2023 Annual Groundwater Monitoring Report

Sibley Quarry Coal Combustion Residual Landfill
801 Fort Street
Trenton, Michigan

January 2024

Prepared For:

DTE Electric Company

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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, applies to the DTE Electric Company (DTE Electric) Sibley Quarry Landfill (SQLF) CCR unit. Pursuant to the CCR Rule, no later than January 31, 2018, and annually thereafter, the owner or operator of a CCR unit must prepare an annual groundwater monitoring and corrective action report for the CCR unit documenting the status of groundwater monitoring and corrective action for the preceding year in accordance with §257.90(e). On behalf of DTE Electric, TRC Engineers Michigan, Inc., the engineering entity of TRC, has prepared this Annual Groundwater Monitoring Report for calendar year 2023 activities at the SQLF CCR unit.

The SQLF was operating under the detection monitoring program at the start of the 2023 annual reporting period and remained in the detection monitoring program through the end of the 2023 annual reporting period. The semiannual detection monitoring events for 2023 were completed in April and October 2023 and included sampling and analyzing groundwater within the groundwater monitoring system for the indicator parameters listed in Appendix III to the CCR Rule. As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify statistically significant increases (SSIs) in Appendix III parameters to determine if concentrations in groundwater exceed prediction limits. All the monitoring data that has been collected and evaluated under §257.90 through §257.98 in 2023 are presented in this report.

No initial SSIs were recorded for the April 2023 monitoring period. However, SSIs for chloride and sulfate were detected at one monitoring well, MW-107, during the October 2023 monitoring event and were verified by resampling.

According to §257.94(e), if the facility determines, pursuant to §257.93(h), that there is a SSI over background levels for one or more of the Appendix III constituents, the facility will, within 90 days of confirming a SSI, establish an assessment monitoring program or demonstrate that:

- A source other than the CCR unit caused the SSI, or
- The SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

In response to the chloride and sulfate SSIs noted during the October 2023 monitoring event, DTE Electric is evaluating potential alternative sources for the SSIs and will develop an Alternative Source Demonstration (ASD) if appropriate.

Additionally, based on the hydrogeology at the site, the uppermost aquifer is in an area where pumping has been performed continuously since before CCR disposal began and will continue to be dewatered, by which a continuous inward hydraulic gradient is maintained. As a result, there is no reasonable probability for the uppermost aquifer perimeter monitoring wells to have been affected by the SQLF CCR unit operations to date, nor could they be in the future under current pumping conditions.

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, applies to the DTE Electric Company (DTE Electric) Sibley Quarry Landfill Coal Combustion Residual Landfill (SQLF) CCR unit. Pursuant to the CCR Rule, no later than January 31, 2018, and annually thereafter, the owner or operator of a CCR unit must prepare an annual groundwater monitoring and corrective action report for the CCR unit documenting the status of groundwater monitoring and corrective action for the preceding year in accordance with §257.90(e). On behalf of DTE Electric, TRC Engineers Michigan, Inc., the engineering entity of TRC, has prepared this Annual Groundwater Monitoring Report for calendar year 2023 activities at the SQLF CCR unit (2023 Annual Report).

As documented in the *2022 Annual Groundwater Monitoring Report for the Sibley Quarry Landfill* (2022 Annual Report) (TRC, January 2023), potential statistically significant increases (SSIs) over prediction limits were not noted for any Appendix III constituents during the April and October 2022 semiannual detection monitoring events. As such, DTE Electric continued detection monitoring at the SQLF CCR Unit in 2023 pursuant to §257.94 of the CCR Rule.

This 2023 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 2023 semiannual groundwater monitoring events for the SQLF 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 Sibley Quarry Coal Combustion Residual Landfill* (QAPP) (TRC, August 2016; revised March 2017) and statistically evaluated per the *Groundwater Statistical Evaluation Plan – DTE Electric Company Sibley Quarry Coal Combustion Residual Landfill* (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.

1.2 Site Overview

The SQLF is located in Section 7, Township 4 South, Range 11 East, at 801 Fort Street in Trenton, Wayne County, Michigan (Figure 1). The SQLF is located about two miles north of the DTE Electric Trenton Power Plant. The SQLF is bounded mostly by Fort Street to the west, Sibley Road to the north, the former Detroit and Toledo Shore Line Railroad and West Jefferson Avenue to the east, and the former Vulcan Mold & Iron Company (now owned by Danou Enterprises) and the DTE Electric Jefferson Substation to the south.

The SQLF is a licensed Coal Ash Landfill owned and operated by DTE Electric. In 2023 the disposal facility received the majority of CCR from the Monroe Power Plant. It is anticipated that the SQLF will receive CCR from the Monroe Power Plant Bottom Ash Impoundment closure through 2024. The SQLF is operated under the current operating license number 9602 in accordance with Michigan Part 115 of the Natural Resources and Environmental Protection

Act (NREPA), PA 451 of 1994, as amended.

1.3 Geology/Hydrogeology

The SQLF CCR unit is located approximately one-half mile west of the Detroit River. The Sibley quarry was originally developed to mine limestone beginning in the mid-1800s and was mined to over 300 feet below ground surface (ft bgs) in some areas before mining activities ceased. In 1951, Detroit Edison (now DTE Electric) acquired Sibley Quarry and began to manage CCR in the SQLF. As part of normal operations, the SQLF is continuously dewatered to approximately 300 ft bgs maintaining a water level in the bottom of the quarry by pumping an average of approximately 1.5 million gallons per day.

The SQLF resides in an area characterized by near surface deposits of glacio-lacustrine clay and silt units on top of thick strata of dolomite and limestone bedrock. The SQLF is located in an area where the Dundee Formation (mostly limestone) and the Detroit River Group (limestone, dolostone and some sandstone) underlie the unconsolidated glacial drift and are the uppermost aquifer. At SQLF, the Dundee Formation is overlain by anywhere from less than 15 feet to more than 70 feet of unconsolidated material, most of which is clay-rich soil with some fill. The top of the Dundee Formation limestone/dolostone bedrock was encountered at depths ranging from 16.5 to 74.5 ft bgs and including the underlying Detroit River Group limestone/dolostone/ sandstone, extends to depths ranging from 235 to over 310 ft bgs. The underlying Sylvania Sandstone was encountered at depths ranging from 235 to 300 ft bgs in some locations at the SQLF.

As expected, data show that groundwater levels are significantly lower within the bedrock in monitoring wells that are the closest to the quarry where significant pumping is occurring, with water levels ranging from 115 to more than 210 ft bgs. Groundwater flow is consistently inward toward the base of the quarry due to continuous pumping that hydraulically controls groundwater flow. The pumped water from the quarry is managed in accordance with a National Pollution Discharge Elimination System (NPDES) permit. Quarry dewatering results in all the perimeter uppermost aquifer CCR monitoring wells being upgradient of the SQLF CCR unit.

Because the uppermost aquifer is in an area where pumping has been performed continuously before CCR disposal began, and will be continued to be dewatered, a continuous inward hydraulic gradient is maintained. As a result, there is no reasonable probability for the uppermost aquifer perimeter monitoring wells to have been affected by the SQLF CCR unit operations to date, nor could they be in the future under current pumping conditions.

2.0 Groundwater Monitoring

2.1 Monitoring Well Network

A groundwater monitoring system has been established for the SQLF CCR unit as detailed in the *Groundwater Monitoring System Summary Report – DTE Electric Company Sibley Quarry Coal Combustion Residual Landfill* (GWMS Report) (TRC, October 2017). The detection monitoring well network for the SQLF CCR unit currently consists of eight monitoring wells, MW-101 through MW-107 and MW-108A, which replaced decommissioned monitoring well MW-108 in January 2017. Monitoring wells MW-101 through MW-107 and MW-108A are located around the perimeter of the SQLF and provide data on both background and perimeter groundwater quality that has not been affected by the CCR unit (total of eight background/compliance monitoring wells) given that inward gradients are maintained by continuous dewatering within the quarry. All monitoring wells are screened in the uppermost aquifer. The monitoring well locations are shown on Figure 2.

2.2 Semiannual Groundwater Monitoring

The semiannual monitoring parameters for the detection groundwater monitoring program were selected per the CCR Rule's Appendix III to Part 257 – Constituents for Detection Monitoring. The Appendix III indicator parameters consist of boron, calcium, chloride, fluoride, pH (field reading), sulfate, 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 groundwater detection monitoring event for 2023 was performed on April 4 and 5, 2023, 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 eight monitoring well locations. Groundwater samples were collected from the eight detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the April 2023 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 3 (analytical results).

The second semiannual groundwater detection monitoring event for 2023 (2SA23) was performed on October 17 and 18, 2023 by TRC personnel and samples were analyzed by Eurofins in accordance with the QAPP. Static water elevation data were collected at all eight monitoring well locations. Groundwater samples were collected from the eight detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the October 2023 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 4 (analytical results). The laboratory analytical reports are included in Appendix A.

2.2.2 Data Quality Review

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

2.2.3 Groundwater Flow Rate and Direction

Groundwater elevation data collected during the April and October 2023 sampling events continue to show that groundwater within the uppermost aquifer flows radially into the quarry as a result of continuous pumping/dewatering at the site. Groundwater potentiometric surface elevations measured across the site during the April 2023 and the October 2023 sampling events are provided on Table 1 and were used to construct the groundwater potentiometric surface maps shown on Figures 3 and 4, respectively.

The data indicates that current groundwater flow rates and direction are consistent with previous monitoring events. The average hydraulic gradients throughout the site were 0.090 ft/ft for the April 2023 monitoring event and 0.090 ft/ft for the October 2023 monitoring event, resulting in estimated average seepage velocities of approximately 6.1 ft/day or 2,200 ft/year and 6.1 ft/day or 2,200 ft/year, respectively, using the average hydraulic conductivity of 6.8 ft/day (Golder, 2015) and an assumed effective porosity of 0.1.

Given that groundwater flow is maintained inward toward the quarry under active pumping, all the perimeter monitoring wells in the groundwater monitoring system are located in an upgradient position relative to the landfill. Therefore, there is no potential for groundwater to migrate away from the SQLF CCR unit.

3.0 Statistical Evaluation

3.1 Establishing Background Limits

As discussed in the Stats Plan, intrawell statistical methods for the SQLF were selected because the uppermost aquifer is in an area where pumping has been performed continuously since before CCR disposal began, and will be continued to be dewatered, resulting in a maintained continuous inward hydraulic gradient. Given that groundwater flow is inward under pumping conditions toward the quarry, all the perimeter monitoring wells in the groundwater monitoring system are located in an upgradient position relative to the landfill. Therefore, monitoring of the SQLF CCR unit using interwell statistical methods (upgradient to downgradient) is not possible. This also supports that the aquifer is unaffected by the CCR unit, where, as a result of the continuously maintained inward gradient, there is no reasonable probability for the perimeter monitoring wells within the uppermost aquifer to have been affected by the SQLF CCR unit operations to date, nor could they be in the future under current pumping conditions. An intrawell statistical approach requires that each of the monitoring wells double as background and compliance wells, 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 eight established detection monitoring wells (MW-101 through MW-107 and MW-108A). 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 SQLF 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 SQLF 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, Sibley Quarry Landfill* (included as Appendix C in the *2021 Annual Groundwater Monitoring Report – DTE Electric Company, Sibley Quarry Landfill, Coal Combustion Residual Unit*, TRC, January 2022).

3.2 Data Comparison to Background Limits – First 2023 Semiannual Event (April 2023)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-101 through MW-107 and MW-108A) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from MW-101 is compared to the background limit developed using the

background dataset from MW-101, and so forth).

The comparisons for the April 2023 monitoring event are presented on Table 3. The statistical evaluation of the April 2023 Appendix III indicator parameters shows no initial potential SSIs over background. The boron and chloride concentrations at MW-101 has been previously demonstrated to be from natural variability and not from a release at SQLF CCR unit as presented in the still applicable August 2019, and August 2020 ASDs. Therefore, no verification resampling was performed.

3.3 Data Comparison to Background Limits – Second Semiannual Event (October 2023)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-101 through MW-107 and MW-108A) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from MW-101 is compared to the background limit developed using the background dataset from MW-101, and so forth).

The statistical evaluation of the October 2023 Appendix III indicator parameters are presented on Table 4. The statistical evaluation of the October 2023 Appendix III indicator parameters shows initial potential SSIs over background for:

- Chloride at MW-107; and
- Sulfate at MW-107.

The boron concentration at MW-101 has been demonstrated to be from natural variability and not from the SQLF CCR unit as presented in the still applicable August 2019 ASD.

The initial observation of a constituent concentration above the established background limits does not constitute a SSI. Per the Stats Plan, if there is an initial exceedance of a prediction limit for one or more of the constituents that have not been attributed to an alternate source, the well(s) of concern can be resampled within 30 days of the completion of the initial statistical analysis for verification purposes. Therefore, verification resampling was performed at MW-107 for chloride and sulfate as described in Section 3.4. There were no potential SSIs compared to background for calcium, fluoride, pH, or TDS.

3.4 Verification Resampling – Second Semiannual Event (October 2023)

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. Only constituents that initially exceed their statistical limit (i.e., have no previously recorded SSIs) will be analyzed for verification purposes. As such, verification resampling was conducted on December 11, 2023, by TRC personnel for chloride and sulfate at MW-107. A summary of the groundwater data collected during the verification resampling event is provided on Table 4. The associated data quality review is included in Appendix B.

The December 2023 verification sampling confirmed the SSIs for chloride and sulfate at monitoring well MW-107. Per §257.94(e), DTE Electric is in the process of evaluating potential alternate sources for the chloride and sulfate SSIs at MW-107.

4.0 Conclusions and Recommendations

No initial SSIs over background limits were observed during the April 2023 monitoring event. For the October 2023 monitoring event, SSIs for chloride and sulfate concentrations were observed at one monitoring well location, MW-107, as verified by resampling. The source of the SSIs are being further evaluated, and an ASD will be developed, if appropriate.

According to §257.94(e), in the event that the facility determines, pursuant to §257.93(h), that there is a SSI over background levels for one or more of the Appendix III constituents, the facility will, within 90 days of confirming a SSI, establish an assessment monitoring program or demonstrate that:

- A source other than the CCR unit caused the SSI, or
- The SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

The owner or operator must complete a written demonstration (i.e., ASD), of the above within 90 days of confirming the SSI. Based on the outcome of the ASD the following steps will be taken:

- If a successful ASD is completed, a certification from a qualified professional engineer is required, and the CCR unit may continue with detection monitoring.
- If a successful ASD is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under §257.95. The facility must also include the ASD in the annual groundwater monitoring and corrective action report required by §257.90(e), in addition to the certification by a qualified professional engineer.

In response to the chloride and sulfate SSIs over the background limit noted at MW-107 during the October 2023 event, DTE Electric is evaluating whether a source other than the SQLF CCR unit caused the SSI and will develop an ASD, if appropriate.

As discussed above, and in the GWMS Report, because the uppermost aquifer is in an area where pumping has been performed continuously since before CCR disposal began and will continue to be dewatered to maintain a continuous inward hydraulic gradient, there is no reasonable probability for the uppermost aquifer perimeter monitoring wells to have been affected by the SQLF CCR unit operations to date, nor could they be in the future under current pumping conditions. Therefore, detection monitoring will be continued at the SQLF CCR unit in accordance with §257.94.

No corrective actions were performed in 2023. The next semiannual monitoring event at the SQLF CCR unit is scheduled for the second calendar quarter of 2024.

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
Sibley Quarry Coal Combustion Residual Landfill
Trenton, Michigan

CERTIFICATION

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

Name: David B. McKenzie, P.E.	Expiration Date: December 17, 2025	
Company: TRC Engineers Michigan, Inc.	Date: January 31, 2024	January 31, 2024

6.0 References

TRC. August 2016; Revised March 2017. CCR Groundwater Monitoring and Quality Assurance Project Plan – DTE Electric Company – Sibley Quarry Coal Combustion Residual Landfill, 801 Fort Street, Trenton, Michigan. Prepared for DTE Electric Company.

TRC. October 2017. Groundwater Monitoring System Summary Report – Sibley Quarry Coal Combustion Residual Landfill, 801 Fort Street, Trenton, Michigan. Prepared for DTE Electric Company.

TRC. October 2017. Groundwater Statistical Evaluation Plan –DTE Electric Company Sibley Quarry Coal Combustion Residual Landfill, 801 Fort Street, Trenton, Michigan. Prepared for DTE Electric Company.

TRC. January 2018. Annual Groundwater Monitoring Report – DTE Electric Company Sibley Quarry Coal Combustion Residual Landfill, 801 Fort Street, Trenton, Michigan. Prepared for DTE Electric Company.

TRC. August 8, 2019. Alternate Source Demonstration: 2019 First Semiannual Detection Monitoring Sampling Event Sibley Quarry Coal Combustion Residual Landfill, Trenton, Michigan. Prepared for DTE Electric Company.

TRC. August 26, 2020. Alternate Source Demonstration: 2020 First Semiannual Detection Monitoring Sampling Event Sibley Quarry Coal Combustion Residual Landfill, Trenton, Michigan. Prepared for DTE Electric Company.

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

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

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

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

Tables

Table 1
Summary of Groundwater Elevation Data – April and October 2023
Sibley Quarry Landfill – RCRA CCR Monitoring Program
Trenton, Michigan

Well ID	MW-101		MW-102		MW-103		MW-104		MW-105		MW-106		MW-107		MW-108A	
Date Installed	7/14/2015		7/16/2015		7/15/2015		7/16/2015		3/30/2016		3/28/2016		4/6/2016		1/24/2017	
TOC Elevation	617.67		615.03		607.23		608.39		593.28		606.75		610.03		594.06	
Geologic Unit of Screened Interval	Limestone Bedrock		Limestone Bedrock		Limestone Bedrock		Limestone Bedrock		Limestone Bedrock		Limestone Bedrock		Limestone Bedrock		Sandstone Bedrock	
Bottom of Open Hole Elevation	295.2		342.6		294.7		296.0		290.7		304.0		336.5		290.5	
Unit	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	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	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation
04/04/2023	169.80	447.87	215.92	399.11	179.90	427.33	119.04	489.35	18.14	575.14	182.45	424.30	155.57	454.46	50.57	543.49
10/17/2023	167.99	449.68	215.55	399.48	176.59	430.64	118.83	489.56	22.46	570.82	183.56	423.19	155.51	454.52	52.93	541.13

Notes:
Elevations are reported in feet relative to the national geodetic vertical datum of 1929.
ft BTOC - feet below top of casing

Table 2
Summary of Field Data – April to December 2023
Sibley Quarry Landfill – RCRA CCR Monitoring Program
Trenton, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)
MW-101	4/4/2023	1.38	-83.0	7.2	1,729	11.20	8.69
	10/17/2023	1.65	-238.4	7.1	1,536	12.38	0.00
MW-102	4/4/2023	8.90	-39.3	7.5	1,350	11.10	1.52
	10/17/2023	4.88	-3.6	6.9	1,608	12.00	3.07
MW-103	4/5/2023	1.27	-336.5	6.7	2,582	12.60	0.56
	10/18/2023	1.64	-316.2	6.8	2,597	11.60	0.30
MW-104	4/4/2023	1.17	-356.3	7.2	2,547	12.00	0.07
	10/18/2023	1.57	-307.4	7.0	2,576	13.05	0.00
MW-105	4/4/2023	1.22	-289.7	7.2	8,283	11.80	0.18
	10/17/2023	1.51	-149.1	6.8	9,176	13.21	0.00
MW-106	4/5/2023	1.25	-342.7	6.6	2,439	12.50	1.86
	10/18/2023	1.55	-327.0	6.9	2,561	12.92	2.07
MW-107	4/4/2023	1.05	-383.8	6.9	38,400	11.20	1.21
	10/17/2023	1.51	-312.5	6.8	37,468	12.18	4.48
	12/11/2023 (1)	1.24	-367.7	6.8	34,014	10.90	1.15
MW-108A	4/4/2023	1.22	-115.3	6.8	4,712	11.90	0.44
	10/18/2023	1.48	-98.0	6.9	5,201	13.30	0.00

Notes:
mg/L -Milligrams per Liter.
mV - Millivolts.
SU - Standard Units.
umhos/cm - Micromhos per centimeter.
°C - Degrees Celsius.
NTU - Nephelometric Turbidity Unit
(1) - Results shown for verification sampling performed on 12/11/2023.

Table 3
Comparison of Appendix III Parameter Results to Background Limits – April 2023
Sibley Quarry Landfill – RCRA CCR Monitoring Program
Trenton, Michigan

Sample Location:		MW-101		MW-102		MW-103		MW-104		MW-105		MW-106		MW-107		MW-108A	
Sample Date:		4/4/2023	PL	4/4/2023	PL	4/5/2023	PL	4/4/2023	PL	4/4/2023	PL	4/5/2023	PL	4/4/2023	PL	4/4/2023	PL
Constituent	Unit	Data		Data		Data		Data		Data		Data		Data		Data	
Appendix III																	
Boron	ug/L	**350**[(1)]	320	140	150	730	820	740	950	2,000	2,600	810	2,400	1,400	1,600	1,100	1,400
Calcium	ug/L	210,000	260,000	210,000	300,000	510,000	630,000	430,000	520,000	580,000	790,000	540,000	640,000	1,200,000	1,500,000	330,000	460,000
Chloride	mg/L	**330**[(2)]	220	160	260	150	160	320	690	3,100	4,500	120	180	21,000	21,000	1,500	2,100
Fluoride	mg/L	1.9	2.0	1.1	1.8	1.8	2.0	1.7	2.3	1.1	5.8	1.7	3.0	< 2.5	2.5	1.1	2.5
pH, Field	su	7.2	6.8 - 7.8	7.5	6.5 - 7.6	6.7	6.7 - 7.6	7.2	6.8 - 7.9	7.2	6.6 - 7.9	6.6	6.5 - 7.6	6.9	6.5 - 7.6	6.8	6.7 - 7.0
Sulfate	mg/L	590	700	400	720	2,000	2,100	1,800	1,900	1,900	2,200	2,000	2,100	3,400	3,700	1,000	1,200
Total Dissolved Solids	mg/L	1,300	1,400	1,100	1,700	3,100	3,600	2,800	3,700	6,600	9,400	3,000	3,200	32,000	39,000	3,700	4,900

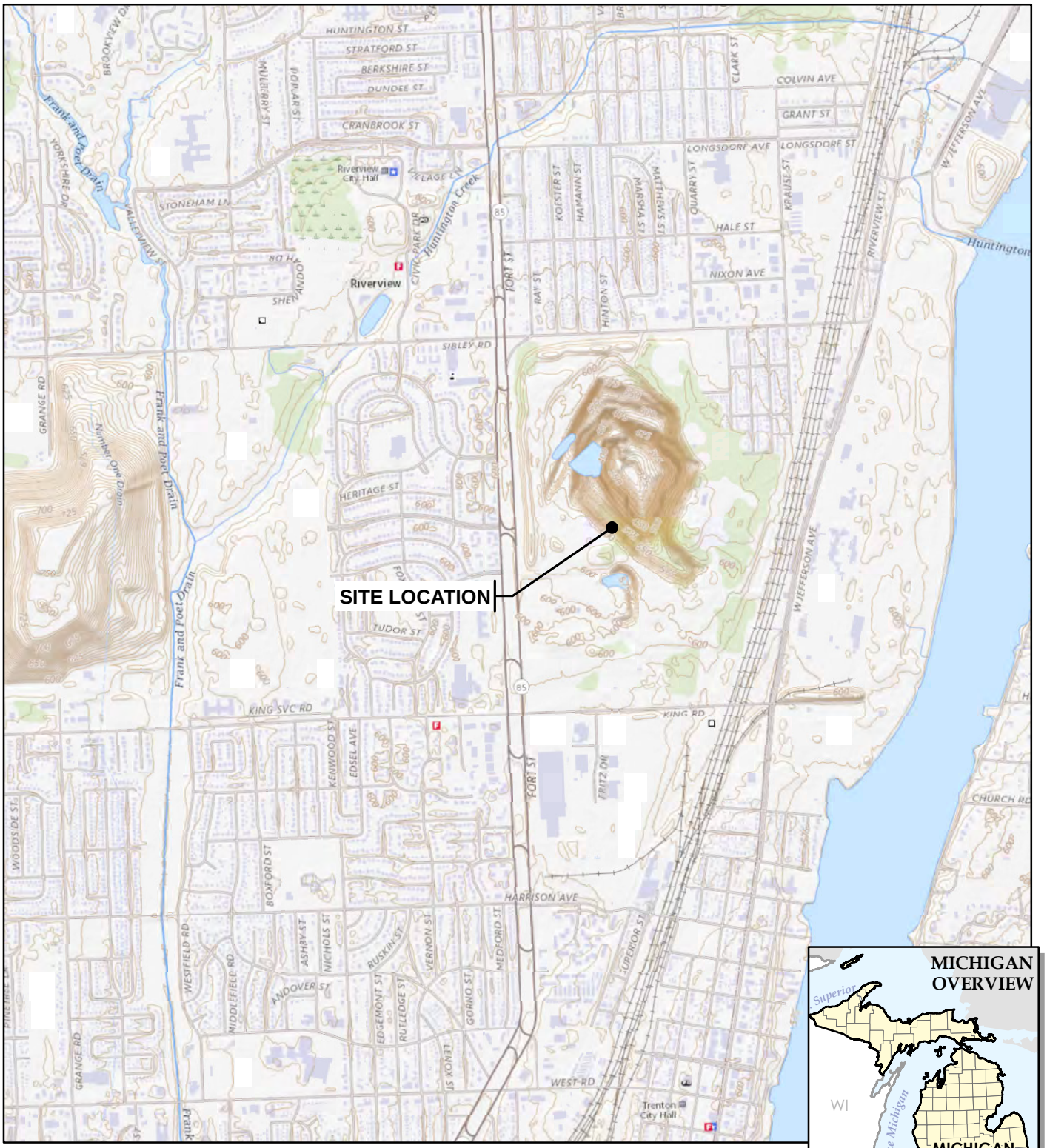
Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.
SU - standard units; pH is a field parameter.
All metals were analyzed as total unless otherwise specified.
Bold font indicates an exceedance of the Prediction Limit (PL).
(1) Exceedance was determined to be from an alternate source in the Alternate Source Demonstration: 2019 First Semiannual Detection Monitoring Sampling Event Sibley Quarry Coal Combustion Residual Landfill, Trenton, Michigan, dated August 8, 2019.
(2) Exceedance was determined to be from an alternate source in the Alternate Source Demonstration: 2020 First Semiannual Detection Monitoring Sampling Event Sibley Quarry Coal Combustion Residual Landfill, Trenton, Michigan, dated August 26, 2020.

Table 4
Comparison of Appendix III Parameter Results to Background Limits – October and December 2023
Sibley Quarry Landfill – RCRA CCR Monitoring Program
Trenton, Michigan

Sample Location:		MW-101		MW-102		MW-103		MW-104		MW-105		MW-106		MW-107			MW-108A	
Sample Date:		10/17/2023	PL	10/17/2023	PL	10/18/2023	PL	10/18/2023	PL	10/17/2023	PL	10/18/2023	PL	10/17/2023	12/11/2023 [1]	PL	10/18/2023	PL
Constituent	Unit	Data		Data		Data		Data		Data		Data		Data	Data		Data	
Appendix III																		
Boron	ug/L	**340**[2]	320	140	150	750	820	790	950	2,500	2,600	730	2,400	1,500	--	1,600	1,300	1,400
Calcium	ug/L	210,000	260,000	260,000	300,000	560,000	630,000	460,000	520,000	690,000	790,000	540,000	640,000	1,400,000	--	1,500,000	400,000	460,000
Chloride	mg/L	220	220	180	260	140	160	220	690	3,600	4,500	100	180	**24,000**	**23,000**	21,000	1,700	2,100
Fluoride	mg/L	1.8	2.0	1.6	1.8	1.7	2.0	1.7	2.3	1.2	5.8	1.6	3.0	< 5	--	2.5	1.0	2.5
pH, Field	su	7.1	6.8 - 7.8	6.9	6.5 - 7.6	6.8	6.7 - 7.6	7.0	6.8 - 7.9	6.8	6.6 - 7.9	6.9	6.5 - 7.6	6.8	6.8	6.5 - 7.6	6.9	7.0 - 7.0
Sulfate	mg/L	500	700	600	720	1,800	2,100	1,800	1,900	2,200	2,200	1,900	2,100	**5,200**	**3,800**	3,700	1,100	1,200
Total Dissolved Solids	mg/L	1,400	1,400	1,500	1,700	3,100	3,600	2,700	3,700	7,700	9,400	3,000	3,200	31,000	--	39,000	4,100	4,900

Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.
SU - standard units; pH is a field parameter.
All metals were analyzed as total unless otherwise specified.
-- Not Analyzed
Bold font indicates an exceedance of the Prediction Limit (PL).
[1] - Results shown for verification sampling performed on 12/11/2023.
[2] - Exceedance determined to be from an alternate source in the First 2019 Semiannual alternate source demonstration dated 8/8/2019.
RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

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

0 2,000 4,000
FEET

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

PROJECT:
DTE ELECTRIC COMPANY
SIBLEY QUARRY LANDFILL
801 FORT STREET
TRENTON, MICHIGAN

TITLE:
SITE LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	A. WHALEY
APPROVED BY:	V. BUENING
DATE:	JANUARY 2024
PROJ. NO.:	518728.0002
FILE:	FEDERAL_518728_2002_01_SLM.mxd

FIGURE 1

T:\1-PROJECTS\CCR\413591_Sibley_Quarry_Landfill\2-APRX\FEDERAL_518728_2002_01_SLM.mxd -- Saved By: AADAIR on 12/21/2023, 15:02:26 PM

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet (Foot US)
Map Rotation: 0
Plot Date: 12/21/2023, 15:24:43 PM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: T:\1-PROJECTS\CCR\413591_Sibley_Quarry_Landfill\2-APRX\STATE_518728_2002_MN.mxd

LEGEND

- MONITORING WELLS
- SURFACE WATER SAMPLING LOCATION
- DECOMMISSIONED MONITORING WELL
- SIBLEY QUARRY PROPERTY LINE
- SOLID WASTE DISPOSAL AREA BOUNDARY
- 1 FILL AREA DESIGNATION

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO, AND PARTNERS, (11/6/2022).
2. SITE LAYOUT INFORMATION FROM GEOREFERENCED CAD FILE. FEATURES ARE APPROXIMATE.
3. SURVEY PERFORMED BY THE DTE SURVEY GROUP IN AUGUST 2015, MAY 2016 AND JANUARY 2017.

N

0 600 1,200 Feet

1 " = 600 '
1:7,200

PROJECT:
DTE ELECTRIC COMPANY
SIBLEY QUARRY LANDFILL
801 FORT STREET
TRENTON, MICHIGAN

TITLE:
MONITORING NETWORK AND SITE PLAN

DRAWN BY:	A. ADAIR	PROJ NO.:	518728.0002
CHECKED BY:	A. WHALEY		
APPROVED BY:	V. BUENING		**FIGURE 2**
DATE:	JANUARY 2024		

TRC
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FILE NO.: STATE_518728_2002_MN.mxd

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0
Plot Date: 12/22/2023, 10:49:31 AM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: T:\1-PROJECTS\CCR\413591_Sibley_Quarry_Landfill\2-APRX\STATE_518728_4003_GWP.mxd

LEGEND

- DECOMMISSIONED MONITORING WELL
- MONITORING WELLS
- SURFACE WATER SAMPLING LOCATION
- SIBLEY QUARRY PROPERTY LINE
- SOLID WASTE DISPOSAL AREA BOUNDARY
- 1 — FILL AREA
- (439.08) — GROUNDWATER ELEVATION (FT NGVD 1929)
- POTENTIOMETRIC SURFACE CONTOUR (50-FT INTERVAL, DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO. AND PARTNERS, (11/6/2022).
2. SITE LAYOUT INFORMATION FROM GEOREFERENCED CAD FILE. FEATURES ARE APPROXIMATE.
3. SURVEY PERFORMED BY THE DTE SURVEY GROUP IN AUGUST 2015, MAY 2016 AND JANUARY 2017.
4. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.

N

0 600 1,200 Feet

1 " = 600 '
1:7,200

PROJECT:
DTE ELECTRIC COMPANY
SIBLEY QUARRY LANDFILL
801 FORT STREET
TRENTON, MICHIGAN

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE MAP APRIL 2023

DRAWN BY:	A. ADAIR	PROJ NO.:	518728.0002
CHECKED BY:	A. WHALEY		
APPROVED BY:	V. BUENING		**FIGURE 3**
DATE:	JANUARY 2024		

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Phone: 734.971.7080
www.trccompanies.com

FILE NO.: STATE_518728_4003_GWP.mxd

LEGEND

- DECOMMISSIONED MONITORING WELL
- MONITORING WELLS
- SURFACE WATER SAMPLING LOCATION
- SIBLEY QUARRY PROPERTY LINE
- SOLID WASTE DISPOSAL AREA BOUNDARY
- 1 — FILL AREA DESIGNATION
- (439.08) — GROUNDWATER ELEVATION (FT NGVD 1929)
- POTENTIOMETRIC SURFACE CONTOUR (50-FT INTERVAL, DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO. AND PARTNERS, (11/6/2022).
2. SITE LAYOUT INFORMATION FROM GEOREFERENCED CAD FILE. FEATURES ARE APPROXIMATE.
3. SURVEY PERFORMED BY THE DTE SURVEY GROUP IN AUGUST 2015, MAY 2016 AND JANUARY 2017.
4. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.

N

0 600 1,200 Feet

1 " = 600 '
1:7,200

PROJECT:
DTE ELECTRIC COMPANY
SIBLEY QUARRY LANDFILL
801 FORT STREET
TRENTON, MICHIGAN

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE MAP OCTOBER 2023

DRAWN BY:	A. ADAIR	PROJ NO.:	518728.0002
CHECKED BY:	A. WHALEY		
APPROVED BY:	V. BUENING		**FIGURE 4**
DATE:	JANUARY 2024		

TRC
1540 Eisenhower Place
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Phone: 734.971.7080
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FILE NO.: STATE_518728_3003_GWP.mxd

Plot Date: 12/22/2023, 09:10:26 AM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: T:\1-PROJECTS\CCR\413591_Sibley_Quarry_Landfill\2-APRX\STATE_518728_3003_GWP.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0

Appendix A
Laboratory Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/27/2023 3:48:51 AM

JOB DESCRIPTION

CCR DTE Sibley Quarry

JOB NUMBER

240-183175-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

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

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Authorization

Generated
4/27/2023 3:48:51 AM

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

Table of Contents

Definitions/Glossary

Client: TRC Environmental Corporation.
Job ID: 240-183175-1
Project/Site: CCR DTE Sibley Quarry

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Job ID: 240-183175-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-183175-1

Receipt
The samples were received on 4/7/2023 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 2.6°C and 2.8°C

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

General Chemistry
Method 9056A_28D: The following sample was diluted due to the nature of the sample matrix: MW-107 (240-183175-7). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

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

Protocol References:

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

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

Laboratory References:

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

Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-183175-1	MW-101	Water	04/04/23 12:11	04/07/23 08:00
240-183175-2	MW-102	Water	04/04/23 11:12	04/07/23 08:00
240-183175-3	MW-103	Water	04/05/23 09:25	04/07/23 08:00
240-183175-4	MW-104	Water	04/04/23 14:25	04/07/23 08:00
240-183175-5	MW-105	Water	04/04/23 13:05	04/07/23 08:00
240-183175-6	MW-106	Water	04/05/23 10:12	04/07/23 08:00
240-183175-7	MW-107	Water	04/04/23 10:00	04/07/23 08:00
240-183175-8	MW-108A	Water	04/04/23 15:50	04/07/23 08:00
240-183175-9	QUARRY SUMP	Water	04/05/23 08:26	04/07/23 08:00
240-183175-10	QUARRY DISCHARGE	Water	04/04/23 13:30	04/07/23 08:00
240-183175-11	DUP-01	Water	04/04/23 00:00	04/07/23 08:00

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-101 — Lab Sample ID: 240-183175-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010B	Total Recoverable
Calcium	210000		1000	1000	ug/L	1		6020	Total Recoverable
Chloride	330		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.9		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	590		10	10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	1300		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 240-183175-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	140		100	57	ug/L	1		6010B	Total Recoverable
Calcium	210000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	450		100	100	ug/L	1		6020	Total Recoverable
Chloride	160		1.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	1.1		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	400		5.0	5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	1100		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 240-183175-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	730		100	57	ug/L	1		6010B	Total Recoverable
Calcium	510000		1000	1000	ug/L	1		6020	Total Recoverable
Chloride	150		1.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	1.8		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	2000		20	20	mg/L	20		9056A	Total/NA
Total Dissolved Solids	3100		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 240-183175-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	740		100	57	ug/L	1		6010B	Total Recoverable
Calcium	430000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	120		100	100	ug/L	1		6020	Total Recoverable
Chloride	320		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.7		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	1800		10	10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	2800		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 240-183175-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2000		100	57	ug/L	1		6010B	Total Recoverable
Calcium	580000		1000	1000	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-105 (Continued) — Lab Sample ID: 240-183175-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1800		100	100	ug/L	1		6020	Total Recoverable
Chloride	3100		50	50	mg/L	50		9056A	Total/NA
Fluoride	1.1		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	1900		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	6600		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 240-183175-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	810		100	57	ug/L	1		6010B	Total Recoverable
Calcium	540000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	3500		100	100	ug/L	1		6020	Total Recoverable
Chloride	120		1.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	1.7		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	2000		20	20	mg/L	20		9056A	Total/NA
Total Dissolved Solids	3000		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 240-183175-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1400		100	57	ug/L	1		6010B	Total Recoverable
Calcium	1200000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	800		100	100	ug/L	1		6020	Total Recoverable
Chloride	21000		500	500	mg/L	500		9056A	Total/NA
Sulfate	3400		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	32000		1000	1000	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-108A — Lab Sample ID: 240-183175-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	330000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	510		100	100	ug/L	1		6020	Total Recoverable
Chloride	1500		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.1		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	1000		20	20	mg/L	20		9056A	Total/NA
Total Dissolved Solids	3700		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: QUARRY SUMP — Lab Sample ID: 240-183175-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2700		100	57	ug/L	1		6010B	Total Recoverable
Calcium	650000		1000	1000	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: QUARRY SUMP (Continued)

Lab Sample ID: 240-183175-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	510		100	100	ug/L	1		6020	Total Recoverable
Chloride	2700		50	50	mg/L	50		9056A	Total/NA
Fluoride	1.6		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	2200		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	6400		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: QUARRY DISCHARGE

Lab Sample ID: 240-183175-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2600		100	57	ug/L	1		6010B	Total Recoverable
Calcium	650000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	190		100	100	ug/L	1		6020	Total Recoverable
Chloride	3300		50	50	mg/L	50		9056A	Total/NA
Fluoride	1.6		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	2200		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	7200		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01

Lab Sample ID: 240-183175-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1500		100	57	ug/L	1		6010B	Total Recoverable
Calcium	1200000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	720		100	100	ug/L	1		6020	Total Recoverable
Chloride	22000		1000	1000	mg/L	1000		9056A	Total/NA
Sulfate	3700		100	100	mg/L	100		9056A	Total/NA
Total Dissolved Solids	31000		1000	1000	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-101
Date Collected: 04/04/23 12:11
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		04/10/23 14:00	04/11/23 20:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210000		1000	1000	ug/L		04/10/23 14:00	04/11/23 18:37	1
Iron	100	U	100	100	ug/L		04/10/23 14:00	04/11/23 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	330		10	10	mg/L			04/21/23 06:15	10
Fluoride (SW846 9056A)	1.9		0.050	0.050	mg/L			04/21/23 05:54	1
Sulfate (SW846 9056A)	590		10	10	mg/L			04/21/23 06:15	10
Total Dissolved Solids (SM 2540C)	1300		20	20	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-102
Date Collected: 04/04/23 11:12
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	140		100	57	ug/L		04/10/23 14:00	04/11/23 20:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210000		1000	1000	ug/L		04/10/23 14:00	04/11/23 18:40	1
Iron	450		100	100	ug/L		04/10/23 14:00	04/11/23 18:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	160		1.0	1.0	mg/L			04/21/23 06:35	1
Fluoride (SW846 9056A)	1.1		0.050	0.050	mg/L			04/21/23 06:35	1
Sulfate (SW846 9056A)	400		5.0	5.0	mg/L			04/21/23 07:35	5
Total Dissolved Solids (SM 2540C)	1100		20	20	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-103
Date Collected: 04/05/23 09:25
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	730		100	57	ug/L		04/10/23 14:00	04/11/23 20:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	510000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:00	1
Iron	100	U	100	100	ug/L		04/10/23 14:00	04/11/23 19:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	150		1.0	1.0	mg/L			04/21/23 08:36	1
Fluoride (SW846 9056A)	1.8		0.050	0.050	mg/L			04/21/23 08:36	1
Sulfate (SW846 9056A)	2000		20	20	mg/L			04/25/23 12:04	20
Total Dissolved Solids (SM 2540C)	3100		40	40	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-104
Date Collected: 04/04/23 14:25
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	740		100	57	ug/L		04/10/23 14:00	04/11/23 21:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	430000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:03	1
Iron	120		100	100	ug/L		04/10/23 14:00	04/11/23 19:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	320		10	10	mg/L			04/21/23 09:36	10
Fluoride (SW846 9056A)	1.7		0.050	0.050	mg/L			04/21/23 09:16	1
Sulfate (SW846 9056A)	1800		10	10	mg/L			04/21/23 09:36	10
Total Dissolved Solids (SM 2540C)	2800		40	40	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-105
Date Collected: 04/04/23 13:05
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2000		100	57	ug/L		04/10/23 14:00	04/11/23 21:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	580000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:06	1
Iron	1800		100	100	ug/L		04/10/23 14:00	04/11/23 19:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	3100		50	50	mg/L			04/21/23 10:16	50
Fluoride (SW846 9056A)	1.1		0.25	0.25	mg/L			04/21/23 09:56	5
Sulfate (SW846 9056A)	1900		50	50	mg/L			04/21/23 10:16	50
Total Dissolved Solids (SM 2540C)	6600		100	100	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-106
Date Collected: 04/05/23 10:12
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	810		100	57	ug/L		04/10/23 14:00	04/11/23 21:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	540000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:09	1
Iron	3500		100	100	ug/L		04/10/23 14:00	04/11/23 19:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	120		1.0	1.0	mg/L			04/21/23 10:36	1
Fluoride (SW846 9056A)	1.7		0.050	0.050	mg/L			04/21/23 10:36	1
Sulfate (SW846 9056A)	2000		20	20	mg/L			04/25/23 12:24	20
Total Dissolved Solids (SM 2540C)	3000		40	40	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-107
Date Collected: 04/04/23 10:00
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1400		100	57	ug/L		04/10/23 14:00	04/11/23 21:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1200000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:12	1
Iron	800		100	100	ug/L		04/10/23 14:00	04/11/23 19:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	21000		500	500	mg/L			04/21/23 11:37	500
Fluoride (SW846 9056A)	2.5	U	2.5	2.5	mg/L			04/21/23 11:17	50
Sulfate (SW846 9056A)	3400		50	50	mg/L			04/21/23 11:17	50
Total Dissolved Solids (SM 2540C)	32000		1000	1000	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-108A
Date Collected: 04/04/23 15:50
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	57	ug/L		04/10/23 14:00	04/11/23 21:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	330000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:15	1
Iron	510		100	100	ug/L		04/10/23 14:00	04/11/23 19:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1500		20	20	mg/L			04/21/23 12:58	20
Fluoride (SW846 9056A)	1.1		0.10	0.10	mg/L			04/21/23 12:37	2
Sulfate (SW846 9056A)	1000		20	20	mg/L			04/21/23 12:58	20
Total Dissolved Solids (SM 2540C)	3700		50	50	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: QUARRY SUMP
Date Collected: 04/05/23 08:26
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2700		100	57	ug/L		04/10/23 14:00	04/11/23 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	650000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:18	1
Iron	510		100	100	ug/L		04/10/23 14:00	04/11/23 19:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	2700		50	50	mg/L			04/21/23 13:38	50
Fluoride (SW846 9056A)	1.6		0.25	0.25	mg/L			04/21/23 13:18	5
Sulfate (SW846 9056A)	2200		50	50	mg/L			04/21/23 13:38	50
Total Dissolved Solids (SM 2540C)	6400		100	100	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: QUARRY DISCHARGE

Lab Sample ID: 240-183175-10

Date Collected: 04/04/23 13:30

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2600		100	57	ug/L		04/10/23 14:00	04/11/23 21:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	650000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:27	1
Iron	190		100	100	ug/L		04/10/23 14:00	04/11/23 19:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	3300		50	50	mg/L			04/21/23 14:18	50
Fluoride (SW846 9056A)	1.6		0.25	0.25	mg/L			04/21/23 13:58	5
Sulfate (SW846 9056A)	2200		50	50	mg/L			04/21/23 14:18	50
Total Dissolved Solids (SM 2540C)	7200		100	100	mg/L			04/11/23 09:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: DUP-01
Date Collected: 04/04/23 00:00
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183175-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1500		100	57	ug/L		04/10/23 14:00	04/11/23 21:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1200000		1000	1000	ug/L		04/10/23 14:00	04/11/23 19:30	1
Iron	720		100	100	ug/L		04/10/23 14:00	04/11/23 19:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	22000		1000	1000	mg/L			04/21/23 14:58	1000
Fluoride (SW846 9056A)	5.0	U	5.0	5.0	mg/L			04/21/23 14:38	100
Sulfate (SW846 9056A)	3700		100	100	mg/L			04/21/23 14:38	100
Total Dissolved Solids (SM 2540C)	31000		1000	1000	mg/L			04/11/23 09:46	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-568708/1-A
Matrix: Water
Analysis Batch: 568985

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		04/10/23 14:00	04/11/23 20:20	1

Lab Sample ID: LCS 240-568708/2-A
Matrix: Water
Analysis Batch: 568985

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Lab Sample ID: 240-183175-1 MS
Matrix: Water
Analysis Batch: 568985

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	350		1000	1430		ug/L		109	75 - 125

Lab Sample ID: 240-183175-1 MSD
Matrix: Water
Analysis Batch: 568985

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	350		1000	1400		ug/L		106	75 - 125	2	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-568708/1-A
Matrix: Water
Analysis Batch: 569003

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		04/10/23 14:00	04/11/23 18:32	1
Iron	100	U	100	100	ug/L		04/10/23 14:00	04/11/23 18:32	1

Lab Sample ID: LCS 240-568708/3-A
Matrix: Water
Analysis Batch: 569003

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	22800		ug/L		91	80 - 120
Iron	5000	4400		ug/L		88	80 - 120

Lab Sample ID: 240-183175-2 MS
Matrix: Water
Analysis Batch: 569003

Client Sample ID: MW-102
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	210000		25000	231000	4	ug/L		78	75 - 125
Iron	450		5000	4850		ug/L		88	75 - 125

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

Lab Sample ID: 240-183175-2 MSD
Matrix: Water
Analysis Batch: 569003

Client Sample ID: MW-102
Prep Type: Total Recoverable
Prep Batch: 568708

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	210000		25000	230000	4	ug/L		73	75 - 125	0	20
Iron	450		5000	4880		ug/L		89	75 - 125	1	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-570036/3
Matrix: Water
Analysis Batch: 570036

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/21/23 04:34	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/21/23 04:34	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/21/23 04:34	1

Lab Sample ID: LCS 240-570036/4
Matrix: Water
Analysis Batch: 570036

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.5		mg/L		101	90 - 110
Fluoride	2.50	2.59		mg/L		104	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

Lab Sample ID: 240-183175-2 MS
Matrix: Water
Analysis Batch: 570036

Client Sample ID: MW-102
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	160		50.0	205	E	mg/L		96	80 - 120
Fluoride	1.1		2.50	3.86		mg/L		109	80 - 120
Sulfate	400	E	50.0	438	E 4	mg/L		79	80 - 120

Lab Sample ID: 240-183175-2 MSD
Matrix: Water
Analysis Batch: 570036

Client Sample ID: MW-102
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	160		50.0	206	E	mg/L		97	80 - 120	0	15
Fluoride	1.1		2.50	3.87		mg/L		109	80 - 120	0	15
Sulfate	400	E	50.0	439	E 4	mg/L		80	80 - 120	0	15

Lab Sample ID: MB 240-570645/3
Matrix: Water
Analysis Batch: 570645

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/24/23 13:19	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/24/23 13:19	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/24/23 13:19	1

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

Lab Sample ID: LCS 240-570645/4
Matrix: Water
Analysis Batch: 570645

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.8		mg/L		100	90 - 110
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

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

Lab Sample ID: MB 240-568878/1
Matrix: Water
Analysis Batch: 568878

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			04/11/23 09:46	1

Lab Sample ID: LCS 240-568878/2
Matrix: Water
Analysis Batch: 568878

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	555		mg/L		96	80 - 120

Lab Sample ID: 240-183175-10 DU
Matrix: Water
Analysis Batch: 568878

Client Sample ID: QUARRY DISCHARGE
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	7200		6790		mg/L		6	20

Metals

Prep Batch: 568708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183175-1	MW-101	Total Recoverable	Water	3005A	
240-183175-2	MW-102	Total Recoverable	Water	3005A	
240-183175-3	MW-103	Total Recoverable	Water	3005A	
240-183175-4	MW-104	Total Recoverable	Water	3005A	
240-183175-5	MW-105	Total Recoverable	Water	3005A	
240-183175-6	MW-106	Total Recoverable	Water	3005A	
240-183175-7	MW-107	Total Recoverable	Water	3005A	
240-183175-8	MW-108A	Total Recoverable	Water	3005A	
240-183175-9	QUARRY SUMP	Total Recoverable	Water	3005A	
240-183175-10	QUARRY DISCHARGE	Total Recoverable	Water	3005A	
240-183175-11	DUP-01	Total Recoverable	Water	3005A	
MB 240-568708/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-568708/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-568708/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-183175-1 MS	MW-101	Total Recoverable	Water	3005A	
240-183175-1 MSD	MW-101	Total Recoverable	Water	3005A	
240-183175-2 MS	MW-102	Total Recoverable	Water	3005A	
240-183175-2 MSD	MW-102	Total Recoverable	Water	3005A	

Analysis Batch: 568985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183175-1	MW-101	Total Recoverable	Water	6010B	568708
240-183175-2	MW-102	Total Recoverable	Water	6010B	568708
240-183175-3	MW-103	Total Recoverable	Water	6010B	568708
240-183175-4	MW-104	Total Recoverable	Water	6010B	568708
240-183175-5	MW-105	Total Recoverable	Water	6010B	568708
240-183175-6	MW-106	Total Recoverable	Water	6010B	568708
240-183175-7	MW-107	Total Recoverable	Water	6010B	568708
240-183175-8	MW-108A	Total Recoverable	Water	6010B	568708
240-183175-9	QUARRY SUMP	Total Recoverable	Water	6010B	568708
240-183175-10	QUARRY DISCHARGE	Total Recoverable	Water	6010B	568708
240-183175-11	DUP-01	Total Recoverable	Water	6010B	568708
MB 240-568708/1-A	Method Blank	Total Recoverable	Water	6010B	568708
LCS 240-568708/2-A	Lab Control Sample	Total Recoverable	Water	6010B	568708
240-183175-1 MS	MW-101	Total Recoverable	Water	6010B	568708
240-183175-1 MSD	MW-101	Total Recoverable	Water	6010B	568708

Analysis Batch: 569003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183175-1	MW-101	Total Recoverable	Water	6020	568708
240-183175-2	MW-102	Total Recoverable	Water	6020	568708
240-183175-3	MW-103	Total Recoverable	Water	6020	568708
240-183175-4	MW-104	Total Recoverable	Water	6020	568708
240-183175-5	MW-105	Total Recoverable	Water	6020	568708
240-183175-6	MW-106	Total Recoverable	Water	6020	568708
240-183175-7	MW-107	Total Recoverable	Water	6020	568708
240-183175-8	MW-108A	Total Recoverable	Water	6020	568708
240-183175-9	QUARRY SUMP	Total Recoverable	Water	6020	568708
240-183175-10	QUARRY DISCHARGE	Total Recoverable	Water	6020	568708
240-183175-11	DUP-01	Total Recoverable	Water	6020	568708
MB 240-568708/1-A	Method Blank	Total Recoverable	Water	6020	568708

Metals (Continued)

Analysis Batch: 569003 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-568708/3-A	Lab Control Sample	Total Recoverable	Water	6020	568708
240-183175-2 MS	MW-102	Total Recoverable	Water	6020	568708
240-183175-2 MSD	MW-102	Total Recoverable	Water	6020	568708

General Chemistry

Analysis Batch: 568878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183175-1	MW-101	Total/NA	Water	SM 2540C	
240-183175-2	MW-102	Total/NA	Water	SM 2540C	
240-183175-3	MW-103	Total/NA	Water	SM 2540C	
240-183175-4	MW-104	Total/NA	Water	SM 2540C	
240-183175-5	MW-105	Total/NA	Water	SM 2540C	
240-183175-6	MW-106	Total/NA	Water	SM 2540C	
240-183175-7	MW-107	Total/NA	Water	SM 2540C	
240-183175-8	MW-108A	Total/NA	Water	SM 2540C	
240-183175-9	QUARRY SUMP	Total/NA	Water	SM 2540C	
240-183175-10	QUARRY DISCHARGE	Total/NA	Water	SM 2540C	
240-183175-11	DUP-01	Total/NA	Water	SM 2540C	
MB 240-568878/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-568878/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-183175-10 DU	QUARRY DISCHARGE	Total/NA	Water	SM 2540C	

Analysis Batch: 570036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183175-1	MW-101	Total/NA	Water	9056A	
240-183175-1	MW-101	Total/NA	Water	9056A	
240-183175-2	MW-102	Total/NA	Water	9056A	
240-183175-2	MW-102	Total/NA	Water	9056A	
240-183175-3	MW-103	Total/NA	Water	9056A	
240-183175-4	MW-104	Total/NA	Water	9056A	
240-183175-4	MW-104	Total/NA	Water	9056A	
240-183175-5	MW-105	Total/NA	Water	9056A	
240-183175-5	MW-105	Total/NA	Water	9056A	
240-183175-6	MW-106	Total/NA	Water	9056A	
240-183175-7	MW-107	Total/NA	Water	9056A	
240-183175-7	MW-107	Total/NA	Water	9056A	
240-183175-8	MW-108A	Total/NA	Water	9056A	
240-183175-8	MW-108A	Total/NA	Water	9056A	
240-183175-9	QUARRY SUMP	Total/NA	Water	9056A	
240-183175-9	QUARRY SUMP	Total/NA	Water	9056A	
240-183175-10	QUARRY DISCHARGE	Total/NA	Water	9056A	
240-183175-10	QUARRY DISCHARGE	Total/NA	Water	9056A	
240-183175-11	DUP-01	Total/NA	Water	9056A	
240-183175-11	DUP-01	Total/NA	Water	9056A	
MB 240-570036/3	Method Blank	Total/NA	Water	9056A	
LCS 240-570036/4	Lab Control Sample	Total/NA	Water	9056A	
240-183175-2 MS	MW-102	Total/NA	Water	9056A	
240-183175-2 MSD	MW-102	Total/NA	Water	9056A	

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

General Chemistry

Analysis Batch: 570645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183175-3	MW-103	Total/NA	Water	9056A	
240-183175-6	MW-106	Total/NA	Water	9056A	
MB 240-570645/3	Method Blank	Total/NA	Water	9056A	
LCS 240-570645/4	Lab Control Sample	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-183175-1

Client Sample ID: MW-101

Lab Sample ID: 240-183175-1

Date Collected: 04/04/23 12:11

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 20:29
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 18:37
Total/NA	Analysis	9056A		1	570036	JMB	EET CAN	04/21/23 05:54
Total/NA	Analysis	9056A		10	570036	JMB	EET CAN	04/21/23 06:15
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: MW-102

Lab Sample ID: 240-183175-2

Date Collected: 04/04/23 11:12

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 20:50
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 18:40
Total/NA	Analysis	9056A		1	570036	JMB	EET CAN	04/21/23 06:35
Total/NA	Analysis	9056A		5	570036	JMB	EET CAN	04/21/23 07:35
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: MW-103

Lab Sample ID: 240-183175-3

Date Collected: 04/05/23 09:25

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 20:54
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:00
Total/NA	Analysis	9056A		1	570036	JMB	EET CAN	04/21/23 08:36
Total/NA	Analysis	9056A		20	570645	JMB	EET CAN	04/25/23 12:04
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: MW-104

Lab Sample ID: 240-183175-4

Date Collected: 04/04/23 14:25

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:07
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:03
Total/NA	Analysis	9056A		1	570036	JMB	EET CAN	04/21/23 09:16

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-183175-1
Project/Site: CCR DTE Sibley Quarry

Client Sample ID: MW-104
Lab Sample ID: 240-183175-4
Date Collected: 04/04/23 14:25
Matrix: Water
Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	570036	JMB	EET CAN	04/21/23 09:36
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: MW-105
Lab Sample ID: 240-183175-5
Date Collected: 04/04/23 13:05
Matrix: Water
Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:12
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:06
Total/NA	Analysis	9056A		5	570036	JMB	EET CAN	04/21/23 09:56
Total/NA	Analysis	9056A		50	570036	JMB	EET CAN	04/21/23 10:16
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: MW-106
Lab Sample ID: 240-183175-6
Date Collected: 04/05/23 10:12
Matrix: Water
Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:16
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:09
Total/NA	Analysis	9056A		1	570036	JMB	EET CAN	04/21/23 10:36
Total/NA	Analysis	9056A		20	570645	JMB	EET CAN	04/25/23 12:24
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: MW-107
Lab Sample ID: 240-183175-7
Date Collected: 04/04/23 10:00
Matrix: Water
Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:21
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:12
Total/NA	Analysis	9056A		50	570036	JMB	EET CAN	04/21/23 11:17
Total/NA	Analysis	9056A		500	570036	JMB	EET CAN	04/21/23 11:37
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: MW-108A

Lab Sample ID: 240-183175-8

Date Collected: 04/04/23 15:50

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:25
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:15
Total/NA	Analysis	9056A		2	570036	JMB	EET CAN	04/21/23 12:37
Total/NA	Analysis	9056A		20	570036	JMB	EET CAN	04/21/23 12:58
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: QUARRY SUMP

Lab Sample ID: 240-183175-9

Date Collected: 04/05/23 08:26

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:30
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:18
Total/NA	Analysis	9056A		5	570036	JMB	EET CAN	04/21/23 13:18
Total/NA	Analysis	9056A		50	570036	JMB	EET CAN	04/21/23 13:38
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: QUARRY DISCHARGE

Lab Sample ID: 240-183175-10

Date Collected: 04/04/23 13:30

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:34
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:27
Total/NA	Analysis	9056A		5	570036	JMB	EET CAN	04/21/23 13:58
Total/NA	Analysis	9056A		50	570036	JMB	EET CAN	04/21/23 14:18
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Client Sample ID: DUP-01

Lab Sample ID: 240-183175-11

Date Collected: 04/04/23 00:00

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6010B		1	568985	AJC	EET CAN	04/11/23 21:39
Total Recoverable	Prep	3005A			568708	MRL	EET CAN	04/10/23 14:00
Total Recoverable	Analysis	6020		1	569003	RKT	EET CAN	04/11/23 19:30
Total/NA	Analysis	9056A		100	570036	JMB	EET CAN	04/21/23 14:38

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-183175-1
Project/Site: CCR DTE Sibley Quarry

Client Sample ID: DUP-01
Lab Sample ID: 240-183175-11
Date Collected: 04/04/23 00:00
Matrix: Water
Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1000	570036	JMB	EET CAN	04/21/23 14:58
Total/NA	Analysis	SM 2540C		1	568878	MS	EET CAN	04/11/23 09:46

Laboratory References:

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

Accreditation/Certification Summary

Client: TRC Environmental Corporation.
Job ID: 240-183175-1
Project/Site: CCR DTE Sibley Quarry

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23 *
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23 *
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-23 *
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

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

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

MICHIGAN 190

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: A. Whiley	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-106116-31882.1
Client Contact: Jacob Krenz	Phone: 734-210-9274	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin: MI	Page: Page 1 of 1
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested: Standard			
City: Ann Arbor	TAT Requested (days): Standard			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179970 - 2022			
Email: JKrenz@trccompanies.com	WO #: 370029.0002			
Project Name: CCR DTE Sibley Quarry	Project #: 24016805			
Site: Michigan	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	[illegible] MS/[illegible] (Yes or No)	2540C_Calcd - TDS	6010B Boron, 6020 Calcium, Iron	9056A_28D - Chloride, Fluoride and Sulfate	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	D	N		
MW-101	4-4-23	1211	G	Water	N	N	X	X	X	[illegible]	
MW-102	4-4-23	1112	G	Water	N	N	X	X	X	[illegible]	
MW-103	4-5-23	0925	G	Water	N	N	X	X	X	[illegible]	
MW-104	4-4-23	1425	G	Water	N	N	X	X	X	[illegible]	
MW-105	4-4-23	1305	G	Water	N	N	X	X	X	[illegible]	
MW-106	4-5-23	1012	G	Water	N	N	X	X	X	[illegible]	
MW-107	4-4-23	1000	G	Water	N	N	X	X	X	[illegible]	
MW-108A	4-4-23	1550	G	Water	N	N	X	X	X	[illegible]	
QUARRY SUMP	4-5-23	0826	G	Water	N	N	X	X	X	[illegible]	
QUARRY DISHCARGE	4-4-23	1330	G	Water	N	N	X	X	X	3	
DUP-01	4-4-23	—	G	Water	N	N	X	X	X	[illegible]	

240-183175 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 4-5-23 1130	Company: TRC	Received by: TRC Storage	Date/Time: 4-5-23 1130	Company: TRC
Relinquished by: [signature]	Date/Time: 4-7-23 1130	Company: TRC	Received by: [signature]	Date/Time: 4/6/23 1131	Company: [illegible]
Relinquished by: [signature]	Date/Time: 4/6/23 1131	Company:	Received by: [signature]	Date/Time: 4-7-23 8:00	Company: EETNC
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 01/16/2019

Login # : ______________

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	2.8	2.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	2.6	2.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

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

183175

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

Client TrC environmental Site Name _____ Cooler unpacked by: Mandaly

Cooler Received on 4-7-23 Opened on 4-7-23

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

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

Eurofins Cooler # eetnc Foam Box Client Cooler Box Other _____

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

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF +0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes (No)	
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No (NA)	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	
-Were tamper/custody seals intact and uncompromised?	Yes No (NA)	
3. Shippers' packing slip attached to the cooler(s)?	Yes (No)	
4. Did custody papers accompany the sample(s)?	(Yes) No	
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7. Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11. Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA	pH Strip Lot# **HC203864**
14. Were VOAs on the COC?	Yes (No)	
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No (NA)	
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)	
17. Was a LL Hg or Me Hg trip blank present? _____	Yes (No)	

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

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

Concerning _____

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

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-101	240-183175-C-1	Plastic 500ml - with Nitric Acid	<2			
MW-102	240-183175-C-2	Plastic 500ml - with Nitric Acid	<2			
MW-103	240-183175-C-3	Plastic 500ml - with Nitric Acid	<2			
MW-104	240-183175-C-4	Plastic 500ml - with Nitric Acid	<2			
MW-105	240-183175-C-5	Plastic 500ml - with Nitric Acid	<2			
MW-106	240-183175-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-107	240-183175-C-7	Plastic 500ml - with Nitric Acid	<2			
MW-108A	240-183175-C-8	Plastic 500ml - with Nitric Acid	<2			
QUARRY SUMP	240-183175-C-9	Plastic 500ml - with Nitric Acid	<2			
QUARRY DISCHARGE	240-183175-C-10	Plastic 500ml - with Nitric Acid	<2			
DUP-01	240-183175-C-11	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/2/2023 1:34:25 PM

JOB DESCRIPTION

CCR DTE Sibley Quarry

JOB NUMBER

240-193953-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

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

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

Table of Contents

Client: TRC Environmental Corporation.
Job ID: 240-193953-1
Project/Site: CCR DTE Sibley Quarry

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

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

Glossary

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

Job ID: 240-193953-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-193953-1

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 10/20/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

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

General Chemistry
Method 9056A_28D: The following sample was diluted due to the nature of the sample matrix: MW-107 (240-193953-7). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

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 Sibley Quarry

Job ID: 240-193953-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-193953-1	MW-101	Water	10/17/23 12:11	10/20/23 08:00
240-193953-2	MW-102	Water	10/17/23 13:12	10/20/23 08:00
240-193953-3	MW-103	Water	10/18/23 08:56	10/20/23 08:00
240-193953-4	MW-104	Water	10/18/23 10:56	10/20/23 08:00
240-193953-5	MW-105	Water	10/17/23 10:45	10/20/23 08:00
240-193953-6	MW-106	Water	10/18/23 10:04	10/20/23 08:00
240-193953-7	MW-107	Water	10/17/23 14:04	10/20/23 08:00
240-193953-8	MW-108A	Water	10/18/23 13:02	10/20/23 08:00
240-193953-9	QUARRY SUMP	Water	10/17/23 14:41	10/20/23 08:00
240-193953-10	QUARRY DISCHARGE	Water	10/17/23 11:18	10/20/23 08:00
240-193953-11	DUP-01	Water	10/17/23 00:00	10/20/23 08:00

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-101 — Lab Sample ID: 240-193953-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	340		100	57	ug/L	1		6010D	Total Recoverable
Calcium	210000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	690		100	47	ug/L	1		6020B	Total Recoverable
Chloride	220		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.8		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	500		10	10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	1400		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 240-193953-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	140		100	57	ug/L	1		6010D	Total Recoverable
Calcium	260000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	850		100	47	ug/L	1		6020B	Total Recoverable
Chloride	180		1.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	1.6		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	600		10	10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	1500		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 240-193953-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	750		100	57	ug/L	1		6010D	Total Recoverable
Calcium	560000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	48	J	100	47	ug/L	1		6020B	Total Recoverable
Chloride	140		1.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	1.7		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	1800		25	25	mg/L	25		9056A	Total/NA
Total Dissolved Solids	3100		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 240-193953-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	790		100	57	ug/L	1		6010D	Total Recoverable
Calcium	460000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	170		100	47	ug/L	1		6020B	Total Recoverable
Chloride	220		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.7		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	1800		10	10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	2700		40	40	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 Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-105 — Lab Sample ID: 240-193953-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2500		100	57	ug/L	1		6010D	Total Recoverable
Calcium	690000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	2300		100	47	ug/L	1		6020B	Total Recoverable
Chloride	3600		50	50	mg/L	50		9056A	Total/NA
Fluoride	1.2		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	2200		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	7700		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 240-193953-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	730		100	57	ug/L	1		6010D	Total Recoverable
Calcium	540000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	2000		100	47	ug/L	1		6020B	Total Recoverable
Chloride	100		1.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	1.6		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	1900		10	10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	3000		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 240-193953-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1500		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1400000		5000	1300	ug/L	5		6020B	Total Recoverable
Iron	1300		100	47	ug/L	1		6020B	Total Recoverable
Chloride	24000		1000	1000	mg/L	1000		9056A	Total/NA
Sulfate	5200		100	100	mg/L	100		9056A	Total/NA
Total Dissolved Solids	31000		1000	1000	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-108A — Lab Sample ID: 240-193953-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1300		100	57	ug/L	1		6010D	Total Recoverable
Calcium	400000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	610		100	47	ug/L	1		6020B	Total Recoverable
Chloride	1700		25	25	mg/L	25		9056A	Total/NA
Fluoride	1.0		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	1100		25	25	mg/L	25		9056A	Total/NA
Total Dissolved Solids	4100		50	50	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 Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: QUARRY SUMP — Lab Sample ID: 240-193953-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2700		100	57	ug/L	1		6010D	Total Recoverable
Calcium	700000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	330		100	47	ug/L	1		6020B	Total Recoverable
Chloride	3000		50	50	mg/L	50		9056A	Total/NA
Fluoride	1.5		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	2200		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	6900		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: QUARRY DISCHARGE — Lab Sample ID: 240-193953-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2400		100	57	ug/L	1		6010D	Total Recoverable
Calcium	710000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	310		100	47	ug/L	1		6020B	Total Recoverable
Chloride	3800		50	50	mg/L	50		9056A	Total/NA
Fluoride	1.5		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	2200		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	8500		100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 240-193953-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2300		100	57	ug/L	1		6010D	Total Recoverable
Calcium	680000		1000	250	ug/L	1		6020B	Total Recoverable
Iron	2200		100	47	ug/L	1		6020B	Total Recoverable
Chloride	3500		50	50	mg/L	50		9056A	Total/NA
Fluoride	1.2		0.25	0.25	mg/L	5		9056A	Total/NA
Sulfate	2100		50	50	mg/L	50		9056A	Total/NA
Total Dissolved Solids	7600		100	100	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-101
Date Collected: 10/17/23 12:11
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	340		100	57	ug/L		10/24/23 05:00	10/25/23 08:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210000		1000	250	ug/L		10/24/23 05:00	10/25/23 19:55	1
Iron	690		100	47	ug/L		10/24/23 05:00	10/25/23 19:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	220		10	10	mg/L			10/28/23 04:24	10
Fluoride (SW846 9056A)	1.8		0.050	0.050	mg/L			10/28/23 04:02	1
Sulfate (SW846 9056A)	500		10	10	mg/L			10/28/23 04:24	10
Total Dissolved Solids (SM 2540C)	1400		20	20	mg/L			10/24/23 15:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-102
Date Collected: 10/17/23 13:12
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	140		100	57	ug/L		10/24/23 05:00	10/25/23 09:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	260000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:08	1
Iron	850		100	47	ug/L		10/24/23 05:00	10/25/23 20:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	180		1.0	1.0	mg/L			10/28/23 04:45	1
Fluoride (SW846 9056A)	1.6		0.050	0.050	mg/L			10/28/23 04:45	1
Sulfate (SW846 9056A)	600		10	10	mg/L			10/28/23 05:07	10
Total Dissolved Solids (SM 2540C)	1500		20	20	mg/L			10/24/23 15:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-103
Date Collected: 10/18/23 08:56
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	750		100	57	ug/L		10/24/23 05:00	10/25/23 09:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	560000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:15	1
Iron	48	J	100	47	ug/L		10/24/23 05:00	10/25/23 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	140		1.0	1.0	mg/L			10/28/23 07:39	1
Fluoride (SW846 9056A)	1.7		0.050	0.050	mg/L			10/28/23 07:39	1
Sulfate (SW846 9056A)	1800		25	25	mg/L			11/01/23 17:12	25
Total Dissolved Solids (SM 2540C)	3100		40	40	mg/L			10/25/23 11:34	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-104
Date Collected: 10/18/23 10:56
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	790		100	57	ug/L		10/24/23 05:00	10/25/23 09:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	460000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:18	1
Iron	170		100	47	ug/L		10/24/23 05:00	10/25/23 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	220		10	10	mg/L			10/27/23 13:38	10
Fluoride (SW846 9056A)	1.7		0.050	0.050	mg/L			10/27/23 13:18	1
Sulfate (SW846 9056A)	1800		10	10	mg/L			10/27/23 13:38	10
Total Dissolved Solids (SM 2540C)	2700		40	40	mg/L			10/25/23 11:34	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-105
Date Collected: 10/17/23 10:45
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2500		100	57	ug/L		10/24/23 05:00	10/25/23 09:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	690000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:20	1
Iron	2300		100	47	ug/L		10/24/23 05:00	10/25/23 20:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	3600		50	50	mg/L			10/27/23 10:57	50
Fluoride (SW846 9056A)	1.2		0.25	0.25	mg/L			10/27/23 10:37	5
Sulfate (SW846 9056A)	2200		50	50	mg/L			10/27/23 10:57	50
Total Dissolved Solids (SM 2540C)	7700		100	100	mg/L			10/24/23 15:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-106
Date Collected: 10/18/23 10:04
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	730		100	57	ug/L		10/24/23 05:00	10/25/23 09:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	540000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:23	1
Iron	2000		100	47	ug/L		10/24/23 05:00	10/25/23 20:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	100		1.0	1.0	mg/L			10/28/23 05:29	1
Fluoride (SW846 9056A)	1.6		0.050	0.050	mg/L			10/28/23 05:29	1
Sulfate (SW846 9056A)	1900		10	10	mg/L			10/28/23 05:50	10
Total Dissolved Solids (SM 2540C)	3000		40	40	mg/L			10/25/23 11:34	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-107
Date Collected: 10/17/23 14:04
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1500		100	57	ug/L		10/24/23 05:00	10/25/23 09:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400000		5000	1300	ug/L		10/24/23 05:00	10/25/23 20:28	5
Iron	1300		100	47	ug/L		10/24/23 05:00	10/25/23 20:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	24000		1000	1000	mg/L			10/27/23 12:58	1000
Fluoride (SW846 9056A)	5.0	U	5.0	5.0	mg/L			10/27/23 11:57	100
Sulfate (SW846 9056A)	5200		100	100	mg/L			10/27/23 11:57	100
Total Dissolved Solids (SM 2540C)	31000		1000	1000	mg/L			10/24/23 09:58	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: MW-108A
Date Collected: 10/18/23 13:02
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1300		100	57	ug/L		10/24/23 05:00	10/25/23 09:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	400000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:30	1
Iron	610		100	47	ug/L		10/24/23 05:00	10/25/23 20:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1700		25	25	mg/L			10/31/23 22:19	25
Fluoride (SW846 9056A)	1.0		0.25	0.25	mg/L			10/31/23 21:59	5
Sulfate (SW846 9056A)	1100		25	25	mg/L			10/31/23 22:19	25
Total Dissolved Solids (SM 2540C)	4100		50	50	mg/L			10/25/23 11:34	1

Client: TRC Environmental Corporation.
Job ID: 240-193953-1
Project/Site: CCR DTE Sibley Quarry

Client Sample ID: QUARRY SUMP

Lab Sample ID: 240-193953-9

Date Collected: 10/17/23 14:41

Matrix: Water

Date Received: 10/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2700		100	57	ug/L		10/24/23 05:00	10/25/23 09:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	700000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:33	1
Iron	330		100	47	ug/L		10/24/23 05:00	10/25/23 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	3000		50	50	mg/L			10/27/23 08:56	50
Fluoride (SW846 9056A)	1.5		0.25	0.25	mg/L			10/27/23 07:55	5
Sulfate (SW846 9056A)	2200		50	50	mg/L			10/27/23 08:56	50
Total Dissolved Solids (SM 2540C)	6900		100	100	mg/L			10/24/23 15:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: QUARRY DISCHARGE

Lab Sample ID: 240-193953-10

Date Collected: 10/17/23 11:18

Matrix: Water

Date Received: 10/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2400		100	57	ug/L		10/24/23 05:00	10/25/23 10:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	710000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:35	1
Iron	310		100	47	ug/L		10/24/23 05:00	10/25/23 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	3800		50	50	mg/L			10/27/23 09:36	50
Fluoride (SW846 9056A)	1.5		0.25	0.25	mg/L			10/27/23 09:16	5
Sulfate (SW846 9056A)	2200		50	50	mg/L			10/27/23 09:36	50
Total Dissolved Solids (SM 2540C)	8500		100	100	mg/L			10/24/23 15:46	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: DUP-01
Date Collected: 10/17/23 00:00
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2300		100	57	ug/L		10/24/23 05:00	10/25/23 10:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	680000		1000	250	ug/L		10/24/23 05:00	10/25/23 20:38	1
Iron	2200		100	47	ug/L		10/24/23 05:00	10/25/23 20:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	3500		50	50	mg/L			10/27/23 10:16	50
Fluoride (SW846 9056A)	1.2		0.25	0.25	mg/L			10/27/23 09:56	5
Sulfate (SW846 9056A)	2100		50	50	mg/L			10/27/23 10:16	50
Total Dissolved Solids (SM 2540C)	7600		100	100	mg/L			10/24/23 15:46	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-591861/1-A
Matrix: Water
Analysis Batch: 592279

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		10/24/23 05:00	10/25/23 08:50	1

Lab Sample ID: LCS 240-591861/2-A
Matrix: Water
Analysis Batch: 592279

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1080		ug/L		108	80 - 120

Lab Sample ID: 240-193953-1 MS
Matrix: Water
Analysis Batch: 592279

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	340		1000	1420		ug/L		108	75 - 125

Lab Sample ID: 240-193953-1 MSD
Matrix: Water
Analysis Batch: 592279

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	340		1000	1450		ug/L		111	75 - 125	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-591861/1-A
Matrix: Water
Analysis Batch: 592250

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	250	ug/L		10/24/23 05:00	10/25/23 19:51	1
Iron	100	U	100	47	ug/L		10/24/23 05:00	10/25/23 19:51	1

Lab Sample ID: LCS 240-591861/3-A
Matrix: Water
Analysis Batch: 592250

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	23300		ug/L		93	80 - 120
Iron	5000	5070		ug/L		101	80 - 120

Lab Sample ID: 240-193953-1 MS
Matrix: Water
Analysis Batch: 592250

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	210000		25000	237000	4	ug/L		105	80 - 120
Iron	690		5000	5720		ug/L		101	80 - 120

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

Lab Sample ID: 240-193953-1 MSD
Matrix: Water
Analysis Batch: 592250

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 591861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	210000		25000	233000	4	ug/L		91	80 - 120	1	20
Iron	690		5000	5760		ug/L		102	80 - 120	1	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-592381/3
Matrix: Water
Analysis Batch: 592381

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			10/27/23 13:35	1
Fluoride	0.050	U	0.050	0.050	mg/L			10/27/23 13:35	1
Sulfate	1.0	U	1.0	1.0	mg/L			10/27/23 13:35	1

Lab Sample ID: LCS 240-592381/4
Matrix: Water
Analysis Batch: 592381

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.4		mg/L		99	90 - 110
Fluoride	2.50	2.59		mg/L		104	90 - 110
Sulfate	50.0	50.7		mg/L		101	90 - 110

Lab Sample ID: MB 240-592383/3
Matrix: Water
Analysis Batch: 592383

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			10/27/23 04:54	1
Fluoride	0.050	U	0.050	0.050	mg/L			10/27/23 04:54	1
Sulfate	1.0	U	1.0	1.0	mg/L			10/27/23 04:54	1

Lab Sample ID: LCS 240-592383/4
Matrix: Water
Analysis Batch: 592383

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	52.0		mg/L		104	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	54.4		mg/L		109	90 - 110

Lab Sample ID: MB 240-592910/3
Matrix: Water
Analysis Batch: 592910

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			10/31/23 15:36	1
Fluoride	0.050	U	0.050	0.050	mg/L			10/31/23 15:36	1
Sulfate	1.0	U	1.0	1.0	mg/L			10/31/23 15:36	1

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

Lab Sample ID: LCS 240-592910/4
Matrix: Water
Analysis Batch: 592910

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.1		mg/L		100	90 - 110
Fluoride	2.50	2.56		mg/L		102	90 - 110
Sulfate	50.0	52.2		mg/L		104	90 - 110

Lab Sample ID: MB 240-593014/3
Matrix: Water
Analysis Batch: 593014

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			11/01/23 14:40	1
Fluoride	0.050	U	0.050	0.050	mg/L			11/01/23 14:40	1
Sulfate	1.0	U	1.0	1.0	mg/L			11/01/23 14:40	1

Lab Sample ID: LCS 240-593014/4
Matrix: Water
Analysis Batch: 593014

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.0		mg/L		98	90 - 110
Fluoride	2.50	2.53		mg/L		101	90 - 110
Sulfate	50.0	50.5		mg/L		101	90 - 110

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

Lab Sample ID: MB 240-592018/1
Matrix: Water
Analysis Batch: 592018

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/24/23 09:58	1
Total Dissolved Solids	10	U	10	10	mg/L			10/24/23 09:58	1

Lab Sample ID: LCS 240-592018/2
Matrix: Water
Analysis Batch: 592018

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	312		mg/L		93	80 - 120
Total Dissolved Solids	336	312		mg/L		93	80 - 120

Lab Sample ID: MB 240-592104/1
Matrix: Water
Analysis Batch: 592104

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/24/23 15:46	1
Total Dissolved Solids	10	U	10	10	mg/L			10/24/23 15:46	1

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

Lab Sample ID: LCS 240-592104/2
Matrix: Water
Analysis Batch: 592104

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	310		mg/L		92	80 - 120		
Total Dissolved Solids			336	310		mg/L		92	80 - 120		

Lab Sample ID: MB 240-592221/1
Matrix: Water
Analysis Batch: 592221

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/25/23 11:34	1
Total Dissolved Solids	10	U	10	10	mg/L			10/25/23 11:34	1

Lab Sample ID: LCS 240-592221/2
Matrix: Water
Analysis Batch: 592221

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	302		mg/L		90	80 - 120		
Total Dissolved Solids			336	302		mg/L		90	80 - 120		

Metals

Prep Batch: 591861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-1	MW-101	Total Recoverable	Water	3005A	
240-193953-2	MW-102	Total Recoverable	Water	3005A	
240-193953-3	MW-103	Total Recoverable	Water	3005A	
240-193953-4	MW-104	Total Recoverable	Water	3005A	
240-193953-5	MW-105	Total Recoverable	Water	3005A	
240-193953-6	MW-106	Total Recoverable	Water	3005A	
240-193953-7	MW-107	Total Recoverable	Water	3005A	
240-193953-8	MW-108A	Total Recoverable	Water	3005A	
240-193953-9	QUARRY SUMP	Total Recoverable	Water	3005A	
240-193953-10	QUARRY DISCHARGE	Total Recoverable	Water	3005A	
240-193953-11	DUP-01	Total Recoverable	Water	3005A	
MB 240-591861/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-591861/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-591861/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-193953-1 MS	MW-101	Total Recoverable	Water	3005A	
240-193953-1 MS	MW-101	Total Recoverable	Water	3005A	
240-193953-1 MSD	MW-101	Total Recoverable	Water	3005A	
240-193953-1 MSD	MW-101	Total Recoverable	Water	3005A	

Analysis Batch: 592250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-1	MW-101	Total Recoverable	Water	6020B	591861
240-193953-2	MW-102	Total Recoverable	Water	6020B	591861
240-193953-3	MW-103	Total Recoverable	Water	6020B	591861
240-193953-4	MW-104	Total Recoverable	Water	6020B	591861
240-193953-5	MW-105	Total Recoverable	Water	6020B	591861
240-193953-6	MW-106	Total Recoverable	Water	6020B	591861
240-193953-7	MW-107	Total Recoverable	Water	6020B	591861
240-193953-7	MW-107	Total Recoverable	Water	6020B	591861
240-193953-8	MW-108A	Total Recoverable	Water	6020B	591861
240-193953-9	QUARRY SUMP	Total Recoverable	Water	6020B	591861
240-193953-10	QUARRY DISCHARGE	Total Recoverable	Water	6020B	591861
240-193953-11	DUP-01	Total Recoverable	Water	6020B	591861
MB 240-591861/1-A	Method Blank	Total Recoverable	Water	6020B	591861
LCS 240-591861/3-A	Lab Control Sample	Total Recoverable	Water	6020B	591861
240-193953-1 MS	MW-101	Total Recoverable	Water	6020B	591861
240-193953-1 MSD	MW-101	Total Recoverable	Water	6020B	591861

Analysis Batch: 592279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-1	MW-101	Total Recoverable	Water	6010D	591861
240-193953-2	MW-102	Total Recoverable	Water	6010D	591861
240-193953-3	MW-103	Total Recoverable	Water	6010D	591861
240-193953-4	MW-104	Total Recoverable	Water	6010D	591861
240-193953-5	MW-105	Total Recoverable	Water	6010D	591861
240-193953-6	MW-106	Total Recoverable	Water	6010D	591861
240-193953-7	MW-107	Total Recoverable	Water	6010D	591861
240-193953-8	MW-108A	Total Recoverable	Water	6010D	591861
240-193953-9	QUARRY SUMP	Total Recoverable	Water	6010D	591861
240-193953-10	QUARRY DISCHARGE	Total Recoverable	Water	6010D	591861
240-193953-11	DUP-01	Total Recoverable	Water	6010D	591861

Metals (Continued)

Analysis Batch: 592279 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-591861/1-A	Method Blank	Total Recoverable	Water	6010D	591861
LCS 240-591861/2-A	Lab Control Sample	Total Recoverable	Water	6010D	591861
240-193953-1 MS	MW-101	Total Recoverable	Water	6010D	591861
240-193953-1 MSD	MW-101	Total Recoverable	Water	6010D	591861

General Chemistry

Analysis Batch: 592018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-7	MW-107	Total/NA	Water	SM 2540C	
MB 240-592018/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592018/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-1	MW-101	Total/NA	Water	SM 2540C	
240-193953-2	MW-102	Total/NA	Water	SM 2540C	
240-193953-5	MW-105	Total/NA	Water	SM 2540C	
240-193953-9	QUARRY SUMP	Total/NA	Water	SM 2540C	
240-193953-10	QUARRY DISCHARGE	Total/NA	Water	SM 2540C	
240-193953-11	DUP-01	Total/NA	Water	SM 2540C	
MB 240-592104/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592104/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-3	MW-103	Total/NA	Water	SM 2540C	
240-193953-4	MW-104	Total/NA	Water	SM 2540C	
240-193953-6	MW-106	Total/NA	Water	SM 2540C	
240-193953-8	MW-108A	Total/NA	Water	SM 2540C	
MB 240-592221/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592221/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-1	MW-101	Total/NA	Water	9056A	
240-193953-1	MW-101	Total/NA	Water	9056A	
240-193953-2	MW-102	Total/NA	Water	9056A	
240-193953-2	MW-102	Total/NA	Water	9056A	
240-193953-3	MW-103	Total/NA	Water	9056A	
240-193953-6	MW-106	Total/NA	Water	9056A	
240-193953-6	MW-106	Total/NA	Water	9056A	
MB 240-592381/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592381/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 592383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-4	MW-104	Total/NA	Water	9056A	
240-193953-4	MW-104	Total/NA	Water	9056A	
240-193953-5	MW-105	Total/NA	Water	9056A	
240-193953-5	MW-105	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 592383 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-7	MW-107	Total/NA	Water	9056A	
240-193953-7	MW-107	Total/NA	Water	9056A	
240-193953-9	QUARRY SUMP	Total/NA	Water	9056A	
240-193953-9	QUARRY SUMP	Total/NA	Water	9056A	
240-193953-10	QUARRY DISCHARGE	Total/NA	Water	9056A	
240-193953-10	QUARRY DISCHARGE	Total/NA	Water	9056A	
240-193953-11	DUP-01	Total/NA	Water	9056A	
240-193953-11	DUP-01	Total/NA	Water	9056A	
MB 240-592383/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592383/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 592910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-8	MW-108A	Total/NA	Water	9056A	
240-193953-8	MW-108A	Total/NA	Water	9056A	
MB 240-592910/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592910/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 593014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193953-3	MW-103	Total/NA	Water	9056A	
MB 240-593014/3	Method Blank	Total/NA	Water	9056A	
LCS 240-593014/4	Lab Control Sample	Total/NA	Water	9056A	

Client Sample ID: MW-101

Lab Sample ID: 240-193953-1

Date Collected: 10/17/23 12:11

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 08:59
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 19:55
Total/NA	Analysis	9056A		1	592381	JWW	EET CLE	10/28/23 04:02
Total/NA	Analysis	9056A		10	592381	JWW	EET CLE	10/28/23 04:24
Total/NA	Analysis	SM 2540C		1	592104	QUY8	EET CLE	10/24/23 15:46

Client Sample ID: MW-102

Lab Sample ID: 240-193953-2

Date Collected: 10/17/23 13:12

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:28
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:08
Total/NA	Analysis	9056A		1	592381	JWW	EET CLE	10/28/23 04:45
Total/NA	Analysis	9056A		10	592381	JWW	EET CLE	10/28/23 05:07
Total/NA	Analysis	SM 2540C		1	592104	QUY8	EET CLE	10/24/23 15:46

Client Sample ID: MW-103

Lab Sample ID: 240-193953-3

Date Collected: 10/18/23 08:56

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:33
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:15
Total/NA	Analysis	9056A		1	592381	JWW	EET CLE	10/28/23 07:39
Total/NA	Analysis	9056A		25	593014	JWW	EET CLE	11/01/23 17:12
Total/NA	Analysis	SM 2540C		1	592221	QUY8	EET CLE	10/25/23 11:34

Client Sample ID: MW-104

Lab Sample ID: 240-193953-4

Date Collected: 10/18/23 10:56

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:37
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:18
Total/NA	Analysis	9056A		1	592383	JWW	EET CLE	10/27/23 13:18

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-193953-1
Project/Site: CCR DTE Sibley Quarry

Client Sample ID: MW-104
Lab Sample ID: 240-193953-4
Date Collected: 10/18/23 10:56
Matrix: Water
Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	592383	JWW	EET CLE	10/27/23 13:38
Total/NA	Analysis	SM 2540C		1	592221	QUY8	EET CLE	10/25/23 11:34

Client Sample ID: MW-105
Lab Sample ID: 240-193953-5
Date Collected: 10/17/23 10:45
Matrix: Water
Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:41
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:20
Total/NA	Analysis	9056A		5	592383	JWW	EET CLE	10/27/23 10:37
Total/NA	Analysis	9056A		50	592383	JWW	EET CLE	10/27/23 10:57
Total/NA	Analysis	SM 2540C		1	592104	QUY8	EET CLE	10/24/23 15:46

Client Sample ID: MW-106
Lab Sample ID: 240-193953-6
Date Collected: 10/18/23 10:04
Matrix: Water
Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:46
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:23
Total/NA	Analysis	9056A		1	592381	JWW	EET CLE	10/28/23 05:29
Total/NA	Analysis	9056A		10	592381	JWW	EET CLE	10/28/23 05:50
Total/NA	Analysis	SM 2540C		1	592221	QUY8	EET CLE	10/25/23 11:34

Client Sample ID: MW-107
Lab Sample ID: 240-193953-7
Date Collected: 10/17/23 14:04
Matrix: Water
Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:50
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:25
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		5	592250	RKT	EET CLE	10/25/23 20:28
Total/NA	Analysis	9056A		100	592383	JWW	EET CLE	10/27/23 11:57
Total/NA	Analysis	9056A		1000	592383	JWW	EET CLE	10/27/23 12:58
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Client Sample ID: MW-108A

Lab Sample ID: 240-193953-8

Date Collected: 10/18/23 13:02

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:55
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:30
Total/NA	Analysis	9056A		5	592910	JWW	EET CLE	10/31/23 21:59
Total/NA	Analysis	9056A		25	592910	JWW	EET CLE	10/31/23 22:19
Total/NA	Analysis	SM 2540C		1	592221	QUY8	EET CLE	10/25/23 11:34

Client Sample ID: QUARRY SUMP

Lab Sample ID: 240-193953-9

Date Collected: 10/17/23 14:41

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 09:59
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:33
Total/NA	Analysis	9056A		5	592383	JWW	EET CLE	10/27/23 07:55
Total/NA	Analysis	9056A		50	592383	JWW	EET CLE	10/27/23 08:56
Total/NA	Analysis	SM 2540C		1	592104	QUY8	EET CLE	10/24/23 15:46

Client Sample ID: QUARRY DISCHARGE

Lab Sample ID: 240-193953-10

Date Collected: 10/17/23 11:18

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 10:04
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:35
Total/NA	Analysis	9056A		5	592383	JWW	EET CLE	10/27/23 09:16
Total/NA	Analysis	9056A		50	592383	JWW	EET CLE	10/27/23 09:36
Total/NA	Analysis	SM 2540C		1	592104	QUY8	EET CLE	10/24/23 15:46

Client Sample ID: DUP-01

Lab Sample ID: 240-193953-11

Date Collected: 10/17/23 00:00

Matrix: Water

Date Received: 10/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6010D		1	592279	KLC	EET CLE	10/25/23 10:16
Total Recoverable	Prep	3005A			591861	S4FJ	EET CLE	10/24/23 05:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 20:38
Total/NA	Analysis	9056A		5	592383	JWW	EET CLE	10/27/23 09:56

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-193953-1

Client Sample ID: DUP-01

Date Collected: 10/17/23 00:00
Date Received: 10/20/23 08:00

Lab Sample ID: 240-193953-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		50	592383	JWW	EET CLE	10/27/23 10:16
Total/NA	Analysis	SM 2540C		1	592104	QUY8	EET CLE	10/24/23 15:46

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.
Job ID: 240-193953-1
Project/Site: CCR DTE Sibley Quarry

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	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

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

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

10-7/10-4

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: A. Whaley, E. Rinehart	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-112999-31882.1
Client Contact: Jacob Krenz	Phone: 734-216-9254	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin: MI	Page: Page 1 of 3
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:	Analysis Requested		
City: Ann Arbor	TAT Requested (days): Standard			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 199488 - 2023			
Email: JKrenz@trccompanies.com	WO #: 518728.0002			
Project Name: CCR DTE Sibley Quarry	Project #: 24016805			
Site: Michigan	SSOW#:			

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	6010B, 6020 Metals	9056A_28D - Chloride, Fluoride and Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
MW-101	10/17/23	1211	G	Water	N	N	X	X	X	3	
MW-102	10/17/23	1312	G	Water	N	N	X	X	X	3	
MW-103	10/18/23	0856	G	Water	N	N	X	X	X	3	
MW-104	10/17/23	1056	G	Water	N	N	X	X	X	3	
MW-105	10/17/23	1045	G	Water	N	N	X	X	X	3	
MW-106	10/18/23	1004	G	Water	N	N	X	X	X	3	
MW-107	10/17/23	1404	G	Water	N	N	X	X	X	3	
MW-108A	10/18/23	1302	G	Water	N	N	X	X	X	3	
QUARRY SUMP	10/17/23	1441	G	Water	N	N	X	X	X	3	
QUARRY DISHCARGE	10/17/23	1118	G	Water	N	N	X	X	X	3	
DUP-01	10/17/23	—	G	Water	N	N	X	X	X	3	

240-193953 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

	Date/Time	Company		Date/Time	Company
Relinquished by:	10/18/23 1505	TRC	Received by:	10/19/23	EEN
Relinquished by:	10/19/23 1300	EEN	Received by:	10/20/23 800	ETC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

11/2/2023

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client TRC Site Name _____ Cooler unpacked by: Rachelle Haidet

Cooler Received on 10 20 23 Opened on 10 20 23

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

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

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

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. 0.7 °C Corrected Cooler Temp. 0.6 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
-Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes (No)
4. Did custody papers accompany the sample(s)?	(Yes) No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10. Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11. Sufficient quantity received to perform indicated analyses?	(Yes) No
12. Are these work share samples and all listed on the COC?	Yes (No)
If yes, Questions 13-17 have been checked at the originating laboratory.	
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes (No)
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

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

Concerning _____

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

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-101	240-193953-C-1	Plastic 500ml - with Nitric Acid	<2			
MW-1020	240-193953-C-2	Plastic 500ml - with Nitric Acid	<2			
MW-103	240-193953-C-3	Plastic 500ml - with Nitric Acid	<2			
MW-104	240-193953-C-4	Plastic 500ml - with Nitric Acid	<2			
MW-105	240-193953-C-5	Plastic 500ml - with Nitric Acid	<2			
MW-106	240-193953-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-107	240-193953-C-7	Plastic 500ml - with Nitric Acid	<2			
MW-108A	240-193953-C-8	Plastic 500ml - with Nitric Acid	<2			
QUARRY SUMP	240-193953-C-9	Plastic 500ml - with Nitric Acid	<2			
QUARRY DISCHARGE	240-193953-C-10	Plastic 500ml - with Nitric Acid	<2			
DUP-01	240-193953-C-11	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/15/2023 3:45:21 PM

JOB DESCRIPTION

CCR DTE Sibley Quarry

JOB NUMBER

240-196828-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

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

Authorization

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12/15/2023 3:45:21 PM

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

Table of Contents

Definitions/Glossary

Client: TRC Environmental Corporation.
Job ID: 240-196828-1
Project/Site: CCR DTE Sibley Quarry

Qualifiers

General Chemistry

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

Glossary

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

Case Narrative

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-196828-1

Job ID: 240-196828-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-196828-1

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 12/12/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C

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 Sibley Quarry

Job ID: 240-196828-1

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

Protocol References:

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.
Job ID: 240-196828-1
Project/Site: CCR DTE Sibley Quarry

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-196828-1	MW-107	Water	12/11/23 11:05	12/12/23 09:45
240-196828-2	DUP-01	Water	12/11/23 00:00	12/12/23 09:45

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-196828-1

Client Sample ID: MW-107 — Lab Sample ID: 240-196828-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	23000		1000		mg/L	1000		9056A	Total/NA
Sulfate	3800		100		mg/L	100		9056A	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 240-196828-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	20000		100		mg/L	100		9056A	Total/NA
Sulfate	3200		100		mg/L	100		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-196828-1

Client Sample ID: MW-107
Date Collected: 12/11/23 11:05
Date Received: 12/12/23 09:45

Lab Sample ID: 240-196828-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	23000		1000		mg/L			12/14/23 22:17	1000
Sulfate (SW846 9056A)	3800		100		mg/L			12/14/23 21:56	100

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-196828-1

Client Sample ID: DUP-01
Date Collected: 12/11/23 00:00
Date Received: 12/12/23 09:45

Lab Sample ID: 240-196828-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	20000		100		mg/L			12/14/23 22:39	100
Sulfate (SW846 9056A)	3200		100		mg/L			12/14/23 22:39	100

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-196828-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-597664/3
Matrix: Water
Analysis Batch: 597664

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			12/14/23 16:52	1
Sulfate	1.0	U	1.0		mg/L			12/14/23 16:52	1

Lab Sample ID: LCS 240-597664/4
Matrix: Water
Analysis Batch: 597664

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	45.3		mg/L		91	90 - 110		
Sulfate			50.0	46.7		mg/L		93	90 - 110		

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Sibley Quarry

Job ID: 240-196828-1

General Chemistry

Analysis Batch: 597664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-196828-1	MW-107	Total/NA	Water	9056A	
240-196828-1	MW-107	Total/NA	Water	9056A	
240-196828-2	DUP-01	Total/NA	Water	9056A	
MB 240-597664/3	Method Blank	Total/NA	Water	9056A	
LCS 240-597664/4	Lab Control Sample	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-196828-1
Project/Site: CCR DTE Sibley Quarry

Client Sample ID: MW-107
Lab Sample ID: 240-196828-1
Date Collected: 12/11/23 11:05
Matrix: Water
Date Received: 12/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		100	597664	JWW	EET CLE	12/14/23 21:56
Total/NA	Analysis	9056A		1000	597664	JWW	EET CLE	12/14/23 22:17

Client Sample ID: DUP-01
Lab Sample ID: 240-196828-2
Date Collected: 12/11/23 00:00
Matrix: Water
Date Received: 12/12/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		100	597664	JWW	EET CLE	12/14/23 22:39

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.
Job ID: 240-196828-1
Project/Site: CCR DTE Sibley Quarry

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	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

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

Address: Eurofins Canton
180 S van Buren Ave.
Barberton, OH 44203

MICHIGAN
190

Chain of Custody Record

566254

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1-16-27

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Vince Buening	Site Contact:	Date: 12/1/23	COC No:
Company Name: TRC	Tel/Email: VBuening@trcompanies.com	Lab Contact: Kris Brooks	Carrier:	1 of 1 COCs
Address: 1540 Eisenhower Pl.	Analysis Turnaround Time			Sampler:
City/State/Zip: Ann Arbor, MI 48108	☐ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone: 734-210-9239	TAT if different from Below 3 Day TAT			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: SQLF 2SA23 verification				Job / SDG No.:
Site: Sibley Quarry				
P O # 194488				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Chloride	Sulfate	Sample Specific Notes:
MW-107	12/1/23	1105	G	W	1	N	N	X	X	
DUP-01	12/1/23	—	G	W	1	N	N	X	X	

240-196828 Chain of Custody

Page 15 of 16

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments: TRC EDD

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

	Company	Date/Time		Company	Date/Time
Relinquished by:	TRC	12/1/23	Received by:	EEM	12/1/23
Relinquished by:	EEM	12/1/23	Received by:	EETNC	12-12-23 945
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

12/5/2023

13 12 11 10 9 8 7 6 5 4 3 2 1

TR-12-12-23
196828
196916

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 196916
Barberton Facility

Client TRC Site Name

Cooler Received on 12-12-23 Opened on 12-12-23

Cooler unpacked by:

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

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF +1.1 °C) Observed Cooler Temp. 1.6 °C Corrected Cooler Temp. 2.7 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
-Were tamper/custody seals intact and uncompromised?	Yes No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes No
4. Did custody papers accompany the sample(s)?	Yes No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7. Did all bottles arrive in good condition (Unbroken)?	Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?	
10. Were correct bottle(s) used for the test(s) indicated?	Yes No
11. Sufficient quantity received to perform indicated analyses?	Yes No
12. Are these work share samples and all listed on the COC?	Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.	
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17. Was a LL Hg or Me Hg trip blank present?	Yes No

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

Contacted PM Date by via Verbal Voice Mail Other

Concerning

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

Samples processed by:

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

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

VOA Sample Preservation - Date/Time VOAs Frozen:

Appendix B
Data Quality Review

Laboratory Data Quality Review
Groundwater Monitoring Event April 2023 (Detection Monitoring)
DTE Electric Company Sibley Quarry Landfill (DTE SQLF)

Groundwater samples were collected by TRC for the April 2023 sampling event. Samples were analyzed for anions, total metals, and total dissolved solids by Eurofins-Test America Laboratories, Inc. (Eurofins-TA), located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-183175-1.

During the April 2023 sampling event, a groundwater sample was collected from each of the following wells:

- MW-101
- MW-102
- MW-103
- MW-104
- MW-105
- MW-106
- MW-107
- MW-108A
- Quarry Sump
- Quarry Discharge

Each sample was analyzed for the following constituents:

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

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

Data Quality Review Procedure

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

- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks and equipment blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;
- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), where applicable. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;

- Data for laboratory duplicates, where applicable. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

This data usability report addresses the following items:

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

Review Summary

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

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

QA/QC Sample Summary

- Target analytes were not detected in the method blanks.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS/MSD analyses were performed on sample MW-101 for total boron; and sample MW-102 for total calcium and iron, and anions; all criteria were met with the following exception:
  - MS and/or MSD recoveries for total calcium and sulfate were outside of QC limits. However, the sample results were 4x greater than the spike added, thus there is no impact on the data usability.
- Laboratory duplicate analysis was performed on sample QUARRY DISCHARGE for TDS; all criteria were met.
- DUP-01 corresponds with MW-107; relative percent differences (RPDs) between the parent and duplicate sample were within the QC limits.
- The nondetect RL for fluoride in samples MW-107 and DUP-01 (2.5 mg/L and 5.0 mg/L, respectively) was above the QAPP-specified RL (0.05 mg/L) due to a 50-fold dilution for sample MW-107 and a 100-fold dilution for DUP-01 as a result of matrix interference (i.e., elevated concentrations of chloride and sulfate).
- Boron was reported at an RL lower than required in the QAPP. Boron was detected in sample MW-102 (140 ug/L) below the QAPP RL of 200 ug/L.

Laboratory Data Quality Review
Groundwater Monitoring Event October 2023 (Detection Monitoring)
DTE Electric Company Sibley Quarry Landfill (DTE SQLF)

Groundwater samples were collected by TRC for the October 2023 sampling event. Samples were analyzed for anions, select total metals, and total dissolved solids by Eurofins Environment Testing, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-193953-1 (Revision 1).

During the October 2023 sampling event, a groundwater sample was collected from each of the following wells:

- MW-101
- MW-102
- MW-103
- MW-104
- MW-105
- MW-106
- MW-107
- MW-108A
- QUARRY SUMP
- Quarry Discharge

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.

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

QA/QC Sample Summary

- 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.
- An equipment blank and field blank were not submitted with this data set.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS/MSD analyses were performed on sample MW-101 for total boron, calcium, and iron; all criteria were met.
- A laboratory duplicate analysis was not performed on a sample in this data set.
- Samples DUP-01 and MW-105 were submitted as the field duplicate pair with this data set; relative percent differences between the parent and duplicate sample were within the QC limits.

- The nondetect RL for fluoride in sample MW-107 (5.0 mg/L) was above the QAPP-specified RL (0.05 mg/L) due to a 100-fold dilution as a result of matrix interference (i.e., elevated concentrations of chloride and sulfate).
- Boron was reported at an RL (100 µg/L) lower than required in the QAPP (200 µg/L). Boron was detected in sample MW-102 (140 µg/L) below the QAPP-specified RL.

Laboratory Data Quality Review
Groundwater Monitoring Verification Event December 2023 (Detection Monitoring)
DTE Electric Company Sibley Quarry Landfill (DTE SQLF)

Groundwater samples were collected by TRC for the December 2023 verification sampling event. Samples were analyzed for chloride and sulfate by Eurofins Environment Testing, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-196828-1.

During the December 2023 verification sampling event, a groundwater sample was collected from the following well:

- MW-107

The sample was analyzed for the following constituents:

Analyte Group	Method
Select Anions (Chloride and Sulfate)	SW846 9056A

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

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund 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 will be utilized for the purposes of an assessment monitoring program.
- Data are usable for the purposes of the assessment monitoring program.
- When the data are evaluated through an assessment monitoring statistical program, findings below may be used to support the removal of outliers.

QA/QC Sample Summary

- Target analytes were not detected in the method blank.
- An equipment blank and field blank were not submitted with this data set.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS/MSD and laboratory duplicate analyses were not performed on the sample in this data set.
- Samples DUP-01 and MW-107 were submitted as the field duplicate pair with this data set; relative percent differences between the parent and duplicate sample were within the QC limits.