reuse or disposed of at the Range Road Landfill (RRLF).

# 1.3 Geology/Hydrogeology

The BRPP BABs CCR unit is located approximately one mile west of the St. Clair River. The BRPP BABs CCR unit is underlain by more than 100 feet of glacially deposited unconsolidated sediments, with the lower confining Bedford Shale generally encountered from 140 to 150 feet below ground surface (bgs). In general, the BRPP BABs CCR unit is initially underlain by at least 90 to as much as 130 feet of laterally extensive low hydraulic conductivity silty clay-rich deposits (TRC, 2017 and Geosyntec, 2023). The depth to the top of the confined sand-rich uppermost aquifer encountered immediately beneath the silty clay-rich deposits varies up to 50 feet within the monitoring well network and rapidly thins to the south and east of the BABs and pinches out (i.e., no longer present) to the southeast in the vicinity of SB-16-01 (Figure 1). Consequently, the uppermost aquifer is not laterally contiguous across the entire BRPP BABs CCR unit, and not present beneath the southeastern corner of the BABs.

The variability in the depth to the uppermost aquifer is a consequence of the heterogeneity of the glacial deposits and is driven by the lateral discontinuity of the sand outwash within the encapsulating fine-grained, silty clay till that confines the uppermost aquifer. There is an apparent lack of interconnection and/or significant vertical variation between the uppermost aquifer sand unit(s) encountered across the BRPP BABs CCR unit as demonstrated by the extensive amount of time (months) it took for water levels in monitoring well MW-16-02 to reach equilibrium after well construction and development (TRC, 2017).



Given the horizontally expansive clay with substantial vertical thickness that isolates the uppermost aquifer from the BRPP BABs CCR unit, the heterogeneity of the glacial deposits (with the top of the uppermost aquifer elevation across the BABs, where present varying up to 46 feet vertically), the no flow boundary where no sand or gravel is present in the southeastern portion of the BABs CCR unit area, and the apparent lack of hydraulic interconnectedness of the uppermost aquifer encountered at the BABs in some areas, it is not appropriate to infer horizontal flow direction or gradients across the footprint of the BRPP BABs CCR unit.



# 2.0 Groundwater Monitoring

## 2.1 Monitoring Well Network

A groundwater monitoring system has been established for the BRPP BABs CCR unit as detailed in the Groundwater Monitoring System Summary Report – DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin Coal Combustion Residual Units (GWMS Report) (TRC, October 2017). The detection monitoring well network for the BABs CCR unit currently consists of five monitoring wells that are screened in the uppermost aquifer. Monitoring wells MW-16-01 through MW-16-04 and MW-16-09 are located around the north, east and south perimeter of the BABs and provide data on both background and downgradient groundwater quality that has not been affected by the CCR unit (total of five 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 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, and 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 detection monitoring event for 2024 was performed on April 23 and 24, 2024 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 five monitoring well locations. Groundwater samples were collected from the five detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the April 2024 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 3 (analytical results).

The second semiannual detection monitoring event for 2024 was performed on October 28 and 29, 2024 by TRC personnel and samples were analyzed by Eurofins in accordance with the QAPP. Static water elevation data were collected at all five monitoring well locations. Groundwater samples were collected from the five detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the October 2024 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 4 (analytical results). The laboratory analytical reports and field data for each detection monitoring event are included in Appendix A.



# 2.2.2 Data Quality Review

Data from each round were evaluated for completeness, overall quality and usability, methodspecified 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

As presented in the GWMS Report, and mentioned above, given the horizontally expansive clay with substantial vertical thickness that isolates the uppermost aquifer from the BRPP BABs CCR unit; the heterogeneity of the glacial deposits (with the top of the uppermost aquifer elevation across the BABs; where present, varying up to 46 feet vertically); the no flow boundary where no sand or gravel is present in the southeastern portion of the BRPP BABs CCR unit area; and the apparent lack of hydraulic interconnectedness of the uppermost aquifer encountered at the BABs in some areas, it is not appropriate to infer horizontal flow direction or gradients across the site. Groundwater elevations measured during the April 2024 sampling event are provided on Table 1 and are summarized in plan view on Figure 3. Groundwater elevations measured during the October 2024 sampling event are provided on Table 1 and are summarized in plan view on Figure 3 and are summarized in plan view on Figure 4.

Groundwater elevation data collected during the 2024 sampling events show that groundwater conditions within the uppermost aquifer are consistent with previous monitoring events and continue to demonstrate that the monitoring wells are appropriately positioned to detect the presence of Appendix III parameters that could potentially migrate from the BRPP 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 variability in the presence of the uppermost aquifer across the site, lack of consistent groundwater flow direction and presence of no flow boundary on the southeast side of the aquifer), in addition to other supporting lines of evidence that the aquifer is unaffected by the CCR unit that have been further demonstrated in the ALD and Aquifer Characterization Study. An intrawell statistical approach requires that each downgradient well 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 five established detection monitoring wells (MW-16-01 through MW-16-04 and MW-16-09). The initial 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 BRPP BABs CCR unit by comparing concentrations in the detection monitoring wells to their respective background limits for each Appendix III indicator parameter.

Consistent with the Stats Plan and the USEPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (Unified Guidance, USEPA, 2009), prediction limits are periodically updated to reflect the additional data and additional temporal variability observed over time. The Appendix III prediction limits for the BRPP BAB were updated per the Stats Plan and Unified Guidance in December 2021 to incorporate additional data collected since 2017 as presented in the December 15, 2021 Technical Memorandum, Prediction Limit Update – DTE Electric Company, Belle River Power Plant Bottom Ash Basin (included as Appendix C in the 2021 Annual Groundwater Monitoring Report – DTE Electric Company, Belle River Power Plant Bottom Residual Unit, TRC, January 2022).

# 3.2 Data Comparison to Background Limits – First Semiannual Event (April 2024)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-16-01 through MW-16-04 and MW-16-09) 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 2024 Appendix III indicator parameters shows no potential initial SSIs compared to background for any of the constituents. The calcium concentration at MW-16-09 has been previously demonstrated to be from natural variability and is not from a release at the BRPP BAB CCR unit as presented in the still applicable February 2022



Alternative Source Demonstration (ASD) that was included in the 2022 Annual Report. Therefore, no verification resampling was performed. The comparisons of the April 2024 monitoring event data to background limits are presented on Table 3.

# 3.3 Data Comparison to Background Limits – Second Semiannual Event (October 2024)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-16-01 through MW-16-04 and MW-16-09) 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 October 2024 Appendix III indicator parameters showed a potential initial SSI over background for:

• Calcium at MW-16-03

The calcium concentration at MW-16-09 during the Second Semiannual Event in October 2024 has been previously demonstrated to be from natural variability and is not from a release from the CCR unit as presented in the still applicable February 2022 ASD that was included in the 2022 Annual Report (TRC, January 2023). Comparisons of the October 2024 monitoring event to background limits are presented on Table 4.

# 3.4 Verification Resampling for the Second Semiannual Event

Verification resampling is recommended per the Stats Plan and the Unified Guidance 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. Constituents that initially exceed their statistical limit (i.e., have no previously recorded SSIs) will be analyzed for verification purposes. As such, verification resampling for the October 2024 event was conducted on December 11, 2024, by TRC personnel. A groundwater sample was collected for calcium at MW-16-03 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 December 2024 verification sampling did not confirm the SSI for calcium at monitoring well MW-16-03. Therefore, in accordance with the Stats Plan and the Unified Guidance, the initial calcium exceedance is not statistically significant, and no SSI was recorded at MW-16-03 during the October 2024 sampling event. As such, DTE Electric will continue detection monitoring at the BRPP BAB CCR Unit in 2025 pursuant to §257.94 of the CCR Rule.



# 4.0 Conclusions and Recommendations

No SSIs over background limits were observed during the April and October 2024 monitoring events. Therefore, detection monitoring will be continued at the BRPP BABs CCR unit in accordance with §257.94.

As discussed above and in the GWMS Report as well as the ALD and Aquifer Characterization Study, with the laterally contiguous clay with substantial vertical thickness that isolates the uppermost aquifer from the BRPP BABs CCR unit along with the recent BAB retrofit construction activities in which a composite liner system was installed in each BAB, there is no reasonable probability for the uppermost aquifer to be affected by CCR from BRPP operations.

No corrective actions were performed in 2024. The next semiannual monitoring event is scheduled for the second calendar quarter of 2025.



# 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 Belle River Power Plant Bottom Ash Basins China Township, Michigan

### CERTIFICATION

I hereby certify that the annual groundwater monitoring and corrective action report presented within this document for the BRPP BABs CCR unit and applicable alternative source demonstrations have 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, 2025	DAVID B MCKENZIE
Company:	Date:	LICENSING CONTRACTOR C
TRC Engineers Michigan, Inc.	January 31, 2025	Contraction of the second seco



# 6.0 References

- Burns & McDonnell. June 2023. Construction Quality Assurance Report, Belle River Bottom Ash Impoundment South Basin Retrofit prepared for DTE Electric Company. June 9, 2023.
- Burns & McDonnell. November 2023a. Construction Quality Assurance Report, Belle River Bottom Ash Impoundment North Basin Retrofit prepared for DTE Electric Company. November 3, 2023.Geosyntec Consultants (Geosyntec). April 2023. Alternative Liner Demonstration Bottom Ash Basins, DTE Electric Company Belle River Power Plant, China Township, Michigan
- TRC. July 2016; Revised March and August 2017. CCR Groundwater Monitoring and Quality Assurance Project Plan – DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin, 4505 King Road, China Township, Michigan. Prepared for DTE Electric Company.
- TRC. October 2017. Groundwater Monitoring System Summary Report DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin Coal Combustion Residual Units, 4505 King Road, China Township, Michigan. Prepared for DTE Electric Company.
- TRC. October 2017. Groundwater Statistical Evaluation Plan DTE Electric Company Belle River Power Plant Coal Combustion Residual Bottom Ash Basins, 4505 King Road, China Township, Michigan. Prepared for DTE Electric Company.
- TRC. January 2023. 2022 Annual Groundwater Monitoring Report DTE Electric Company Belle River Power Plant Bottom Ash Basins, 4505 King Road, China Township, Michigan. Prepared for DTE Electric Company.
- TRC. April 2023. Additional Uppermost Aquifer Characterization Study, Belle River Power Plant Bottom Ash Basins CCR Unit, 4505 King Road, China Township, Michigan. Prepared for DTE Electric Company.
- TRC. January 2024. 2023 Annual Groundwater Monitoring Report DTE Electric Company Belle River Power Plant Bottom Ash Basins, 4505 King Road, China Township, Michigan. Prepared for DTE Electric Company.
- 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 1Groundwater Elevation Summary – April and October 2024Belle River Power Plant Bottom Ash BasinsChina Township, Michigan

Well ID	MW-16-01		MW-16-02		MW-16-03		MW-16-04		MW-16-09	
Date Installed	3/17/2016		3/15/2016		6/1/2016		3/8/2016		6/2/2016	
TOC Elevation	590.06		588.94		590.66		590.51		590.80	
Geologic Unit of Screened Interval	Sand		Sa	Sand		Silty Sand		Sand		and
Screened Interval Elevation	496.3 to 491.3		494.3 to 489.3 456.0 to 451		o 451.0	468.5 to 463.5		452.3 to 447.3		
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
04/23/2024	15.69	574.37	13.33	575.61	16.05	574.61	16.52	573.99	16.15	574.65
10/28/2024	16.01	574.05	13.40	575.54	15.88	574.78	17.80	572.71	16.58	574.22

#### Notes:

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

ft BTOC - feet Below top of casing.

# Table 2 Summary of Groundwater Field Parameters – April and October 2024 Belle River Power Plant Diversion Basin China Township, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)
MW-16-01	4/24/2024	0.02	-148.5	7.6	1,170	10.20	4.92
10100-10-01	10/28/2024	0.05	-171.8	7.7	1,288	12.20	2.12
MW-16-02	4/24/2024	0.20	-106.3	7.4	924	10.30	3.98
10100-10-02	10/28/2024	0.66	-200.1	7.7	1,207	11.88	0.90
	4/24/2024	0.04	-140.1	7.7	1,336	10.20	1.96
MW-16-03	10/28/2024	0.65	-198.3	7.8	1,766	12.04	1.10
	12/11/2024 <sup>(1)</sup>	0.21	-118.1	7.7	2,094	10.52	0.69
MW-16-04	4/24/2024	0.23	-143.7	7.6	1,200	10.30	55.12
10100-10-04	10/28/2024	0.65	-243.9	7.9	1,573	12.91	13.10
MW-16-09	4/24/2024	0.00	-160.7	7.8	2,176	10.80	350.95
10100-10-09	10/29/2024	0.25	-155.4	8.3	2,466	17.20	OVER

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 completed on 12/11/2024.

Table 3 Comparison of Detection Minotoring Parameter Results to Background Limits – April 2024 Belle River Power Plant BABs China Township, Michigan

Sa	mple Location:	MW-1	16-01	MW-′	16-02	MW-1	6-03	MW-1	16-04	<b>MW-</b> 1	6-09
	Sample Date:	4/24/2024	PL	4/24/2024	PL	4/24/2024	PL	4/24/2024	PL	4/24/2024	PL
Constituent	Unit	Data	FL	Data	FL	Data	FL	Data	FL	Data	FL
Appendix III											
Boron	ug/L	1,100	1,300	1,200	1,300	1,100	1,200	1,000	1,200	1,500	1,900
Calcium	ug/L	42,000	44,000	58,000	58,000	35,000	35,000	41,000	60,000	93,000 <sup>(1)</sup>	42,000
Chloride	mg/L	470	510	360	390	570	800	500	520	950	1,100
Fluoride	mg/L	1.7	1.9	1.1	1.3	1.7	1.9	1.6	1.8	1.3	1.7
pH, Field	su	7.6	7.0 - 8.1	7.4	7.0 - 8.0	7.7	7.5 - 8.2	7.6	7.6 - 8.2	7.8	7.7 - 8.6
Sulfate	mg/L	7.6	14	11	15	< 1	5.9	8.6	36	5.3	37
Total Dissolved Solids	s mg/L	870	970	740	910	980	1,100	900	1,100	1,700	2,000

#### 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) Exceedance was determined to be from an alternate source in the still applicable Second 2021 Semiannual alternate source demonstration dated 2/24/2022.

Table 4 Comparison of Detection Minotoring Parameter Results to Background Limits – October 2024 Belle River Power Plant BABs China Township, Michigan

Sam	ole Location:	MW-1	6-01	MW-	16-02		MW-16-03		MW-1	16-04	MW-1	6-09
S	ample Date:	10/28/2024	PL	10/28/2024	PL	10/28/2024	12/11/2024 <sup>(1)</sup>	PL	10/28/2024	PL	10/29/2024	PL
Constituent	Unit	Data		Data		Data			Data		Data	
Appendix III												
Boron	ug/L	1,100	1,300	1,200	1,300	1,100		1,200	1,100	1,200	1,600	1,900
Calcium	ug/L	42,000	44,000	57,000	58,000	36,000	34,000	35,000	45,000	60,000	45,000 <sup>(2)</sup>	42,000
Chloride	mg/L	470	510	360	390	570		800	490	520	1,000	1,100
Fluoride	mg/L	1.7	1.9	1.2	1.3	1.8		1.9	1.7	1.8	1.5	1.7
pH, Field	su	7.7	7.0 - 8.1	7.7	7.0 - 8.0	7.8		7.5 - 8.2	7.9	7.6 - 8.2	8.3	7.7 - 8.6
Sulfate	mg/L	6.6	14	10	15	< 1		5.9	8.1	36	4.1	37
Total Dissolved Solids	mg/L	890	970	890	910	970		1,100	800	1,100	1,700	2,000

Notes:

ug/L - micrograms per liter. mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

All metals were analyzed as total unless otherwise specified.

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

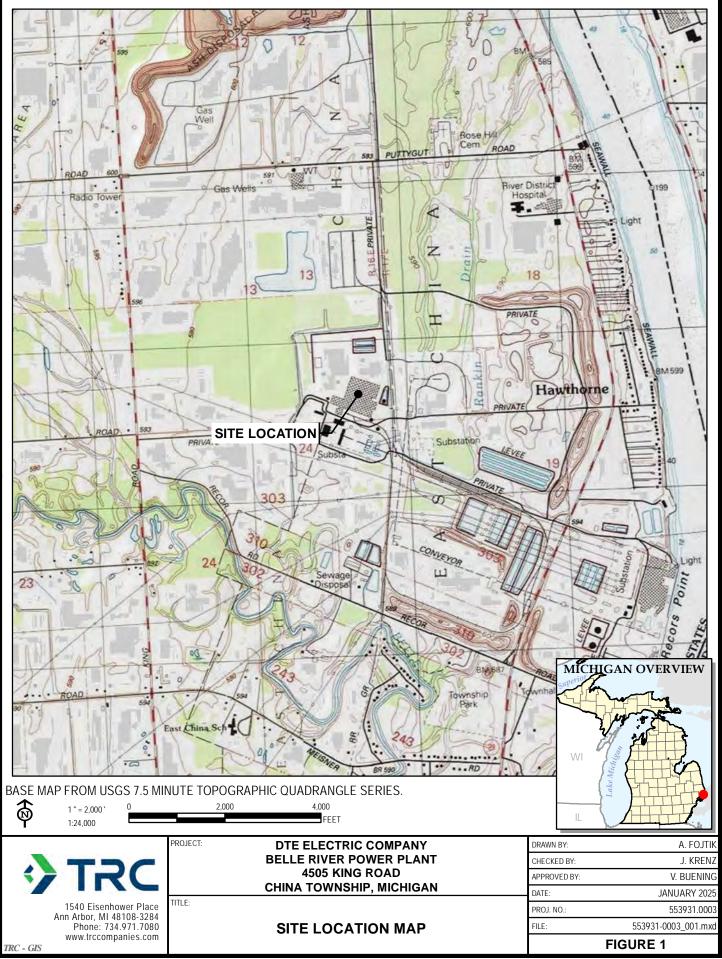
 RESULT
 Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).

 (1) - Results show for verification samples collected on 12/11/2024.

(2) - Exceedance was determined to be from an alternate source in the Second 2021 Semiannual alternative source deomonstration dated 2/24/2022.



# **Figures**



E:\DTE\CCR\_Sites\2024\_553931\MXD\553931-0003\_001.mxd -- Saved By: AFOJTIK on 12/9/2024, 15:55:36 PM



Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Fo

Plot Date: 12/9/2024, 15:55:13 PM by AFOJTIK -- LAYOUT: ANSI 8(11\*/17" Date: Finantinon caracterization construction and the second construction of the seco

### **LEGEND**



SOIL BORING

MONITORING

DECOMMISSIONED MONITORING

#### <u>NOTES</u>

- 1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (04/2023).
- WELL LOCATIONS SURVEYED IN MARCH, APRIL, JUNE 2016, AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.

	0	200		
		Feet		
	1 " = 200 '			1
	1:2,400			•
	PROJECT:	DTE ELEC	CTRIC CC	DMPANY
		BELLE RIV	ER POWI	ER PLANT
		4505	KING RC	DAD
L		CHINA TOW	/NSHIP, I	MICHIGAN
L	TITLE:			
l		SI	TE PLAN	N
	DRAWN BY:	A. FOJTIK	PROJ NO.:	553931.0003
	CHECKED BY:	J. KRENZ		
	APPROVED BY:	V. BUENING		FIGURE 2
	DATE:	JANUARY 2025		
Distance in the	$\mathbf{i}$	TRC		1540 Eisenhower Place Ann Arbor, MI 48108-3284 Phone: 734 971.7080 www.trccompanies.com
	FILE NO.:			553931-0003_002.mxd



Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl ( Man Rotation:

Plot Date: 7/16/2024, 08:21:44 AM by AFOJTIK -- LAYOUT: ANSI B(11"X17 Dath: E-INTERCED Street St





SOIL BORING

MONITORING WELL

DECOMMISSIONED MONITORING WELL

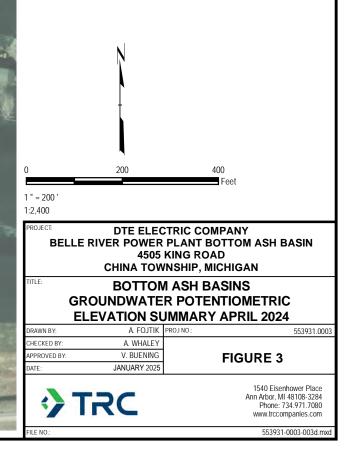
<u>MW ID</u> GROUNDWATEI

GROUNDWATER ELEVATION (DATE)

FT BGS FEET BELOW GROUND SURFACE FT NAVD 88 ELEVATION RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988

### <u>NOTES</u>

- 1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (04/2023).
- 2. WELL LOCATIONS SURVEYED IN MARCH, APRIL AND JUNE 2016 AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.
- 3. NO SAND OR GRAVEL UNIT PRESENT ABOVE BEDROCK IN THIS LOCATION.





Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (i Man Rotation:

> 이다 Date: 12/9/2024, 16:33:11 PM by AFOJTIK -- LAYOUT: ANSI B(11"x17") 2.4바-





SOIL BORING

MONITORING WELL

DECOMMISSIONED MONITORING WELL

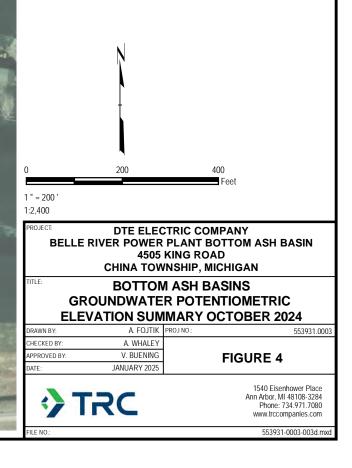
<u>MW ID</u>

GROUNDWATER ELEVATION (DATE)

FT BGS FEET BELOW GROUND SURFACE FT NAVD 88 ELEVATION RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988

### <u>NOTES</u>

- 1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (04/2023).
- 2. WELL LOCATIONS SURVEYED IN MARCH, APRIL AND JUNE 2016 AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.
- 3. NO SAND OR GRAVEL UNIT PRESENT ABOVE BEDROCK IN THIS LOCATION.





# Appendix A Laboratory Analytical Data and Field Data



**Environment Testing** 

# **ANALYTICAL REPORT**

# **PREPARED FOR**

Attn: Mr. Vincent Buening TRC Environmental Corporation. 1540 Eisenhower Place Ann Arbor, Michigan 48108-7080 Generated 5/3/2024 6:48:25 AM

# **JOB DESCRIPTION**

CCR DTE Belle River Bottom Ash Basins

# **JOB NUMBER**

240-203470-1

Eurofins Cleveland 180 S. Van Buren Avenue Barberton OH 44203

See page two for job notes and contact information.





# **Eurofins Cleveland**

# Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Sroohs

Generated 5/3/2024 6:48:25 AM

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

Page 2 of 27

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Case Narrative	5
Method Summary	6
Sample Summary	7
Detection Summary	8
Client Sample Results	10
QC Sample Results	16
QC Association Summary	19
Lab Chronicle	21
Certification Summary	23
Chain of Custody	24

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

# Qualifiers

Qualifiers		_ 3
Metals		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	_
General Chem	nistry	5
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	6
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	- 8
%R	Percent Recovery	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	9
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)	13
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: 240-203470-1

### **Eurofins Cleveland**

#### Job Narrative 240-203470-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 4/27/2024 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 7 coolers at receipt time were 1.2°C, 1.3°C, 1.9°C, 1.9°C, 3.4°C, 3.7°C and 4.1°C.

#### Metals

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

#### **General Chemistry**

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

**Eurofins Cleveland** 

### **Method Summary**

### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Job ID: 240-203470-1

od	Method Description	Protocol	Laboratory	
D	Metals (ICP)	SW846	EET CLE	-
В	Metals (ICP/MS)	SW846	EET CLE	
A	Anions, Ion Chromatography	SW846	EET CLE	
540C	Solids, Total Dissolved (TDS)	SM	EET CLE	
A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE	
rotocol Rei	ferences:			
SM = "St	andard Methods For The Examination Of Water And Wastewater"			

#### Laboratory References:

Protocol References:

Method

6010D

6020B 9056A

3005A

SM 2540C

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

**Eurofins Cleveland** 

# Sample Summary

### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-203470-1	MW-16-04	Water	04/24/24 09:25	04/27/24 08:00
240-203470-2	MW-16-01	Water	04/24/24 10:20	04/27/24 08:00
240-203470-3	MW-16-02	Water	04/24/24 11:05	04/27/24 08:00
240-203470-4	MW-16-03	Water	04/24/24 11:55	04/27/24 08:00
240-203470-5	MW-16-09	Water	04/24/24 13:35	04/27/24 08:00
240-203470-6	DUP-01	Water	04/24/24 00:00	04/27/24 08:00

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

### Client Sample ID: MW-16-04

Lab Sample ID: 240-203470-1

Lab Sample ID: 240-203470-2

Lab Sample ID: 240-203470-3

Analyte	Result Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Boron	1000	100	ug/L	1	6010D	Total
						Recoverable
Calcium	41000	1000	ug/L	1	6020B	Total
						Recoverable
Iron	1600	100	ug/L	1	6020B	Total
						Recoverable
Chloride	500	10	mg/L	10	9056A	Total/NA
Fluoride	1.6	0.050	mg/L	1	9056A	Total/NA
Sulfate	8.6	1.0	mg/L	1	9056A	Total/NA
Total Dissolved Solids	900	20	mg/L	1	SM 2540C	Total/NA

### Client Sample ID: MW-16-01

Analyte	Result Qualifier	RL	Unit	Dil Fac	D Method	Prep Type
Boron	1100	100	ug/L	1	6010D	Total
						Recoverable
Calcium	42000	1000	ug/L	1	6020B	Total
						Recoverable
Iron	570	100	ug/L	1	6020B	Total
						Recoverable
Chloride	470	10	mg/L	10	9056A	Total/NA
Fluoride	1.7	0.050	mg/L	1	9056A	Total/NA
Sulfate	7.6	1.0	mg/L	1	9056A	Total/NA
Total Dissolved Solids	870	20	mg/L	1	SM 2540C	Total/NA

### Client Sample ID: MW-16-02

#### Analyte Result Qualifier Unit Dil Fac D Method RL Prep Type 6010D Boron 1200 100 ug/L Total 1 Recoverable ug/L Calcium 58000 1000 6020B 1 Total Recoverable 690 100 6020B Iron ug/L 1 Total Recoverable Chloride 360 10 mg/L 10 9056A Total/NA Fluoride 0.050 mg/L 9056A Total/NA 1.1 1 Sulfate 11 1.0 mg/L 1 9056A Total/NA Total Dissolved Solids 740 10 SM 2540C Total/NA mg/L 1

### Client Sample ID: MW-16-03

### Lab Sample ID: 240-203470-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	1100		100	ug/L	1	_	6010D	Total
								Recoverable
Calcium	35000		1000	ug/L	1		6020B	Total
								Recoverable
Iron	630		100	ug/L	1		6020B	Total
								Recoverable
Chloride	570		10	mg/L	10		9056A	Total/NA
Fluoride	1.7		0.050	mg/L	1		9056A	Total/NA
Total Dissolved Solids	980		20	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

### Client Sample ID: MW-16-09

# Lab Sample ID: 240-203470-5

Lab Sample ID: 240-203470-6

Analyte	Result Qualifier	RL	Unit	Dil Fac	D Method	Prep Type
Boron	1500	100	ug/L	1	6010D	Total
						Recoverable
Calcium	93000	1000	ug/L	1	6020B	Total
						Recoverable
Iron	16000	100	ug/L	1	6020B	Total
						Recoverable
Chloride	950	20	mg/L	20	9056A	Total/NA
Fluoride	1.3	0.10	mg/L	2	9056A	Total/NA
Sulfate	5.3	2.0	mg/L	2	9056A	Total/NA
Total Dissolved Solids	1700	40	mg/L	1	SM 2540C	Total/NA

### **Client Sample ID: DUP-01**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D Method	Prep Type
Boron	1100		100	ug/L	1	6010D	Total
							Recoverable
Calcium	36000		1000	ug/L	1	6020B	Total
							Recoverable
Iron	660		100	ug/L	1	6020B	Total
							Recoverable
Chloride	560		10	mg/L	10	9056A	Total/NA
Fluoride	1.7		0.050	mg/L	1	9056A	Total/NA
Total Dissolved Solids	1000		20	mg/L	1	SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

# **Client Sample Results**

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

# Client Sample ID: MW-16-04

Date Collected: 04/24/24 09:25 Date Received: 04/27/24 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1000		100	ug/L		04/30/24 14:00	05/01/24 13:52	1
Method: SW846 6020B - Metals (ICI	P/MS) - Total	Recoverable	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41000		1000	ug/L		04/30/24 14:00	05/01/24 10:16	1
Iron	1600		100	ug/L		04/30/24 14:00	05/01/24 10:16	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	500		10	mg/L			05/01/24 00:12	10
Fluoride (SW846 9056A)	1.6		0.050	mg/L			04/30/24 23:51	1
Sulfate (SW846 9056A)	8.6		1.0	mg/L			04/30/24 23:51	1
Total Dissolved Solids (SM 2540C)	900		20	mg/L			04/30/24 09:06	

5/3/2024

Matrix: Water

Lab Sample ID: 240-203470-1

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Client Sample ID: MW-16-01

Date Collected: 04/24/24 10:20 Date Received: 04/27/24 08:00

Method: SW846 6010D - Metals (ICI	) - Total Ne	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	ug/L		04/30/24 14:00	05/01/24 14:13	1
Method: SW846 6020B - Metals (ICI	P/MS) - Total	Recoverable	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42000		1000	ug/L		04/30/24 14:00	05/01/24 16:57	1
Iron	570		100	ug/L		04/30/24 14:00	05/01/24 16:57	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	470		10	mg/L			05/01/24 00:56	10
Fluoride (SW846 9056A)	1.7		0.050	mg/L			05/01/24 00:34	1
Sulfate (SW846 9056A)	7.6		1.0	mg/L			05/01/24 00:34	1
Total Dissolved Solids (SM 2540C)	870		20	mg/L			04/30/24 09:06	1

5/3/2024

Job ID: 240-203470-1

Matrix: Water

Lab Sample ID: 240-203470-2

5 **8** 9

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Client Sample ID: MW-16-02

Date Collected: 04/24/24 11:05 Date Received: 04/27/24 08:00

	P) - Total Re	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1200		100	ug/L		04/30/24 14:00	05/01/24 14:17	1
	P/MS) - Total	Recoverable	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	58000		1000	ug/L		04/30/24 14:00	05/01/24 16:59	1
Iron	690		100	ug/L		04/30/24 14:00	05/01/24 16:59	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	360		10	mg/L			05/01/24 01:39	10
Fluoride (SW846 9056A)	1.1		0.050	mg/L			05/01/24 01:17	1
Sulfate (SW846 9056A)	11		1.0	mg/L			05/01/24 01:17	1
Total Dissolved Solids (SM 2540C)	740		10	mg/L			04/30/24 09:06	1

5/3/2024

Matrix: Water

Lab Sample ID: 240-203470-3

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Client Sample ID: MW-16-03

Date Collected: 04/24/24 11:55 Date Received: 04/27/24 08:00

Method: SW846 6010D - Metals (IC	P) - Total Re	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	ug/L		04/30/24 14:00	05/01/24 14:21	1
Method: SW846 6020B - Metals (IC	P/MS) - Total	Recoverable	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35000		1000	ug/L		04/30/24 14:00	05/01/24 17:02	1
Iron	630		100	ug/L		04/30/24 14:00	05/01/24 17:02	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	570		10	mg/L			05/01/24 03:06	10
Fluoride (SW846 9056A)	1.7		0.050	mg/L			05/01/24 02:44	1
Sulfate (SW846 9056A)	1.0	U	1.0	mg/L			05/01/24 02:44	1
Total Dissolved Solids (SM 2540C)	980		20	mg/L			04/30/24 09:06	1

Matrix: Water

Job ID: 240-203470-1

Lab Sample ID: 240-203470-4

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Client Sample ID: MW-16-09

Date Collected: 04/24/24 13:35 Date Received: 04/27/24 08:00

Method: SW846 6010D - Metals (IC	P) - Total Re	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1500		100	ug/L		04/30/24 14:00	05/01/24 14:26	1
Method: SW846 6020B - Metals (IC	P/MS) - Total	Recoverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	93000		1000	ug/L		04/30/24 14:00	05/01/24 17:04	1
Iron	16000		100	ug/L		04/30/24 14:00	05/01/24 17:04	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	950		20	mg/L			05/01/24 07:27	20
Fluoride (SW846 9056A)	1.3		0.10	mg/L			05/01/24 07:05	2
Sulfate (SW846 9056A)	5.3		2.0	mg/L			05/01/24 07:05	2
Total Dissolved Solids (SM 2540C)	1700		40	mg/L			04/30/24 10:49	1

5/3/2024

Job ID: 240-203470-1

Matrix: Water

Lab Sample ID: 240-203470-5

1

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins Job ID: 240-203470-1

Matrix: Water

5 6

Lab Sample ID: 240-203470-6

#### Client Sample ID: DUP-01 Date Collected: 04/24/24 00:00

Date Received: 04/27/24 08:00

	P) - Total Re	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	ug/L		04/30/24 14:00	05/01/24 14:30	1
	P/MS) - Total	Recoverable	•					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36000		1000	ug/L		04/30/24 14:00	05/01/24 17:07	1
Iron	660		100	ug/L		04/30/24 14:00	05/01/24 17:07	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	560		10	mg/L			05/01/24 08:10	10
Fluoride (SW846 9056A)	1.7		0.050	mg/L			05/01/24 07:48	1
Sulfate (SW846 9056A)	1.0	U	1.0	mg/L			05/01/24 07:48	1
Total Dissolved Solids (SM 2540C)	1000		20	mg/L			04/30/24 10:49	1

#### **QC Sample Results**

Job ID: 240-203470-1

9

#### Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-611317/1-A	i.											mple ID: Met		
Matrix: Water											Prep 1	Type: Total Re	cov	erabl
Analysis Batch: 611559												Prep Bato	h: 6	1131
		MB	MB											
Analyte	R	esult	Qualifier		RL		Unit		D	P	repared	Analyzed		Dil Fa
Boron		100	U		100		ug/L			04/3	0/24 14:00	05/01/24 13:35	5	
Lab Sample ID: LCS 240-611317/2-/	۵								С	lient	Sample	ID: Lab Contr	ol Sa	ampl
Matrix: Water												ype: Total Re		
Analysis Batch: 611559												Prep Bato		
				Spike		LCS	LCS					%Rec		
Analyte				Added		Result	Qualifier	Unit		D	%Rec	Limits		
Boron				1000		1010		ug/L			101	80 - 120		
Lab Sample ID: 240 202470 4 MS											Clier	t Comple ID:		46.0
Lab Sample ID: 240-203470-1 MS												nt Sample ID:		
Matrix: Water											Prepi	Type: Total Re		
Analysis Batch: 611559	01-	0	-1-	0								Prep Bato	n: 6	1131
Amelada	Sample		•	Spike			MS	11		-	0/ D	%Rec		
Analyte	Result	Qua	ifier	Added			Qualifier	Unit		<u>D</u>	%Rec	Limits		
Boron	1000			1000		2080		ug/L			104	75 - 125		
Lab Sample ID: 240-203470-1 MSD Matrix: Water												nt Sample ID: Type: Total Re		
Analysis Batch: 611559												Prep Bato		
	Sample	Sam	ple	Spike		MSD	MSD					%Rec		RF
Analyte	Result			Added			Qualifier	Unit		D	%Rec		PD	Lin
Boron	1000	Quu		1000		2060	Quanner	ug/L			102	75 - 125	1	
								0						
	IS)													
• •	-													
Lab Sample ID: MB 240-611317/1-A	-											imple ID: Meti		
Lab Sample ID: MB 240-611317/1-A Matrix: Water	-											Type: Total Re	cov	erab
Lab Sample ID: MB 240-611317/1-A	-												cov	erab
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478			МВ								Prep 1	Type: Total Re Prep Bato	cov	erab 1131
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte	R	esult	Qualifier		RL		Unit		D	Pi	Prep 1	Type: Total Re Prep Bato Analyzed	cove h: 6	erab 1131
Lab Sample ID: MB 240-611317/1-A Matrix: Water	R	esult 1000	Qualifier U		1000		<u>Unit</u> ug/L			Pi 04/3	Prep 1 repared 0/24 14:00	Type: Total Re Prep Batc Analyzed 05/01/24 10:11	cove h: 6	erab 1131
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte	R	esult	Qualifier U						<u>D</u>	Pi 04/3	Prep 1	Type: Total Re Prep Bato Analyzed	cove h: 6	erab 1131
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium	R	esult 1000	Qualifier U		1000		ug/L			Pi 04/30 04/30	Prep 1 repared 0/24 14:00 0/24 14:00	Type: Total Re Prep Batc Analyzed 05/01/24 10:11	cove h: 6	erab 1131 Dil Fa
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron	R	esult 1000	Qualifier U		1000		ug/L			Pi 04/30 04/30	Prep 1 repared 0/24 14:00 0/24 14:00 Sample	Analyzed           05/01/24         10:11           05/01/24         10:11	cove h: 6 	erab 1131 Dil Fa
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: LCS 240-611317/3-A Matrix: Water	R	esult 1000	Qualifier U		1000		ug/L			Pi 04/30 04/30	Prep 1 repared 0/24 14:00 0/24 14:00 Sample	Analyzed           05/01/24 10:11           05/01/24 10:11           05/01/24 0:11           05/01/24 0:11           05/01/24 0:11	cove h: 6  ol Sa cove	erab 1131 Dil Fa ampl erab
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: LCS 240-611317/3-A Matrix: Water	R	esult 1000	Qualifier U		1000	LCS	ug/L			Pi 04/30 04/30	Prep 1 repared 0/24 14:00 0/24 14:00 Sample	Analyzed           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           ID: Lab Contr           Type: Total Re	cove h: 6  ol Sa cove	erabl 1131 Dil Fa ampl erabl
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: LCS 240-611317/3-A Matrix: Water	R	esult 1000	Qualifier U	Spike Added	1000		ug/L ug/L	Unit		Pi 04/30 04/30	Prep 1 repared 0/24 14:00 0/24 14:00 Sample	Analyzed           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           0F/01/24 10:11	cove h: 6  ol Sa cove	erab 1131 Dil Fa ampl erab
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Calcium Iron Lab Sample ID: LCS 240-611317/3-/ Matrix: Water Analysis Batch: 611478	R	esult 1000	Qualifier U	-	1000		LCS	Unit ug/L		04/30 04/30 <b>lient</b>	Prep 1 repared 0/24 14:00 0/24 14:00 Sample Prep 1	Analyzed           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           When the second seco	cove h: 6  ol Sa cove	erab 1131 Dil Fa ampl erab
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Calcium Iron Lab Sample ID: LCS 240-611317/3-/ Matrix: Water Analysis Batch: 611478 Analyte Calcium	R	esult 1000	Qualifier U	Added	1000	Result	LCS			04/30 04/30 <b>lient</b>	Prep 1 repared 0/24 14:00 0/24 14:00 Sample Prep 1 %Rec	Analyzed 05/01/24 10:11 05/01/24 10:11 05/01/24 10:11 ID: Lab Contre Type: Total Re Prep Bato %Rec Limits	cove h: 6  ol Sa cove	erab 1131 Dil Fa ampl erab
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Calcium Iron Lab Sample ID: LCS 240-611317/3-/ Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron	R	esult 1000	Qualifier U	<b>Added</b> 25000	1000	Result 24200	LCS	ug/L		04/30 04/30 <b>lient</b>	Prep 1           repared           0/24 14:00           0/24 14:00           0/24 14:00           Sample           Prep 1           %Rec           97           101	Cype: Total Rep           Prep Batc           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           ID: Lab Contr           Cype: Total Rep           Prep Batc           %Rec           Limits           80 - 120           80 - 120	cove h: 6 ol Sa cove h: 6	erab 1131 Dil Fi amp erab 1131
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Calcium Iron Lab Sample ID: LCS 240-611317/3-/ Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: 240-203470-1 MS	R	esult 1000	Qualifier U	<b>Added</b> 25000	1000	Result 24200	LCS	ug/L		04/30 04/30 <b>lient</b>	Prep 1 repared 0/24 14:00 0/24 14:00 Sample Prep 1 <u>%Rec</u> 97 101 Clier	Cype: Total Repert           Prep Batc           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           ID: Lab Contr           Type: Total Repert           Prep Batc           %Rec           Limits           80 - 120           80 - 120           and - 120	cove h: 6 ol Sa cove h: 6 MW-	erab 1131 Dil Fi amp erab 1131
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: LCS 240-611317/3-/ Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: 240-203470-1 MS Matrix: Water	R	esult 1000	Qualifier U	<b>Added</b> 25000	1000	Result 24200	LCS	ug/L		04/30 04/30 <b>lient</b>	Prep 1 repared 0/24 14:00 0/24 14:00 Sample Prep 1 <u>%Rec</u> 97 101 Clier	Type: Total Rep           Prep Batc           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           07/01/24 10:11           07/01/24 10:11           07/01/24 10:11           07/01/24 10:11           07/01/24 10:11           07/01/24 10:11           07/01/24 10:11           080 - 120           080 - 120           080 - 120           081 - 120           081 - 120           081 - 120           081 - 120           081 - 120           081 - 120           081 - 120	covu h: 6 	erab 1131 Dil Fa amplerab 1131 -16-0 erab
Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: LCS 240-611317/3-/ Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron	R	esult 1000 100	Qualifier U U	Added 25000 5000	1000	<b>Result</b> 24200 5060	ug/L ug/L LCS Qualifier	ug/L		04/30 04/30 <b>lient</b>	Prep 1 repared 0/24 14:00 0/24 14:00 Sample Prep 1 <u>%Rec</u> 97 101 Clier	Type: Total Rep Batc           Analyzed           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           ID: Lab Contr           Type: Total Rep Batc           %Rec           Limits           80 - 120           80 - 120           Strain Sample ID:           Type: Total Rep Batc	covu h: 6 	erabl 1131 Dil Fa ampl erabl 1131 -16-0 erabl
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: LCS 240-611317/3-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: 240-203470-1 MS Matrix: Water Analysis Batch: 611478	R	esult 1000 100 Sam	Qualifier U U	Added 25000 5000 Spike	1000	<b>Result</b> 24200 5060 <b>MS</b>	Ug/L ug/L Qualifier	ug/L ug/L		Pr 04/30 04/31 <b>lient</b>	Prep 1           repared           0/24 14:00           0/24 14:00           Sample I           Prep 1           %Rec           97           101           Clier           Prep 1	Analyzed Analyzed 05/01/24 10:11 05/01/24 10:11 05/01/24 10:11 ID: Lab Contre Type: Total Re Prep Batc %Rec Limits 80 - 120 80 - 120 80 - 120 St Sample ID: Type: Total Re Prep Batc %Rec	covu h: 6 	erabl 1131 Dil Fa ampl erabl 1131 -16-0 erabl
Lab Sample ID: MB 240-611317/1-A Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: LCS 240-611317/3-/ Matrix: Water Analysis Batch: 611478 Analyte Calcium Iron Lab Sample ID: 240-203470-1 MS Matrix: Water	R	esult 1000 100 Sam	Qualifier U U	Added 25000 5000	1000	<b>Result</b> 24200 5060 <b>MS</b>	ug/L ug/L LCS Qualifier	ug/L		04/30 04/30 <b>lient</b>	Prep 1 repared 0/24 14:00 0/24 14:00 Sample Prep 1 <u>%Rec</u> 97 101 Clier	Type: Total Rep Batc           Analyzed           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           05/01/24 10:11           ID: Lab Contr           Type: Total Rep Batc           %Rec           Limits           80 - 120           80 - 120           Strain Sample ID:           Type: Total Rep Batc	covu h: 6 	erabl 1131 Dil Fa ampl erabl 1131 -16-0 erabl

#### Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-203470-1 MSD												ent Sample II		
Matrix: Water											Prep	Type: Total		
Analysis Batch: 611478												Prep Ba	atch: 6	51131
	Sample	Sam	ple	Spike		MSD	MSD					%Rec		RPI
Analyte	Result	Qual	lifier	Added		Result	Qualifier	Unit		D	%Rec	Limits	RPD	Lim
Calcium	41000			25000		69700		ug/L			115	80 - 120	1	2
Iron	1600			5000		7200		ug/L			113	80 - 120	1	2
lethod: 9056A - Anions, Ion C	hroma	tog	raphy											
Lab Sample ID: MB 240-611382/3											Client S	ample ID: M	ethod	Blan
Matrix: Water												Prep Ty	pe: To	otal/N
Analysis Batch: 611382														
-		ΜВ	MB											
Analyte	Re	esult	Qualifier		RL		Unit		D	Р	repared	Analyzed	1	Dil Fa
Chloride		1.0	U		1.0		mg/L				-	04/30/24 18		
Fluoride	0	.050			0.050		mg/L					04/30/24 18		
Sulfate		1.0			1.0		mg/L					04/30/24 18		
			0									0.000/2.1.10		
Lab Sample ID: LCS 240-611382/4									Cli	ent	Sample	D: Lab Cor	trol S	ampl
Matrix: Water												Prep Ty	pe: To	otal/N
Analysis Batch: 611382														
				Spike		LCS	LCS					%Rec		
Analyte				Added		Result	Qualifier	Unit		D	%Rec	Limits		
Chloride				50.0		49.9		mg/L		_	100	90 - 110		
Fluoride				2.50		2.58		mg/L			103	90 - 110		
Sulfate				50.0		51.2		mg/L			102	90 - 110		
/ lethod: SM 2540C - Solids, To	otal Dis	solv	ved (TD	S)										
Lab Sample ID: MB 240-611300/1											Client S	ample ID: M	ethod	Blan
Matrix: Water												Prep Ty	pe: To	otal/N
Analysis Batch: 611300														
-		ΜВ	MB											
Analyte	Re	esult	Qualifier		RL		Unit		D	Р	repared	Analyzed	1	Dil Fa
Total Dissolved Solids		10	U		10		mg/L					04/30/24 09	:06	
Lab Sample ID: LCS 240-611300/2									Cli	ent	Sample	ID: Lab Cor	trol S	ampl
Matrix: Water											Campio	Prep Ty		
Analysis Batch: 611300												Thep by	pe. 10	
Analysis Batch. 011300				Spike		109	LCS					%Rec		
Analyte				Added			Qualifier	Unit		D	%Rec	Limits		
Total Dissolved Solids				505		471		mg/L		_		80 - 120		
				505		471		mg/L			90	00 - 120		
Lab Sample ID: MB 240-611328/1											<b>Client S</b>	ample ID: M	ethod	Blan
Matrix: Water												Prep Ty		
Analysis Batch: 611328														
		МВ	МВ											
	_		Qualifier		RL		11		-	Б	repared	Analyzed		Dil Fa
Analyte	R	esum			RL		Unit		D		reparen	Analyzer		

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

Lab Sample ID: LCS 240-611328/2 Matrix: Water Analysis Batch: 611328		Client Sample ID: Lab Control Prep Type: 1						
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids	505	485		mg/L		96	80 - 120	

#### **QC Association Summary**

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Job ID: 240-203470-1

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#### Metals

#### Prep Batch: 611317

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
240-203470-1	MW-16-04	Total Recoverable	Water	3005A	
240-203470-2	MW-16-01	Total Recoverable	Water	3005A	
240-203470-3	MW-16-02	Total Recoverable	Water	3005A	
240-203470-4	MW-16-03	Total Recoverable	Water	3005A	
240-203470-5	MW-16-09	Total Recoverable	Water	3005A	
240-203470-6	DUP-01	Total Recoverable	Water	3005A	
MB 240-611317/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-611317/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-611317/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-203470-1 MS	MW-16-04	Total Recoverable	Water	3005A	
240-203470-1 MS	MW-16-04	Total Recoverable	Water	3005A	
240-203470-1 MSD	MW-16-04	Total Recoverable	Water	3005A	
240-203470-1 MSD	MW-16-04	Total Recoverable	Water	3005A	

#### Analysis Batch: 611478

Lab Sample ID 240-203470-1	Client Sample ID MW-16-04	Prep Type Total Recoverable	Matrix Water	Method 6020B	Prep Batch 611317
MB 240-611317/1-A	Method Blank	Total Recoverable	Water	6020B	611317
LCS 240-611317/3-A	Lab Control Sample	Total Recoverable	Water	6020B	611317
240-203470-1 MS	MW-16-04	Total Recoverable	Water	6020B	611317
240-203470-1 MSD	MW-16-04	Total Recoverable	Water	6020B	611317

#### Analysis Batch: 611559

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
240-203470-1	MW-16-04	Total Recoverable	Water	6010D	611317
240-203470-2	MW-16-01	Total Recoverable	Water	6010D	611317
240-203470-3	MW-16-02	Total Recoverable	Water	6010D	611317
240-203470-4	MW-16-03	Total Recoverable	Water	6010D	611317
240-203470-5	MW-16-09	Total Recoverable	Water	6010D	611317
240-203470-6	DUP-01	Total Recoverable	Water	6010D	611317
MB 240-611317/1-A	Method Blank	Total Recoverable	Water	6010D	611317
LCS 240-611317/2-A	Lab Control Sample	Total Recoverable	Water	6010D	611317
240-203470-1 MS	MW-16-04	Total Recoverable	Water	6010D	611317
240-203470-1 MSD	MW-16-04	Total Recoverable	Water	6010D	611317

#### Analysis Batch: 611561

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
240-203470-2	MW-16-01	Total Recoverable	Water	6020B	611317
240-203470-3	MW-16-02	Total Recoverable	Water	6020B	611317
240-203470-4	MW-16-03	Total Recoverable	Water	6020B	611317
240-203470-5	MW-16-09	Total Recoverable	Water	6020B	611317
240-203470-6	DUP-01	Total Recoverable	Water	6020B	611317

#### **General Chemistry**

#### Analysis Batch: 611300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-203470-1	MW-16-04	Total/NA	Water	SM 2540C	
240-203470-2	MW-16-01	Total/NA	Water	SM 2540C	
240-203470-3	MW-16-02	Total/NA	Water	SM 2540C	
240-203470-4	MW-16-03	Total/NA	Water	SM 2540C	

#### **QC Association Summary**

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### **General Chemistry (Continued)**

#### Analysis Batch: 611300 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
MB 240-611300/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-611300/2	Lab Control Sample	Total/NA	Water	SM 2540C	

#### Analysis Batch: 611328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-203470-5	MW-16-09	Total/NA	Water	SM 2540C	
240-203470-6	DUP-01	Total/NA	Water	SM 2540C	
MB 240-611328/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-611328/2	Lab Control Sample	Total/NA	Water	SM 2540C	

#### Analysis Batch: 611382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-203470-1	MW-16-04	Total/NA	Water	9056A	
240-203470-1	MW-16-04	Total/NA	Water	9056A	
240-203470-2	MW-16-01	Total/NA	Water	9056A	
40-203470-2	MW-16-01	Total/NA	Water	9056A	
240-203470-3	MW-16-02	Total/NA	Water	9056A	
40-203470-3	MW-16-02	Total/NA	Water	9056A	
40-203470-4	MW-16-03	Total/NA	Water	9056A	
40-203470-4	MW-16-03	Total/NA	Water	9056A	
40-203470-5	MW-16-09	Total/NA	Water	9056A	
40-203470-5	MW-16-09	Total/NA	Water	9056A	
40-203470-6	DUP-01	Total/NA	Water	9056A	
40-203470-6	DUP-01	Total/NA	Water	9056A	
IB 240-611382/3	Method Blank	Total/NA	Water	9056A	
CS 240-611382/4	Lab Control Sample	Total/NA	Water	9056A	

5/3/2024

Job ID: 240-203470-1

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Lab Sample ID: 240-203470-1 Matrix: Water

Date Collected: 04/24/24 09:25 Date Received: 04/27/24 08:00

Client Sample ID: MW-16-04

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6010D		1	611559	KLC	EET CLE	05/01/24 13:52
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6020B		1	611478	AJC	EET CLE	05/01/24 10:16
Total/NA	Analysis	9056A		1	611382	JWW	EET CLE	04/30/24 23:51
Total/NA	Analysis	9056A		10	611382	JWW	EET CLE	05/01/24 00:12
Total/NA	Analysis	SM 2540C		1	611300	C5SV	EET CLE	04/30/24 09:06

#### Client Sample ID: MW-16-01

Date Collected: 04/24/24 10:20 Date Received: 04/27/24 08:00

Batch Batch Dilution Batch Prepared Method or Analyzed Prep Type Туре Run Factor Number Analyst Lab 04/30/24 14:00 Total Recoverable Prep 3005A 611317 BN EET CLE Total Recoverable 6010D 611559 KLC EET CLE 05/01/24 14:13 Analysis 1 3005A 04/30/24 14:00 Total Recoverable Prep 611317 BN EET CLE Total Recoverable 6020B 611561 AJC EET CLE 05/01/24 16:57 Analysis 1 Total/NA Analysis 9056A 1 611382 JWW EET CLE 05/01/24 00:34 Total/NA 9056A 611382 JWW EET CLE 05/01/24 00:56 Analysis 10 Total/NA Analysis SM 2540C 1 611300 C5SV EET CLE 04/30/24 09:06

#### Client Sample ID: MW-16-02

#### Date Collected: 04/24/24 11:05 Date Received: 04/27/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
otal Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
otal Recoverable	Analysis	6010D		1	611559	KLC	EET CLE	05/01/24 14:17
otal Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
otal Recoverable	Analysis	6020B		1	611561	AJC	EET CLE	05/01/24 16:59
otal/NA	Analysis	9056A		1	611382	JWW	EET CLE	05/01/24 01:17
ōtal/NA	Analysis	9056A		10	611382	JWW	EET CLE	05/01/24 01:39
otal/NA	Analysis	SM 2540C		1	611300	C5SV	EET CLE	04/30/24 09:06

#### Client Sample ID: MW-16-03

Date Collected: 04/24/24 11:55 Date Received: 04/27/24 08:00

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6010D		1	611559	KLC	EET CLE	05/01/24 14:21
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6020B		1	611561	AJC	EET CLE	05/01/24 17:02
Total/NA	Analysis	9056A		1	611382	JWW	EET CLE	05/01/24 02:44

#### Lab Sample ID: 240-203470-2

Matrix: Water

Lab Sample ID: 240-203470-3

Matrix: Water

#### Lab Sample ID: 240-203470-4

Matrix: Water

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Analysis

# J

#### Lab Sample ID: 240-203470-4 Matrix: Water

Lab Sample ID: 240-203470-5

Lab Sample ID: 240-203470-6

Prepared

or Analyzed

05/01/24 03:06

04/30/24 09:06

Lab

EET CLE

EET CLE

Matrix: Water

Matrix: Water

Date Received	: 04/27/24 08:0	0				
	Batch	Batch		Dilution	Batch	
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst
Total/NA	Analysis	9056A		10	611382	JWW

SM 2540C

#### Client Sample ID: MW-16-09 Date Collected: 04/24/24 13:35 Date Received: 04/27/24 08:00

Client Sample ID: MW-16-03

Date Collected: 04/24/24 11:55

Total/NA

	Batch	Batch		Dilution	Batch			Prepared
Prep Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6010D		1	611559	KLC	EET CLE	05/01/24 14:26
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6020B		1	611561	AJC	EET CLE	05/01/24 17:04
Total/NA	Analysis	9056A		2	611382	JWW	EET CLE	05/01/24 07:05
Total/NA	Analysis	9056A		20	611382	JWW	EET CLE	05/01/24 07:27
Total/NA	Analysis	SM 2540C		1	611328	C5SV	EET CLE	04/30/24 10:49

1

611300 C5SV

#### **Client Sample ID: DUP-01**

#### Date Collected: 04/24/24 00:00 Date Received: 04/27/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6010D		1	611559	KLC	EET CLE	05/01/24 14:30
Total Recoverable	Prep	3005A			611317	BN	EET CLE	04/30/24 14:00
Total Recoverable	Analysis	6020B		1	611561	AJC	EET CLE	05/01/24 17:07
Total/NA	Analysis	9056A		1	611382	JWW	EET CLE	05/01/24 07:48
Total/NA	Analysis	9056A		10	611382	JWW	EET CLE	05/01/24 08:10
Total/NA	Analysis	SM 2540C		1	611328	C5SV	EET CLE	04/30/24 10:49

#### Laboratory References:

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

#### Accreditation/Certification Summary

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

12

13

#### Laboratory: Eurofins Cleveland

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	02-28-25
Georgia	State	4062	02-27-25
llinois	NELAP	200004	07-31-24
owa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
<i>M</i> innesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
hio VAP	State	ORELAP 4062	02-27-25
regon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
JSDA	US Federal Programs	P330-18-00281	01-05-27
/irginia	NELAP	460175	09-14-24
Vest Virginia DEP	State	210	12-31-24

#### **Eurofins Cleveland** 180 S. Van Buren Avenue

Barberton, OH 44203



Date/

Custody Seal No .:

**Custody Seals Intact:** ∆ Yes ∆ No

1104

**Chain of Custody Record** 



🔅 eurofins Environment Testing

Client Information	Sampler: A. wha	1e.1	Lab PM Brook	ı: .s, Kris M			Carrier T	racking No(s):			COC No: 240-119551-41	770.1
Client Contact: Mr. Vincent Buening	Phone: -724-91	0-9 239 PWSID:	E-Mail:	Irooks@ot	eurofinsus.co		State of	Drigin:	MI		Page: Page 1 of 1	
Company:	1 12 00	PWSID:	INIS.E	IOOKS@EL				-			Job #:	
TRC Environmental Corporation. Address:				_	A	nalysis	Requeste				Preservation Co	dos:
1540 Eisenhower Place	Due Date Requested:	andard									A - HCL	M - Hexane
City: Ann Arbor				le l							B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip:		ndard		Floorid	-						D - Nitric Acid	P - Na2O4S Q - Na2SO3
MI, 48108-7080 Phone:	Compliance Project: Δ	Yes A No		5							E - NaHSO4 F - MeOH	R - Na2S2O3 S - H2SO4
313-971-7080(Tel) 313-971-9022(Fax)	PO #: 214273				.						G - Amchlor H - Ascorbic Acid	T - TSP Dodecahydrate
Email: vbuening@trccompanies.com	WO #: 553931.0003.0000			d Sample (Yes or No) /MSD (Yes or No) Sulfate, しんもいどと						5	I - Ice J - DI Water	V - MCAA W - pH 4-5
Project Name:	Project #:			N OC N						ainer	K - EDTA L - EDA	Y - Trizma Z - other (specify)
CCR DTE Belle River Bottom Ash Basins Site:	24016463 ssow#:			Ves V 2, 1	e l					conta	Other:	Z - Outer (specify)
Michigan				ered Sample (Ye MS/MSD (Yes or D - Sulfate, C <mark>h k</mark>	20 Ca, - TDS					r of c		
		Sample Type	Matrix (w=water,	D WS	Bo, 60 Calcd			1		Numbe		
Samala Identification		mple (C=comp,	S=solid, O=waste/oll, BT=Tissue, A=Air)	Perform 9056A_28	6010B 2540C			1		Total	Special II	nstructions/Note:
Sample Identification	Sample Date Th		tion Code:							X		
MW-16-04	4/24/24 092	56	Water		XX				-	1		
			Water		VX			stody		2		
MU-16-01 MU-16-02	4/24/74 102					+	-	of Cust		2		
MJ-16-02	4/24/24 110		Water		X	++-		Chain	_	5	. <u> </u>	
MW-16-03	4/124/24 115		Water	VNX	XX					5		
MW-16-09	4/24/24/33	5 G	Water	NNX	XX			470		3		
DUP-01	4/24/24 -	-   G	Water	VNX	XX			240-20347		3		
			Water					540				
· · · · · · · · · · · · · · · · · · ·							+ + + + + + + + + + + + + + + + + + +					
							┼╾┼╶┼╸	+ + +				
······						+ + -						
		0					ĻĻĻ				d langer than	d month)
Possible Hazard Identification	Poison B Unknown	Radiological		Sample	Disposal ( A eturn To Clie	n tee may	Disposa	an sample By Leb			e <mark>d longer than</mark> ve For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	TRC EDD	rxadiologiCal			Instructions/			Dy Lau				monalo
Empty Kit Relinquished by:	Date	:		Time:			M	thod of Shipm	ent:			
Relinquished by:	Date/Time:		Company	Rece	ived by:	c $cl$		Date/		20	124 060	Company
Relinquished by:	Date/Time:	0600	TRC Company	Rece	ived by:		erase	Date/	Timedel	1		Company EEIA
At I have	4/26/24	1104	TRO			IN M	(		412	26 /	94	I FENT

Page	24	of	27
------	----	----	----

ГA

Received by:

nonsko

Cooler Temperature(s) °C and Other Remarks:

TRI

Company

Ver: 01/16/2015/3/2024

Company

Date/Time: 04127124

0800

VOA Sample Preservation - Date/Time VOAs Frozen
Sample(s)       were further preserved in the laboratory         Time preserved       Preservative(s) added/Lot number(s)
20 SAMPLE PRESERVATION
19 SAMPLE CONDITION         Sample(s)       were received after the recommended holding time had expired         Sample(s)       were received after the received in a broken container         Sample(s)       were received with bubble >6 mm in diameter (Notify PM)
18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by
Concerning
Contacted PM Date by via Verbal Voice Mail Other
<ul> <li>13 Were all preserved sample(s) at the correct pH upon receipt?</li> <li>14 Were VOAs on the COC?</li> <li>15 Were air bubbles &gt;6 mm in any VOA vials?</li> <li>16 Was a VOA trup blank present in the cooler(s)? Trup Blank Lot #Yes No</li> <li>17 Was a LL Hg or Me Hg trup blank present?</li> </ul>
<ul> <li>11 Sufficient quantity received to perform indicated analyses?</li> <li>12. Are these work share samples and all listed on the COC?</li> <li>15 yes Onestions 13, 17 have been checked at the originating laboratory</li> </ul>
), an
Shippers' packing slip attached to the cooler(s)? Yes Did custody papers accompany the sample(s)? Yes Were the custody papers relinquished & signed in the appropriate place? Yes Was/were the person(s) who collected the samples clearly identified on the COC? Yes
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         Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?       Yes No         -Were tamper/custody seals intact and uncompromised?       Yes No
I Cooler temperature upon receipt IR GUN # / { (CF 10 2 °C) Observed Cooler Temp. °C Corrected Cooler Temp °C
Aurofins Cooler # <u>EC</u> Foam Box Client Cooler Boy Packing material used Bubble Wrap Foam Plastic Bag COOLANT Wetthe Blue Ice Dry Ice Water
ter-hours Drop-off Date/Time Storage Location
Received on 04/27 124
Site Name Co
Eurofins - Cleveland Sample Receipt Form/Narrative Login # : 2024 TO Barberton Facility

5
8
9
13

Login #

See Temperature Excursion Form	🔲 See Ter					
			IR GUN #·	Box Other	Client	EC
6			IR GUN #:	Box Other	Client	EC
				Box Other	Client	EC
6			IR GUN #:	Box Other	Client	EC
o i			IR GUN #•	Box Olher	Client	EC
Wet Ice Blue Ice Dry Ice Water None			IR GUN #•	Box Other	Client	5
Wet Ice Bive Ice Dry Ice Water None			IR GUN #:	Box Olher	Client	EC
Wet ice Blue ice Dry ice Water None			IR GUN #:	Box Olher	Client	EC
Wet Ice Blue Ice Dry Ice Water None			IR GUN #:	Box Other	Client	EC
Wet Ice Blue Ice Dry Ice Water None			IR GUN #:	Box Other	Client	EC
10 N			IR GUN #:	Box Other	Client	Ē
16			IR GUN #:	Box Other	Client	EC
Wet Ice Blue Ice Dry Ice Water None			1R GUN #:	Box Other	Client	EC
0				Box Other	Client	EC
6			IR GUN #:	Box Other	Client	EC
Blue Ice oter None			IR GUN #:	Box Other	Client	E
Blue Ice Iater None			IR GUN #:	Box Other	Client	EC
D D			IR GUN #:	Box Olher	Client	EC
15			IR GUN #:	Box Other	Client	EC
Wet Ice Blue Ice Dry Ice Water None			IR GUN #:	Box Other	Client	EC
6			IR GUN #:	Box Olher	Client	EC
1.5			1R GUN #:	Box Other	Clienf	EC
15			IR GUN #:	Box Other	Client	EC
Wet Ice Blue Ice Dry Ice Water None			IR GUN #	Box Olher	Client	EC
			IR GUN #:	Box Other	Client	EC
6			IR GUN #:	Box Olher	Clien	EC
Blue ater	¢		IR GUN #:	Box Olher	Client	<del>۳</del> (
	11	1.4		Box Other	Client	(FC)
Blue ater	Υ.E.	3.4	1R GUN #:	Box Olher	Client 1	E
Wet Ice ) Blue Ice Dry Ice Water None	$bI_{s}$	<i>[b`].</i>	1R GUN #:	Box Olher	Client	E
6 1	19	19		Box Other	Client I	EC.
Blue Ice Iter None	41	4	IR GUN #: <u>{ { } } </u>	Box Other	Client I	E
0	27	1.5	1R GUN #:	Box Olher	Client I	5
	Ç,Ç	3.7	1R GUN #: <u>↓                                  </u>	Box Other	Client B	/ EC/
	Corrected Temp °C	Observed Tem <u>p</u> °C	IR Gun # (Circle)	cription e)	Cooler Description	) ç
	Itiple Cooler Form	d Sample Receipt Multiple Cooler Form	Eurofins - Cleveland			

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

# 

# Login Container Summary Report

240-203470

# Temperature readings

4/27/2024

DUP-01	DUP-01	DUP-01	MW-16-09	MW-16-09	MW-16-09	MW-16-03	MW 16-03	MW-16-03	MW-16-02	MW-16-02	MW 16-02	MW-16-01	MW-16-01	MW-16-01	MW-16-04	MW 16-04	MW-16-04	Client Sample ID
240-203470-C-6	240-203470-B-6	240-203470-A-6	240-203470-C-5	240-203470-B-5	240-203470-A-5	240-203470-C-4	240-203470-B-4	240-203470-A-4	240-203470-C-3	240-203470-B 3	240-203470-A-3	240-203470-C-2	240-203470-B-2	240-203470-A-2	240-203470-C-1	240 203470-B-1	240-203470-A-1	Lab ID
Plastic 500ml - with Nitric Acid	Plastic 500ml - unpreserved	Plastic 60 mL unpreserved	Plastic 500ml - with Nitric Acid	Plastic 500ml unpreserved	Plastic 60 mL - unpreserved	Plastic 500ml - with Nitric Acid	Plastic 500ml - unpreserved	Plastic 60 mL - unpreserved	Plastic 500ml - with Nitric Acid	Plastic 500ml - unpreserved	Plastic 60 mL - unpreserved	Plastic 500ml - with Nitric Acid	Plastic 500ml - unpreserved	Plastic 60 mL - unpreserved	Plastic 500ml - with Nitric Acid	Plastic 500ml - unpreserved	Plastic 60 mL - unpreserved	Container Type
\$ 	age	27	\$			<2						<2						<u>Container</u> <u>Preservation</u> <u>Preservation</u> pH <u>Temp</u> <u>Added</u> <u>Lot Number</u>



**Environment Testing** 

# **ANALYTICAL REPORT**

## **PREPARED FOR**

Attn: Mr. Vincent Buening TRC Environmental Corporation. 1540 Eisenhower Place Ann Arbor, Michigan 48108-7080 Generated 11/13/2024 7:41:49 PM

## **JOB DESCRIPTION**

CCR DTE Belle River Bottom Ash Basins

### **JOB NUMBER**

240-214080-1

Eurofins Cleveland 180 S. Van Buren Avenue Barberton OH 44203







## **Eurofins Cleveland**

#### Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Sroohs

Generated 11/13/2024 7:41:49 PM

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

# **Table of Contents**

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# Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Job ID: 240-214080-1

#### Qualifiers

Qualifiers		3
Metals		
Qualifier	Qualifier Description	4
U	Indicates the analyte was analyzed for but not detected.	
General Che		5
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	6
Glossary		7
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	8
%R	Percent Recovery	
CFL	Contains Free Liquid	Q
CFU	Colony Forming Unit	9
CNF	Contains No Free Liquid	10
DER	Duplicate Error Ratio (normalized absolute difference)	IU
Dil Fac	Dilution Factor	4.4
DL	Detection Limit (DoD/DOE)	11
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	40
DLC	Decision Level Concentration (Radiochemistry)	12
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	13
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: 240-214080-1

#### **Eurofins Cleveland**

#### Job Narrative 240-214080-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these
  situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise
  specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 11/1/2024 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 1.0°C and 1.4°C.

#### Metals

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

#### **General Chemistry**

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 Belle River Bottom Ash Basins

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

#### **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 CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

#### Sample Summary

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins Job ID: 240-214080-1

5 6 7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-214080-1	MW-16-02	Water	10/28/24 12:25	11/01/24 08:00
240-214080-2	MW-16-03	Water	10/28/24 11:47	11/01/24 08:00
240-214080-3	MW-16-04	Water	10/28/24 13:17	11/01/24 08:00
240-214080-4	DUP-01	Water	10/28/24 00:00	11/01/24 08:00
240-214080-5	MW-16-01	Water	10/28/24 10:47	11/01/24 08:00
240-214080-6	MW-16-09	Water	10/29/24 09:41	11/01/24 08:00

#### **Detection Summary**

RL

100

1000

100

5.0

1.0

10

5.0

20

0.050

0.050

Unit

ug/L

ug/L

ug/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Client Sample ID: MW-16-02

Analyte

Calcium

Chloride

Fluoride

Sulfate

Chloride

Fluoride

**Total Dissolved Solids** 

**Total Dissolved Solids** 

Iron

Boron

Prep Type

Total Recoverable

Total Recoverable

Total Recoverable

Total/NA

Total/NA

Total/NA

Prep Type Total Recoverable Total Recoverable Total Recoverable

Total/NA

Total/NA

Total/NA

# 1 SM 2540C Total/NA

Lab Sample ID: 240-214080-1

Dil Fac D Method

1

1

1

5

1

1

5

1

1

6010D

6020B

6020B

9056A

9056A

9056A

9056A

9056A

SM 2540C

Lab Sample ID: 240-214080-3

Client Sample ID:	MW-16-03				Lab Sample ID: 240					
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method				
Boron	1100		100	ug/L	1	6010D				
Calcium	36000		1000	ug/L	1	6020B				
Iron	610		100	ug/L	1	6020B				

**Result Qualifier** 

1200

57000

870

360

1.2

10

890

570

1.8

970

#### Client Sample ID: MW-16-04

Analyte	Result C	Qualifier	RL	Unit	Dil Fac	DI	Method	Prep Type
Boron	1100		100	ug/L	1	- 6	6010D	Total
								Recoverable
Calcium	45000		1000	ug/L	1	6	6020B	Total
								Recoverable
Iron	800		100	ug/L	1	6	6020B	Total
								Recoverable
Chloride	490		5.0	mg/L	5	ę	9056A	Total/NA
Fluoride	1.7		0.050	mg/L	1	ę	9056A	Total/NA
Sulfate	8.1		1.0	mg/L	1	ę	9056A	Total/NA
Total Dissolved Solids	800		20	mg/L	1	5	SM 2540C	Total/NA

#### Client Sample ID: DUP-01

#### Lab Sample ID: 240-214080-4

Analyte	Result Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Boron	1100	100	ug/L	1	6010D	Total
						Recoverable
Calcium	44000	1000	ug/L	1	6020B	Total
						Recoverable
Iron	860	100	ug/L	1	6020B	Total
						Recoverable
Chloride	490	5.0	mg/L	5	9056A	Total/NA
Fluoride	1.7	0.050	mg/L	1	9056A	Total/NA
Sulfate	8.1	1.0	mg/L	1	9056A	Total/NA
Total Dissolved Solids	800	20	mg/L	1	SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

#### **Detection Summary**

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Client Sample ID: MW-16-01

#### Lab Sample ID: 240-214080-5

Lab Sample ID: 240-214080-6

Analyte	Result Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Boron	1100	100	ug/L	1	6010D	Total
						Recoverable
Calcium	42000	1000	ug/L	1	6020B	Total
						Recoverable
Iron	450	100	ug/L	1	6020B	Total
						Recoverable
Chloride	470	5.0	mg/L	5	9056A	Total/NA
Fluoride	1.7	0.050	mg/L	1	9056A	Total/NA
Sulfate	6.6	1.0	mg/L	1	9056A	Total/NA
Total Dissolved Solids	890	20	mg/L	1	SM 2540C	Total/NA

#### Client Sample ID: MW-16-09

Analyte	Result Qualifie	r RL	Unit	Dil Fac	Method	Prep Type
Boron	1600	100	ug/L	1	6010D	Total
						Recoverable
Boron	1700	100	ug/L	1	6010D	Dissolved
Calcium	45000	1000	ug/L	1	6020B	Total
						Recoverable
Iron	15000	100	ug/L	1	6020B	Total
						Recoverable
Calcium	24000	1000	ug/L	1	6020B	Dissolved
Iron	190	100	ug/L	1	6020B	Dissolved
Chloride	1000	10	mg/L	10	9056A	Total/NA
Fluoride	1.5	0.10	mg/L	2	9056A	Total/NA
Sulfate	4.1	2.0	mg/L	2	9056A	Total/NA
Total Dissolved Solids	1700	20	mg/L	1	SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Client Sample ID: MW-16-02 Date Collected: 10/28/24 12:25 Date Received: 11/01/24 08:00

<b>P) - To</b>	tal Recovera	able					
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1200		100	ug/L		11/05/24 14:00	11/06/24 18:39	1
P/MS)	- Total Reco	verable					
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
57000		1000	ug/L		11/05/24 14:00	11/06/24 12:49	1
<b>870</b>		100	ug/L		11/05/24 14:00	11/06/24 12:49	1
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
360		5.0	mg/L			11/11/24 23:20	5
1.2		0.050	mg/L			11/11/24 22:21	1
10		1.0	mg/L			11/11/24 22:21	1
890		10	mg/L			11/04/24 11:15	1
	Result 1200 P/MS) Result 57000 870 Result 360 1.2 10	Result     Qualifier       1200     - Total Reco       P/MS) - Total Reco       Result     Qualifier       57000	Image: Number of the system         Image: Number of the system <t< td=""><td>Result 1200         Qualifier 100         RL 100         Unit ug/L           P/MS) - Total Recoverable Result 57000         Unit ug/L           8800         Qualifier         RL 100         Unit ug/L           870         1000         ug/L           870         100         ug/L           870         100         ug/L           10         1.0         mg/L           10         1.0         mg/L</td><td>Result 1200         Qualifier 100         RL 100         Unit ug/L         D           P/MS) - Total Recoverable Result 57000         RL 000         Unit ug/L         D           870         1000         ug/L         D           870         1000         ug/L         D           870         5.0         mg/L         D           10         1.0         mg/L         D</td><td>Result 1200         Qualifier         RL 100         Unit ug/L         D 100         Prepared 11/05/24 14:00           P/MS) - Total Recoverable Result 57000         Qualifier         RL 100         Unit ug/L         D 100/24 14:00         Prepared 11/05/24 14:00           870         100         ug/L         D 11/05/24 14:00         Prepared 11/05/24 14:00           Result 360         Qualifier         RL 5.0         Unit ug/L         D 11/05/24 14:00           1.2         0.050         mg/L 10         D 1.0         Prepared</td><td>Result 1200         Qualifier         RL 100         Unit ug/L         D ug/L         Prepared 11/05/24 14:00         Analyzed 11/06/24 18:39           P/MS) - Total Recoverable Result 57000         Qualifier         RL 100         Unit ug/L         D ug/L         Prepared 11/05/24 14:00         Analyzed 11/06/24 12:49           870         1000         ug/L         D ug/L         Prepared 11/05/24 14:00         Analyzed 11/06/24 12:49           870         100         5.0         mg/L ug/L         D ug/L         Prepared 11/11/24 23:20         Analyzed 11/11/24 22:21           10         1.0         mg/L         11/11/24 22:21         11/11/24 22:21</td></t<>	Result 1200         Qualifier 100         RL 100         Unit ug/L           P/MS) - Total Recoverable Result 57000         Unit ug/L           8800         Qualifier         RL 100         Unit ug/L           870         1000         ug/L           870         100         ug/L           870         100         ug/L           10         1.0         mg/L           10         1.0         mg/L	Result 1200         Qualifier 100         RL 100         Unit ug/L         D           P/MS) - Total Recoverable Result 57000         RL 000         Unit ug/L         D           870         1000         ug/L         D           870         1000         ug/L         D           870         5.0         mg/L         D           10         1.0         mg/L         D	Result 1200         Qualifier         RL 100         Unit ug/L         D 100         Prepared 11/05/24 14:00           P/MS) - Total Recoverable Result 57000         Qualifier         RL 100         Unit ug/L         D 100/24 14:00         Prepared 11/05/24 14:00           870         100         ug/L         D 11/05/24 14:00         Prepared 11/05/24 14:00           Result 360         Qualifier         RL 5.0         Unit ug/L         D 11/05/24 14:00           1.2         0.050         mg/L 10         D 1.0         Prepared	Result 1200         Qualifier         RL 100         Unit ug/L         D ug/L         Prepared 11/05/24 14:00         Analyzed 11/06/24 18:39           P/MS) - Total Recoverable Result 57000         Qualifier         RL 100         Unit ug/L         D ug/L         Prepared 11/05/24 14:00         Analyzed 11/06/24 12:49           870         1000         ug/L         D ug/L         Prepared 11/05/24 14:00         Analyzed 11/06/24 12:49           870         100         5.0         mg/L ug/L         D ug/L         Prepared 11/11/24 23:20         Analyzed 11/11/24 22:21           10         1.0         mg/L         11/11/24 22:21         11/11/24 22:21

Job ID: 240-214080-1

Matrix: Water

Lab Sample ID: 240-214080-1

# 2 3 4 5 6 7 8 9 10 11

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Client Sample ID: MW-16-03 Date Collected: 10/28/24 11:47 Date Received: 11/01/24 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	ug/L		11/05/24 14:00	11/06/24 18:43	1
Method: SW846 6020B - Metals	(ICP/MS)	- Total Reco	verable					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36000		1000	ug/L		11/05/24 14:00	11/06/24 12:52	1
Iron	610		100	ug/L		11/05/24 14:00	11/06/24 12:52	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	570		5.0	mg/L			11/12/24 00:00	5
Fluoride (SW846 9056A)	1.8		0.050	mg/L			11/11/24 23:40	1
Sulfate (SW846 9056A)	1.0	U	1.0	mg/L			11/11/24 23:40	1
Total Dissolved Solids (SM 2540C)	970		20	mg/L			11/04/24 11:15	

Job ID: 240-214080-1

Matrix: Water

Lab Sample ID: 240-214080-2

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins Job ID: 240-214080-1

**Matrix: Water** 

Lab Sample ID: 240-214080-3

#### Client Sample ID: MW-16-04 Date Collected: 10/28/24 13:17 Date Received: 11/01/24 08:00

Boron

Iron

#### Method: SW846 6010D - Metals (ICP) - Total Recoverable Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 100 ug/L 11/05/24 14:00 11/06/24 18:47 1100 1 Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable Result Qualifier Unit Analyte RL D Prepared Analyzed Dil Fac 1000 11/05/24 14:00 Calcium 45000 ug/L 11/06/24 12:55 1 11/05/24 14:00 800 100 ug/L 11/06/24 12:55 1 **General Chemistry** Result Qualifier Unit Analyte RL D Prepared Analyzed Dil Fac Chloride (SW846 9056A) 490 5.0 mg/L 11/12/24 00:39 5 0.050 Fluoride (SW846 9056A) mg/L 11/12/24 00:19 1.7 1

8

1

1

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins Job ID: 240-214080-1

Matrix: Water

5

8

Lab Sample ID: 240-214080-4

#### Client Sample ID: DUP-01 Date Collected: 10/28/24 00:00 Date Received: 11/01/24 08:00

Date Received: 11/01/24 08:00								
Method: SW846 6010D - Metals	(ICP) - To	tal Recovera	able					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	ug/L		11/05/24 14:00	11/06/24 18:52	1
Method: SW846 6020B - Metals	(ICP/MS)	- Total Reco	verable					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	44000		1000	ug/L		11/05/24 14:00	11/06/24 13:02	1
Iron	860		100	ug/L		11/05/24 14:00	11/06/24 13:02	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	490		5.0	mg/L			11/12/24 01:18	5
Fluoride (SW846 9056A)	1.7		0.050	mg/L			11/12/24 00:59	1
Sulfate (SW846 9056A)	8.1		1.0	mg/L			11/12/24 00:59	1
Total Dissolved Solids (SM 2540C)	800		20	mg/L			11/04/24 11:15	1

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

470

1.7

6.6

890

Job ID: 240-214080-1

Lab Sample ID: 240-214080-5

#### Client Sample ID: MW-16-01 Date Collected: 10/28/24 10:47 **Date Receive**

Chloride (SW846 9056A)

Fluoride (SW846 9056A)

Sulfate (SW846 9056A)

Total Dissolved Solids (SM 2540C)

Date Collected: 10/28/24 10	:47					-	Matrix	Water
Date Received: 11/01/24 08	:00							
	letals (ICP) - To	tal Recovera	ble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	ug/L		11/05/24 14:00	11/06/24 18:56	1
		Tetel Dese						
Method: SW846 6020B - N								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42000		1000	ug/L		11/05/24 14:00	11/06/24 13:05	1
Iron	450		100	ug/L		11/05/24 14:00	11/06/24 13:05	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

mg/L

mg/L

mg/L

mg/L

5.0

1.0

20

0.050

11/06/24 18:56	1
Analyzed 11/06/24 13:05 11/06/24 13:05	Dil Fac 1 1
Analyzed 11/12/24 01:58	Dil Fac 5
11/12/24 01:58 11/12/24 01:38	
11/12/24 01:58	5 1

5

RL

100

RL

100

RL

1000

100

Unit

ug/L

Unit

ug/L

Unit

ug/L

ug/L

D

D

D

Prepared

11/05/24 14:00

Prepared

11/05/24 14:00

Prepared

11/05/24 14:00

11/05/24 14:00

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Method: SW846 6010D - Metals (ICP) - Dissolved

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

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

**Result Qualifier** 

Result Qualifier

Result Qualifier

1600

1700

45000

15000

Client Sample ID: MW-16-09 Date Collected: 10/29/24 09:41

Date Received: 11/01/24 08:00

Analyte

Boron

Analyte

Boron

Analyte

Calcium

Iron

Job ID: 240-214080-1

Dil Fac

Dil Fac

Dil Fac

1

1

1

1

8 9 10

Method: SW846 6020B - Metals (ICP/MS) - Dissolved Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 1000 11/05/24 14:00 11/06/24 13:10 Calcium 24000 ug/L 1 11/05/24 14:00 11/06/24 13:10 190 100 ug/L Iron 1 **General Chemistry** Analyte **Result Qualifier** RL Unit D Prepared Analyzed Dil Fac Chloride (SW846 9056A) 1000 10 mg/L 11/12/24 04:16 10 0.10 11/12/24 03:56 2 Fluoride (SW846 9056A) mg/L 1.5 Sulfate (SW846 9056A) 4.1 2.0 mg/L 11/12/24 03:56 2 Total Dissolved Solids (SM 2540C) 1700 20 mg/L 11/04/24 11:15 1

#### Lab Sample ID: 240-214080-6 Matrix: Water

Analyzed

11/06/24 19:00

Analyzed

11/06/24 19:04

Analyzed

11/06/24 13:08

11/06/24 13:08

#### **QC Sample Results**

RL

100

Spike

Added

1000

Unit

ug/L

LCS LCS

1050

Result Qualifier Unit

ug/L

D

Prepared

D %Rec

105

MB MB

100 U

**Result Qualifier** 

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Method: 6010D - Metals (ICP)

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

Analyte

Analyte

Boron

Boron

Analysis Batch: 634221

Analysis Batch: 634221

Lab Sample ID: MB 240-634002/1-A

Lab Sample ID: LCS 240-634002/2-A

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-634002/1-A

Job ID: 240-214080-1

Prep Batch: 634002

Prep Batch: 634002

**Client Sample ID: Method Blank** 

11/05/24 14:00 11/06/24 18:01

**Client Sample ID: Lab Control Sample** 

%Rec

Limits

80 - 120

Prep Type: Total Recoverable

Analyzed

**Prep Type: Total Recoverable** 

Dil Fac

1

#### Client Sample ID: Method Blank Prep Type: Total Recoverable Prep Batch: 634002

Analysis Batch: 634287							Prep Batch:	634002
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	ug/L		11/05/24 14:00	11/06/24 12:31	1
Iron	100	U	100	ug/L		11/05/24 14:00	11/06/24 12:31	1

Lab Sample ID: LCS 240-634002/3-A Matrix: Water				Clier				ntrol Sample Recoverable
Analysis Batch: 634287							Prep Ba	atch: 634002
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Calcium	25000	25100		ug/L		101	80 - 120	
Iron	5000	5110		ug/L		102	80 - 120	

Method:	9056A -	Anions,	lon	Chromatography	
		/			

Lab Sample ID: MB 240-634867/3 Matrix: Water Analysis Batch: 634867	МВ	МВ				Client Sam	ole ID: Method Prep Type: To	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	mg/L			11/11/24 19:23	1
Fluoride	0.050	U	0.050	mg/L			11/11/24 19:23	1
Sulfate	1.0	U	1.0	mg/L			11/11/24 19:23	1

#### Lab Sample ID: LCS 240-634867/4 Matrix: Water Analysis Batch: 634867

7 maryolo Batolii 004001									
-	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	 50.0	49.8		mg/L		100	90 - 110	 	
Fluoride	2.50	2.62		mg/L		105	90 - 110		
Sulfate	50.0	51.0		mg/L		102	90 - 110		

Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins Job ID: 240-214080-1

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

Lab Sample ID: MB 240-633835/1 Matrix: Water Analysis Batch: 633835							Clie	nt Sam	ple ID: Metho Prep Type: T	
	МВ	MB								
Analyte	Result	Qualifier		RL	Unit	1	D Pr	epared	Analyzed	Dil Fac
Total Dissolved Solids	10	U		10	mg/L				11/04/24 11:15	1
Lab Sample ID: LCS 240-633835/2						Clie	nt San	nple ID:	Lab Control	Sample
Matrix: Water									Prep Type: T	otal/NA
Analysis Batch: 633835										
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids			569	471		mg/L		83	80 - 120	

9

#### **QC Association Summary**

Prep Type

Dissolved

Total Recoverable

**Total Recoverable** 

Total Recoverable

**Total Recoverable** 

Total Recoverable

**Total Recoverable** 

**Total Recoverable** 

**Total Recoverable** 

Total Recoverable

Matrix

Water

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

**Client Sample ID** 

MW-16-02

MW-16-03

MW-16-04

MW-16-01

MW-16-09

MW-16-09

Method Blank

Lab Control Sample

Lab Control Sample

DUP-01

Job ID: 240-214080-1

Method

3005A

3005A

3005A 3005A

3005A

3005A

3005A

3005A

3005A

3005A

Prep Batch

	2

# 10

#### Analysis Batch: 634221 Lab Samala ID

**Metals** 

Prep Batch: 634002

Lab Sample ID

240-214080-1

240-214080-2

240-214080-3

240-214080-4

240-214080-5

240-214080-6

240-214080-6

MB 240-634002/1-A

LCS 240-634002/2-A

LCS 240-634002/3-A

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
240-214080-1	MW-16-02	Total Recoverable	Water	6010D	634002
240-214080-2	MW-16-03	Total Recoverable	Water	6010D	634002
240-214080-3	MW-16-04	Total Recoverable	Water	6010D	634002
240-214080-4	DUP-01	Total Recoverable	Water	6010D	634002
240-214080-5	MW-16-01	Total Recoverable	Water	6010D	634002
240-214080-6	MW-16-09	Dissolved	Water	6010D	634002
240-214080-6	MW-16-09	Total Recoverable	Water	6010D	634002
MB 240-634002/1-A	Method Blank	Total Recoverable	Water	6010D	634002
LCS 240-634002/2-A	Lab Control Sample	Total Recoverable	Water	6010D	634002

#### Analysis Batch: 634287

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
240-214080-1	MW-16-02	Total Recoverable	Water	6020B	634002
240-214080-2	MW-16-03	Total Recoverable	Water	6020B	634002
240-214080-3	MW-16-04	Total Recoverable	Water	6020B	634002
240-214080-4	DUP-01	Total Recoverable	Water	6020B	634002
240-214080-5	MW-16-01	Total Recoverable	Water	6020B	634002
240-214080-6	MW-16-09	Dissolved	Water	6020B	634002
240-214080-6	MW-16-09	Total Recoverable	Water	6020B	634002
MB 240-634002/1-A	Method Blank	Total Recoverable	Water	6020B	634002
LCS 240-634002/3-A	Lab Control Sample	Total Recoverable	Water	6020B	634002

#### **General Chemistry**

#### Analysis Batch: 633835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-214080-1	MW-16-02	Total/NA	Water	SM 2540C	
240-214080-2	MW-16-03	Total/NA	Water	SM 2540C	
240-214080-3	MW-16-04	Total/NA	Water	SM 2540C	
240-214080-4	DUP-01	Total/NA	Water	SM 2540C	
240-214080-5	MW-16-01	Total/NA	Water	SM 2540C	
240-214080-6	MW-16-09	Total/NA	Water	SM 2540C	
MB 240-633835/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-633835/2	Lab Control Sample	Total/NA	Water	SM 2540C	
Analysis Batch: 634	1867				
Analysis Dalch. 034	1007				

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-214080-1	MW-16-02	Total/NA	Water	9056A	

#### **QC Association Summary**

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### General Chemistry (Continued)

#### Analysis Batch: 634867 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-214080-1	MW-16-02	Total/NA	Water	9056A	
240-214080-2	MW-16-03	Total/NA	Water	9056A	
240-214080-2	MW-16-03	Total/NA	Water	9056A	
240-214080-3	MW-16-04	Total/NA	Water	9056A	
240-214080-3	MW-16-04	Total/NA	Water	9056A	
240-214080-4	DUP-01	Total/NA	Water	9056A	
240-214080-4	DUP-01	Total/NA	Water	9056A	
240-214080-5	MW-16-01	Total/NA	Water	9056A	
240-214080-5	MW-16-01	Total/NA	Water	9056A	
240-214080-6	MW-16-09	Total/NA	Water	9056A	
240-214080-6	MW-16-09	Total/NA	Water	9056A	
MB 240-634867/3	Method Blank	Total/NA	Water	9056A	
LCS 240-634867/4	Lab Control Sample	Total/NA	Water	9056A	

Job ID: 240-214080-1

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Client Sample ID: MW-16-02 Date Collected: 10/28/24 12:25 Date Received: 11/01/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
ер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
al Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
al Recoverable	Analysis	6010D		1	634221	RKT	EET CLE	11/06/24 18:39
al Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Recoverable	Analysis	6020B		1	634287	AJC	EET CLE	11/06/24 12:49
/NA	Analysis	9056A		1	634867	JMR	EET CLE	11/11/24 22:21
I/NA	Analysis	9056A		5	634867	JMR	EET CLE	11/11/24 23:20
I/NA	Analysis	SM 2540C		1	633835	TAV2	EET CLE	11/04/24 11:15

#### Client Sample ID: MW-16-03 Date Collected: 10/28/24 11:47

Date Received: 11/01/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6010D		1	634221	RKT	EET CLE	11/06/24 18:43
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6020B		1	634287	AJC	EET CLE	11/06/24 12:52
Total/NA	Analysis	9056A		1	634867	JMR	EET CLE	11/11/24 23:40
Total/NA	Analysis	9056A		5	634867	JMR	EET CLE	11/12/24 00:00
Total/NA	Analysis	SM 2540C		1	633835	TAV2	EET CLE	11/04/24 11:15

#### Client Sample ID: MW-16-04 Date Collected: 10/28/24 13:17 Date Received: 11/01/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6010D		1	634221	RKT	EET CLE	11/06/24 18:47
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6020B		1	634287	AJC	EET CLE	11/06/24 12:55
Total/NA	Analysis	9056A		1	634867	JMR	EET CLE	11/12/24 00:19
Total/NA	Analysis	9056A		5	634867	JMR	EET CLE	11/12/24 00:39
Total/NA	Analysis	SM 2540C		1	633835	TAV2	EET CLE	11/04/24 11:15

#### **Client Sample ID: DUP-01** Date Collected: 10/28/24 00:00 Date Received: 11/01/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6010D		1	634221	RKT	EET CLE	11/06/24 18:52
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6020B		1	634287	AJC	EET CLE	11/06/24 13:02
Total/NA	Analysis	9056A		1	634867	JMR	EET CLE	11/12/24 00:59

Lab Sample ID: 240-214080-4

Lab Sample ID: 240-214080-3

Job ID: 240-214080-1

Matrix: Water

Matrix: Water

**Matrix: Water** 

Matrix: Water

Lab Sample ID: 240-214080-1

Lab Sample ID: 240-214080-2

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Matrix: Water

Matrix: Water

#### Lab Sample ID: 240-214080-4 Matrix: Water

Lab Sample ID: 240-214080-5

Lab Sample ID: 240-214080-6

Date Collected: 10/28/24 00:00 Date Received: 11/01/24 08:00

**Client Sample ID: DUP-01** 

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	9056A		5	634867	JMR	EET CLE	11/12/24 01:18
Total/NA	Analysis	SM 2540C		1	633835	TAV2	EET CLE	11/04/24 11:15

#### Client Sample ID: MW-16-01 Date Collected: 10/28/24 10:47 Date Received: 11/01/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6010D		1	634221	RKT	EET CLE	11/06/24 18:56
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
otal Recoverable	Analysis	6020B		1	634287	AJC	EET CLE	11/06/24 13:05
otal/NA	Analysis	9056A		1	634867	JMR	EET CLE	11/12/24 01:38
Total/NA	Analysis	9056A		5	634867	JMR	EET CLE	11/12/24 01:58
īotal/NA	Analysis	SM 2540C		1	633835	TAV2	EET CLE	11/04/24 11:15

#### Client Sample ID: MW-16-09 Date Collected: 10/29/24 09:41 Date Received: 11/01/24 08:00

Γ	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Dissolved	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Dissolved	Analysis	6010D		1	634221	RKT	EET CLE	11/06/24 19:04
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6010D		1	634221	RKT	EET CLE	11/06/24 19:00
Dissolved	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Dissolved	Analysis	6020B		1	634287	AJC	EET CLE	11/06/24 13:10
Total Recoverable	Prep	3005A			634002	BN	EET CLE	11/05/24 14:00
Total Recoverable	Analysis	6020B		1	634287	AJC	EET CLE	11/06/24 13:08
Total/NA	Analysis	9056A		2	634867	JMR	EET CLE	11/12/24 03:56
Total/NA	Analysis	9056A		10	634867	JMR	EET CLE	11/12/24 04:16
Total/NA	Analysis	SM 2540C		1	633835	TAV2	EET CLE	11/04/24 11:15

#### Laboratory References:

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

#### Accreditation/Certification Summary

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

#### Job ID: 240-214080-1

#### Laboratory: Eurofins Cleveland

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	02-28-25	
Connecticut	State	PH-0806	12-31-26	
Georgia	State	4062	02-27-25	
Illinois	NELAP	200004	08-31-25	
lowa	State	421	06-01-25	
Kentucky (UST)	State	112225	02-27-25	
Kentucky (WW)	State	KY98016	12-30-24	
Minnesota	NELAP	039-999-348	12-31-24	
New Hampshire	NELAP	225024	09-30-25	
New Jersey	NELAP	OH001	07-03-25	
New York	NELAP	10975	04-02-25	
Ohio VAP	State	ORELAP 4062	02-27-25	
Oregon	NELAP	4062	02-27-25	
Pennsylvania	NELAP	68-00340	08-31-25	
Texas	NELAP	T104704517-22-19	08-31-25	
USDA	US Federal Programs	P330-18-00281	01-05-27	
Virginia	NELAP	460175	09-14-25	
West Virginia DEP	State	210	12-31-24	

#### MICHIGAN 190

Chain of Custody Record

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Environment Testing

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

Client Information	Sampler: . Junic 'S	Kan	-/EIKikeine	Lab Ph	∕i: ⊲s.Kri	s M					Car	rier Tracki	ng No(s):		COC No: 240-12525	57-43696.1	
Client Contact:	Phone: 7341-			E-Mail:							Sta	te of Orlgin	):		Page: Page 1 of	1	
Mr. Vincent Buening Company:	1 )-1	, , , , , , , , , , , , , , , , , , ,	PWSID:	Kris.E	STOOKS	et.e	uronr	isus.c	om						Job #:		
TRC Environmental Corporation.									Analy	sis F	Reque	sted				0.1	
Address: 1540 Eisenhower Place	Due Date Requested	1:						6	3						Preservation D - HNO3	on Codes:	
City:	TAT Requested (day	/s):							3						N - None		
Ann Arbor State, Zip:					1			1	50								
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<sup>2</sup> hone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 214273							9056A_28D - Chloride, Fluoride and Sulfate	9								
mail:	WO #:				2 C			and a	5								
/buening@trccompanies.com Project Name:	553931.0003.000 Project #:	00			r No		:	- Ide	1000					Iers			
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Coolant (Circle)	Corrected Temp °C	Observed Temp °C	IR Gun # (Circle)	iption	r Descr Circle)	Cooler Description (Circle)	Q
	ultiple Cooler Form	Eurofins - Cleveland Sample Receipt Multiple Cooler Form	Eurofins - Clevelan				

Login # :

# Login Container Summary Report

# Temperature readings

11/1/2024

MW-16-09	MW-16-09	MW-16-09	MW-16-09	MW-16-01	MW-16-01	MW-16-01	DUP-01	DUP-01	DUP-01	MW-16-04	MW-16-04	MW-16-04	MW-16-03	MW-16-03	MW-16-03	MW-16-02	MW-16-02	MW-16-02	Client Sample ID
240-214080-D-6	240-214080-C-6	240-214080-B-6	240-214080-A-6	240-214080-C-5	240-214080-B-5	240-214080-A-5	240-214080-C-4	240-214080-B-4	240-214080-A-4	240-214080-C-3	240-214080-B-3	240-214080-A-3	240-214080-C-2	240-214080-B-2	240-214080-A-2	240-214080-C-1	240-214080-B-1	240-214080-A-1	<u>Lab ID</u>
Plastic 500ml - w/ Nitric - Dis.	Plastic 500ml - with Nitric Acid	Plastic 500ml - unpreserved	Plastic 60 mL - unpreserved	Plastic 500ml - with Nitric Acid	Plastic 500ml - unpreserved	Plastic 60 mL - unpreserved	Plastic 500ml - unpreserved	Plastic 250ml - with Nitric Acid	Plastic 60 mL - unpreserved	Plastic 500ml - unpreserved	Plastic 250ml - with Nitric Acid	Plastic 60 mL - unpreserved	Plastic 500ml - unpreserved	Plastic 250ml - with Nitric Acid	Plastic 60 mL - unpreserved	Plastic 500ml - unpreserved	Plastic 250ml - with Nitric Acid	Plastic 60 mL - unpreserved	Container Type
	\$       ₽	age	26	\$         				<2			<2						<2		<u>Container</u> Preservation Preservation pH Temp Added Lot Number



**Environment Testing** 

### **ANALYTICAL REPORT**

#### **PREPARED FOR**

Attn: Mr. Vincent Buening TRC Environmental Corporation. 1540 Eisenhower Place Ann Arbor, Michigan 48108-7080 Generated 12/20/2024 3:43:40 PM

#### JOB DESCRIPTION

CCR DTE Belle River Bottom Ash Basins

#### **JOB NUMBER**

240-216762-1

Eurofins Cleveland 180 S. Van Buren Avenue Barberton OH 44203







#### **Eurofins Cleveland**

#### Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Sroohs

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

Generated 12/20/2024 3:43:40 PM

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#### **Definitions/Glossary**

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

3

#### Qualifiers

Metals

Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
Glossary		5
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
ф.	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	0
CNF	Contains No Free Liquid	0
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	9
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)	

#### Job ID: 240-216762-1

#### **Eurofins Cleveland**

#### Job Narrative 240-216762-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these
  situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise
  specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 12/17/2024 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.7°C, 1.9°C and 2.2°C.

#### Metals

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

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

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Method Description

Preparation, Total Recoverable or Dissolved Metals

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

Metals (ICP/MS)

Method

6020B

3005A

Protocol References:

Laboratory References:

Laboratory

EET CLE

EET CLE

Protocol

SW846

SW846

5
8
9

Sample Summary

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Job ID: 240-216762-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-216762-1	MW-16-03	Water	12/11/24 13:40	12/17/24 10:30
240-216762-2	DUP-01	Water	12/11/24 00:00	12/17/24 10:30

#### **Detection Summary**

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins Job ID: 240-216762-1

Client Sample ID: MW-16-03	Lab Sample ID: 240-216762-1								
Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Туре	
Calcium	34000		1000	ug/L	1	_	6020B	Total	
_								Recoverable	
Client Sample ID: DUP-01					Lab Sample ID: 240-216762-2				
– Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type	
Calcium	35000		1000	ug/L	1	_	6020B	Total	
								Recoverable	

This Detection Summary does not include radiochemical test results.

#### **Client Sample Results**

Job ID: 240-216762-1

5 6 7

Lab Sample ID: 240-216762-1

#### Client Sample ID: MW-16-03 Date Collected: 12/11/24 13:40

Date Collected: 12/11/24 13:40 Date Received: 12/17/24 10:30	Matrix: Water
Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable	

Analyte	, Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium	34000	1000	ug/L		12/18/24 14:00	12/19/24 18:18	1	

#### **Client Sample Results**

Job ID: 240-216762-1

5

8

Lab Sample ID: 240-216762-2

#### Client Sample ID: DUP-01 Date Collected: 12/11/24 00:00

Date Collected: 12/11/24 00:00						Matrix	k: Water
Date Received: 12/17/24 10:30							
Method: SW846 6020B - Metals (I	CP/MS) - Total Recoverable	•					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35000	1000	ug/L		12/18/24 14:00	12/19/24 18:21	1

#### Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Job ID: 240-216762-1

#### Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-639245/1-A Matrix: Water Analysis Batch: 639548	мв	МВ							С		mple ID: Metho ype: Total Rec Prep Batch	overable
Analyte		Qualifier		RL		Unit		D	Pre	pared	Analyzed	Dil Fac
Calcium	1000	U		1000		ug/L		1	12/18/	24 14:00	12/19/24 17:17	1
Lab Sample ID: LCS 240-639245/2-A								Cli	ent S	Sample I	D: Lab Control	Sample
Matrix: Water										Prep T	ype: Total Rec	overable
Analysis Batch: 639548											Prep Batch	: 639245
			Spike		LCS	LCS					%Rec	
Analyte			Added		Result	Qualifier	Unit		D	%Rec	Limits	
Calcium			25000		23800		ug/L			95	80 - 120	

#### **QC Association Summary**

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

DUP-01

Method Blank

Lab Control Sample

Job ID: 240-216762-1

639245

639245

639245

#### Metals

240-216762-2

MB 240-639245/1-A

LCS 240-639245/2-A

Prep Batch:	639245
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-216762-1	MW-16-03	Total Recoverable	Water	3005A	
240-216762-2	DUP-01	Total Recoverable	Water	3005A	
MB 240-639245/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-639245/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
Analysis Batch: 63954	8				
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
240-216762-1	MW-16-03	Total Recoverable	Water	6020B	639245

Total Recoverable

Total Recoverable

Total Recoverable

Water

Water

Water

6020B

6020B

6020B

Matrix: Water

Matrix: Water

Lab Sample ID: 240-216762-1

Lab Sample ID: 240-216762-2

#### Client Sample ID: MW-16-03 Date Collected: 12/11/24 13:40 Date Received: 12/17/24 10:30

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			639245	BN	EET CLE	12/18/24 14:00
Total Recoverable	Analysis	6020B		1	639548	AJC	EET CLE	12/19/24 18:18

#### Client Sample ID: DUP-01 Date Collected: 12/11/24 00:00 Date Received: 12/17/24 10:30

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			639245	BN	EET CLE	12/18/24 14:00
Total Recoverable	Analysis	6020B		1	639548	AJC	EET CLE	12/19/24 18:21

#### Laboratory References:

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

#### Accreditation/Certification Summary

Client: TRC Environmental Corporation. Project/Site: CCR DTE Belle River Bottom Ash Basins

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
llinois	NELAP	200004	08-31-25
owa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Vinnesota	NELAP	039-999-348	12-31-25
ew Hampshire	NELAP	225024	09-30-25
lew Jersey	NELAP	OH001	07-03-25
lew York	NELAP	10975	04-02-25
Dhio VAP	State	ORELAP 4062	02-27-25
Dregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
JSDA	US Federal Programs	P330-18-00281	01-05-27
/irginia	NELAP	460175	09-14-25
Vest Virginia DEP	State	210	12-31-24
Wisconsin	State	399167560	08-31-25

Eurofins Canton 180 S. Van Buren Ave	$\left(, -\right)$	>		Ch	ain	of	Cı	usto	cdy	/ F	lec	ord	CF 1	H( 90	GA )	Ν			eur	ofi	ns	Envi Ame	ronmer rica	nt Test	ing
Barberton, OH 44203-3543 phone 330.497.9396 fax 330.497.0772	Regul	atory Pro	aram: Г	] DV [		5 [		RA [	기 Oth	ner:									Ει	urofine	s Envir	onmer	nt Testir	ng Ame	rica
		anager: Vi				1													_	OC N				-	
Client Contact		ening@trcc				Site	Con	tact:	-				Date	e: 17	-11	-2	il	-		1	0	f1_	CC	DCs	
TRC Companies		34-904-33		com				tact:	Kris	Broc	ks		-	rier:	<u> </u>		٩		- T/	ALS P	roiect	#:			
1540 Eisenhower Place		Analysis T		l Time			T	TT		T					TT				_	ample					-
Ann Arbor Michigan, 48108		DAR DAYS		RKING DAY	′S	11														or Lab		Only:			
734-971-7080 Phone	TAT i	f different fron	n Below	<del>5 Days</del>			2												W	/alk-in	Clien	t:			
NA		2	weeks	Shav	-	2)	2												La	ab Sar	mpling	<b>j</b> :			
Project Name: DTE CCR Belle River Bottom Ash Basins		t	week	5-7		≻ 2	<u>၂</u> ရိ																		
Site: Belle River Power Plant, MI		2	2 days			) e	<u>8</u> 99												Jo	ob / SI	DG No	».:			
P O # 214273		1	l day			l la la	i un																		
			Sample			S a	Total Calcium (6020)																		
	Sample	Sample	C=Comp,		# of	fere																			
Sample Identification	Date	Time	G=Grab)	Matrix	Cont.	Ē	a b														Sampl	e Spe	cific No	tes:	
MW-16-03	12/11	1340	G	GW	1		NX																		
	17/11	/	G	GW	1	NI	NX																		
DUP-01	12/11_					$\mathbb{H}$	+			+			++		+	-	+	┝╌┼			_	_			-
						Ш																		_	
														-											
					-	╞╌┼╴	-			+	1		41	-	+ +		+						_		-
						Ц	-				1	E			+	_					_				_
												H	64	5											
						$\square$					F	L			c										
						$\square$	+			+	-	240	-2167	62 CO	+							-			-
												-			1										
						П	T					1	IT												
					_	++	+	+	+	+	+		+						+						-1
																				_					
	<u> </u>					┝╌┼╴	-		-	+			+		+		+-	$\vdash$							-
Preservation Used: 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3	; 5=NaOH;	6= Other					4																		
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Plea the Comments Section if the lab is to dispose of the sample.					mple in						l fee r	•		sesse		·				longe			nth)		
✓ Non-Hazard         Flammable         Skin Irritant           Special Instructions/QC Requirements & Comments: TR			🗌 Unkn	own				Return	to Clie	nt			Disposa	by Lat	)		J Arch	nive for			Month	5			-
Custody Seals Intact: Yes No	Custody S	eal No.:		1				the second s	_	r Te	np. (°	C): O	bs'd:_	1.2		Corr'd:				herm		.:			_
Relinquished by:	Company	M/	_	Date/Ti	me:	F	Recei	ved by	Y://	20	_	stor	uc	C	ompar	M.	$\mathcal{C}$	_	- D	ate/Ti	me:	11	20		
Relinquished by:	Company			Date/Ti	me:	E	Recei	ved by	y://	W		E	Ţ	G	mpar	¥2			D			~~ ~/		143	0
Relinguished by: MAA	Company						Recei	ved in	Lab	orate	ry by				ompar		1			ate/Ti	me				
Relinquished by: Mart 1	Company	A			24 [4]	<u>55</u>		ved in	ARI	NE	MĂ	RTJ	N		e	JUL	-		1	ate/Tir	117	24	10	30	

12/20/2024

	19 SAMPLE CONDITION         Sample(s)	18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by	Finn fine - Claveland Commune Baraint Form Naturation
IN OF CUSTODY & SAMPLE DISCREPANCIES       additional next         PLE CONDITION	additional next page		

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len pe	EC Client Box Other IR GUN #	EC Cilent Box Other IR GUN #	EC Cilent Box Other IR GUN #	EC Cilent Box Other IR GUN #	EC Client Box Other IR GUN #	EC Cilent Box Other IR GUN #	EC Client Box Other IR GUN *	EC Client Box Other IR GUN *	EC Client box Other IR GUN #	EC Client Box Other IR GUN +	EC Client Box Other IR GUN *	EC Client box Other IR GUN +	EC Client Box Other IR GUN +	EC Client Box Other IR GUN #	EC Client Box Other IR GUN #	EC Client Box Other IR GUN #	EC Client Box Other IR GUN	EC Client Box Other IR GUN *:	EC Client Box Other IR GUN *	EC Client Box Other IR GUN #	EC Client Box Other IR GUN #;	EC Client Box Other IR GUN *:	EC Client Box Other IR GUN #:	EC Client Box Other IR GUN ≰:	EC Client Box Other IR GUN #:	EC Client sox Other IR GUN #:	EC Client Box Other IR GUN #:	EC Client Box Other IR GUN ≇:	EC Client Box Other IR GUN #: 7, 8	EC Client Box Other IR GUN #: 3.1		Cooler Description IR Gun # Observed Corrected (Circle) (Circle) Temp °C Temp °C			
		Wet Ice	Wet Ice	Wet Ice	Wetice	Wet Ice	Weilce		Wellce	Weilce	Weilce	Weice	Wet Ice	Wetice	Weilce	Wetice	Weilce	Wellice	Weilce	Wet Ice	Wet Ice	Wet Ice	Wet Ice	Wetice	Wet Ice	Wetice	Wetice	Wetice	Wet Ice	Wetice	Wet Ice		Wellice	Wet lo	Corrected Temp °C

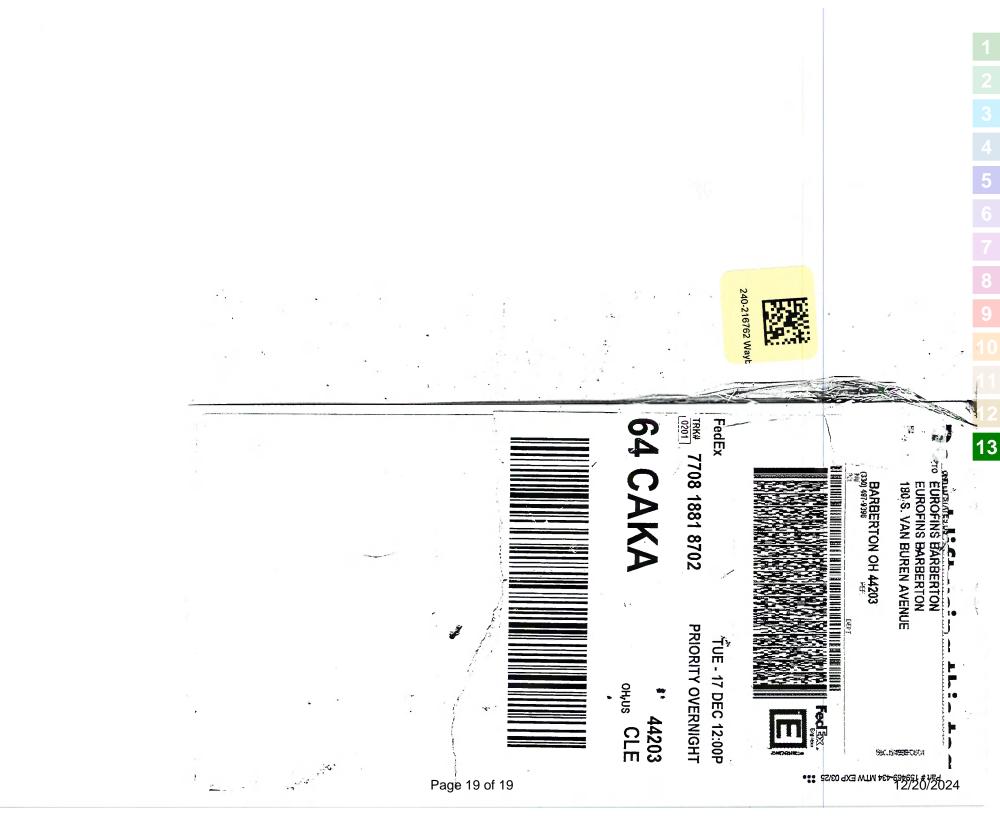


# Login Container Summary Report

# Temperature readings

12/17/2024

DUP-01	MW=16=03-	Client Sample ID
240-216762-A-2	240-216762-A-1	Lab ID
Plastic 250ml - with Nitric Acid	Plastic 250ml - with Nitric Acid	Container Type
۵	۵	pH Cor
		<u>Container</u> pH Temp
		<u>Preservation</u> Added
	A sea a s	<u>n Preservation</u> Lot Number





#### **Field Data**

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PAGE	1	OF	. 1

# **TRC**

PROJECT NAME:	DTE: BRPP BABs-DB 2024 Sampling
PROJECT NUMBER:	553931.0003.0000
PROJECT MANAGER:	Vince Buening
SITE LOCATION: -	4505 King Road China Township, MI 48054
DATES OF FIELDWORK:	4/23/2024 TO 4/24/2024
- PURPOSE OF FIELDWORK: -	1SA2024 CCR Sampling Event
-	
-	A. Whaley, E. Rinehart
WORK PERFORMED BY:	
-	·····

SIGNED HISOLZH DATE

1 4/30/24 DATE  $\mathcal{L}$ CHECKED BY

PAGE 2 OF 14

#### **GENERAL NOTES**

PROJECT NAME:	DTE: BRPP BABs-DB 2024 Sa	DATE: 4	123/24	
PROJECT NUMBER:	553931.0003.0000	AUTHOR	A. Whaley, E. Rinehart	

WEATHER	
TEMPERATURE: 54 °F WIND: 5-10 MPH	VISIBILITY: OVERCOST - Roam
WORK / SAMPLING PERFORME	Ð
Sign in w/ security / site contact Sitewide water levels	
Train Elsiz on Submersible Pump	
Offsite - 1100	
onsite 1500	
	15 min

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN

COMMUNICATION			
NAME	REPRESENTING	SUBJECT / COMMENTS	
Jake Krenz	TRC	Technical Coordinator	
Jason Roggenbuck	DTE	Site Contact	
Somie Stanislawsh	u		
UCATIC STUITSWSH			

#### INVESTIGATION DERIVED WASTE SUMMARY WASTE MATRIX QUANTITY COMMENTS GW NM Ind 4150

SIGNED

DATE

4/30/24 CHECKERBY DATE

#### **GENERAL NOTES**

PROJECT NAME:	DTE: BRPP BABs-DB 2024 Sa	DATE: 4/24/2024	TIME ARRIVED 0730
PROJECT NUMBER:	553931.0003.0000	AUTHOR: A. Whale, E. Rinehart	

WEATHER	
TEMPERATURE: 36-39 °F WIND: 5-12 MPH	VISIBILITY: OVErcast-Snow-ain
WORK / SAMPLING PERFORMED	
Sign on w/ security/site contact Calibrate YSI Sample MW-16-04, MW-16-01, MW-16-02, IMW-16-09	Mw-16-03 (Dupol),

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN

COMMUNICATION				
NAME	REPRESENTING	SUBJECT / COMMENTS		
Jake Krenz	TRC	Technical Coordinator		
Jason Roggenbuck	DTE	Site Contact		
Jamie Storislasti				

INVESTIGATION DERIVED WASTE SUMMARY					
WASTE MATRIX	COMMENTS				
GW	NM	Purced to ground			
		gu je goud			
ch in	11 at	Dalay 11- PAT 4/20			

~my min <u>713</u> ð SIGNED DATE

1/36/24 DATE H CHECKEDBY

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#### EQUIPMENT SUMMARY

PROJECT NAME:	DTE: BRPP BABs-DB 20				
PROJECT NO.:	553931.0003.0000	SAMPLER NAME: A. Whaley, E. Rinehart			
WATER LEVEL MEASU	IREMENTS COLLECTED WITH	H:			
HEF	RON DIPPER-T	TRC A2			
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)			
		VITH:			
	NA	NA			
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)			
DEPTH TO BOTTOM O	F WELL MEASUREMENTS CO	DLLECTED WITH:			
HEF	RON DIPPER-T	TRC A2			
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)			
PURGING METHOD					
BLADDER	PUMP (DEDICATED)	PROJECT DEDICATED			
NAME AND MODEL OF PUMP OR TYPE OF BAILER		SERIAL NUMBER (IF APPLICABLE)			
SAMPLING METHOD					
BLADDER PUMP (DEDICATED)		PROJECT DEDICATED			
NAME AND MODEL OF P	UMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)			
	NA	0.45 MICRON			
NAME AND MODEL OF F	ILTERATION DEVICE	FILTER TYPE AND SIZE			
DEDICAT	ED TEFLON TUBING	LOW-FLOW SAMPLING EVENT			
TUBING TYPE					
PURGE WATER DISPO	SAL METHOD				
DECONTAMINATION A	AND FIELD BLANK WATER SC	DURCE			
ST	ORE BOUGHT	LABORATORY PROVIDED			
POTABLE WATER SOUR	CE	DI WATER SOURCE			
alla M	ul 4/30/2	4 6 1/30/2			
SIGNED	DATE	CHECKED BY DATE			
EVISED 04/2019		-)			

PAGE 5 OF 14



#### WATER LEVEL DATA

PROJECT NAME:	DTE: BRPP BABs-DB 2024 Sampling				DATE: 4/23/24			
PROJECT NUMBER:	553931.0003.0000				AUTHOR A. Whaley E. Rinehart			
WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	DEPTH TO BOTTOM (FEET)		DEPTH TO PRODUCT (FEET)	WATER ELEVATION	
MW-16-01	0900	TOC	15.69	NM		NA	NM	
MW-16-02	0852	TOL	13.33					
MW-16-03	0848	TOC	16.05					
MW-16-04	0840	Toc	16.52					
MW-16-05	0833	TOC	16.81					
MW-16-06	0825	TOC	17.65					
MW-16-07	0520	TOC	16.81					
MW-16-08	0815	TOC	15.69					
MW-16-09	0845	TOC	16.15		ç,			
MW-16-10	OPZO	TOL.	17.74					
MW-16-11A	0836	TOL.	16.92			V		
			· · · · · · · · · · · · · · · · · · ·					
			1					

ALL WATER LEVELS MUST INCLUDE REFERENCE POINT AND TAPE CORRECTION FACTOR (E.G., 1.1 + 0.00 T/PVC).

IM 200 ~ DATE SIGNED

4/30/24 DATE CHECKED

**REVISED 04/2019** 

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#### WATER QUALITY METER CALIBRATION LOG

PROJECT NAME:	DTE: BRPP BABs-DB 2024 Sampling			MODEL: YSI Pro DSS	SAMPLER:	AWER		
PROJECT NO.:	553931.0003.0000			SERIAL #: Rented	DATE: 4/2	4/24		
РН	CALIBRATION CHECK				ONDUCTIVITY CALIE	BRATION CHECK		
(LOT #): 4 1332. (EXP. DATE): NOV 125	PH43 10 (LOT #): 2 7069 1 (EXP. DATE): 2 725	CAL. RANGE	TIME	CAL. READING (LOT #): 4/6 A 09 7 (EXP. DATE: 5 CA /2 C	1	E CAL. RANGE TIME		
POST-CAL, READING / STANDARD	POST-CAL. READING / STANDARD			POST-CAL. READING / STAN	NDARD			
104 1704	4.00 14.00		2715	T   170 /117	15.1			
1	1			. /				
1	1							
	CALIBRATION CHECK			D.0	. CALIBRATION CHE			
CAL. READING (LOT #): 23H 100626 (EXP. DATE): Sep 28 POST-CAL. READING / STANDARD	(°CELSIUS)	CAL. RANGE	TIME	CAL. READING	(°CELSIUS)	E CAL. RANGE TIME		
228 / 228	13.2	WITHIN	075 <u>(</u> -	1030 1103				
1								
1		RANGE						
TURBI	DITY CALIBRATION CHEC	· · · · · · · · · · · · · · · · · · ·						
	READING (NTU)				ON 🔽 STANDAR	D SOLUTION (S)		
(LOT #): (EXP. DATE): DI POST-CAL. READING / STANDARD	(LOT #): A3097 (EXP. DATE): NON 25 POST-CAL, READING / STANDARD	CAL. RANGE	TIME	(LOT #): (EXP. DATE): CALIBRATED PARAMET	UNDER CAL	LIST LOT NUMBERS AND EXPIRATION DAT UNDER CALIBRATION CHECK		
0.0 0.0	100 /100		- 121 0		pH: +/- 0.2 S	TION RANGES <sup>(1)</sup>		
			08>10			OF CAL. STANDARD		
1	/			ORP	ORP: +/- 25 m	١V		
1	/			D.O.	D.O.: VARIES	i		
	NOTES			П тикв П	(1) CALIBRATION RA	OF CAL. STANDARD		
	PROBLEMS ENCOUNTERED			co	RRECTIVE ACTIONS			
						0		
aly M	in 4/20	)24		the	- on	1 1/30		

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#### WATER SAMPLE LOG

PROJECT NAME: DTE: BRPP BABs-DB 2024 Sa						PREPARED				CHECKED			
PROJECT	NUMBER	R: 55393 <sup>.</sup>	1.0003.0000	3Y: (	AW EF		1/2/	вү: С	R	DATE: 4/30/2			
SAMPLE I	D: Mu	1-16-0	54	WELL D	IAMET	ER: 🗸	2" 🗌 4" 🛄	] 6" 🗌	OTHER				
WELL MATI	ERIAL:	PVC	🗌 ss 🗌		GALVA	NIZED	STEEL		OTHER				
SAMPLE TY	PE:	⊡ GW		sw 🗌 [	וכ		LEACHATE		OTHER				
PURG	BING	TIME	30 01	ATEJ ZIZ	4	S	AMPLE		09ZS	<b>5</b> D/	ATEHIZYIZY		
PURGE METHOD		PUMP BAILER		MP (DEDICAT	ED)	PH: ORP:		SU CO nV DO:					
DEPTH TO	WATER:	16.65	T/ PVC			TURB	DITY: 55.1	Z NTI	J				
DEPTH TO	BOTTOM:	NM	T/ PVC			🗌 NO	NE 🗌 SL	IGHT	🗴 мо	DERATE	VERY		
WELL VOLU	JME:	NM		GALLON	١S								
	EMOVED:	4.5			١S	COLO	DLOR: Mostly clear		ODOR:		None		
COLOR:	Llee	ar	00	DOR: NO	nc	FILTRA	TE (0.45 um)		s 🗴	NO			
	🗴 sli		BIDITY MODERATE		Y			S/MSD			DR:		
 DISPOSAL						COMM	IENTS:						
ТІМЕ	PURGE RATE	7.6-8.2	CONDUCTIVITY			D.O.	TURBIDITY		ERATURE	WATER LEVEL	CUMULATIVE PURGE VOLUME		
	(ML/MIN)	(SU)	(umhos/cm)	(mV)		mg/L)	(NTU)		(°C) <b>(</b>	(FEET)	(GAL OR ) INITIAL		
0870	lop	206	200	-30.0	1	54	4.41	9.		17. ŠČ			
3845		7.11	1197	-44.5		19	Z1.10	9.8		07.71	0.5		
0850		7.14	1180	-87.9	0	.62	34.80	9.7	2	17.80	1.0		
6855		7.28	1181	-106.4	<u> </u> ].	90	61.20	9.8	<u>く</u>	ļ	1.5		
000		741	1195	- 123.5	- 0	.64	220.10	10.0	2		2.0		
0905		7,50	1196	-124.6	0	60	100.32	10-	2		2.5		
0910		7.52	1194	- 126,0	1	62	70.94	6.	0		3.0		
2915		7.56	1192	-1372	1	-29	56.20	10.	0		3.5		
6920		7.60		-139.9	0	.30	52.61	10.	l		4.0		
-0	V		1200				55.12		and the second s	V	4.5		
			EST IS COMP	LETE WHEN		CESSIV		ARE WIT	HIN THE				
BOTTLES	FILLED	PRESERV	ATIVE CODES	A - NONE	в-	НNO3	C - H2SO4	4 D-	NaOH	E - H0			
NUMBER	SIZE	TYPE	PRESERVAT	IVE FILTE	RED	NUME	ER SIZE	TYF	PE PF	RESERVAT	VE FILTERED		
	500mL	PLASTIC	A		<b>X</b> ] N								
1	500mL	PLASTIC	В		<b>X</b> N	<u> </u>							
۰. ۱	60 mL	PLASTIC	A		X N	<u> </u>		+					
<b>f</b>	1 L	PLASTIC	В										
					N			-					
SHIPPING	METHOD:	LOUS	ier d	ATE SHIPPEI	D: <b>4</b>	7/2	6/24	AIR		IBER:	<u> </u>		
COC NUME	BER:	·····	******	IGNATURE:		4. L	lint	DA	TE SIGNE	D: 4	1/30/24		
							ď	- [			- <u>u-</u> .u-,		

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#### WATER SAMPLE LOG

PROJECT NAME: DTE: BRPP BABs-DB 2024 Sa					PREPARED				CHECKED					
PROJECT NUMBER: 553931.0003.0000						WER DATE / 124/21 BY: E/C				R	DATE: 4/30/24			
SAMPLE ID:         MU - 16-01         Well diameter:         ☑ 2"         ☐ 4"         ☐ 6"         ☐ OTHER														
WELL MATERIAL: V PVC SS IRON GALVANIZED STEEL OTHER														
SAMPLE TYPE: GW WW SW DI LEACHATE OTHER														
PURGING TIME: 74/5 DATE 4/14/11														
						PH: 7.55 SU CONDUCTIVITY: <u>1170</u> umhos/cm ORP: <u>- #/8.5</u> mV DO: <u>O-OZ</u> mg/L								
							TURBIDITY: <b><u>7.92</u></b> NTU							
DEPTH TO	BOTTOM:	NM	T/ PVC											
WELL VOLU	JME:	NM		GALLC	NS									
	EMOVED:	60	X LITERS	GALLC	NS	COLOR: CLEAR ODOR: NOTE								
COLOR:	Lle	205	(	DOR: NO	re	FILTRATE	(0.45 um)	YES	3 🖄	NO				
_		TURE	BIDITY			FILTRATE COLOR:								
		ЭНТ 🗌	MODERATE		RY	QC SAMPLE: MS/MSD DUP-								
TIME	PURGE RATE (ML/MIN)	PH <b>1.0-8.1</b> (SU)	CONDUCTIVI			D.O. T mg/L)	URBIDITY (NTU)		RATURE	WATER LEVEL (FEET)	PURGE VOLUME			
ASO	200	7.13	1166	-70.8		35 7	1-07	10.	1	16.70				
455	$\frac{1}{1}$	7.24	1170	- 116.0		.12 2	16	10.		16.85	1.			
1000		7.2.7	1169	-118.9	1		.30	10.		10,1-	2.0			
1005		7.97	1165	-133.3	1		.50		-Z	+	3.0			
1010				-140.4		026.	.89	10.		+	4.0			
		7.52	1165				.44	10.	~	V	to the second			
1015	J	7.55		-145.6		100		1	*****		5.0			
1020		7.52	1170	- 195.	SO	02 4	.92	10	. ८		-le.0			
						4								
NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:														
pH: +/-	0.1 (	COND.: +/-	10 % OF	:P: +/-	D.O.:	+/-	TURB: +/-	10 %	or =</td <td>5</td> <td>TEMP.: +/- 0.5°C</td>	5	TEMP.: +/- 0.5°C			
BOTTLES	FILLED	PRESERV	ATIVE CODE	<u>S</u> A-NONE	В-	HNO3	C - H2SO4	4 D-	NaOH	E - H	ICL F			
NUMBER	SIZE	TYPE	PRESERVA		ERED	NUMBER	SIZE	TYF	PE PF	RESERVA	TIVE FILTERED			
)	500mL	PLASTIC	А	ΠY	N K									
1	500mL	PLASTIC	В	ΠY	N A									
	60 mL	PLASTIC	Α	ΠY	X N									
	1 L	PLASTIC	В	Y 🗌 Y										
SHIPPING		Cour	·eC	DATE SHIPPI		1/2/	1-21		BILL NUN					
			-	SIGNATURE:		1 126	. 1				(1/5/1-1			
	COC NUMBER: SIGNATURE: 14. White DATE SIGNED: 4/30/24													

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#### WATER SAMPLE LOG

PROJECT NAME: DTE: BRPP BABs-DB 2024 Sa						PREPARED			CHECKED					
PROJECT NUMBER: 553931.0003.0000						AVDER DATE // Z// BY: (				2	DATE: 4/80/24			
SAMPLE ID: MW-16-02 WELL DIAMETER: ☑ 2"														
WELL MATERIAL: PVC SS IRON GALVANIZED STEEL OTHER														
SAMPLE TYPE: GW WW SW DI LEACHATE OTHER														
PURG	SING	TIME: 💋		DATEL/1241	27		MPLE		105		TE: 4/EACH			
PURGE  PUMP BLADDER PUMP (DEDICATED) METHOD: BAILER							PH: <u>7.41</u> SU CONDUCTIVITY: <u>724</u> umhos/cm ORP: <u>-166.3</u> mV DO: <u>0-20</u> mg/L							
DEPTH TO WATER: <u><b>B.42</b></u> T/ PVC							TURBIDITY: 398 NTU							
DEPTH TO	BOTTOM:	NM	T/ PVC			🕅 NONE 🗌 SLIGHT 🗌 MODERATE 🗌 VERY								
VOLUME R	EMOVED:	110560		GALLO	NS	COLOR: <u>Clean</u> ODOR: None								
COLOR:	<u>Lleas</u>			DOR: <u>Non</u>	à	FILTRATE (0.45 um) 🗌 YES 🔀 NO								
		TUR	BIDITY			FILTRATE COLOR: FILTRATE ODOR:								
X NONE		QC SAN	QC SAMPLE: MS/MSD DUP-											
TIME	PURGE RATE (ML/MIN)	PH 7. <b>.}-₽.:</b> (SU)	CONDUCTIVIT	Y ORP (mV)		D.O. mg/L)	TURBIDITY (NTU)	TEMPER/ (°C		WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR <b>O</b> )			
KAT	200	7.20	901	-lab-C			0.51	9.6		13.60	INITIAL			
1040	T	6.80	930	-277			41.31	104	/	·sqa	1.0			
1045		7.18	929	-65.			5.23	10.3		<b> </b>	2.0			
1050		7.28>		-63.	-		2.17	10.4	The second second second second		3.0			
1055		7.35	425	-98-4			4.83	10.4			4.0			
1100		7.37	926	- 61.6			1.46	10.3			5.0			
1105	1	7.41	424	-106.				10.2		V	6.0			
nos	•	•• / 1	461	<u> </u>	50	5.20 3.98° 10.3 V				0.0				
NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:           pH: +/- 0.1         COND.: +/- 10 % ORP: +/- D.O.: +/- TURB: +/- 10 % or = 5</td TEMP.: +/- 0.5°C														
BOTTLES			ATIVE CODES			HNO3	C - H2SO4			E - HC				
NUMBER	SIZE	TYPE	PRESERVA			NUMBE	R SIZE	TYPE	PF	RESERVAT				
1	500mL	PLASTIC	A		ИХ									
1	500mL	PLASTIC	В	Y	N [X	ļ								
1	60 mL	PLASTIC	А	Υ	N 😥									
	1 L	PLASTIC	В	ΠY	N						Y N			
				ΓY	N []									
SHIPPING	METHOD:	Lour	25	DATE SHIPPI		11261	<i>74</i>	AIRBI	LL NUM	IBER:				
	BER:			SIGNATURE:		A. w1	in	DATE	SIGNE	D: <u>9</u>	130/24			

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#### WATER SAMPLE LOG

					·			· · · [		01150	
PROJECT		DIE: E	BRPP BABS-	DB 2024 Sa			PARED			CHEC	
PROJECT	NUMBEF	R: 553931	1.0003.0000	•	BY: (	AWER	DATE	124 B	ч: ЕI		DATE: 4/30/2.
SAMPLEI	D: M	W-16-	<u>0}_</u>			ER: 🗸 2	" 🗌 4" 🗌	6"	OTHER		Line i en en en en en de mai de la distriction de 100 km line.
WELL MATE	ERIAL:				GALVA	NIZED ST	EEL		OTHER		
SAMPLE TY	PE:	⊡ GW		]sw 🗌	DI		EACHATE		OTHER		
PURG	SING	TIME: 1/2	.5	DATELIJE	zY		MPLE	TIME: )	55		ATE: 4/24/24
PURGE METHOD		PUMP BAILER	BLADDER PL	JMP (DEDICA	TED)	PH: ORP:	<u>1.65</u> s - 1.10.1 m				
DEPTH TO	WATER:	16.25	T/ PVC			TURBIDI	ту: <u>1.96</u>	NTU		1-1-1	
DEPTH TO	BOTTOM:	NM	T/ PVC			🔀 NONE	E 🗌 SLI	GHT		DERATE	VERY
WELL VOLI	JME:	NM		GALLO	NS	TEMPER	ATURE: <u>[</u>	٥.2 ٠	с отн	ER:	
VOLUME R	EMOVED:	60		GALLO	NS	COLOR:	Lead		ODC	)R:	None
COLOR:	Lla		(	DOR: NOM	e,		E (0.45 um)			 NO	
			BIDITY			FILTRATE				RATE OD	OR:
	🗌 SLI		MODERATE		۲Y	QC SAM		/MSD			01
DISPOSAL	METHOD:					COMME	NTS:				
тиле	PURGE		CONDUCTIVI				TUDDID/TV	TEMPER		WATER	CUMULATIVE
TIME	RATE (ML/MIN)	7.5-8.2 (SU)	(umhos/cm)		(	D.O. mg/L)	TURBIDITY (NTU)		C)	LEVEL (FEET)	PURGE VOLUME (GAL OR
1/25	200	707	BII	-39.2	S	.57 0	2.54	4.	4	140	INITIAL
1130		7.20	1326	-97.2	6	40 1	.54	10.7	2	16.40	1.0
1135		774	1327	- 99.8	T	1 52.0	:72	10.2		1	2.0
1140		745	1334	- 1H.Z			2.24	10.1			30
1145		7.56	1342	-121.7	6	10 2	246	10.4	'		4.0
1150		7.60	1.342	- 132, 0	and the second		1.88	10.4	1		5.0
1155	1	7.65	1336	- 140.1			.96	10-2		$\checkmark$	6.0
NO	TE: STAB	LIZATION 1	FEST IS COM	PLETE WHEN	3 SUC	CESSIVE	READINGS A		IN THE F		IG LIMITS:
pH: +/-	0.1 (	COND.: +/-	10 % OR	P: +/-	D.O.:	+/-	TURB: +/-	10 %	or =</td <td>5</td> <td>TEMP.: +/- 0.5°C</td>	5	TEMP.: +/- 0.5°C
BOTTLES	FILLED	PRESERV	ATIVE CODE	SA-NONE	В-	HNO3	C - H2SO4	D - N	laOH	E - H(	CL F
NUMBER	SIZE	TYPE	PRESERVA	TIVE FILTE	ERED	NUMBE	R SIZE	TYPE	E PR	ESERVAT	IVE FILTERED
2	500mL	PLASTIC	А	ΠY	N 🕅						
2	500mL	PLASTIC	В	ΠY	X N						Y N
2	60 mL	PLASTIC	A	ΠY	<b>I</b> X N						
	1 L	PLASTIC	В	ΠY	X N						
				ΠY	□ N.					(8) eller dall en	
SHIPPING	METHOD:	Louri	er	DATE SHIPPE	:D: 4	1/2/01	24	AIRE	BILL NUM	BER:	
COC NUME			-	SIGNATURE:	1	4.1	ind_	DAT	E SIGNEI	 D:	4/20/24
L			J			<u>, · v · v · v · v · · v · · · v · · · · </u>	<u>o</u>	I			

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PAGE 11 OF 14



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#### WATER SAMPLE LOG

PROJECT	NAME:	DTE: E	RPP BABs-E	)B 2024 Sa	PR	EPARED	1		CHEC	(ED	
PROJECT	NUMBEF	R: 553931	.0003.0000	BY	AVV EF		124	BY: El	۲ ا	DATE: 4 / So/24	
SAMPLE I	D: ML	1-16-0	,4	WELL DIAI	METER: 🗸	2" 🗌 4" 📋	6"	OTHER			
WELL MATE		✓ PVC	🗌 ss 🗌	] IRON 🗌 GA	LVANIZED S	STEEL		OTHER			
SAMPLE TY	/PE:	⊡ GW		SW 🗌 DI		LEACHATE		OTHER			
PURG	SING	TIME: 12	300 0	ATE: 4/25/24	/ S	AMPLE	TIME: 🕻	255	DA	TE: 4/24/24	
PURGE		PUMP	BLADDER PU	MP (DEDICATEI		<u>7.8°3</u> s			ו <u>ץ: כ</u> ו	76 umhos/cm	
METHOD		BAILER				<u>-160.7</u> m	1	<u>0.0</u>	<u>20</u> mg/	L	
DEPTH TO	WATER:	16.42	T/ PVC				5 NTU	_			
DEPTH TO	BOTTOM:	NM	T/ PVC				GHT		ERATE		
WELL VOLU		NM						с отн		-	
VOLUME R		<u> </u>	🖄 liters	GALLONS		R: Cloudy	Gray			one	
COLOR:	Clea	r-000	ge o	DOR: None	FILTRA	TE (0.45 um)	VES		NO		
	<u> </u>			<b>—</b> ,			(1400		RATE ODO	R:	
							/MSD		DUP		
DISPOSAL						1ENTS:					
TIME	PURGE RATE	PH	CONDUCTIVITY	Y ORP	D.O.	TURBIDITY	TEMPE	RATURE	WATER LEVEL	CUMULATIVE PURGE VOLUME	
	(ML/MIN)	7 <b>.78-6</b> (SU)	(umhos/cm)	(mV)	( mg/L)	(NTU)	(°	C)	(FEET)	(GAL OF	
122	100	7.13	2183	-61.9	2.66	51.41	9.2	2	17.20	INITIAL	4/24/24
1235	1	7. <i>I</i> Š	2188	-78-3	1.30	103.40	9.4	/	17.50	1.005	ł
1240		7.01	2225	-857.8	0.67	186.10	9	7	17.80	2.01.0	7 w <b>4/24/24</b>
1245		7.16	272	-100.3	0.30	z16.30	10.	<u>s</u>	18,000	1.5	
1250		7.24	2127	-106.0	6.18	224.98	10.	6	18.30	2.0	
1255		733	2/18>	-116.60	0.04	290.16	10.	5	18.60	2.5	
1300		7.44	234	. 128.8	6.05	304.11	10.	3	19.00	30	
1305		7.50	2148	-134.6	0.00	305.05	10-	7	19.10	3.5	
1310		7.55	7156	- 139.7	0.00	297.80	10.2		19.26	4.0	
1315	1	7.62	2166	- 144.4	0.00	<b>4</b> 289.11	10.	ן ז	1940	4.5	
	TE: STAB			PLETE WHEN 3							
pH: +/-	0.1	COND.: +/-	10 % ORF	P: +/- [	D.O.: +/-	TURB: +/-	10 %	or =</td <td>5</td> <td>TEMP.: +/- 0.5°C</td> <td>_</td>	5	TEMP.: +/- 0.5°C	_
BOTTLES	FILLED	PRESERV	ATIVE CODES	A - NONE	B - HNO3	C - H2SO4	D - I	NaOH	E - HC	L F	
NUMBER	SIZE	TYPE	PRESERVA	TIVE FILTER	ED NUME	BER SIZE	TYP	E PR	ESERVATI	VE FILTERED	
1	500mL	PLASTIC	A	□	N						
1	500mL	PLASTIC	В	□ × <b>X</b>	N					TY N	
ì	60 mL	PLASTIC	A	U Y K	N.						
	1 L	PLASTIC	В		N						
					] N						
SHIPPING	METHOD:	Louri		DATE SHIPPED:	4/2	6/24	AIRI	BILL NUM	BER:		]
				SIGNATURE:	A. 1.	ink.	DAT	E SIGNE	 D:	410/28	
L					<u> </u>		· [				L

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# ◇TRC

WATER SAMPLE LOG (CONTINUED FROM PREVIOUS PAGE)

PROJECT NAME:	DTE: BRPP BABs-DB 2024 Sar		PREPARED		Cł	HECKED
PROJECT NUMBER:	553931.0003.0000	BY:	AV ER DATES/24/24	BY:	ER	DATE: 4/30/2 1

.....

# SAMPLE ID: MW-16-09

STurbidity (NTU)

TIME	PURGE RATE	РН	CONDUCTIVITY		D.O.		TEMPERATURE		PURGE VOLUME	13:20 341.28 13:25 332.17
	(ML/MIN)	(SU)	(umhos/cm)	(mV)	( mg/L)	(NTU)	724/24	(FEET)		13:30 348.52
1320	100	וריר	2178	-1526	00.00	(NTU) <b>3//(.28</b>	10.6	19.45	5.0 5.5	
1325		7.75	2185	-159.2	0.01	932,17 932,17 948,52 350.95	124/24 24/24 24/24 10.7			
1330		7.82	2 179	- 154.4	600	948,52	-10.7		6.0	
1335	SV .	7.83	2176	-160.7	6.00	350.95	10.8	$\checkmark$	6.5	
									_	
						a a a la sha da a A a a A a a A a a A a a A a a A a a A a a A a a A a a A a a A a a A a a A a a A a a A a a A a				
			······································							
· · · · · · · · · · · · · · · · · · ·										
				and was produce, if it is it was not seen and watching to the statistical AC and AC						
1										
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		-								
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SIGNATURE: CAN MUL

DATE SIGNED: 4/30/24

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PG # 13 of 14

# Table 3Daily pH Stabilization readingsDTE Belle River Power Plant Bottom Ash Basins and Diverson Basin

Sample ID	pH Prediction Limit	pH at stabilization prior to sampling	Sample Collection Date/Time
Bottom Ash	Basin Montoring Wells		
MW-16-01	7.0-8.1	7.58	4/24/24/1020
MW-16-02	7.3-8.0	7.91	AH444 / 165
MW-16-03	7.5-8.2	7.65	4/24/25/ 1155
MW-16-04	7.6-8.2	7.61	4/24/24/0925
MW-16-09	7.7-8.6	7.83	4124121 / 1335
<b>Diversion Ba</b>	sin Monitoring Wells		
MW-16-05	7.9-8.5	7.92	4/24/21/1505
MW-16-06	7.7-8.3	7.83	4/24/24/ 1525
MW-16-07	7.8-8.3	2.84	4/12/12/11/1415
MW-16-08	7.6-8.3	87.13	4175/74/1322
MW-16-10	7.6-8.5	C.01	4728/241 1225
MW-16-11A	7.7-8.4	8.02	4/74/24/ 600

and white 4130/24

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EC- 1/20/2

Eurofins Cleveland MICHICAN 180 S. Van Buren Avenue				MAN	ڈی eurofins	
Barberton, OH 44203 Phone (330) 497-9396 Phone (330) 497-0772		ol Custody Record		23	Environment Testing	
Client Information	Sampler A. Whyle,		Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-119551-41770.1	
Client Contact: Mr. Vincent Buening	d	539	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1	
Company. TRC Environmental Corporation.		PWSID:	Analysis		Job #:	
Address: 1540 Eisenhower Place	Due Date Requested:	مردا			ion Coc	
City: Ann Arbor	TAT Requested (days):		) J			
State, Zip: MI, 48108-7080	Nda Yes	on ∆	<del>\</del>			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO#: 214273				F - MeOH S - H2SO4 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate	
Email: vbuening@trccompanies.com	WO#: 553931.0003.0000					
Project Name: CCR DTE Belle River Bottom Ash Basins	Project #: 24016463		947 No si		K - EDTA Y - Trizma L - EDA Z - other (specify)	
Site: Michigan	SSOW#:		5D(X) Hate, ( Ca, Fe	1000 512 51	Other:	
	Sample	Type Matrix Type (w=water, s=wotki, (C=comp, 0=weeteriout,	ی لا بو بر ان از	Jequinin jet		
Sample Identification	Sample Date Time	G=grab) BT=THAUN, A-AF			Special Instructions/Note:	
MW-16-09	414174 0925	6 Water				
Mu-16-01		G Water	XXNM			
14-14-02		6 Water	er NN X X X			
Murles		G Water				
MN-16-09		6 Water	m X X X			
200-01	- HANH	6 Water				
		Water				
Possible Hazard Identification	Unknown	Radiological	Sample Disposal ( A fee may b	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) — Return To Client — Disposal By Lab — Archive For Mon	ths	1
sted: I, II, III, IV, Other (specify) $\mathcal{T}$	DD -		Special Instructions/QC Requirements:			2. 4
Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:		t I
telinquished by: Old Day by have	124 06	company	2C Received by T.C. S.L.	rase Date/Time: ASE Pate/Time:		14
telinquising by	Date Time: 4/26/24 110		2	Date/Time: Db	ENA	.1
	Date/Time:	Company	Received by:	Date/Time:	Company	14
Custody Seals Intact: Custody Seal No.:			Cooler Temperature(s) <sup>°</sup> C and Other Remarks:	r Remarks:		
					Ver: 01/16/2019	

PAGE \_\_\_\_\_ OF \_\_\_\_\_

# >TRC

PROJECT NAME:	DTE: CCR BRPP 2024 Sample & Report
PROJECT NUMBER:	553931.0003.0000
PROJECT MANAGER:	Vince Buening
SITE LOCATION:	East China, Michigan
DATES OF FIELDWORK:	10/28/2024 TO 10/29/2024
	Semi annual Groundwater Sampling 2SA24
PURPOSE OF FIELDWORK:	
	Jake Krenz
WORK PERFORMED BY:	

l 10-30-24 DATE SIG

ashim Vest 11/11/24 CHECKED BY DATE

**REVISED 04/2019** 

# 

#### **GENERAL NOTES**

	BRPP		
PROJECT NAME:	DTE: RRLF CCR RRLF Sampl	DATE: 0.1 28 2024	TIME ARRIVED: 9:00
PROJECT NUMBER:	553931.000	AUTHOR: Elric Rinehart	TIME LEFT: 3:30

				WE	ATHER		
TEMPERA	TURE: <u>56</u>	°F	WIND:	7	ŴРН		VISIBILITY: Sung
			WORK	/ SAMP	LING PER	RFORMED	· · · · · · · · · · · · · · · · · · ·
BRPP	Weter	lovels	Sam	plu	140	- 16-03	· · · · · · · · · · · · · · · · · · ·
				/			•
							- 
	,						

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN
Turbidity Render issues	Ose buck sy teader

		COMMUNICATION	
NAME	REPRESENTING	SUBJECT / COMMENTS	
Jamie J.	DTE	Site confact	

	INVESTIGATION	DERIVED WASTE SUMMARY
WASTE MATRIX	QUANTITY	COMMENTS
Water	Na	
-		

<u>/0-28-24</u> DATE SIGNED

CLEARN VOST DATE



#### **GENERAL NOTES**

PROJECT NAME:	DTE: CCR BRPP 2024 Sample	DATE:	10-28-24	TIME ARRIVED: 0800	
PROJECT NUMBER:	553931.0003.0000	AUTHOR:	Jake Krenz	TIME LEFT: -16-00 13	00

				1	VEATHER			
TEMPERATURE	: <u>1</u> 0	°F	WIND:	0-5	MPH			Chew
						RFORMED		
-Split	Sample	e	Mw-16	-01	with	EGLE		
- anged	MW-	16-0"	1, 1);2	not	collect	Samph	e due	10
high t	urbidic	4						
		•						
					-			

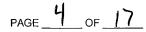
PROBLEMS ENCOUNTERED				CORRECTIVE ACTION TAKEN			EN
Very	Wel	turbidity	\$ MW-16-09	Removed	well	Down	10
	1			try and	abean	A out	- w/
				Sub mer	sible.		· · · · ·

		COMMUNICATION
NAME	REPRESENTING	SUBJECT / COMMENTS
J. Stanislawski	OTE	check in fout
S, Holmstrom	TRC	Discussed plan for Sampling MW-16-09

	INVESTIG	ATION DERIVED WASTE SUMMARY
WASTE MATRIX	QUANTITY	COMMENTS
purge neuter	NM	purged to grand

DATE CHECKED BY DATE L SIGN€D

REVISED 04/2019





#### **GENERAL NOTES**

PROJECT NAME:	DTE: CCR BRPP 2024 Sample	DATE: 10-29-24	TIME ARRIVED: 0600
PROJECT NUMBER:	553931.0003.0000	AUTHOR: Jake Krenz	TIME LEFT: 120

			WEATHER	
TEMPERATURE:	75	°F WIND:	5-10 MPH	VISIBILITY: <u>cheer</u>
		WC	ORK / SAMPLING PER	RFORMED
purged	and	Samp keel	Mw-16-09	, Split w/ EGLE
-		· · · · · · · · · · · · · · · · · · ·		

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN
Still Very high Turbidity @ Mw-16-09	Collected extra field fiftered Metals Botthe Gr
	Dissolved Analysis

	COMMUNICATION
REPRESENTING	SUBJECT / COMMENTS
DIE	check in /ont
TRC	Siscussed options for Sampling Mw-16-07
	DTE

	INVESTIGA	TION DERIVED WASTE SUMMARY
WASTE MATRIX	QUANTITY	COMMENTS
purge water	NM	perged to ground

DATE CHECKED BY DATE SIGNED

**REVISED 04/2019** 

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PAGE	<u> </u>	OF	11



#### EQUIPMENT SUMMARY

PROJECT NAME:	DTE: CCR BRPP 2024 Sam	SAMPLER NAME: Elric Rinehart/Jake Krenz		
PROJECT NO .:	553931.0003.0000			
WATER LEVEL MEASU	IREMENTS COLLECTED WITH:			
HEF	RON DIPPER-T	PROJECT DEDICATED		
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)		
PRODUCT LEVEL MEA	SUREMENTS COLLECTED WITH			
	NA	NA		
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)		
<b>DEPTH TO BOTTOM O</b>	F WELL MEASUREMENTS COLL	ECTED WITH:		
HEF	RON DIPPER-T	PROJECT DEDICATED		
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)		
PURGING METHOD				
BLADDER	PUMP (DEDICATED)	PROJECT DEDICATED		
NAME AND MODEL OF P	UMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)		
SAMPLING METHOD				
BLADDER	PUMP (DEDICATED)	PROJECT DEDICATED		
NAME AND MODEL OF P	UMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)		
	NA	NA		
NAME AND MODEL OF FI	ILTERATION DEVICE	FILTER TYPE AND SIZE		
DEDICAT	ED TEFLON TUBING	LOW-FLOW SAMPLING EVENT		
TUBING TYPE				
TUBING TYPE PURGE WATER DISPC	DSAL METHOD			
·····				
PURGE WATER DISPO				
PURGE WATER DISPO				
PURGE WATER DISPO	DRUM POTW	RCE		
PURGE WATER DISPO	DRUM POTW	LABORATORY PROVIDED		

PAGE 6 OF 17

# TRC

#### WATER QUALITY METER CALIBRATION LOG

PROJECT NAME:	DTE: BRPP 2024 Sample & Report	MODEL: YSI Pro DSS	SAMPLER: JK
PROJECT NO .:	553931.0003.0000	SERIAL #: PROJECT	DATE: 10-28-24

#### PH CALIBRATION CHECK SPECIFIC CONDUCTIVITY CALIBRATION CHECK pH 7 pH 4 / 10 CAL. READING TEMPERATURE (LOT #): 4GA0629 (LOT #): **4681376** (LOT #): 46C1196 CAL. CAL TIME TIME (EXP. DATE): Sm/26 (EXP. DATE): Feb/26 RANGE (EXP. DATE): Mar /25 POST-CAL. READING / STANDARD RANGE (°CELSIUS) POST-CAL. READING / STANDARD POST-CAL. READING / STANDARD WITHIN X 4.00 14.00 n825 1315 1 1315 0820 17.02 7.02 QJ.3 WITHIN 1 1 1 1 WITHIN 1 1 1 **ORP CALIBRATION CHECK** D.O. CALIBRATION CHECK CAL. READING TEMPERATURE CAL. READING TEMPERATURE (LOT #): 1-1734 CAL. CAL. (°CELSIUS) TIME TIME RANGE (EXP. DATE): 10-3-24 RANGE (°CELSIUS) POST-CAL. READING / STANDARD POST-CAL. READING /SATURATED AIR WITHIN CO832 227.3 / 227.3 8.72 18,72 227 0810 205 WITHIN RANGE 1 1 RANGE 1 1 RANGE WITHIN 1 1 TURBIDITY CALIBRATION CHECK COMMENTS CALIBRATION READING (NTU) STANDARD SOLUTION (S) AUTOCAL SOLUTION (LOT #): A3907 (LOT #): (LOT #): CAL. LIST LOT NUMBERS AND EXPIRATION DATES TIME RANGE UNDER CALIBRATION CHECK (EXP. DATE): APR-25 (EXP. DATE): (EXP. DATE): POST-CAL, READING / STANDARD POST-CAL, READING / STANDARD CALIBRATED PARAMETERS CALIBRATION RANGES (1) WITHIN RANGE 1 0830 +/- 0.2 S.U. DН pH: 10.0 10.0 1 1 COND COND: +/- 1% OF CAL. STANDARD WITHIN 1 1 ORP +/- 25 mV ORP: 1 1 D.O. D.O.: VARIES TURB +/- 5% OF CAL. STANDARD TURB NOTES (1) CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER $\square$ PROBLEMS ENCOUNTERED CORRECTIVE ACTIONS <u>10-30-</u>24 <sub>DATE</sub> SIGNED

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WATER QUALITY METER CALIBRATION LOG

PROJECT	NAME:	DTE: RRLF CCR RRLF-Sar	nple & Rep	ort	MODEL: Aquitroll	SAMPLER:	ER
PROJECT	NO.:	553931.000g.0000			SERIAL #: PROJECT	DATE: 10-2	28-24
	PH (	CALIBRATION CHECK			SPECIFIC CONDU		
	pH 7	pH 4 / 10			CAL. READING	TEMPERATURE	
(LOT #): 46. (EXP. DATE): POST-CAL. R		(LOT #): 4(-FOB44 (EXP. DATE): 531/26 POST-CAL. READING / STANDARD	CAL. RANGE	TIME	(LOT #): (EXP. DATE): POST-CAL. READING / STANDARD	(°CELSIUS)	CAL. RANGE TIME
7.02	17.02	4.0 14.0		1030	1215.5 / 1215.5	17.73	
	1	1					
	1	1			1 /		
	1	1	WITHIN				
		CALIBRATION CHECK	RANGE	L	D.O. CAL	IBRATION CHE	
CAL	READING	TEMPERATURE			CAL. READING	TEMPERATURE	
	1/11/2029	(°CELSIUS)	CAL. RANGE	TIME		(°CELSIUS)	CAL. RANGE TIME
	READING / STANDARD		WITHIN		POST-CAL. READING /SATURATED AI	۲ 	
225	1225	/7.6		1035	9.25 19.25	17.9	WITHIN 1050
	1						
	1		WITHIN RANGE				
	1				/		
L	TURBID	ITY CALIBRATION CHEC			J <u> </u>	COMMENTS	
	CALIBRATION	READING (NTU)			AUTOCAL SOLUTION		SOLUTION (S)
(LOT #): <b>A</b> J		(LOT #):	CAL.	TIME	(LOT #):		AND EXPIRATION DATES
	READING / STANDARD	(EXP. DATE):	RANGE		(EXP. DATE):		
		POST-CAL. READING / STANDARD	WITHIN				ION RANGES (1)
100	1 100	/ /		1645	1   _	pH: +/- 0.2 S	
	/	/	L.J RANGE			COND: +/- 1% C	F CAL. STANDARD
	$I \sim 10^{-1}$	/				ORP: +/- 25 m	V
	1	1			D.O.	D.O.: VARIES	
		NOTES			Т ТИКВ	TURB: +/- 5% C	F CAL. STANDARD
							NGES ARE SPECIFIC TO WATER QUALITY METEI
						_	
L	P	ROBLEMS ENCOUNTERED		<del></del>	CORRECT	IVE ACTIONS	
***		$\overline{}$					
	<u> </u>	n-1-					
SIGNED		10/21	21	-	Outin .	Hast	11/11/21
OIGINED		- 11	DATE		UNEUKED DI .		DAIE

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PAGE 8 OF 17

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#### WATER QUALITY METER CALIBRATION LOG

PROJECT NAME:	DTE: CCR BRPP 2024 Sam	ple & Repo	ort	MODEL: YSI Pro DSS		MPLER:	JK	
PROJECT NO.:	553931.0003.0000			SERIAL #: PROJECT	T DA	.TE: 10~2	9-24	
PH	CALIBRATION CHECK			SPECIF		IVITY CALIBR	ATION C	HECK
pH 7	pH 4 / 10			CAL. REA		MPERATURE		
LOT #): (EXP. DATE):	(LOT #): (EXP. DATE):	CAL. RANGE	TIME	(LOT #): (EXP. DATE):		(°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD			POST-CAL, READIN				
7.00 17.00	4.00 14.00		0605	1315 /	1315	22.1		0600
1	/			/				
1	1			/				
/	1	WITHIN						
ORP	CALIBRATION CHECK	RANGE		· · ·	D.O. CALIBE	RATION CHEC	RANGE	
CAL. READING	TEMPERATURE			CAL. REA		MPERATURE		
(LOT #): (EXP. DATE):	(°CELSIUS)	CAL. RANGE	TIME			(°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD	· · · · ·			POST-CAL. READING		·		-
270,2 /230,2	225		0609	8.81 1	8.81	19.6		
1				/				
1				/				
		WITHIN					WITHIN	
TURBIC	UNITY CALIBRATION CHEC	RANGE	·		cc	OMMENTS	RANGE	•
-	READING (NTU)			AUTOCAL S		STANDARD	SOLUTION	(S)
(LOT #): A 3907	(LOT #):	CAL:	-	(LOT #):	·	T LOT NUMBERS A	ND EXPIRAT	ION DATE
(EXP. DATE): ARR-25	(EXP. DATE):	RANGE	TIME	(EXP. DATE):		UNDER CALIB	RATION CHE	CK
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD			CALIBRATED P	ARAMETERS	CALIBRATIC	ON RANGES	(1)
9,97 / 10.0	/		0600	рн	рH	: +/- 0.2 S.U	J.	
1	1					)ND: +/- 1% Of	CAL. STAN	NDARD
1	1				OF	RP: +/- 25 mV		
1	1			D.O.	D.0	D.: VARIES		
	NOTES		1		з ти	IRB: +/- 5% OF	CAL. STA	NDARD
	>				(1)			
						CALIBRATION RAN E MODEL OF THE V		
				]				
l					CORRECTIVE			
· · · · · · · · · · · · · · · · · · ·						<u> </u>		
Alg	Za 10-	30-24	(	<i>0.</i>	Noun 1	hast	//	1.1



#### WATER LEVEL DATA

PROJECT NAME:	DTE: BRP	P CCR Sample &	Report		DATE:	10/28/20	)24
PROJECT NUMBER:	553931.00	03.0000			AUTHC	R: Javier Jasso	, Elric Rinehart
WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	ВОТ	TH TO TOM ET)	DEPTH TO PRODUCT (FEET)	WATER ELEVATION
MW-16-01	10:09	TOC	16.01				
MW-16-02	10:11	<b>\</b>	13.40				
MU-16-03	10.15		15.88				
MW-16-04	9:50 10:1 Sen		17.8				
MW-16-05	9:40		16.88		- <u>-</u>		
MLD -16-06	9:35		17.72				
MW-16-07	9:32		16.85				
MW-16-08	9:30		15.71				
MW-16-09	10:18		16.58	a t			
MW-16-10	9:37		17.76				
MU-16 - 11A	9:45	$\square$	17.00				
· · · · · · · · · · · · · · · · · · ·							
			· · · · · · · · · · · · · · · · · · ·		•		
	_						
· · · · · · · · · · · · · · · · · · ·							
				-			

ALL WATER LEVELS MUST-INCLUDE REFERENCE POINT AND TAPE CORRECTION FACTOR (E.G., 1.1 + 0.00 T/PVC).

24 DATE SIGNED

Jalin Yos & 124 CHECKED DATE

REVISED 04/2019

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#### WATER SAMPLE LOG

PROJECT NAME:		RRLF CCR RR	LF Sample		PRE	EPARED			CHEC	KED
PROJECT NUMBER	R: 55393 <sup>.</sup>	0003 1. <del>0000</del> .0000		BY:	ER	DATE:10/2	x/24 BY:	AV	n	DATE: 11/11/24
SAMPLE ID: /4	w-/6.	02	WELL C	DIAMET	ER: 🚺	2" [] 4" []	6" 🗌 01	THER		
	✓ PVC			GALVA	NIZED S	TEEL	D 01	THER		
SAMPLE TYPE:	⊡ GW	□ww □	sw 🗌	DI		EACHATE	01	THER		
PURGING	TIME:/2	OS DA	TE:/0/28	124	S/	AMPLE	TIME: 12	75-	- DA	TEIder/24
	PUMP	PERISTALTIC F			PH:	<u>7.69</u> s			ITY: <u>12 °</u> (	umhos/cm
METHOD: 🗸	BAILER				ORP:	<u>~200.1</u> m	V DO:	<u>o</u> ,	<u>66 mg</u>	/L
DEPTH TO WATER:		T/ PVC				DITY: <u>0.9</u>		_		
DEPTH TO BOTTOM:		T/ PVC							DERATE	
WELL VOLUME:	NM					RATURE: <u>  </u>	. <b>%</b> ⊁_°C		HER:	
VOLUME REMOVED:				NS		:: <u>Cler</u>	<u> </u>			20
COLOR: <u>Clea</u>			OR: 1/3		FILTRA	TE (0.45 um)	VES		NO	
			["""] , <i>(</i> ==					FIL	TRATE ODC	DR:
DISPOSAL METHOD:	<u> </u>						MSD		DUP-	
						EIN 1 5.				
TIME PURGE RATE	РН	CONDUCTIVITY	ORP		D.O.	TURBIDITY	TEMPERA	TURE	WATER LEVEL	CUMULATIVE PURGE VOLUME
(ML/MIN)	(SU)	(umhos/cm)	(mV)	(	mg/L)	(NTU)	(°C)		(FEET)	(GAL OR L)
1205 200	7.58	1205.8	-110.7	3.	92	0.0	1439		13.48	INITIAL
1210	7.59	1229.2	-169.4		>. 7	1.62	12.23		13.51	1
1215	7.69	1223.5	-187.8	0	.68	0.7	12.06		13.47	Ζ.
1220	ר.ר	1207.4	-196.3	C	.67	1.1	11.92		B. 48	3
1225	7.69	1206.5	-200.1	0	.66	0.9	11.84			4
		and and a second se								
								*****		
NOTE: STABI		EST IS COMPL				READINGS A		THE		GLIMITS
	COND.: +/-			D.O.:			<b>10 %</b> or			TEMP.: +/- 0.5°C
BOTTLES FILLED	PRESERV	ATIVE CODES	A - NONE	В -	HNO3	C - H2SO4	D - Na	ЭН	E - HC	L F
NUMBER SIZE	TYPE	PRESERVATI	VE FILTE	ERED	NUMBE	ER SIZE	TYPE	PF	RESERVATI	VE FILTERED
-3	<del>\/0A</del>	E	ΠY	<u>и</u>	1	500~1	Plastic		A	
-1	-PLASTIC	B	Υ	<u>П</u> N	-				· • • • • • • • • • • • • • • • • • • •	
-2	PLASTIC-		· 🗌 Y	🗌 N					an a	
1 250ml	Plastic	ß	ΠY	ΖN						
	Plastic		ΠY			1997 - 1997 - A. 1998 - T. 1997 - 199			/adat in a meridian second and an annual in	
SHIPPING METHOD:				ED:	10-30	-24	7 AIRBIL		IBER:	·····
COC NUMBER:	<u> </u>		GNATURE:		1	int	DATES		-	
				4	Ż	my f				0-30-24
ISED 04/2019					-					

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#### WATER SAMPLE LOG

PROJECT	NAME:	DTE: F	RRLF CCR R	RLF Sample	PI	REPARED			C⊦	IECK	KED
PROJECT		R: 553931	1. <del>0000</del> .0000	BY	: ER	DATE: 10/	20/21	by: A	6		
SAMPLE	ID: Mい	-/6-0	3	WELL DIA	METER:	2" 🗌 4" 🗌	] 6"	OTHER			
VELL MAT		✓ PVC	ss [	] IRON 🗍 GA	LVANIZED	STEEL		OTHER			
SAMPLE T	YPE:	⊡ GW		SW DI		] LEACHATE		OTHER			
PUR	GING	TIME: //	/ <b>7</b> [	DATE: 10/28/29	1	SAMPLE	TIME:	1117		DA.	TE: 10/28/24
PURGE METHO	-	PUMP BAILER	PERISTALTIC	C PUMP	PH: ORP	<u>7.8</u> s : <u>-198.3</u> n		NDUCTIV	ITY: <u>/</u> 65		
DEPTH TO	WATER:	15.88	T/ PVC		TURI	BIDITY: 1.1	NTU	J			
DEPTH TO		NM	T/ PVC		□ N	ONE 🛛 SL	IGHT.	🗌 мо	DERAT	E	
VELL VOL	UME:	NM		GALLONS	TEMF	PERATURE: 🔟	2.04	°С  отн	HER:		
	REMOVED:	7.5		GALLONS	COL	OR: <u>C/em</u>	<u> </u>		OR:	5/	sho
COLOR:	_ <u>C/e</u>	wrish	C	DOR: 100	FILTF	RATE (0.45 um)			NO		
	/		BIDITY			ATE COLOR:		FIL	TRATE	ODO	R:
	SLI		MODERATE			Sample: 🗌 MS			DUP-		
DISPOSAI					СОМ	IMENTS: Turb	idity.	Rende.	- fr	sly	-Osc Lomot
TIME	PURGE	PH	CONDUCTIVIT	Y ORP	D.O.	TURBIDITY		ERATURE	WAT		
	RATE (ML/MIN)	(SU)	(umhos/cm)	(mV)	( mg/L)	(NTU)		°C)	LEV		PURGE VOLUME (GAL OR L)
1117	250	7.69	1744.4		1.2	373.71			15.8		INITIAL
1122		7.7	1742.6		0.67		12.		1		1.25
1127		7. 81	1745.3	-192.7	0.65	1.5	12.				2.5
11 32		ד.ד	1743.9	-190.6	0.65		12.1				3.75
1/37		7.73	1751.5	-/91. 9	0.65	* para - bar an ip (prop) may land ma (aligned marked and y and the second marked and the second marked marked and the second marked marke	11.1				5.0
1142		7,76	1759.3	-196. 3	0.65	1.3	12.0	4		,	6.25
// 47		7.80	1766.4	-198.3	0.65	1.1	12.0	4			7.5
								ante das ses carto a tax stad fregmans, a			
							-				
N	DTE: STAB		TEST IS COM	PLETE WHEN 3	SUCCESS	IVE READINGS	ARE WIT	HIN THE	FOLLC	wind	ELIMITS:
pH: +/-	0.1	COND.: +/-	10 % OR	P: +/- [	D.O.: +/-	TURB: +/-	- 10 %	or =</td <td>10</td> <td>-</td> <td>TEMP.: +/- 0.5°C</td>	10	-	TEMP.: +/- 0.5°C
BOTTLE	S FILLED	PRESERV	ATIVE CODES	<u>S</u> A - NONE	B - HNO	3 C - H2SO4	4 D-	NaOH	E	- HCI	_ F
NUMBER	SIZE	TYPE	PRESERVA	TIVE FILTER	ED NUN	IBER SIZE	TYF	PE PF	RESER	VATIN	/E FILTERED
	40 mL	VOA	E		] N (	250-l	Plus	hc	B		
	500mL	PLASTIC		• 🗆 Y 🗆	] N						
_2	250 mL	PLASTIC	A	<b>-</b> 🗆 Y 🗆	] N		-				
J	500_1	Plastr	Å		N N		-		*****		
/ 	66ml	Pleshi	Å		] N					• at he fits - at ( 4.4 fits	
SHIPPING	METHOD:	Courte		DATE SHIPPED:	10-1	10-24	AIF	BILL NUM	1BER:		
		<u> </u>					£		• ••		
COC NUM	RFR.		-	SIGNATURE:		1 W/VI	n۵.	TE SIGNE	D.	1	0-30-24

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#### WATER SAMPLE LOG

PROJEC			RRLF CCR RR	LF Sample	PR	EPARED			CHE	ECKED
PROJEC	T NUMBE	R: 55393	1.0000.0000	BY	: ER	DATE: 142	1/24	вч: А	K	DATE:11/1/2
SAMPLE	ID: Mu	2-16-0	>4	WELL DIA		2" 4"	6"	OTHER		
VELL MAT	TERIAL:	V PVC	ss 🗌	IRON GA	LVANIZED	STEEL		OTHER		
SAMPLE T	YPE:	🔽 GW		SW 🗌 DI		LEACHATE		OTHER		
PUR	GING	TIME: 12	. <b>47</b> DA	TE 10/28/24	5	AMPLE		317		DATE: 10/21/24
PURGE METHOI		] PUMP ] BAILER	PERISTALTIC I	PUMP	PH: ORP:		U CO V DO:		·····	mg/L
DEPTH TO	O WATER	17.8	T/ PVC		TURB	IDITY: <b>13.</b>	<u></u> NTL			
DEPTH TO		<u>и: /VM</u>	T/ PVC				GHT	🗌 мо	DERATE	
WELL VOL	UME:	<u>N N</u>		GALLONS	TEMPE	ERATURE: 1	1.91	℃Отн	HER:	
VOLUME	REMOVE	D: <u>6</u>		GALLONS	COLO	R: Clurr	<u>,                                    </u>	OD	OR:	Slight
COLOR:	<u> </u>	carish	OD	OR: slight	FILTR/	ATE (0.45 um)	YES		NO	
		TUR	BIDITY		FILTRA	TE COLOR:		FIL	TRATE O	DOR:
NONE	ØŚ	LIGHT 🗌	MODERATE	UERY	QC SA	AMPLE: 🗌 MS	/MSD	Ŋ	DUP-	01
DISPOSA	L METHO	D: GROU	ND 🗌 DRUM	OTHER	COMN	IENTS:				
TIME	PURGE RATE	PH	CONDUCTIVITY		D.O.	TURBIDITY			WATE	PURGE VOLUM
( / .	(ML/MIN)	) (SU) 7.4	(umhos/cm)	(mV)	( mg/L)	(NTU)		°C)	(FEET	
1247	205			-83.9	6.72	0.0	15.		17.9	
252		7.5	1596.5	-18613	0.77	7.5	13.			
1257		7.66	1570.9	-207.4	0.72	9.85	13.	01	ļ[	Z
1302		7.68	1569.7	-720.8	0.69	13.5	15.	0	ļ	3
1307		٦.76	1583.1	- 226.7	0.67	13.1	12-9	/		7
1312	11	7.81	1540.6	-256.2	0.66	12.9	12.9	`/	<u> </u>	5
13/1	♥	7.84	1572.8	-245.9	0.65	13.1	12.9	1	$ \gamma $	1
										1
N/										
pH: +/-		COND.: +/-	10 % ORP:		D.O.: +/-	TURB: +/-			10	-
BOTTLE	S FILLED	PRESERV	ATIVE CODES	A - NONE	B - HNO3	C - H2SO4	D-	NaOH	E -	HCL F-
NUMBER	SIZE	TYPE	PRESERVATI			ER SIZE	TYP	E PF	RESERV	ATIVE FILTERED
<u>م</u> ے۔	40 mL	VOA	E-		NZ	60-1	1/ash		4	
	500mL				N A	60 = (	7 10-5/	<u> </u>	<u> </u>	
-2	250 mL				N		1		n et som ander de de som av overdet i so	
		- 1 /								
2	500~(	Plastic	<b>^</b>		N		<b> </b>		are in any area of a granita	
l	250 m	•			N		<u> </u>			
SHIPPING	METHOD	Corrie	. <b>,</b> D/	ATE SHIPPED:	10-30	- 24	AIR	BILL NUN	IBER:	
COC NUM				GNATURE:	the 1	WAT	DAT	E SIGNE	D:	10-30-2
							1			

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### WATER SAMPLE LOG

	11//			- Comple /	fea	967					
PROJECT	NAME:	A (	3RPS 2024	1 3000 0/		PR	EPARED			CHEC	KED
			557431.0	003 вү	:	JK	DATE:10-	25-24ВҮ	: A	h	DATE: 11/11/24
SAMPLE	ID: MW	- 16-0	1	WELL DIA	MET	ER: 🛛	2" 4"	6" 🗌 O	THER		
WELL MAT	ERIAL:	✓ PVC	🗌 ss 🛛	IRON 🗌 GA	LVA	NIZED 8	STEEL	o	THER		
SAMPLE T	YPE:	⊡ GW		SW 🗌 DI			LEACHATE	0	THER		
PUR	GING	, <sup>τιΜΕ:</sup> ιΟ	0 <b>8</b> DA	TE:10-28-2	4		AMPLE		047		ATE:10-28-24
PURGE METHOI		PUMP BAILER	Decl, Cal	ed Black			<u>7,66</u> s <u>171,8</u> m	U CONE		ITY: 12	හිනි umhos/cm g/L
DEPTH TO	WATER:	16.10	T/ PVC			TURBI		<u>~</u> NTU			
DEPTH TO	D BOTTOM:	NM	T/ PVC			🕅 NO	NE 🗌 SLI	днт [	МО	DERATE	VERY
WELL VOL	UME:	NA		GALLONS		TEMPE	RATURE: 1	<b><u>).2</u> ℃</b>	ОТН	HER:	
VOLUME	REMOVED:	1	X LITERS	GALLONS		COLO	R: Chear	· · · · ·	ODO	DR:	none
COLOR:	(	leur	OD	OR: none	<u> </u>	FILTRA	TE (0.45 um)	 VES	K	NO —	
		TUR	BIDITY					~		TRATE OD	DR:
	🗌 SLI	_	MODERATE					/MSD		DUP-	
DISPOSA	METHOD:	🔀 GROUI				COMM	ENTS: SPI	$+ \omega/$	Έ	GLE	
TIME	PURGE RATE	PH	CONDUCTIVITY	ORP		D.O.	TURBIDITY	TEMPERA		WATER LEVEL	CUMULATIVE PURGE VOLUME
1-12	(ML/MIN)	(SU)	(umhos/cm)	(mV) -67,6	1	mg/L)	(NTU)	(°C)		(FEET)	(GAL OR(L)
1012	200	7.08	1347			70	3.25	12.8		16+55	
1017	200	7.21	1298	-12511		.31	2.14	<u>(),</u>		15.57	<u> </u>
1022	300	7.27	1295	-139.7	0	11]	2.42	12.	5	16.60	2
1027	200	7.39	1285	-161.3	Ø	,05	2.56	/2.5	?	16,70	
1032	200	7,48	1284	-168.8	0	,02	2.71	12.	<u> </u>	16.70	
1037	200	7.57	1273	-172.0	C	0.07	2.43	12.	2	16.70	5
1042	200	7.63	1274	-171.9	0	,02	2.46	12.	2	16.70	6
1047	200	7.66	1288	-171,8	0	05	2.12	12.	2	16.70	7
							*****				an de ser de la construction de ser de s
			TEST IS COMPL								
pH: +/-	U.1 (	COND.: +/-	10 % ORP:	+/-	D.O.:	+/-	TURB: +/-	<b>10 %</b> (	or =</td <td>10</td> <td>TEMP.: +/- 0.5°C</td>	10	TEMP.: +/- 0.5°C
BOTTLE	S FILLED	PRESERV	ATIVE CODES	A - NONE	В-	HNO3	C - H2SO4	D - Na	юH	E - HO	CL F
NUMBER	SIZE	TYPE	PRESERVATI	VE FILTER	ED	NUMB	ER SIZE	TYPE	PF	RESERVAT	IVE FILTERED
	40 mL	VOA			N	1	60,6	Physic		A	<u>и</u> у <b>Х</b> и
· <del>Z</del>	500mL	PLASTIC	В		N						ΠY ΠΝ
	-250-mL-	PLASTIC	A		) N						
1	500.ml	Plash,E	A	<u> </u>	] N						
t	500ml	Alushi	0	U Y 🛛	N						
SHIPPING	METHOD:		Drop off DA	ATE SHIPPED:		10-3	0-24	AIRBI		IBER:	
COC NUM	BER:			GNATURE:	/	1	. Ah	- DATE	SIGNE	 D:	10-30-24
L					Ħ	~	19				
					$\mathcal{V}$						

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#### WATER SAMPLE LOG

PROJECI		RPP 202	4 Sample/1	eport		PRI	EPARED			CHEC	KED
			31.0003.		BY:	JK	DATE: 0-2	8-24	вү: А	h	DATE: 11/21
SAMPLE	ID: Mr	v-16-0	9	WELL D	IAMET	ER:	2" 4"	6"	OTHER		
WELL MAT	ERIAL:	✓ PVC	🗌 ss 🗌		GALVA	NIZED S	TEEL		OTHER		
SAMPLE T	YPE:	⊡ GW		sw 🗌 🛛	וכ		LEACHATE		OTHER		
PUR	GING			TE: 10-20	r-24	S	AMPLE	TIME:		DA	ATE:
PURGE	~	PUMP	BLADDER PUN	IP (DEDICAT	ED)	PN	S	u cc	NDUCTIV	/ITY:	umhos/cm
METHOD	D:	BAILER				ORP:	<u> </u>	N DO	:	mg	Λ.
DEPTH TO	WATER:	16.55	T/ PVC			TURBI		NT	U	_	
DEPTH TO	BOTTOM:	NM	T/ PVC			🗌 иоі	VE 🗌 SN	GHT	🗌 мо	DERATE	
WELL VOL		MA			IS	TEMPE	RATURE:		°C OT	HER:	
VOLUME	REMOVED:	-++11.25	LITERS		IS	COLOF	२:	$\angle$	100	OR:	
COLOR:	6	rey	OD	OR: Yes		FILTRA	TE (0.45 um)		s 🗌	NO	
		TUR	BIDITY			FILTRA	COLOR:		FIL	TRATE ODC	DR:
	🗌 SLI	GHT 🗌	MODERATE	K VER	Y	OP SA	MPLE: 🔲 MS	/MSD		DUP-	
DISPOSAI	METHOD:	GROUI				сомм	ENTS: See	Ne,	xt pg.		
TIME	PURGE RATE	PH	CONDUCTIVITY	ORP		D.O.	TURBIDITY	ТЕМР	ERATURE	WATER LEVEL	CUMULATIVE PURGE VOLUME
	(ML/MIN)	(SU)	(umhos/cm)	(mV)		mg/L)	(NTU)		(°C)	(FEET)	(GAL OR L)
1117	150	7.24	2487	-128.6		08	57,0	1:	3. 7	17,40	INITIAL
1122	150	7.26	2422	-171.1	C	24	over	12	2.6	18.60	0.75
1127	150	7.28	2352	-173.6	C	0,14	77.8	10	2.6	18.72	1.50
1132	150	7.42	2315	- 181,4	0	,07	67.6	12	sis	18,90	2,25
1137	150	7,47	2317	- 177	10	101	77.8	12	4	19.10	3.00
1142	150	7.57	2321	-179.5	0	.03	99.1	12	14	19.35	3.75
1147	150	7.68	2342	- 179.6	0	,03	over	12	.2	19.50	4.50
1152	150	7.77	2353	-177.	50	.03	over	12	. 1	19,70	5,25
+157	150	7.81	2362	-180.3	0	,05	over	12	·.U	20,10	6,00
1202	150	7.85	2766	- 178,0	00	,04	Over	12	2.1	20,40	6,75
NC	DTE: STAB									-	
pH: +/-		COND.: +/-	-		D.O.:		TURB: +/-		or =</td <td></td> <td>TEMP.: +/- 0.5°C</td>		TEMP.: +/- 0.5°C
	S FILLED		ATIVE CODES			HNO3	C - H2SO4	· · · ·	NaOH	E - HC	
NUMBER	SIZE	TYPE	PRESERVATI			NUMB	ER SIZE		PE PI	RESERVATI	
<del>-9</del>	40 mL	VOA	E								
·+	500mL	PLASTIC	В	╾┥╘═┤┿╌┥	<u> </u>	ł					

 Image: Shipping Method:
 Image: Date Shipped:
 Image: Date Shipped:

250 mL

PLASTIC

•

PAGE 15 OF 17



#### WATER SAMPLE LOG (CONTINUED FROM PREVIOUS PAGE)

PROJECT NAME: KRLF 2024 Sample / Kepost	PREPARED	CHECKED
PROJECT NUMBER: 557931, 0000, 0000	BY: JK DATE: 10-25-29 E	BY: AV DATE: 11/11/24

#### SAMPLE ID: 10-09

TIME	PURGE RATE	PH	CONDUCTIVITY	ORP	D.O.	TURBIDITY	TEMPERATURE	WATER LEVEL	CUMULATIVE PURGE VOLUME
	(ML/MIN)	-(SU)	(umhos/cm)	(mV)	( mg/L)	(NTU)	(°C)	(FEET)	(GAL OR L)
1207	150	12.84	2361	~163,3	006	over	15.2	19.15	7.50
1212	150	7.79	2357	- 151.8	0,24	over	דיצו	14.30	8,25
1217	150	7,79	2355	- 150,2	0.22	over	12.7	14.00	9.00
1222	150	7.83	2369		0,20	over	12,8	18,90	9,75
1227	150	7.91	2769	-143.9	0.15	over	13.0	18.90	10.50
1232	150	8.01	2380	-143,6	0,11	over	13.1	18.90	11.25
		A )	o Sam	n6 1	nlloct	ed d	we to		
					{				
		tu	r b; dity,	prupeo	2 20	wh well	ho		
							pump		
		wi	11 let -purge	Re charg	e or	er nigh	t and		
a da a general con don contexe.		R	1 0 0	1. 11					
		1/14	-pwge		e m	pr-ning			
<u></u>									
							a na fan a chaininger de lin op responsering en da a graaf i graaf		
									1
a construction and a state of the state of the									
									1999 (1), 1999 (1), 1999 (1), 1999 (1), 1994 (1), 1997 (1), 1994 (
						a yen men ndr i A mån brannt på Anderso då ved kaldeli			
L	1	1	<u> </u>	1	1	1	1	1	1

SIGNATURE:

Al they

DATE SIGNED: 10-30-24

# TRC

#### WATER SAMPLE LOG

PAGE 16 OF 17

PROJECT	NAME:	BRPP 7	1024 San	note/Report	PR	EPARED			CHECK	ED
			\$1.0003		JK	DATE:	В١	AW		DATE: <b>(1/11/24</b>
SAMPLE	ID: Mu	1-16-04	ì	WELL DIAM		2" _ 4" _	6" 🗌 C	THER		
WELL MAT	ERIAL:	✓ PVC	🗌 ss 🗌	IRON 🗌 GAI	VANIZED S	STEEL		THER		
SAMPLE T	YPE:	✓ GW		SW 🗌 DI		LEACHATE		THER		
PURC	GING	TIME: O	350 D.	ATE: 10-29-2	4 S	AMPLE		0941	DAT	E:10-29-24
PURGE METHOD	· —	PUMP BAILER	BLADDER PU	MP (DEDICATED		<u>8.27</u> s -155.4 m		:ידועודע: <i>ס,2</i> \$		
DEPTH TC	WATER:	16.55	T/ PVC			DITY: Over			eter	
DEPTH TO	BOTTOM	144.30	T/ PVC		 NO	NE 🗌 SLI	GHT [		ATE	🔀 VERY
WELL VOL	UME:	NA		GALLONS	TEMPE	RATURE: 1	7.2 °C	OTHER	;	
VOLUME F	REMOVED:	12.5		GALLONS	COLO	R: Gruy		ODOR:	,	Yes
COLOR:	C	sray	0	DOR: Ves	FILTRA	TE (0.45 um)	🕅 YES			
			BIDITY				<u>chen</u>		TE ODOF	: Yes
DISPOSAL						ENTS: SPI: +	WIEGL	•		iltered meta
TIME	PURGE RATE	PH	CONDUCTIVITY		D.O.	TURBIDITY	TEMPER/		ATER EVEL	CUMULATIVE PURGE VOLUME
201	(ML/MIN)		(umhos/cm)	(mV)	(mg/L)	(NTU)	<u>0")</u>		EET)	(GAL OR L)
0856	100	7.81	2441	-41.7	1.66	over	12.0		,45	INITIAL
0901	150	7,74		- 34.6	4.68	over	12.9		1.86	.5
0906	150	1,87	2415	- 19.4	2.02	over	15.1	10	2,12	2.0
0911	150	'g.01	2446	-68.7	0.96	over	12.7	1 10	2.18	3.5
0916	150	8.16	2457	- 38,2	0.67	105.7	12.7	10	18	5.0
0921	150	8,14	2457	-95.1	0.60	over	13.1	เชิ	18	6.5
0926	150	8.21	2459	-121,4	6,39	over	17,0	18	. 18	8.0
0931	15D	8.24	2461	-132.9	0,44	over	13.0	18	,18	9.5
0936	150	8.25	2464	-143.3	0.34	over	17.0		,18	11.0
0941	150	8,27	2466	- 155.4	0.25	over	13.2		7.18	12.5
	DTE: STAB	LIZATION T		LETE WHEN 3 S	O.: +/-			N THE FOL or = 10</td <td></td> <td>LIMITS: EMP.: +/- 0.5°C</td>		LIMITS: EMP.: +/- 0.5°C
BOTTLES	S FILLED	PRESERV	ATIVE CODES	A - NONE	B - HNO3	C - H2SO4	D - Na	аOH	E - HCL	F
NUMBER	SIZE	TYPE	PRESERVAT	IVE FILTERE		ER SIZE	TYPE	PRESI	ERVATIV	E FILTERED
-3	40 mL	VOA	<u>E</u>		м 1	SOOML	Plast.x		4	
-+	500mL	PLASTIC	В		N- 1	SODML			B	
2	250 ml	PLASTIC	A		N_ 1	SOQUL		um	3	
					N ]	60mL	V		A A	
					N I	- Oum-				

 SHIPPING METHOD:
 Lass Dop OFF
 Date SHIPPED:
 10-70-24
 AIRBILL NUMBER:

 COC NUMBER:
 SIGNATURE:
 JU-70-24
 Date SIGNED:
 10-30-24

Eurofins Cleveland 180 S. Van Buren Avenue Barberton. OH 44203	0	Chain c	of Cus	n of Custody Record	ecord					ta 🖷	🐝 eurofins	S Environment Testing	sting
Phone (330) 497-9396 Phone (330) 497-0772								+	1.				Γ
Client Information	Sampler:	i Say	2/Elkirginete		Lab PM: Brooks, Kris M			Carrier T	Carrier Tracking No(s):		COC No: 240-125257-43696.1	3696.1	
Ctient Contact Mr. Vincent Buening	Phone: 7741-	-2955	1-224	E-Mail Kris.F	3rooks@et.e	E-Mail: Kris.Brooks@et.eurofinsus.com	E	State of Origin:	Drigin:		Page: Page 1 of 1		
Company. TRC Environmental Corporation.			PWSID:			*	alysis	Requested	5		Hob #:		
Address: 1540 Eisenhower Place	Due Date Requested:	÷				50					Preservation Codes: D - HNO3	odes:	
Clty: Ann Arbor	TAT Requested (days):	iys):			<u>Es</u> t	~/~ ·			. •		N - None		
State, Zip: MI, 48108-7080	Compliance Project:	A Yes	∆ No				4010						
Phome: 313-971-7080(Tel) 313-971-9022(Fax)	P0#: 214273				(6								
Email: vbuening@trccompanies.com	WO #: 553931.0003.0000	8			and see borned and	one ebi				LS L			
Project Name: CCR DTE Belle River Bottom Ash Basins	Project #: 24016463						21			eniejn			
Site: Michigan	SSOW#:				CALL OF THE PARTY	ephoir				02 10	Other:		
		Sample	Sample Type (C=comp,	Matrix (w=water, s=wolid, O=wasteroli,	0108° 6050 91030 <b>W</b> 2/W	- bale 2.2 aled - Ci 2 47 2 80 - Ci 2 40 1 00 2 4 Ci				iedmu <b>v is</b> jo			
Sample Identification	Sample Date	Time	G=grab)	ation Coder		)6 <u>Z</u>							
MW-16-02	12-01	1225	9	Water						<i>~~</i>			
Nw - 16 - 03	12-01	147		Water		X				~			
- / 9 - 0	12-01	7161	2	Water	$\sum$					2			
õ	12-0		J	Water	$\overline{\ }$	XX				<u>8</u>			
MV-16-01	10-28-24	1047	0	Water	×	XX				<u>M</u>			
mw-16-09	10-29-24	OAHI	Э	Water	×	XXX				H			
				Water									
													Т
										<u></u>			T
	•				Sample	Disposal ( .	A fee may b □t	e assessed if san	d if sample By Lab	s are retain	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	1 month) Months	-
— Non-Hazard — Hammable — Skin Irritant Poison B Deliverable Requested: I, II, II, IV, Other (specify)	ISON B UNKNOWN	LIMO	Kadiological		Special I	al Instructions/QC	Special Instructions/QC Requirements:	nents:					
Empty Kit Religquished by:		Date:			Time:			Mer	Method of Shipment:	int:			Π
Relinquished by	Date/Time: レートロータイ		0220	Company	Recei	Received by: TRC Shorage	یک در ک		Date/Time: ∕∽⊃	/Time: 'ローアロースイ	2520/	Company	
Relinquished by:	Date/Time:			Company	Recei	ved by:	,		Date/Time:	īme:		Company	
Relinquished by:	Date/Time:			Company	Recei	Received by:			Date/Time	ime:		Company	
Custody Seals Intact: Custody Seal No.:					Coole	r Temperature	Cooler Temperature(s) °C and Other Remarks:	r Remarks:					
												Ver: 05/06/2024	

Pg 17 of 17

PAGE \_\_\_\_\_ OF \_\_\_\_\_

# **TRC**

	PROJECT NAME:	DTE: BRPP BABs 2024 VER Sampling
	PROJECT NUMBER:	553931.0003.0000
	PROJECT MANAGER:	Vince Buening
	SITE LOCATION:	4505 King Road China Township, MI 48054
	DATES OF FIELDWORK:	12/11/2024 TO 12/12/2024
	PURPOSE OF FIELDWORK:	2SA2024 CCR VER Sampling Event
	WORK PERFORMED BY:	E. Rinehart
ľ	SIGNED THE	2 <u>12/16/24</u> DATE CHECKED BY DATE

**REVISED 04/2019** 

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#### **GENERAL NOTES**

PROJECT NAME:	DTE: BRPP BABs 2024 VER S	DATE:	12/11/2024	TIME ARRIVED: 12 35
PROJECT NUMBER:	553931.0003.0000	AUTHOR:	E. Rinehart	TIME LEFT: 1353

			W	EATHER				
	<u>∽ °F</u>	WIND:	_12_	MPH		VISIBILITY:	Closely	
· · · ·		WC	RK / SAM	PLING P	ERFORMED		/	÷
Ver Ste	nb.	+ S_	mple	Mı	2-16-0	3		
		· · · ·						

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN

		COMMUNICATION
NAME	REPRESENTING	SUBJECT / COMMENTS
Jake Krenz	TRC	Technical Coordinator
Jamie Stanislawski	DTE	Site Contact

	INVESTIGATION DERIV	ED WASTE SUMMARY	
WASTE MATRIX	QUANTITY	COMMENTS	
GW	NM		
	$\square$		
			na da Santa
ILA.	M izlilzy	and white	12-16-24
SIGNED		CHECKED BY	DATE

REVISED 04/2019

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PAGE 3	_ OF	8
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PROJECT NAME:	DTE: BRPP BABs 2024 VER	
PROJECT NO.:	553931.0003.0000	SAMPLER NAME: E. Rinehart
WATER LEVEL MEASU	IREMENTS COLLECTED WITH:	тапа.
HEF	RON DIPPER-T	PROJECT DEDICATED
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)
PRODUCT LEVEL MEA	SUREMENTS COLLECTED WITH	· · · · · · · · · · · · · · · · · · ·
	NA	NA
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)
<b>DEPTH TO BOTTOM O</b>	F WELL MEASUREMENTS COLL	ECTED WITH:
HEF	RON DIPPER-T	PROJECT DEDICATED
NAME AND MODEL OF IN	ISTRUMENT	SERIAL NUMBER (IF APPLICABLE)
PURGING METHOD	. 7 Mg A 860	and a Minime
BLADDER	PUMP (DEDICATED)	PROJECT DEDICATED
NAME AND MODEL OF P	UMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)
SAMPLING METHOD	an a	
BLADDER	PUMP (DEDICATED)	PROJECT DEDICATED
NAME AND MODEL OF P	UMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)
	NA	0.45 MICRON
NAME AND MODEL OF FI	LTERATION DEVICE	FILTER TYPE AND SIZE
DEDICAT	ED TEFLON TUBING	✓ LOW-FLOW SAMPLING EVENT
TUBING TYPE		
PURGE WATER DISPO	SAL METHOD	· · · · · · · · · · · · · · · · · · ·
	ND FIELD BLANK WATER SOUR	CE
ST	ORE BOUGHT	LABORATORY PROVIDED
POTABLE WATER SOUR	CE	DI WATER SOURCE

PAGE <u>4</u> OF <u>8</u>

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WATER QUALITY METER CALIBRATION LOG

PROJECT NO.:				1	Dy Tool 6		1		
	553931.0003.0000			SERIAL	<u>*'AZ 018</u>	Pro Leb	DATE: 12/	11/24 - 12	12/24
PH	CALIBRATION CHECK					ECIFIC CONDU		BRATION C	HECK
pH 7	pH 4 / 10			1		READING	TEMPERATUR		Γ
LOT #): 40H0353	(LOT #): 4G-10445	CAL.			(LOT #): 4C	10212		CAL.	
EXP. DATE): Aun /26	(EXP. DATE): 50 /2/	RANGE	TIME				(°CELSIUS)	RANGE	TIME
EXP. DATE): Aug 26	(EXP. DATE): Sep/26 POST-CAL. READING / STANDARD				POST-CAL. R	Sep 25 READING / STANDARD			
7.06 7.06	4.0 14.0		950	<12/11>	842.5	21 882.52	4.	WITHIN	1010
/	1.0		110	- <12/12>		1			
	,			<misc></misc>					
/	1			-		,			
/		RANGE		]		/			E
	CALIBRATION CHECK	<del></del>	1	1			IBRATION CHI		1
CAL. READING	TEMPERATURE			1	CAL.	READING	TEMPERATUR		
LOT #): 236/00 250	(°CELSIUS)	CAL.	TIME				(°CELSIUS)	CAL. RANGE	ТІМІ
EXP. DATE): 10 - 28					POST CAL PE	ADING /SATURATED AIR			
•				-	1		4		am
253 1253	<u> </u>		1005	<12/11>	12.76	/ 12.76	- 7		955
/				<12/12>		1			
1				<misc></misc>		1			
						1			
TURBIC	TY CALIBRATION CHEC		r	4			COMMENTS		
CALIBRATION	READING (NTU)			1		AL SOLUTION	STANDAR	RD SOLUTION	l (S)
(LOT #): A3097	(LOT #):	CAL.	TIME		(LOT #):		LIST LOT NUMBER	S AND EXPIRAT	TION DAT
(EXP. DATE): A 25	(EXP. DATE):	RANGE			(EXP. DATE):		UNDER CA	LIBRATION CHI	ECK
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD				CALIBRAT	ED PARAMETERS	CALIBRA	TION RANGES	(1)
(00 / 100	/		1000	<12/11	🗆 🖡	рН	pH: +/- 0.2	S.U.	
1	. 1			<12/12		COND	COND: +/- 1%	OF CAL. STA	NDARD
/	1			<misc< td=""><td></td><td>ORP</td><td>ORP: +/- 25 r</td><td>nV</td><td></td></misc<>		ORP	ORP: +/- 25 r	nV	
1	1		1			D.O.	D.O.: VARIE	S	
····	NOTES	RANGE	1	_		TURB	TURB: +/- 5%	OF CAL. STA	NDARD
	NOTES			7					
				-			<sup>(1)</sup> CALIBRATION R THE MODEL OF TH		
			·	-					
	PROBLEMS ENCOUNTERED					CORRECT	IVE ACTIONS		
	$\bigcirc$								
1/1.	h/1 ,	1				/	11		
1htt	V // 12/1	1/24	_		(al)	m i	Mulu	<u> </u>	16-2
BIGNED (	1	DATE	_		CHEC	KED BY	Y		DATE
K	/ '						-		

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#### WATER LEVEL DATA

PROJECT NAME:	DTE: BRP	P BABs 2024 VE	R Sampling		DATE:	12/11/2	4
PROJECT NUMBER:	553931.00	03.0000		·	AUTHO	R: E. Rinehart	•
WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	ВОТ	TH TO TOM ET)	DEPTH TO PRODUCT (FEET)	WATER ELEVATION
MW-16-01							
<del>M₩-16-02-</del>							
MW-16-03	1250	TOC/	15.85	NR	1	<b>4</b>	
- <del>MW-16-04</del>					t –		
MW-16-05							
MW-16-06-							
MW-16-07							· · · · · · · · · · · · · · · · · · ·
_MW-16-08_							
<u>-MW-16-09-</u>			2				
M <del>W 16-10</del>							
MW-16-11A							

ALL WATER LEVELS MOST INCLUDE REFERENCE POINT AND TAPE CORRECTION FACTOR (E.G., 1.1 + 0.00 T/PVC).

12/11/2 4 DATE SIGNED

<u>lin</u> <u>|2-16-24</u> DATE CHECKED

REVISED 04/2019

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#### WATER SAMPLE LOG

PROJECI	F NAME:	DTE: E	BRPP BABs	2024 VER S		PRE	PARED		, Cł	HECKED	
PROJEC1	T NUMBEI	२: 55393	1.0003.0000	1	BY:	ER	DATE: 12/	11/21/BY:1	A. what	DATE	12-6-24
SAMPLE	ID: <u>И</u>	$\omega - i$	16-03	WELL C	DIAMET	ER: 🗸 2	2" [] 4" []	6" [] OT⊦	IER		
WELL MAT	ERIAL:	✓ PVC			GALVA	NIZED ST	EEL	П отн	IER		
SAMPLE T	YPE:	⊡ GW		]sw 🔲	DI	L	EACHATE		IER		
PUR	GING	TIME: /3	600	DATE: 12/11	21	SA	MPLE	TIME: 134	10	DATE: /	2/11/29
PURGE METHO		PUMP BAILER	BLADDER PI	JMP (DEDICA	TED)	PH:			CTIVITY: <u>2</u> 0.21	2 <u>094.3</u> mg/L	_ umhos/cr
DEPTH TO	O WATER:	15.85	T/ PVC			TURBID	ITY: 0.69	NTU			*****
DEPTH TO	О ВОТТОМ	: NM	T/ PVC			NON	E 🗌 SLI	бнт 🗌	MODERA	ге 🗌	VERY
WELL VOL	.UME:	NM		GALLOI	٧S	TEMPER		). <i>5</i> ೭℃	OTHER:		
VOLUME I	REMOVED:	13			٧S	COLOR	Clen	_	ODOR:	No	
COLOR:	Ac	<u>~/</u>		)DOR: <u>ال ہ</u>		FILTRAT	E (0.45 um)	YES	D-40		
_/ _			BIDITY			FILTRAT	E COLOR:		FILTRATE		······
			MODERATE		۲Y	QC SAM		/MSD	KDUP-	01	_
DISPOSAL	_ METHOD:					COMME	NTS:				
TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVII (umhos/cm)	Y ORP		D.O. mg/L)	TURBIDITY (NTU)	TEMPERATU	JRE LEV	EL PUR	MULATIVE GE VOLUM GAL OR L)
1300	725		2094	14.7		37	0.0	9.6	15.		INITIAL
1305	<u>.</u>		2096.3	22.2		v. (9	0.55	10.87			525
1310			2086.7	-51.8		. 17	0.42	10.87	15.0	7 7	3.25
1315			2081.2			.14	0.71	11.15			875
1320		7,51	2039.7				0.15	10.16			.5
1325			2093.9	-103.6	1		0.78	10.87	15.	-	.125
1330		7.61	2099:1	-109.7			0.90	10.89	15.4		1, 75
1335		7.64	2096.7	-114.7			0.58	10.88	-		.375
1340	$\mathcal{N}$	7.66	2094.3	-118.1			5.69	10.52	15.		3.00
1345	V						<u>, , , , , , , , , , , , , , , , , , , </u>				1.625-
			TEST IS COM 10 % OR	PLETE WHEN		CESSIVE +/-		ARE WITHIN T 10 % or		WING LIM	
BOTTLES	S FILLED	PRESERV	ATIVE CODE	A - NONE	В-	HNO3	C - H2SO4	D - NaOł	- Н Е	- HCL F	-
NUMBER	SIZE	TYPE	PRESERVA	TIVE FILTE	RED	NUMBE	R SIZE	TYPE	PRESER	VATIVE	FILTERED
	500mL	PLASTIC	A		N						
	500mL	PLASTIC	В		N					C	
****	60 mL	PLASTIC	A		N I						
	1 L	PLASTIC	В		□ N						
2	250m	Plustic	ß		XN						
SHIPPING		Cosciur	-	DATE SHIPPE	D: 12	-112	U	AIRBILL	NUMBER:	/	
COC NUM				SIGNATURE:	/	//	INATI	DATE SI		121.	La
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Table 3Daily pH Stabilization readingsDTE Belle River Power Plant Bottom Ash Basins and Diverson Basin

Sample ID	pH Prediction Limit	pH at stabilization prior to sampling	Sample Collection Date/Time					
Bottom Ash	Basin Montoring Wells							
MW-16-03	7.5-8.2	7.66	12/11/211 / 1346					

Checkel Celemente 12-16-24

180 S. Van	Eurofins
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# **Chain of Custody Record**

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Environment Testing America

Relinguished by:	Relinquished by	Custody Seals Intact:  Yes  No	Special Instructions/QC Requirements & Comments: TRC EDD Required	The User's Skin Initant	Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.	Preservation Used: 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							DUP-01	MW-16-03	Sample Identification			Sito: Bollo Bivor Dovor Plant MI	Project Name: DTE CCR Relle River Bottom Ash Basins		734-074-7080 Phone	Ann Arhor Michigan, 48108	01540 Eisenhower Place	TRC Companies	Client Contact		phone 330.497.9396 fax 330.497.0772	Barberton, OH 44203-3543
Company:	Company:	Custedy Seal No.:	RC EDD Required	Poison B	lease List any EPA e.	03; 5=NaOH; 6= C						 	11/2/	<u> 5/ 11/2/</u>	Sample Sample Date Time						TAT if differe	CALENDAR DAYS	Analy	Tel/Fax: 934-904-3302	Email: Vbuening	Project Manage	Regulatory	
		lo.:	E	Unknown	Waste Codes fo	other							G	9 0%E/		Sample	1 dav	2 davs			TAT if different from Below	<u>د</u>	Analysis Turnaround Time	)4-3302	Email: Vbuening@trccompanies.com	Project Manager: Vincent Buening	Regulatory Program: UDW	1
	Date/Time:			OWD	or the sample in								GW 1	· _	Matrix Cont.			- (			5 Days	WORKING DAYS				ning		
Received by:	Received by:	Cooler		Return to Client	Sample Disposa			-						: z	Filterec Perform Total C	h MS	S/N	ISI	) (	_	N	)		Lab Contact: Kris Br	Site Contact:		RCRA Suber:	
	L Storage	Cooler Temp. (°C): Obs'd:			( A tee may be as																			Brooks Ca	Date:		.:	
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# Appendix B Data Quality Reviews

#### Laboratory Data Quality Review Groundwater Monitoring Event April 2024 (Detection Monitoring) DTE Electric Company Belle River Power Plant (DTE BRPP)

Groundwater samples were collected by TRC for the April 2024 sampling event. Samples were analyzed for anions, total metals, and total dissolved solids by Eurofins Cleveland, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-203470-1.

During the April 2024 sampling event, a groundwater sample was collected from each of the following wells:

Bottom Ash Basins:

MW-16-01

- MW-16-02
- MW-16-03

MW-16-04

■ MW-16-09

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total Boron	SW846 3005A/6010D
Total Calcium and Iron	SW846 3005A/6020B
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.

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

#### **QA/QC Sample Summary**

- Target analytes were not detected in the method blanks.
- A field blank and equipment blank were not submitted with this sample set.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS/MSD analyses were performed on sample MW-16-04 for total boron, calcium, and iron; the percent recoveries (%Rs) and relative percent differences (RPDs) were within acceptance criteria.
- A laboratory duplicate analysis was not performed on a sample from this data set.
- Samples DUP-01/MW-16-03 were submitted as the field duplicate pair with this data set; all criteria were met.

#### Laboratory Data Quality Review Groundwater Monitoring Event October 2024 (Detection Monitoring) DTE Electric Company Belle River Power Plant (DTE BRPP)

Groundwater samples were collected by TRC for the October 2024 sampling event. Samples were analyzed for anions, total and/or dissolved metals, and total dissolved solids by Eurofins Cleveland, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-214080-1.

During the October 2024 sampling event, a groundwater sample was collected from each of the following wells:

Bottom Ash Basins:

- MW-16-01 MW-16-02 MW-16-03
- MW-16-04 MW-16-09

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total and/or Dissolved Boron	SW846 3005A/6010D
Total and/or Dissolved Calcium and Iron	SW846 3005A/6020B
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 constituents as well as iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

#### **QA/QC Sample Summary**

- TDS was analyzed slightly after the 7th day of collection for select samples. However, there
  is no impact on data usability since the samples were analyzed for TDS on the 7th day after
  collection.
- Target analytes were not detected in the method blanks.
- A field blank and equipment blank were not submitted with this sample set.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS/MSD analyses and laboratory duplicate analyses was not performed on a sample from this data set.
- Samples DUP-01/MW-16-04 were submitted as the field duplicate pair with this data set; all criteria were met.

#### Laboratory Data Quality Review Groundwater Monitoring Event December 2024 (Detection Verification Monitoring) DTE Electric Company Belle River Power Plant (DTE BRPP)

The groundwater sample was collected by TRC for the December 2024 sampling event. The sample was analyzed for total calcium by Eurofins Cleveland, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-216762-1.

During the December 2024 verification event, a groundwater sample was collected from the following well:

Bottom Ash Basins:

MW-16-03

The sample was analyzed for the following constituent:

Analyte Group	Method
Total Calcium	SW846 3005A/6020B

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

#### **Data Quality Review Procedure**

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund 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 constituent 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**

- Calcium was not detected in the method blank.
- A field blank and equipment blank were not submitted with this sample set.
- The LCS recovery for calcium was within laboratory control limits.
- MS/MSD analyses and laboratory duplicate analyses was not performed on a sample from this data set.
- Samples DUP-01/MW-16-03 were submitted as the field duplicate pair with this data set; all criteria were met.