



2024 Annual Groundwater Monitoring and Corrective Action Report

River Rouge Power Plant Bottom Ash
Basin Coal Combustion Residual Unit
1 Belanger Park Drive
River Rouge, Michigan

January 2025

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Executive Summary

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule), as amended. The CCR Rule, which became effective on October 19, 2015, applies to the DTE Electric Company (DTE Electric) River Rouge Power Plant (RRPP) Bottom Ash Basin (BAB) 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 Report for calendar year 2024 activities at the RRPP former BAB CCR unit. In September 2020, CCR removal was completed at the RRPP BAB at which time the basin was repurposed into a non-CCR process water pond. The RRPP BAB CCR unit continued to implement the assessment monitoring program that was established on April 13, 2018, through the 2024 reporting period as specified in §257.95 concurrent with ongoing assessment and corrective action activities conducted pursuant to §257.96 through §257.98. Groundwater data collected through 2024 shows that although arsenic and lithium are present in wells downgradient of the former BAB at concentrations above the GWPS, concentrations are not present at statistically significant levels, i.e., the lower confidence limits are below the GWPS. There were no results reported at statistically significant concentrations above the GWPSs for the remaining Appendix IV parameters for either 2024 semiannual assessment monitoring event.

DTE Electric continued to collect groundwater samples to define the nature and extent of the potential release of CCR per §257.95(g)(1) in 2024. Concentrations of the Appendix IV parameters were not present at statistically significant levels above the GWPSs in all nature and extent wells located around the perimeter of the RRPP BAB, delineating the extent of the potential CCR groundwater release. Nature and extent groundwater monitoring results have generally remained at concentrations below the GWPSs. All the monitoring data that have been collected and evaluated under §257.90 through §257.98 in 2024 are presented in this report.

DTE Electric proceeded with initiating an Assessment of Corrective Measures (ACM) per the CCR Rule by January 14, 2019, completed the initial ACM Report on April 15, 2019, and has completed Semi-Annual Progress Reports on the ongoing evaluations for remedy selection and design in accordance with §257.97(a) through 2023 until the initial Selection of Remedy Report was completed in November 2023 as discussed below. Since the removal of CCR from the former BAB in 2020 and through the first semiannual monitoring period of 2022, arsenic at MW-16-01 was the only ongoing exceedance of the GWPS within the downgradient monitoring wells within the monitoring well network. In October 2022, DTE Electric revised the 2019 ACM to include additional innovative technology that was not considered in the initial ACM to address the persistent concentrations of arsenic at MW-16-01. As detailed in the October 2022 revised ACM, DTE Electric conducted a bench-scale treatability study in early 2022 using site groundwater and soil to evaluate two in-situ treatment options for removing arsenic from groundwater at the former RRPP BAB CCR unit and to potentially provide a final groundwater

remedy for this site. Results from this bench-scale study indicated that zero valent iron (ZVI) was effective at removing both arsenate and arsenite from site groundwater. In addition, application of ferrous sulfate and guar gum was successful at stimulating anaerobic bacteria and enhanced the reduction of arsenic from groundwater through biological processes.

On September 15, 2022, the groundwater collection system was shut down to allow the RRPP BAB CCR unit groundwater hydraulic and geochemistry conditions to stabilize prior to implementing an in-situ pilot test designed to confirm the findings of the bench-scale study. Beginning in late September 2022, DTE Electric commenced the in-situ pilot scale test centered on monitoring well MW-16-01 where elevated levels of arsenic have persisted during operation of the groundwater extraction system. The pilot test was completed in May 2023 and the results substantiated the bench study conclusions while also demonstrating that geochemical sequestration can be effectively applied via amendment injection to remove arsenic from groundwater in the affected/treated areas.

On October 12, 2023, DTE Electric discussed the results of the corrective measures assessment with interested and affected parties in a public meeting, providing at least 30 days for comments to be received prior to the formulation of a Selection of Final Remedy Report as required under §257.96(e). On November 30, 2023, the *Final Selection of Remedy Report* was completed with the final remedy selected being closure by removal with geochemical sequestration via amendment injection for groundwater per §257.97.

Lithium concentrations in groundwater at monitoring well MW-16-01 increased slightly following the suspension of the extraction system operation and the initiation of the in-situ pilot test in September 2022. Lithium continued to be present above the GWPS in late 2023 and early 2024. In response, DTE Electric conducted a bench-scale treatability study in 2024 using site groundwater and soil to evaluate an alternative reagent (FerroBlack®-Fe+) that was identified for removing both arsenic and lithium from groundwater at the former RRPP BAB. Results from this study indicated that this reagent was effective at removing both arsenic and lithium from groundwater to below their respective GWPSs. Therefore, DTE Electric is planning to perform a pilot scale remedial injection of FerroBlack®-Fe+ down hydraulic gradient of the former BAB in 2025 to evaluate the potential for this reagent to complete the final remedy for arsenic and lithium in groundwater.

In addition, the May 8, 2024 CCR Rule Legacy amendment, which became effective November 8, 2024, expands §257.102(c) to allow completing removal and decontamination activities during the active life and post-closure care period of the CCR unit. As noted above, DTE Electric has completed removal of CCR materials from the BAB within five years of commencing closure activities, as required in §257.102(f). However, concentrations of Appendix IV constituents remain above the GWPS following CCR removal. Therefore, DTE Electric will continue to complete groundwater corrective action during the post-closure care period under §257.102(c)(2) following the procedures included in a revised closure plan, a revised selection of remedy report, and a post-closure plan that will be completed in 2025.

Per §257.98(a)(1), DTE Electric will continue semiannual assessment monitoring per §257.95, along with annual nature and extent monitoring per §257.95(g)(1) for the RRPP BAB CCR unit



in 2025 to evaluate the effectiveness of the implemented corrective measures. Additionally, DTE Electric anticipates that implementation of the selected final groundwater remedy will continue in 2025.

1.0 Introduction

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule), as amended. The CCR Rule, which became effective on October 19, 2015, applies to the DTE Electric Company (DTE Electric) River Rouge Power Plant (RRPP) Bottom Ash Basin (BAB). 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 Report for calendar year 2024 groundwater monitoring and corrective action activities at the RRPP BAB CCR unit (2024 Annual Report). Assessment monitoring is ongoing at the RRPP BAB CCR unit as specified in §257.95, concurrent with ongoing assessment and corrective action activities conducted pursuant to §257.96 through §257.98. Data that have been collected and evaluated under §257.90 through §257.98 in 2024 are presented in this report.

1.1 Program Summary

2017 – Initiated Detection Monitoring: As documented in the January 31, 2018 *Annual Groundwater Monitoring Report for the River Rouge Power Plant* (TRC, January 2018), covering calendar year 2017 activities, DTE Electric observed statistically significant increases (SSIs) above background limits for the following:

- Boron at MW-16-01, MW-16-02, and MW-16-03;
- Fluoride at MW-16-01; and
- pH at MW-16-01, MW-16-02, and MW-16-03.

2018 – Initiated Assessment Monitoring: DTE Electric initiated an assessment monitoring program on April 13, 2018 for the RRPP BAB CCR unit pursuant to §257.95 of the CCR Rule that included sampling and analyzing groundwater within the groundwater monitoring system for all constituents listed in Appendix IV.

As documented in the *2018 Annual Groundwater Monitoring Report* (TRC, January 2019), statistically significant levels (SSLs) were observed above GWPSs for the following in May 2018:

- Arsenic at monitoring well MW-16-01; and
- Lithium at MW-16-01 and MW-16-02.

DTE Electric placed a notification of the GWPS exceedance into the operating record on November 14, 2018, and has conducted assessment monitoring and nature and extent monitoring from 2018 through the present.

2019 – Assessment of Corrective Measures (ACM): DTE Electric initiated an ACM per the CCR Rule by January 14, 2019, and implemented activities to proactively manage the potential migration pathway including continued operation of the groundwater extraction system installed as an interim remedy and removal of CCR from the BAB. The initial ACM Report was completed on April 15, 2019.

2020 – CCR Removal Complete: In September 2020, CCR removal was completed at the RRPP BAB, at which time the basin was repurposed into a non-CCR process water pond.

2022 – ACM Revised: In October 2022, DTE Electric revised the 2019 ACM to include additional innovative technology that was not considered in the initial ACM to address the persistent concentrations of arsenic at MW-16-01. DTE Electric completed a bench study in 2022 and a pilot test study in 2023 to further evaluate remedial options presented in the ACM and inform final remedy selection pursuant to §257.97.

2023 – Final Remedy Selection and Public Meeting: A public meeting to discuss corrective measures as required under §257.96(e) was held in October 2023, and the final remedy for groundwater was selected in November 2023 per §257.97.

2024 – Corrective Action: Lithium concentrations in groundwater at monitoring well MW-16-01 increased slightly following the suspension of the extraction system operation and the initiation of the in-situ pilot test in September 2022. In response, DTE Electric evaluated the selected remedy for its efficacy in addressing GWPS exceedances of lithium. DTE Electric conducted a background evaluation to identify potential sources of lithium elsewhere on the site and established a corrective action monitoring program to monitor remediation progress. Additionally, TRC and DTE Electric identified an alternative geochemical reagent that proposed to address both arsenic and lithium concentrations. Another bench study was completed in 2024 to assess this alternate material and its effectiveness in addressing lithium in site soil and groundwater.

Corrective action implementation is progressing pursuant to §257.98. Assessment monitoring, including nature and extent monitoring, was performed in 2024 in accordance with §257.95 while corrective measures continued to be evaluated under §257.96.

1.2 Site Overview

The RRPP BAB is located at 1 Belanger Park Drive, within the City of River Rouge in Wayne County, Michigan. The RRPP, including the BAB CCR unit, was originally constructed in the early 1950s, just northeast of the DTE Electric RRPP building. The power plant property is located at the confluence of the Rouge River and the Detroit River.

The RRPP BAB was an incised CCR surface impoundment. The impoundment is sheet-piled around the perimeters to approximately 30 feet below ground surface (ft bgs) into the native soil. The BAB was used for receiving sluiced bottom ash and other process flow effluent pumped from the power plant to the eastern end of the BAB. After CCR removal was completed in September 2020, the former BAB was repurposed into a non-CCR process water pond. There is a sheet pile weir near the middle of the former BAB that maintains the water elevation in the eastern portion to approximately 577.5 feet through gravity flow. The water in

the western portion of the former BAB is maintained at an elevation of no higher than 577 feet before being discharged into the Detroit River in accordance with a National Pollution Discharge Elimination System (NPDES) permit.

1.3 Geology/Hydrogeology

The RRPP BAB CCR unit is located immediately adjacent to the Rouge River to the northeast near the intersection of the Rouge River and Detroit River (Figure 1). The RRPP CCR unit is underlain initially by approximately 10 feet of surficial fill of various composition (gravel, sand, silt and clay, brick and/or concrete fragments). The fill is partially saturated in some areas, but is not continuously saturated across the RRPP property, does not represent a significant, usable source of water, and is, therefore, not an aquifer. An organic layer is often encountered beneath the surficial fill that is then underlain by a silt/clay-rich unit that ranges from 3 to about 8 feet thick in the area of the BAB. Beneath the silt/clay-rich unit, there is a saturated sand and gravel unit that often coarsens from sand to gravel with depth. This coarse-grained sand and gravel unit is present from as shallow as 15 ft bgs to as deep as 25.5 ft bgs. This same coarse-grained unit is observed in most of the historical boring logs across the RRPP and appears to be a relatively continuous unit across the RRPP property. Based on this information, this coarse-grained sand and gravel unit represents the uppermost aquifer present at the RRPP BAB CCR unit.

The coarse-grained sand and gravel uppermost aquifer is underlain by a more than 60-foot-thick contiguous silty clay-rich deposit that serves as a natural lower confining hydraulic barrier that isolates the uppermost aquifer from the underlying Dundee limestone that represents the next aquifer. There is no apparent hydraulic connection between the uppermost aquifer and the Dundee limestone aquifer, and the limestone aquifer is artesian.

Historically, a definitive groundwater flow direction to the northeast with an average gradient of 0.00067 foot/foot (using data from June 2016 through September 2017) within the uppermost aquifer was evident around the RRPP BAB CCR unit, with potential groundwater flow rates within the uppermost aquifer ranging from approximately 5.8 to 73 feet/year. The installation and continual operation of the groundwater collection system extraction wells surrounding the basin between March 2018 and September 2022 had changed the natural groundwater flow regime near the basin to an inward gradient that extended to the edge of the Rouge River. The radius of influence extended beyond all CCR monitoring wells, with the exception of the upgradient monitoring well MW-17-07 that is located more than 1,500 feet up hydraulic gradient of the RRPP BAB CCR unit.

Since the suspension of extraction well operations in September 2022 to allow for the completion of an in-situ pilot test as described in Section 5.0, the groundwater flow regime is now similar to what was present in 2016 and 2017 before the groundwater extraction system was put into operation. There is a much lower groundwater hydraulic gradient/flow to the northeast through the center of the site towards the Rouge River with components of groundwater flow east towards the Detroit River along the east boundary and offsite to the northwest along the west boundary.

2.0 Groundwater Monitoring

2.1 Monitoring Well Network

A groundwater monitoring system was established for the RRPP BAB CCR unit as detailed in the *Groundwater Monitoring System Summary Report – DTE Electric Company River Rouge Power Plant Bottom Ash Basin Coal Combustion Residual Unit* (GWMS Report) (TRC, October 2017). The monitoring well network for the BAB CCR unit as described in the GWMS Report consists of five monitoring wells that are screened in the uppermost aquifer. The monitoring well locations are shown on Figure 2. Monitoring wells MW-17-06 and MW-17-07 are located south-southwest of the RRPP BAB and provide data on background groundwater quality that has not been affected by the CCR unit (total of two background wells). Monitoring wells MW-16-01 through MW-16-03 are located north-northeast, historically downgradient of the RRPP BAB CCR unit (total of three downgradient monitoring wells).

As shown on Figure 2, monitoring well MW-16-04S is used for water level measurements and as a nature and extent well. MW-16-04S was originally installed as a potential background monitoring well. However, based on concentrations of several Appendix III parameters, the proximity of the well to the BAB and the hydrogeology of the area, monitoring well MW-16-04S did not appear to be representative of background groundwater conditions; therefore, this well was excluded from the background monitoring network. As such, in June 2017, two additional monitoring wells (MW-17-06 and MW-17-07) were installed in the uppermost aquifer further upgradient on the southwest side of the RRPP main building for use as background wells (Figure 2).

In addition, eleven groundwater recovery wells were installed as part of a groundwater extraction system (Figure 2) and additional monitoring wells were added to evaluate the groundwater extraction system groundwater capture (Figure 2) in 2018. Although the groundwater extraction system did change groundwater flow significantly in the RRPP BAB CCR unit since beginning operation in early March 2018, the three compliance monitoring wells (MW-16-01 through MW-16-03) were still appropriately positioned to evaluate groundwater quality in the vicinity of the RRPP BAB CCR unit. The extraction well operations were suspended in September 2022 to allow for the completion of an in-situ pilot test; since then, the natural groundwater flow regime has re-established itself and monitoring wells MW-16-01 through MW-16-03 are positioned downgradient of the former RRPP BAB CCR unit, adjacent to the Rouge River (Figure 3 and Figure 4).

In addition, as detailed in the 2023 Annual Report, downgradient monitoring wells MW-17-16 and MW-17-17 were added to the corrective action monitoring program in order to monitor remediation progress.

2.2 Semiannual Assessment Groundwater Monitoring

Per §257.95(d), all wells in the CCR unit monitoring program must be sampled at least semiannually. One semiannual event must include analysis for all parameters from Appendix III and Appendix IV and one semiannual event may include analysis for all Appendix III indicator parameters and those Appendix IV parameters that were detected during prior sampling. In

addition to the Appendix III and IV parameters, field parameters including pH, dissolved oxygen, oxidation reduction potential, specific conductivity, temperature, and turbidity were collected at each well. Samples were collected and analyzed in accordance with the *CCR Groundwater Monitoring and Quality Assurance Project Plan – DTE Electric Company River Rouge Power Plant Bottom Ash Basin (QAPP)* (TRC, July 2016; revised August 2017) and the corrective action monitoring program outlined in the 2023 Annual Report. Field records are included in Appendix A.

2.2.1 Data Summary

The first semiannual groundwater assessment monitoring event for 2024 was performed on April 10, 2024 and the second semiannual groundwater assessment monitoring event was performed on October 14, 2024. Both events were performed 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 monitoring well locations in addition to surface water measuring points MP-01, MP-03, and MP-04 established along the Rouge River and Detroit River (Figure 2). Groundwater samples were collected from the two background monitoring wells and three downgradient compliance monitoring wells for the Appendix III and Appendix IV parameters and field parameters. A summary of the groundwater data collected during both the semiannual events are provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 3 (analytical results). The laboratory analytical reports and field data 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 2024 semiannual monitoring events show that the groundwater flow regime has re-equilibrated to pre-pumping conditions, prior to when the groundwater extraction system was put into operation, following the suspension of extraction well operations to allow for the completion of the aforementioned in-situ pilot test. As a result, the groundwater hydraulic gradient and flow rate are much lower than they were under pumping conditions. In general, groundwater flow is to the northeast through the center of the RRPP BAB CCR unit towards the Rouge River with components flowing east towards the Detroit River along the east boundary and offsite to the northwest along the west property boundary. Groundwater elevations measured across the Site during the April and October 2024 sampling events are provided on Table 1 and were used to construct groundwater contour maps (Figures 3 and 4, respectively).

The average hydraulic gradients throughout the RRPP BAB CCR unit during the April and October 2024 events show a hydraulic gradient of approximately 0.0015 ft/ft during the April event and 0.00064 ft/ft during the October 2024 event. The gradients were calculated using the

well pairs MW-17-06/MW-16-04S and MW-17-07/MW-17-06. Using the low hydraulic conductivity of 9.5 feet/day and high hydraulic conductivity of 120 feet/day, and an assumed effective porosity of 0.4, the estimated groundwater flow velocity ranges from approximately 0.034 feet/day (approximately 13 feet/year) to approximately 0.43 feet/day (approximately 160 feet/year) during the April 2024 event and approximately 0.015 feet/day (approximately 5.5 feet/year) to approximately 0.19 feet/day (approximately 70 feet/year) during the October 2024 event.

3.0 Statistical Evaluation

Assessment monitoring was continued at the RRPP BAB CCR unit while corrective measures were further evaluated in accordance with §257.96 and §257.97 as outlined in the ACM. The following section summarizes the statistical approach applied to assess the 2024 groundwater data in accordance with the assessment monitoring program. The statistical evaluation details are provided in Appendix C (Appendix IV Assessment Monitoring Statistical Evaluation – April 2024) and Appendix D (Appendix IV Assessment Monitoring Statistical Evaluation – October 2024).

3.1 Establishing Groundwater Protection Standards

The Appendix IV GWPSs are used to determine whether groundwater has been impacted from the RRPP BAB CCR unit by statistically comparing concentrations in the assessment monitoring wells to their respective GWPS for each Appendix IV parameter. In accordance with §257.95(h) and the *Groundwater Statistical Evaluation Plan – DTE Electric Company River Rouge Power Plant Coal Combustion Residual Bottom Ash Basin* (Stats Plan) (TRC, October 2017), GWPSs were established for the Appendix IV parameters following the preliminary assessment monitoring event using nine rounds of data collected from the background monitoring wells MW-17-06 and MW-17-07 (July 2017 through April 2018). The calculation of the GWPSs is documented in the *Assessment Monitoring Data Summary and Statistical Evaluation* (TRC, October 2018a). The GWPS is established as the higher of the USEPA Maximum Contaminant Level (MCL) or statistically derived background level for constituents with MCLs and the higher of the USEPA Regional Screening Levels (RSLs) or background level for constituents with RSLs.

3.2 Data Comparison to Groundwater Protection Standards – First Semiannual Event (April 2024)

Consistent with the *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (Unified Guidance) (USEPA, 2009), the preferred method for comparisons to a fixed standard are confidence limits. An exceedance of the standard occurs when the 99 percent lower confidence level of the downgradient data exceeds the GWPS. Confidence intervals were established per the statistical methods detailed in the *Appendix IV Assessment Monitoring Statistical Evaluation for April 2024* technical memorandum provided in Appendix C.

For each detected constituent, the concentrations for each well were first compared directly to the GWPS. Parameter-well combinations that included a direct exceedance of the GWPS were retained for further statistical analysis using confidence limits as detailed in the Appendix C technical memorandum. The calculated upper and lower confidence limits and comparison of the lower confidence limits to the GWPSs are provided in Table 4 for the April 2024 event. No constituents were observed at statistically significant levels exceeding the Appendix IV GWPSs during the April 2024 assessment monitoring event.

In addition, downgradient monitoring wells MW-17-16 and MW-17-17 were included in the corrective action program as compliance monitoring wells in 2024. As such, MW-17-16 and MW-17-17, were also evaluated during the April 2024 event. However, there is insufficient data available from these monitoring wells to complete a statistical evaluation (minimum of 4 data points required). Results from these two wells will be compared directly to the GWPS until the minimum 4 data points are available to statistically evaluate the results.

3.3 Data Comparison to Groundwater Protection Standards – Second Semiannual Event (October 2024)

Statistical analysis for the second semiannual monitoring event was performed using the statistical methods detailed in the *Appendix IV Assessment Monitoring Statistical Evaluation for October 2024* technical memorandum provided in Appendix D. The calculated upper and lower confidence limits and comparison of the lower confidence limits to the GWPSs for the October 2024 event are provided in Table 5. No constituents were observed at statistically significant levels exceeding the Appendix IV GWPSs during the October 2024 assessment monitoring event.

Additionally, groundwater analytical results from MW-17-16 and MW-17-17 were compared directly to the GWPS until the minimum 4 data points are available to statistically evaluate the results.

4.0 Nature and Extent Groundwater Evaluation

4.1 Nature and Extent Groundwater Sampling

Per §257.95(g)(1), in the event that the facility determines, pursuant to §257.93(h), that there is a statistically significant exceedance of the GWPSs for one or more of the Appendix IV constituents, the facility must characterize the nature and extent of the release of CCR as well as any site conditions that may affect the remedy selected. As such, nature and extent groundwater sampling was completed on October 15, 2024, by TRC personnel from existing CCR network monitoring wells and the nature and extent monitoring wells installed in 2017.

DTE Electric collected groundwater samples at monitoring wells MW-16-04S, MW-17-05, MW-17-14, MW-17-15, MW-17-18, and MW-17-20. Samples were collected and analyzed in accordance with the QAPP. Field parameters were stabilized at each monitoring well prior to collecting groundwater samples. Field parameters are summarized in Table 2. Groundwater samples were analyzed by Eurofins for the Appendix III and detected Appendix IV parameters. A summary of the analytical groundwater data collected during the October 2024 nature and extent sampling event is provided on Table 6. The laboratory analytical reports are included in Appendix A.

Following the nature and extent sampling event, the RRPP BAB nature and extent groundwater data collected since 2018 were evaluated using confidence interval analysis in accordance with the Stats Plan as detailed in Appendix D. The statistical analysis confirms that there are no statistically significant concentrations present above the GWPS in the nature and extent wells. In addition, all of the land that overlies the potentially affected groundwater is owned by DTE Electric.

5.0 Corrective Action

According to §257.95(g)(3), in the event that the facility determines, pursuant to §257.93(h), that a result is reported above GWPSs for one or more of the Appendix IV constituents, the facility will, within 90 days of performing the statistical analysis, initiate an assessment of corrective measures to prevent further releases, to remediate any releases, and to restore affected area to original conditions. The Assessment of Corrective Measures (ACM) must be completed within 90 days unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances.

5.1 Interim Measures

DTE Electric has been proactively managing the potential groundwater migration pathway since 2018. DTE Electric's initial management strategy was to operate a groundwater extraction system to mitigate any risk of migration of CCR constituents from the RRPP BAB to groundwater. This system was constructed during January and February 2018, began operation in early March 2018, was operational through September 15, 2022, and effectively captured CCR-affected groundwater in the vicinity of the RRPP BAB in that time period. As discussed below, the groundwater system was shut down in late September 2022 to allow the hydraulic and geochemistry conditions in groundwater to stabilize prior to implementing an in-situ pilot test.

5.2 Assessment of Corrective Measures and CCR Removal

DTE Electric initiated the ACM on January 14, 2019, completed the initial ACM Report on April 15, 2019, and completed Semi-Annual Progress Reports on the remedy selection and design in accordance with §257.97(a) through 2023 until the Selection of Remedy Report was completed in November 2023 (TRC, November 2023) as discussed below. The preferred alternative in the 2019 ACM was to close the RRPP BAB by CCR removal with offsite CCR disposal and to address the CCR-affected groundwater by continuing to operate the already in-place interim groundwater collection system.

The RRPP BAB CCR unit Closure Plan was updated in July 2020 (TRC, July 2020). In accordance with §257.101(a)(1), closure for the River Rouge BAB CCR unit was initiated 30-days after the last known receipt of waste. The RRPP ceased coal fired operations in May 2020 and the BAB closure by CCR removal was completed with construction equipment mobilization occurring in June 2020, and CCR removal occurring from July through September 2020 as documented in the *Bottom Ash Basin Closure Certification Report DTE Electric Company River Rouge Power Plant Bottom Ash Basin Coal Combustion Residual Unit, 1 Belanger Park Drive, River Rouge, Michigan* (Closure Certification Report) (TRC, November 2020, Revised February 2021). After CCR removal was completed, the former BAB was repurposed into a non-CCR process water pond.

Since the removal of CCR through the first semiannual monitoring period of 2022 arsenic at MW-16-01 was the only ongoing exceedance of the GWPS within the downgradient monitoring wells. In October 2022, DTE Electric revised the 2019 ACM to include additional innovative technology that was not considered in the initial ACM to address the persistent post-CCR

removal concentrations of arsenic at MW-16-01. As detailed in an October 2022 ACM update (TRC, October 4, 2022), DTE Electric conducted a bench-scale treatability study in early 2022 using site groundwater and soil to evaluate two in-situ treatment options for removing arsenic from groundwater at the former RRPP BAB CCR unit and to potentially provide a final groundwater remedy for this site. These included: (1) zero-valent iron (ZVI), and (2) a solution of guar gum and ferrous sulfate. Results from this study indicated that ZVI was effective at removing both arsenate and arsenite from site groundwater. In addition, application of ferrous sulfate and guar gum was successful at stimulating anaerobic bacteria and enhanced the reduction of arsenic from groundwater through biological processes.

On September 15, 2022, the groundwater collection system was shut down to allow the RRPP BAB CCR unit groundwater hydraulic and geochemistry conditions to stabilize prior to implementing an in-situ pilot test. Beginning in November 2022, DTE Electric commenced an in-situ pilot scale test centered on monitoring well MW-16-01 where elevated levels of arsenic have persisted. This pilot test was completed to confirm that the findings from the bench scale testing, namely that the in-place immobilization of arsenic by injection of specific reagents, could be replicated in the field and subsequently scaled up for full implementation as an alternative to continued operation of the groundwater extraction system. The in-situ pilot study was completed in May 2023. The pilot test results substantiated the bench study conclusions while also demonstrating that geochemical sequestration can be effectively applied via amendment injection to remove arsenic from groundwater in the affected/treated areas. The pilot test results are presented within the *Groundwater Treatment System Pilot-Scale Test: Implementation and Performance Report* (TRC, October 11, 2023) included in the *2023 Annual Groundwater Monitoring Report for the River Rouge Power Plant (2023 Annual Report)* (TRC, January 2024).

Lithium concentrations in groundwater at monitoring well MW-16-01 increased slightly following the suspension of the extraction system operation and the initiation of the in-situ pilot test in September 2022. After finalization of the initial Selection of Remedy report, remediation activities (contracting, scheduling etc.) were initiated in late 2023 and early 2024; however, lithium continued to be present above the GWPS in late 2023 and early 2024. In response, DTE Electric conducted a bench-scale treatability study in 2024 using site groundwater and soil to evaluate an alternative reagent (FerroBlack®-Fe+) that was identified for removing both arsenic and lithium from groundwater at the former RRPP BAB. Results from this study indicated that this reagent was effective at removing both arsenic and lithium from groundwater to below their respective GWPSs. Therefore, DTE Electric is planning to perform a pilot scale remedial injection of FerroBlack®-Fe+ down hydraulic gradient of the former BAB in 2025 to evaluate the potential for this reagent to complete the final remedy for arsenic and lithium in groundwater.

5.3 Public Meeting and Final Remedy Selection

On October 12, 2023, DTE Electric discussed the results of the corrective measures assessment with interested and affected parties in a public meeting, providing at least 30 days for comments to be received prior to the formulation of a Selection of Final Remedy Report as required under §257.96(e). On November 30, 2023, the *Final Selection of Remedy Report* was completed with the final remedy selected being closure by removal with the Geochemical

Sequestration via Amendment Injection for groundwater per §257.97 (TRC, November 30, 2023). Documentation of the October 12, 2023 public meeting required under §257.96(e) is included within the *Final Selection of Remedy Report* (TRC, November 30, 2023).

Following the identification of increased lithium concentrations through 2024, a bench-scale study was conducted to evaluate an alternative reagent to remove both arsenic and lithium. Results from this study indicated that this reagent was effective at removing both arsenic and lithium from groundwater to below their respective GWPSs. This indicated that the final remedy selected, closure by removal with geochemical sequestration via amendment injection is still appropriate to address both arsenic and lithium in groundwater.

5.4 Implementation of the Corrective Action Program

Key components of the final remedy have already been completed with the removal of CCR from the BAB in 2020 as documented in the Closure Certification Report. Additional remedial measures to address the remaining concentrations above the GWPS in groundwater using geochemical sequestration via amendment injection are anticipated to continue in 2025. In addition, pursuant to §257.98(1), DTE Electric will continue to implement the assessment monitoring program to evaluate the effectiveness of the corrective action remedy and to demonstrate attainment of the GWPSs at the completion of remedial activities.

The May 8, 2024 CCR Rule Legacy amendment, which became effective November 8, 2024, expands §257.102(c) to allow two schedule options for the completion of closure by CCR removal: 1) completing all closure and decontamination activities during the active life of the CCR unit or 2) completing removal and decontamination activities during the active life and post-closure care period of the CCR unit. As noted above, DTE Electric has completed removal of CCR materials from the BAB within five years of commencing closure activities, as required in §257.102(f). However, concentrations of Appendix IV constituents remain above the GWPS following CCR removal. Therefore, DTE Electric will continue to complete groundwater corrective action during the post-closure care period under §257.102(c)(2) following the procedures included in a revised closure plan, a revised selection of remedy report, and a post-closure plan that will be completed in 2025.

Groundwater monitoring at the background, downgradient compliance, and nature and extent well locations will be performed in accordance with the existing QAPP or an updated QAPP when planned remediation is completed. Statistical analysis will be performed at the downgradient compliance wells and downgradient nature and extent wells in accordance with the Stats Plan and Unified Guidance, as appropriate, to evaluate the effectiveness of the remedy and progress toward attaining the GWPS during and after the remedy implementation. Attainment of the GWPS will be demonstrated in groundwater downgradient from the BAB over a period of three consecutive years using the statistical procedures and performance standards in §257.93(f) and (g).

6.0 Conclusions and Recommendations

In 2024, the semiannual assessment monitoring and annual nature and extent groundwater sampling continued, showing that there are no new constituents observed at statistically significant levels exceeding the Appendix IV GWPSs during the 2024 reporting period. Closure by removal has been completed, the final remedy for groundwater has been selected in November 2023 per §257.97, and corrective action implementation is progressing pursuant to §257.98.

Per §257.98(a)(1), DTE Electric will continue semiannual assessment monitoring as specified in §257.95, along with annual nature and extent monitoring per §257.95(g)(1), in 2025 for the RRPP BAB CCR unit to evaluate the effectiveness of the implemented corrective measures. Additionally, DTE Electric anticipates that implementation of the selected final groundwater remedy will continue in 2025. DTE Electric will continue executing the self-implementing groundwater compliance schedule in conformance with §257.90 - §257.98. The next semiannual monitoring events are scheduled for the second and fourth calendar quarters of 2025.



7.0 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
River Rouge Power Plant Bottom Ash Basin
River Rouge, Michigan**

CERTIFICATION

I hereby certify that the annual groundwater and corrective action report presented within this document for the RRPP BAB 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	 Stamp 
Company: TRC Engineers Michigan, Inc.	Date: January 31, 2025	

January 31 2025

8.0 References

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Tables

Table 1
 Summary of Groundwater Elevation Data April and October 2024
 River Rouge Power Plant Fr. Bottom Ash Basin – RCRA CCR Monitoring Program
 River Rouge, Michigan

Well ID	Date Installed	Reference Elevation	Geologic Unit of Screened Interval	Screened Interval Elevation ft	04/10/2024		10/14/2024	
					Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
					ft BTOC	ft	ft BTOC	ft
MP-01	6/23/2016	579.26 ⁽¹⁾	NA	NA	2.06	577.20	1.50	577.76
MP-03	6/20/2017	578.42 ⁽¹⁾	NA	NA	4.21	574.21	NM	
MP-04	6/20/2017	579.17 ⁽¹⁾	NA	NA	NM		NM	
MW-16-01	6/13/2016	583.02	Sand/Silty Clay/Gravel	562.0 to 557.0	8.66	574.36	8.71	574.31
MW-16-02	6/20/2017	582.79	Silty Sand/Sand/Clay/Gravel	561.4 to 556.4	8.34	574.45	8.45	574.34
MW-16-03	6/10/2016	582.75	Sand with Gravel	561.4 to 556.4	8.44	574.31	8.68	574.07
MW-16-04S	3/17/2016	582.41	Sand and Gravel	561.2 to 556.2	7.17	575.24	7.40	575.01
MW-17-01	6/7/2017	578.47	Sand/Silty Sand	558.0 to 563.0	2.74	575.73	3.28	575.19
MW-17-02	6/7/2017	581.24	Sand	553.8 to 558.8	6.50	574.74	7.40	573.84
MW-17-03	6/8/2017	580.20	Sand/Gravel with Sand/Clay	552.5 to 557.5	5.75	574.45	6.50	573.70
MW-17-04	6/8/2017	578.01	Sand	553.5 to 558.5	3.52	574.49	4.00	574.01
MW-17-05	6/9/2017	581.61	Sand/Silty Sand with Gravel	553.6 to 558.6	6.12	575.49	6.58	575.03
MW-17-06	6/7/2017	583.01	Silty Sand/Gravel with Sand	559.9 to 554.9	6.93	576.08	7.30	575.71
MW-17-07	6/14/2017	583.05	Silt with Sand/Clay	564.0 to 559.0	5.20	577.85	7.15	575.90
MW-17-08	6/12/2017	580.52	Clay/Sand/Gravel	553.0 to 558.0	5.89	574.63	5.90	574.62
MW-17-09	6/13/2017	581.05	Clay/Sand/Gravel with Sand	553.6 to 558.6	6.72	574.33	6.78	574.27
MW-17-10	6/13/2017	581.41	Silty Sand/Clay/Sand	555.7 to 560.7	6.00	575.41	6.70	574.71
MW-17-12	12/12/2017	580.51	Silty Sand/Gravel with Sand	555.5 to 560.5	5.25	575.26	5.54	574.97
MW-17-13	12/6/2017	578.90	Silty Sand/Clay/Gravel with Sand	555.9 to 560.9	4.23	574.59	4.75	574.07
MW-17-14	12/7/2017	579.35	Clay/Gravel with Sand	554.9 to 559.9	4.70	574.65	4.80	574.55
MW-17-15	12/8/2017	579.75	Silty Sand/Clay/Gravel with Sand	556.0 to 561.0	5.04	574.71	5.30	574.45
MW-17-16	12/7/2017	579.73	Sand with Silt/Clay with Silt/Gravel with Sand	558.2 to 567.2	5.25	574.48	5.60	574.13
MW-17-17	12/11/2017	579.35	Silty Sand/Sand with Gravel	557.8 to 562.8	4.91	574.44	5.18	574.17
MW-17-18	12/8/2017	579.00	Sand and Clay	557.7 to 562.7	3.37	575.63	3.78	575.22
MW-17-19	12/11/2017	577.99	Sand and Clay	551.4 to 556.4	2.75	575.24	3.25	574.74
MW-17-20	12/12/2017	579.40	Clay/Sand/Gravel with Sand	555.1 to 560.1	3.83	575.57	4.28	575.12

Notes:

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

ft BTOC - feet below top of casing

NA - not applicable

NM - not measured

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

Table 2
 Summary of Groundwater Field Parameters - April and October 2024
 River Rouge Power Plant Fr. Bottom Ash Basin - RCRA CCR Monitoring Program
 River Rouge, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)
Background Wells							
MW-17-06	4/10/2024	1.64	-18.6	6.7	2,934	14.9	14.10
	10/16/2024	1.54	-171.0	6.9	3,795	13.9	9.00
MW-17-07	4/10/2024	1.73	-9.5	6.7	6,704	12.5	4.42
	10/16/2024	1.90	-128.1	7.0	9,580	12.8	10.00
Downgradient Wells							
MW-16-01	4/10/2024	2.04	-86.3	10.1	776	11.1	3.16
	10/16/2024	1.39	-321.0	10.6	1,192	14.1	6.00
MW-16-02	4/10/2024	2.00	4.0	6.9	1,067	11.9	3.86
	10/16/2024	1.20	-257.0	7.6	1,532	13.4	6.00
MW-16-03	4/10/2024	1.90	-10.9	7.2	485	11.9	0.52
	10/16/2024	1.60	-275.0	7.8	719	12.9	5.00
MW-17-16	4/10/2024	1.80	16.4	7.3	550	12.4	5.78
	10/16/2024	1.89	-223.0	7.9	789	14.2	5.00
MW-17-17	4/10/2024	1.88	-13.2	7.1	581	12.2	1.00
	10/16/2024	1.77	-234.0	7.7	750	13.2	5.00
Nature and Extent Wells							
MW-16-04S	10/15/2024	1.70	-226.0	8.0	1,265	12.4	6.50
MW-17-05	10/15/2024	1.50	-178.0	7.0	3,595	12.4	9.00
MW-17-14	10/15/2024	1.48	-170.0	7.3	25	14.0	5.00
MW-17-15	10/15/2024	1.30	-205.0	7.5	1,775	12.9	10.00
MW-17-20	10/14/2024	1.49	-130.0	6.9	5,225	13.7	6.00

Notes:

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

Table 3
 Summary of Groundwater Analytical Data - April and October 2024
 River Rouge Power Plant Fr. Bottom Ash Basin – RCRA CCR Monitoring Program
 River Rouge, Michigan

		Sample Location:				MW-17-06		MW-17-07		MW-16-01		MW-16-02		MW-16-03	
		Sample Date:				4/10/2024	10/16/2024	4/10/2024	10/16/2024	4/10/2024	10/16/2024	4/10/2024	10/16/2024	4/10/2024	10/16/2024
Constituent	Unit	EPA MCL	EPA RSL	UTL	GWPS	Background				downgradient					
Appendix III															
Boron	ug/L	NC	NA	NA	NA	490	500	590	690	920	960	830	750	220	130
Calcium	ug/L	NC	NA	NA	NA	310,000	300,000	440,000	460,000	25,000	24,000	220,000	210,000	70,000	78,000
Chloride	mg/L	250*	NA	NA	NA	740	710	2,300	2,300	240	180	44	57	46	69
Fluoride	mg/L	4.0	NA	NA	NA	0.28	0.35	0.32	0.44	0.58	0.68	0.28	0.38	0.34	0.31
pH, Field	su	6.5 - 8.5*	NA	NA	NA	6.7	6.9	6.7	7.0	10.1	10.6	6.9	7.6	7.2	7.8
Sulfate	mg/L	250*	NA	NA	NA	530	530	1,400	1,400	220	280	550	550	2.5	6.6
Total Dissolved Solids	mg/L	500*	NA	NA	NA	2,400	1,900	6,100	5,400	720	690	1,200	1,100	360	390
Appendix IV															
Antimony	ug/L	6.0	NA	2.0	6.0	< 2.0	--	< 2.0	--	< 2.0	--	< 2.0	--	< 2.0	--
Arsenic	ug/L	10	NA	32	32	10	20	18	16	10	10	< 5.0	< 5.0	< 5.0	< 5.0
Barium	ug/L	2,000	NA	150	2,000	140	160	30	35	88	120	150	170	44	35
Beryllium	ug/L	4.0	NA	1.0	4.0	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--
Cadmium	ug/L	5.0	NA	1.0	5.0	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--
Chromium	ug/L	100	NA	2.0	100	< 5.0	--	< 5.0	--	< 5.0	--	< 5.0	--	< 5.0	--
Cobalt	ug/L	NC	6.0	23	23	1.2	1.2	6.8	6.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fluoride	mg/L	4.0	NA	1.3	4.0	0.28	0.35	0.32	0.44	0.58	0.68	0.28	0.38	0.34	0.31
Lead	ug/L	NC	15	1.0	15	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--
Lithium	ug/L	NC	40	34	40	27	27	29	29	48	44	53	43	11	10
Mercury	ug/L	2.0	NA	0.20	2.0	< 0.20	--	< 0.20	--	< 0.20	--	< 0.20	--	< 0.20	--
Molybdenum	ug/L	NC	100	22	100	7.5	8.0	12	13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Radium-226	pCi/L	NC	NA	NA	NA	0.991	0.871	0.373	0.222	< 0.0944	< 0.172	0.532	0.58	0.821	< 0.177
Radium-228	pCi/L	NC	NA	NA	NA	2.59	2.21	0.959	0.882	0.593	0.621	1.18	0.754	1.19	1.17
Radium-226/228	pCi/L	5.0	NA	2.83	5.0	3.58	3.08	1.33	1.1	0.676	0.741	1.71	1.33	2.01	1.30
Selenium	ug/L	50	NA	5.0	50	< 5.0	--	< 5.0	--	< 5.0	--	< 5.0	--	< 5.0	--
Thallium	ug/L	2.0	NA	1.0	2.0	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--	< 1.0	--

Notes:
 ug/L - micrograms per liter.
 mg/L - milligrams per liter.
 SU - standard units; pH is a field parameter.
 pCi/L - picocuries per liter.
 NA - not applicable.
 NC - no criteria.
 MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April, 2012.
 RSL - Regional Screening Level from 83 FR 36435.
 UTL - Upper Tolerance Limit (95%) of the background data set.
 GWPS - Groundwater Protection Standard. GWPS is the higher of the MCL/RSL and UTL.
 * - Secondary Maximum Contaminant Level (SMCL), EPA Secondary Drinking Water Regulations (SDWR) April, 2012.
Bold value indicates an exceedance of the GWPS. Data from downgradient monitoring wells are screened against the GWPS for evaluation purposes only. Confidence intervals will be used to determine compliance per the CCR rules.

Table 3
 Summary of Groundwater Analytical Data - April and October 2024
 River Rouge Power Plant Fr. Bottom Ash Basin – RCRA CCR Monitoring Program
 River Rouge, Michigan

					Sample Location:		MW-17-16		MW-17-17	
					Sample Date:		4/10/2024	10/16/2024	4/10/2024	10/16/2024
Constituent	Unit	EPA MCL	EPA RSL	UTL	GWPS	downgradient				
Appendix III										
Boron	ug/L	NC	NA	NA	NA	330	340	480	470	
Calcium	ug/L	NC	NA	NA	NA	95,000	100,000	78,000	76,000	
Chloride	mg/L	250*	NA	NA	NA	50	47	50	49	
Fluoride	mg/L	4.0	NA	NA	NA	0.83	0.98	0.61	0.67	
pH, Field	su	6.5 - 8.5*	NA	NA	NA	7.3	7.9	7.1	7.7	
Sulfate	mg/L	250*	NA	NA	NA	120	140	14	16	
Total Dissolved Solids	mg/L	500*	NA	NA	NA	470	520	450	400	
Appendix IV										
Antimony	ug/L	6.0	NA	2.0	6.0	< 2.0	--	< 2.0	--	
Arsenic	ug/L	10	NA	32	32	54	99	< 5.0	< 5.0	
Barium	ug/L	2,000	NA	150	2,000	130	150	59	59	
Beryllium	ug/L	4.0	NA	1.0	4.0	< 1.0	--	< 1.0	--	
Cadmium	ug/L	5.0	NA	1.0	5.0	< 1.0	--	< 1.0	--	
Chromium	ug/L	100	NA	2.0	100	< 5.0	--	< 5.0	--	
Cobalt	ug/L	NC	6.0	23	23	< 1.0	< 1.0	< 1.0	< 1.0	
Fluoride	mg/L	4.0	NA	1.3	4.0	0.83	0.98	0.61	0.67	
Lead	ug/L	NC	15	1.0	15	< 1.0	--	< 1.0	--	
Lithium	ug/L	NC	40	34	40	48	55	12	14	
Mercury	ug/L	2.0	NA	0.20	2.0	< 0.20	--	< 0.20	--	
Molybdenum	ug/L	NC	100	22	100	< 5.0	< 5.0	< 5.0	< 5.0	
Radium-226	pCi/L	NC	NA	NA	NA	0.364	0.336	0.315	0.216	
Radium-228	pCi/L	NC	NA	NA	NA	1.90	0.746	< 0.804	< 0.603	
Radium-226/228	pCi/L	5.0	NA	2.83	5.0	2.26	1.08	0.883	0.649	
Selenium	ug/L	50	NA	5.0	50	< 5.0	--	< 5.0	--	
Thallium	ug/L	2.0	NA	1.0	2.0	< 1.0	--	< 1.0	--	

Notes:

ug/L - micrograms per liter.
 mg/L - milligrams per liter.
 SU - standard units; pH is a field parameter.
 pCi/L - picocuries per liter.
 NA - not applicable.
 NC - no criteria.
 MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April, 2012.
 RSL - Regional Screening Level from 83 FR 36435.
 UTL - Upper Tolerance Limit (95%) of the background data set.
 GWPS - Groundwater Protection Standard. GWPS is the higher of the MCL/RSL and UTL.
 * - Secondary Maximum Contaminant Level (SMCL), EPA Secondary Drinking Water Regulations (SDWR) April, 2012.
Bold value indicates an exceedance of the GWPS. Data from downgradient monitoring wells are screened against the GWPS for evaluation purposes only. Confidence intervals will be used to determine compliance per the CCR rules.

Table 4
 Summary of Groundwater Protection Standard Exceedances – April 2024
 River Rouge Power Plant Fr. Bottom Ash Basin – RCRA CCR Monitoring Program
 River Rouge, Michigan

Appendix IV	Units	GWPS	MW-16-01		MW-16-02		MW-17-16	
			LCL	UCL	LCL	UCL	LCL	UCL
Arsenic	ug/L	32	-0.46	160	--	--	n < 4	
Lithium	ug/L	40	35	65	11	33	n < 4	

Notes:

ug/L - micrograms per liter.

GWPS - Groundwater Protection Standard.

UCL - Upper Confidence Limit (99%) of the downgradient data set.

LCL - Lower Confidence Limit (99%) of the downgradient data set.

Indicates a statistically significant exceedance of the GWPS.

An exceedance occurs when the LCL exceeds the GWPS.

Table 5
 Summary of Groundwater Protection Standard Exceedances – October 2024
 River Rouge Power Plant Fr. Bottom Ash Basin – RCRA CCR Monitoring Program
 River Rouge, Michigan

Appendix IV	Units	GWPS	Downgradient Monitoring Wells						Nature and Extent Monitoring Wells					
			MW-16-01		MW-16-02		MW-17-16		MW-17-05		MW-17-14		MW-17-15	
			LCL	UCL	LCL	UCL	LCL	UCL	LCL	UCL	LCL	UCL	LCL	UCL
Arsenic	ug/L	32	-16	140	--	--	n < 4		--	--	--	--	11	30
Lithium	ug/L	40	35	65	8.8	42	n < 4		3.9	39	4.1	35	27	62
Radium 226/228	pCi/L	5	--	--	--	--	--	--	--	--	0.624	4.62	--	--

Notes:

ug/L - micrograms per liter.

pCi/L - picocuries per liter.

-- - Not Applicable; well/parameter pair did not directly exceed the GWPS and was not included in further analysis.

GWPS - Groundwater Protection Standard.

UCL - Upper Confidence Limit (99%) of the downgradient data set.

LCL - Lower Confidence Limit (99%) of the downgradient data set.

Indicates a statistically significant exceedance of the GWPS. An exceedance occurs when the LCL exceeds the GWPS.

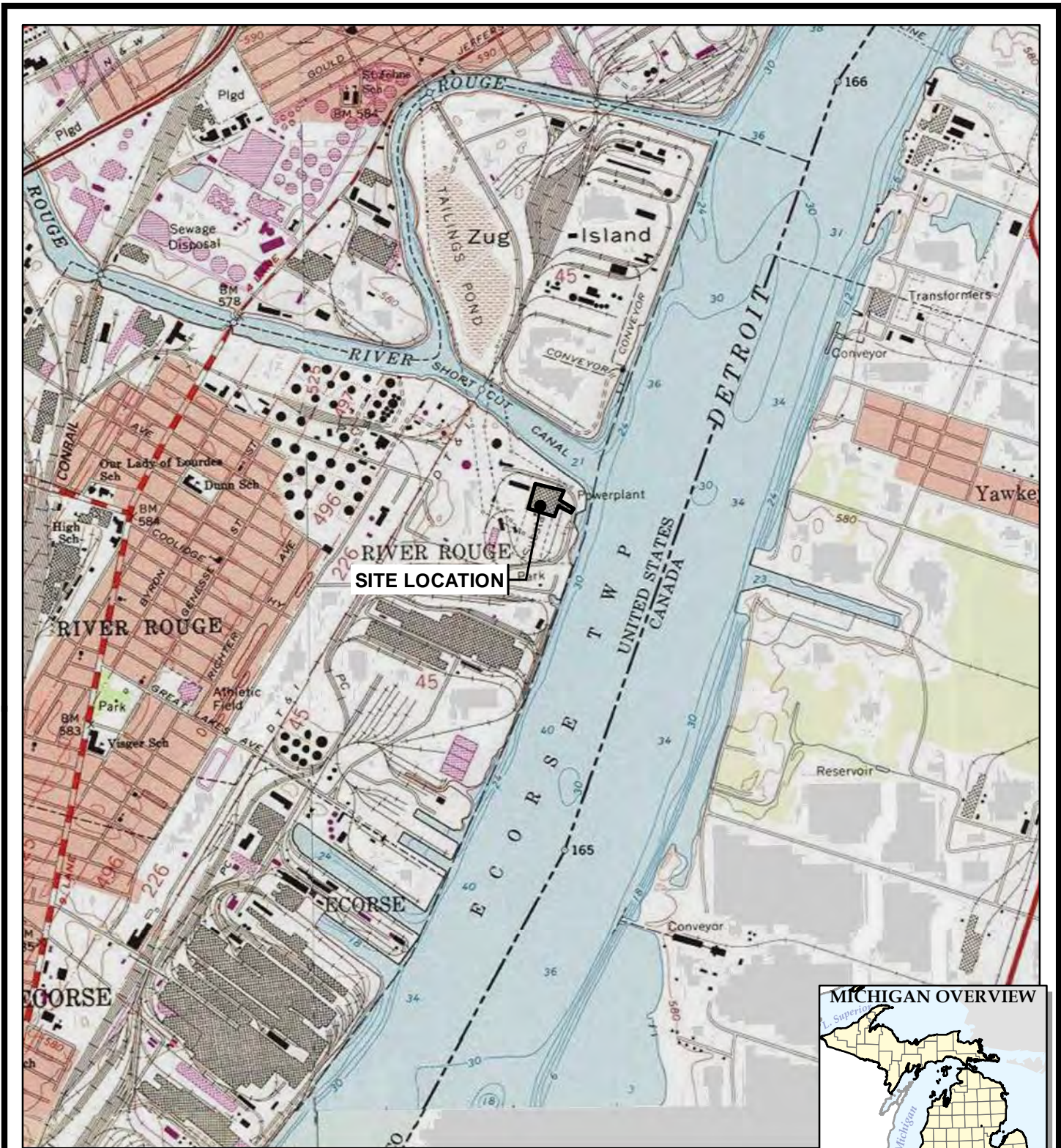
Table 6
 Summary of Nature and Extent Analytical Data - October 2024
 River Rouge Power Plant Fr. Bottom Ash Basin – RCRA CCR Monitoring Program
 River Rouge, Michigan

						Sample Location:	MW-16-04S	MW-17-05	MW-17-14	MW-17-15	MW-17-18	MW-17-20
						Sample Date:	10/15/2024	10/15/2024	10/15/2024	10/15/2024	10/15/2024	10/14/2024
Constituent	Unit	EPA MCL	EPA RSL	UTL	GWPS	Nature & Extent						
Appendix III												
Boron	ug/L	NC	NA	NA	NA	700	650	610	950	300	460	
Calcium	ug/L	NC	NA	NA	NA	170,000	340,000	180,000	150,000	210,000	400,000	
Chloride	mg/L	250*	NA	NA	NA	88	680	540	290	480	1,400	
Fluoride	mg/L	4.0	NA	NA	NA	0.60	0.43	0.74	0.92	0.38	0.36	
pH, Field	su	6.5 - 8.5*	NA	NA	NA	8.0	7.0	7.3	7.5	7.2	6.9	
Sulfate	mg/L	250*	NA	NA	NA	430	600	130	260	130	330	
Total Dissolved Solids	mg/L	500*	NA	NA	NA	840	2,200	1,200	1,000	1,400	3,100	
Appendix IV												
Antimony	ug/L	6.0	NA	2.0	6.0	--	--	--	--	--	--	
Arsenic	ug/L	10	NA	32	32	< 5.0	< 5.0	< 5.0	22	< 5.0	< 5.0	
Barium	ug/L	2,000	NA	150	2,000	110	150	650	300	120	160	
Beryllium	ug/L	4.0	NA	1.0	4.0	--	--	--	--	--	--	
Cadmium	ug/L	5.0	NA	1.0	5.0	--	--	--	--	--	--	
Chromium	ug/L	100	NA	2.0	100	--	--	--	--	--	--	
Cobalt	ug/L	NC	6.0	23	23	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0	
Fluoride	mg/L	4.0	NA	1.3	4.0	0.60	0.43	0.74	0.92	0.38	0.36	
Lead	ug/L	NC	15	1.0	15	--	--	--	--	--	--	
Lithium	ug/L	NC	40	34	40	21	42	24	45	17	32	
Mercury	ug/L	2.0	NA	0.20	2.0	--	--	--	--	--	--	
Molybdenum	ug/L	NC	100	22	100	21	< 5.0	< 5.0	19	< 5.0	< 5.0	
Radium-226	pCi/L	NC	NA	NA	NA	0.350	1.18	1.95	0.714	0.593	1.25	
Radium-228	pCi/L	NC	NA	NA	NA	1.35	1.70	3.87	< 0.743	1.32	1.47	
Radium-226/228	pCi/L	5.0	NA	2.83	5.0	1.70	2.88	5.82	1.30	1.91	2.72	
Selenium	ug/L	50	NA	5.0	50	--	--	--	--	--	--	
Thallium	ug/L	2.0	NA	1.0	2.0	--	--	--	--	--	--	

Notes:

ug/L - micrograms per liter.
 mg/L - milligrams per liter.
 SU - standard units; pH is a field parameter.
 pCi/L - picocuries per liter.
 NA - not applicable.
 NC - no criteria.
 MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April, 2012.
 RSL - Regional Screening Level from 83 FR 36435.
 UTL - Upper Tolerance Limit (95%) of the background data set.
 GWPS - Groundwater Protection Standard. GWPS is the higher of the MCL/RSL and UTL.
 * - Secondary Maximum Contaminant Level (SMCL), EPA Secondary Drinking Water Regulations (SDWR) April, 2012.
Bold value indicates an exceedance of the GWPS. Data are screened against the GWPS for evaluation purposes only. Confidence intervals will be used to determine compliance per the CCR rules.

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.




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





PROJECT:	DTE ELECTRIC COMPANY RIVER ROUGE POWER PLANT 1 BELANGER PARK DRIVE RIVER ROUGE, MICHIGAN
TITLE:	SITE LOCATION MAP

DRAWN BY:	A. FOJTIK
CHECKED BY:	J. KRENZ
APPROVED BY:	V. BUENING
DATE:	JANUARY 2025
PROJ. NO.:	553931.0005
FILE:	553931-0005-001.mxd

FIGURE 1

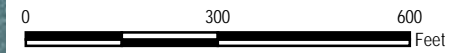


LEGEND

-  COMPLIANCE WELLS
-  MONITORING POINT
-  NATURE AND EXTENT WELLS
-  EXTRACTION WELL

NOTES

1. BASE MAP IMAGERY FROM GOOGLE, MAY 2023.
2. WELL LOCATIONS SURVEYED BY BMJ ENGINEERS AND SURVEYORS INC. IN JUNE 2016 & JUNE 2017.



1" = 300'
1:3,600

PROJECT:		DTE ELECTRIC COMPANY RIVER ROUGE POWER PLANT BOTTOM ASH BASIN 1 BELANGER PARK DRIVE RIVER ROUGE, MICHIGAN	
TITLE:		MONITORING NETWORK AND SITE PLAN	
DRAWN BY:	A. FOJTIK	PROJ NO.:	553931.0005
CHECKED BY:	J. KRENZ	FIGURE 2	
APPROVED BY:	V. BUENING		
DATE:	JANUARY 2025		



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Phone: 734.971.7080
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- LEGEND**
- NATURE AND EXTENT WELLS
 - COMPLIANCE WELLS
 - MONITORING POINT
 - (574.85) ELEVATION FT (NAVD 88)
 - NM NOT MEASURED
 - GROUNDWATER CONTOUR (0.5' INTERVAL, DASHED WHERE INFERRED)

- NOTES:**
1. BASE MAP IMAGERY FROM GOOGLE, AUGUST 2022.
 2. WELL LOCATIONS SURVEYED BY BMJ ENGINEERS AND SURVEYORS INC. IN JUNE 2016 & JUNE 2017.
 3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.



PROJECT:		DTE ELECTRIC COMPANY RIVER ROUGE POWER PLANT BOTTOM ASH BASIN 1 BELANGER PARK DRIVE RIVER ROUGE, MICHIGAN	
TITLE:		GROUNDWATER POTENTIOMETRIC SURFACE MAP APRIL 2024	
DRAWN BY:	A. FOJTIK	PROJ NO.:	553931.0005.0000
CHECKED BY:	J. KRENZ	FIGURE 3	
APPROVED BY:	V. BUENING		
DATE:	JANUARY 2025		

TRC

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

FILE NO.: River_Rouge.mxd

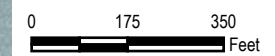


LEGEND

- NATURE AND EXTENT WELLS
- COMPLIANCE WELLS
- MONITORING POINT
- (574.85) ELEVATION FT (NAVD 88)
- NM NOT MEASURED
- GROUNDWATER CONTOUR (0.5' INTERVAL, DASHED WHERE INFERRED)

NOTES:

1. BASE MAP IMAGERY FROM GOOGLE, AUGUST 2022.
2. WELL LOCATIONS SURVEYED BY BMJ ENGINEERS AND SURVEYORS INC. IN JUNE 2016 & JUNE 2017.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.



1" = 350'
1:4,200



PROJECT:		DTE ELECTRIC COMPANY RIVER ROUGE POWER PLANT BOTTOM ASH BASIN 1 BELANGER PARK DRIVE RIVER ROUGE, MICHIGAN	
TITLE:		GROUNDWATER POTENTIOMETRIC SURFACE MAP OCTOBER 2024	
DRAWN BY:	A. FOJTIK	PROJ NO.:	553931.0005.0000
CHECKED BY:	J. KRENZ	FIGURE 4	
APPROVED BY:	V. BUENING		
DATE:	JANUARY 2025		
		1540 Eisenhower Place Ann Arbor, MI 48108-3284 Phone: 734.971.7080 www.trccompanies.com	
FILE NO.:		River_Rouge.aprx	

Appendix A

Laboratory Analytical and Field Data



ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

CCR DTE River Rouge Power Plant

JOB NUMBER

240-202716-1

Eurofins Cleveland

Job Notes

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

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Authorization



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



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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Qualifiers

Metals

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

General Chemistry

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

Glossary

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

Case Narrative

Client: TRC Environmental Corporation.
Project: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Job ID: 240-202716-1

Eurofins Cleveland

Job Narrative 240-202716-1

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

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

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

Receipt

The samples were received on 4/12/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.8°C, 2.0°C and 2.2°C.

Metals

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

General Chemistry

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

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Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	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
7470A	Preparation, Mercury	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 River Rouge Power Plant

Job ID: 240-202716-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-202716-1	MW-16-01	Water	04/10/24 08:20	04/12/24 08:00
240-202716-2	MW-16-02	Water	04/10/24 09:19	04/12/24 08:00
240-202716-3	MW-16-03	Water	04/10/24 10:02	04/12/24 08:00
240-202716-4	MW-17-17	Water	04/10/24 10:52	04/12/24 08:00
240-202716-5	MW-17-16	Water	04/10/24 12:05	04/12/24 08:00
240-202716-6	MW-17-06	Water	04/10/24 13:57	04/12/24 08:00
240-202716-7	MW-17-07	Water	04/10/24 15:00	04/12/24 08:00
240-202716-8	DUP-01	Water	04/10/24 00:00	04/12/24 08:00

- 1
- 2
- 3
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- 13

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-202716-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	920		100	ug/L	1		6010D	Total Recoverable
Arsenic	10		5.0	ug/L	1		6020B	Total Recoverable
Barium	88		5.0	ug/L	1		6020B	Total Recoverable
Lithium	48		8.0	ug/L	1		6020B	Total Recoverable
Calcium	25000		1000	ug/L	1		6020B	Total Recoverable
Chloride	240		5.0	mg/L	5		9056A	Total/NA
Fluoride	0.58		0.050	mg/L	1		9056A	Total/NA
Sulfate	220		5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	720		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-02

Lab Sample ID: 240-202716-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	830		100	ug/L	1		6010D	Total Recoverable
Barium	150		5.0	ug/L	1		6020B	Total Recoverable
Lithium	53		8.0	ug/L	1		6020B	Total Recoverable
Calcium	220000		1000	ug/L	1		6020B	Total Recoverable
Chloride	44		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.28		0.050	mg/L	1		9056A	Total/NA
Sulfate	550		5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	1200		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-03

Lab Sample ID: 240-202716-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	220		100	ug/L	1		6010D	Total Recoverable
Barium	44		5.0	ug/L	1		6020B	Total Recoverable
Lithium	11		8.0	ug/L	1		6020B	Total Recoverable
Calcium	70000		1000	ug/L	1		6020B	Total Recoverable
Chloride	46		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.34		0.050	mg/L	1		9056A	Total/NA
Sulfate	2.5		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	360		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-17

Lab Sample ID: 240-202716-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	480		100	ug/L	1		6010D	Total Recoverable
Barium	59		5.0	ug/L	1		6020B	Total Recoverable
Lithium	12		8.0	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-17 (Continued)

Lab Sample ID: 240-202716-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Calcium	78000		1000	ug/L	1		6020B	Total Recoverable
Chloride	50		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.61		0.050	mg/L	1		9056A	Total/NA
Sulfate	14		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	450		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-16

Lab Sample ID: 240-202716-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	330		100	ug/L	1		6010D	Total Recoverable
Arsenic	54		5.0	ug/L	1		6020B	Total Recoverable
Barium	130		5.0	ug/L	1		6020B	Total Recoverable
Lithium	48		8.0	ug/L	1		6020B	Total Recoverable
Calcium	95000		1000	ug/L	1		6020B	Total Recoverable
Chloride	50		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.83		0.050	mg/L	1		9056A	Total/NA
Sulfate	120		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	470		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-06

Lab Sample ID: 240-202716-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	490		100	ug/L	1		6010D	Total Recoverable
Arsenic	10		5.0	ug/L	1		6020B	Total Recoverable
Barium	140		5.0	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	ug/L	1		6020B	Total Recoverable
Lithium	27		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	7.5		5.0	ug/L	1		6020B	Total Recoverable
Calcium	310000		1000	ug/L	1		6020B	Total Recoverable
Chloride	740		5.0	mg/L	5		9056A	Total/NA
Fluoride	0.28		0.25	mg/L	5		9056A	Total/NA
Sulfate	530		5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	2400		40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-07

Lab Sample ID: 240-202716-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	590		100	ug/L	1		6010D	Total Recoverable
Arsenic	18		5.0	ug/L	1		6020B	Total Recoverable
Barium	30		5.0	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-07 (Continued)

Lab Sample ID: 240-202716-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	6.8		1.0	ug/L	1		6020B	Total Recoverable
Lithium	29		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	12		5.0	ug/L	1		6020B	Total Recoverable
Calcium	440000		1000	ug/L	1		6020B	Total Recoverable
Chloride	2300		25	mg/L	25		9056A	Total/NA
Fluoride	0.32		0.25	mg/L	5		9056A	Total/NA
Sulfate	1400		25	mg/L	25		9056A	Total/NA
Total Dissolved Solids	6100		50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01

Lab Sample ID: 240-202716-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	900		100	ug/L	1		6010D	Total Recoverable
Arsenic	10		5.0	ug/L	1		6020B	Total Recoverable
Barium	87		5.0	ug/L	1		6020B	Total Recoverable
Lithium	47		8.0	ug/L	1		6020B	Total Recoverable
Calcium	25000		1000	ug/L	1		6020B	Total Recoverable
Chloride	230		10	mg/L	10		9056A	Total/NA
Fluoride	0.57		0.050	mg/L	1		9056A	Total/NA
Sulfate	220		10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	710		10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-202716-1

Date Collected: 04/10/24 08:20

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	920		100	ug/L		04/16/24 14:00	04/17/24 11:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Arsenic	10		5.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Barium	88		5.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Cobalt	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Lithium	48		8.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Molybdenum	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:17	1
Calcium	25000		1000	ug/L		04/16/24 14:00	04/17/24 12:17	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	240		5.0	mg/L			04/19/24 11:59	5
Fluoride (SW846 9056A)	0.58		0.050	mg/L			04/19/24 11:37	1
Sulfate (SW846 9056A)	220		5.0	mg/L			04/19/24 11:59	5
Total Dissolved Solids (SM 2540C)	720		10	mg/L			04/17/24 09:25	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-16-02

Lab Sample ID: 240-202716-2

Date Collected: 04/10/24 09:19

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	830		100	ug/L		04/16/24 14:00	04/17/24 11:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Arsenic	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Barium	150		5.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Cobalt	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Lithium	53		8.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Molybdenum	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:19	1
Calcium	220000		1000	ug/L		04/16/24 14:00	04/17/24 12:19	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 10:56	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	44		1.0	mg/L			04/19/24 12:20	1
Fluoride (SW846 9056A)	0.28		0.050	mg/L			04/19/24 12:20	1
Sulfate (SW846 9056A)	550		5.0	mg/L			04/19/24 12:42	5
Total Dissolved Solids (SM 2540C)	1200		20	mg/L			04/17/24 09:25	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-16-03

Lab Sample ID: 240-202716-3

Date Collected: 04/10/24 10:02

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	220		100	ug/L		04/16/24 14:00	04/17/24 11:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Arsenic	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Barium	44		5.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Cobalt	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Lithium	11		8.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Molybdenum	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:21	1
Calcium	70000		1000	ug/L		04/16/24 14:00	04/17/24 12:21	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	46		1.0	mg/L			04/19/24 13:04	1
Fluoride (SW846 9056A)	0.34		0.050	mg/L			04/19/24 13:04	1
Sulfate (SW846 9056A)	2.5		1.0	mg/L			04/19/24 13:04	1
Total Dissolved Solids (SM 2540C)	360		10	mg/L			04/17/24 09:25	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-17

Lab Sample ID: 240-202716-4

Date Collected: 04/10/24 10:52

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	480		100	ug/L		04/16/24 14:00	04/17/24 11:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Arsenic	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Barium	59		5.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Cobalt	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Lithium	12		8.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Molybdenum	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:24	1
Calcium	78000		1000	ug/L		04/16/24 14:00	04/17/24 12:24	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	50		1.0	mg/L			04/19/24 13:26	1
Fluoride (SW846 9056A)	0.61		0.050	mg/L			04/19/24 13:26	1
Sulfate (SW846 9056A)	14		1.0	mg/L			04/19/24 13:26	1
Total Dissolved Solids (SM 2540C)	450		20	mg/L			04/17/24 09:25	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-16

Lab Sample ID: 240-202716-5

Date Collected: 04/10/24 12:05

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	330		100	ug/L		04/16/24 14:00	04/17/24 12:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Arsenic	54		5.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Barium	130		5.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Cobalt	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Lithium	48		8.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Molybdenum	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:26	1
Calcium	95000		1000	ug/L		04/16/24 14:00	04/17/24 12:26	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:26	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 11:04	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	50		1.0	mg/L			04/18/24 23:19	1
Fluoride (SW846 9056A)	0.83		0.050	mg/L			04/18/24 23:19	1
Sulfate (SW846 9056A)	120		1.0	mg/L			04/18/24 23:19	1
Total Dissolved Solids (SM 2540C)	470		10	mg/L			04/17/24 09:25	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-06

Lab Sample ID: 240-202716-6

Date Collected: 04/10/24 13:57

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	490		100	ug/L		04/16/24 14:00	04/17/24 12:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Arsenic	10		5.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Barium	140		5.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Cobalt	1.2		1.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Lithium	27		8.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Molybdenum	7.5		5.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:34	1
Calcium	310000		1000	ug/L		04/16/24 14:00	04/17/24 12:34	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 11:06	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	740		5.0	mg/L			04/19/24 14:52	5
Fluoride (SW846 9056A)	0.28		0.25	mg/L			04/19/24 14:52	5
Sulfate (SW846 9056A)	530		5.0	mg/L			04/19/24 14:52	5
Total Dissolved Solids (SM 2540C)	2400		40	mg/L			04/17/24 11:04	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-07

Lab Sample ID: 240-202716-7

Date Collected: 04/10/24 15:00

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	590		100	ug/L		04/16/24 14:00	04/17/24 12:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Arsenic	18		5.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Barium	30		5.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Cobalt	6.8		1.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Lithium	29		8.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Molybdenum	12		5.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:36	1
Calcium	440000		1000	ug/L		04/16/24 14:00	04/17/24 12:36	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:36	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	2300		25	mg/L			04/19/24 16:41	25
Fluoride (SW846 9056A)	0.32		0.25	mg/L			04/19/24 16:19	5
Sulfate (SW846 9056A)	1400		25	mg/L			04/19/24 16:41	25
Total Dissolved Solids (SM 2540C)	6100		50	mg/L			04/17/24 11:04	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: DUP-01

Lab Sample ID: 240-202716-8

Date Collected: 04/10/24 00:00

Matrix: Water

Date Received: 04/12/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	900		100	ug/L		04/16/24 14:00	04/17/24 12:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Arsenic	10		5.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Barium	87		5.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Cobalt	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Lithium	47		8.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Molybdenum	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:39	1
Calcium	25000		1000	ug/L		04/16/24 14:00	04/17/24 12:39	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 12:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	230		10	mg/L			04/18/24 22:46	10
Fluoride (SW846 9056A)	0.57		0.050	mg/L			04/21/24 13:56	1
Sulfate (SW846 9056A)	220		10	mg/L			04/18/24 22:46	10
Total Dissolved Solids (SM 2540C)	710		10	mg/L			04/17/24 09:25	1

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-609755/1-A
Matrix: Water
Analysis Batch: 609923

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609755

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	ug/L		04/16/24 14:00	04/17/24 10:07	1

Lab Sample ID: LCS 240-609755/2-A
Matrix: Water
Analysis Batch: 609923

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609755

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

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-609755/1-A
Matrix: Water
Analysis Batch: 609946

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609755

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U	2.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Arsenic	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Barium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Beryllium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Cadmium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Chromium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Cobalt	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Lithium	8.0	U	8.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Molybdenum	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Selenium	5.0	U	5.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Thallium	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 11:35	1
Calcium	1000	U	1000	ug/L		04/16/24 14:00	04/17/24 11:35	1
Lead	1.0	U	1.0	ug/L		04/16/24 14:00	04/17/24 11:35	1

Lab Sample ID: LCS 240-609755/3-A
Matrix: Water
Analysis Batch: 609946

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609755

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	89.0		ug/L		89	80 - 120
Arsenic	1000	904		ug/L		90	80 - 120
Barium	1000	890		ug/L		89	80 - 120
Beryllium	500	451		ug/L		90	80 - 120
Cadmium	500	455		ug/L		91	80 - 120
Chromium	500	469		ug/L		94	80 - 120
Cobalt	500	468		ug/L		94	80 - 120
Lithium	500	469		ug/L		94	80 - 120
Molybdenum	500	455		ug/L		91	80 - 120
Selenium	1000	885		ug/L		88	80 - 120
Thallium	1000	907		ug/L		91	80 - 120
Calcium	25000	23300		ug/L		93	80 - 120
Lead	500	454		ug/L		91	80 - 120

QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-609759/1-A
Matrix: Water
Analysis Batch: 609911

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609759

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Mercury	0.20	U	0.20	ug/L		04/16/24 14:00	04/17/24 10:20	1

Lab Sample ID: LCS 240-609759/2-A
Matrix: Water
Analysis Batch: 609911

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609759

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Mercury	5.00	5.37		ug/L		107	80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-609981/3
Matrix: Water
Analysis Batch: 609981

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

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	1.0	U	1.0	mg/L			04/18/24 22:35	1
Fluoride	0.050	U	0.050	mg/L			04/18/24 22:35	1
Sulfate	1.0	U	1.0	mg/L			04/18/24 22:35	1

Lab Sample ID: LCS 240-609981/4
Matrix: Water
Analysis Batch: 609981

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chloride	50.0	50.4		mg/L		101	90 - 110
Fluoride	2.50	2.62		mg/L		105	90 - 110
Sulfate	50.0	51.7		mg/L		103	90 - 110

Lab Sample ID: 240-202716-5 MS
Matrix: Water
Analysis Batch: 609981

Client Sample ID: MW-17-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Chloride	50		50.0	102		mg/L		104	80 - 120
Fluoride	0.83		2.50	3.57		mg/L		110	80 - 120
Sulfate	120		50.0	167		mg/L		102	80 - 120

Lab Sample ID: 240-202716-5 MSD
Matrix: Water
Analysis Batch: 609981

Client Sample ID: MW-17-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec Limits	RPD	
				Result	Qualifier					RPD	Limit
Chloride	50		50.0	103		mg/L		106	80 - 120	1	15
Fluoride	0.83		2.50	3.63		mg/L		112	80 - 120	2	15
Sulfate	120		50.0	167		mg/L		104	80 - 120	1	15

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

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

Lab Sample ID: MB 240-610123/3
Matrix: Water
Analysis Batch: 610123

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

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	1.0	U	1.0	mg/L			04/18/24 13:43	1
Sulfate	1.0	U	1.0	mg/L			04/18/24 13:43	1

Lab Sample ID: LCS 240-610123/4
Matrix: Water
Analysis Batch: 610123

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chloride	50.0	50.3		mg/L		101	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

Lab Sample ID: MB 240-610291/3
Matrix: Water
Analysis Batch: 610291

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

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	1.0	U	1.0	mg/L			04/21/24 03:48	1
Fluoride	0.050	U	0.050	mg/L			04/21/24 03:48	1
Sulfate	1.0	U	1.0	mg/L			04/21/24 03:48	1

Lab Sample ID: LCS 240-610291/4
Matrix: Water
Analysis Batch: 610291

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chloride	50.0	49.9		mg/L		100	90 - 110
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	51.0		mg/L		102	90 - 110

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

Lab Sample ID: MB 240-609887/1
Matrix: Water
Analysis Batch: 609887

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

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Dissolved Solids	10	U	10	mg/L			04/17/24 09:25	1

Lab Sample ID: LCS 240-609887/2
Matrix: Water
Analysis Batch: 609887

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Total Dissolved Solids	505	482		mg/L		95	80 - 120

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

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

Lab Sample ID: 240-202716-1 DU
Matrix: Water
Analysis Batch: 609887

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	720		716		mg/L		0.8	20

Lab Sample ID: MB 240-609905/1
Matrix: Water
Analysis Batch: 609905

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	mg/L			04/17/24 11:04	1

Lab Sample ID: LCS 240-609905/2
Matrix: Water
Analysis Batch: 609905

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	505	489		mg/L		97	80 - 120

QC Association Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Metals

Prep Batch: 609755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total Recoverable	Water	3005A	
240-202716-2	MW-16-02	Total Recoverable	Water	3005A	
240-202716-3	MW-16-03	Total Recoverable	Water	3005A	
240-202716-4	MW-17-17	Total Recoverable	Water	3005A	
240-202716-5	MW-17-16	Total Recoverable	Water	3005A	
240-202716-6	MW-17-06	Total Recoverable	Water	3005A	
240-202716-7	MW-17-07	Total Recoverable	Water	3005A	
240-202716-8	DUP-01	Total Recoverable	Water	3005A	
MB 240-609755/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-609755/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-609755/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 609759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total/NA	Water	7470A	
240-202716-2	MW-16-02	Total/NA	Water	7470A	
240-202716-3	MW-16-03	Total/NA	Water	7470A	
240-202716-4	MW-17-17	Total/NA	Water	7470A	
240-202716-5	MW-17-16	Total/NA	Water	7470A	
240-202716-6	MW-17-06	Total/NA	Water	7470A	
240-202716-7	MW-17-07	Total/NA	Water	7470A	
240-202716-8	DUP-01	Total/NA	Water	7470A	
MB 240-609759/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-609759/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 609911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total/NA	Water	7470A	609759
240-202716-2	MW-16-02	Total/NA	Water	7470A	609759
240-202716-3	MW-16-03	Total/NA	Water	7470A	609759
240-202716-4	MW-17-17	Total/NA	Water	7470A	609759
240-202716-5	MW-17-16	Total/NA	Water	7470A	609759
240-202716-6	MW-17-06	Total/NA	Water	7470A	609759
240-202716-7	MW-17-07	Total/NA	Water	7470A	609759
240-202716-8	DUP-01	Total/NA	Water	7470A	609759
MB 240-609759/1-A	Method Blank	Total/NA	Water	7470A	609759
LCS 240-609759/2-A	Lab Control Sample	Total/NA	Water	7470A	609759

Analysis Batch: 609923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total Recoverable	Water	6010D	609755
240-202716-2	MW-16-02	Total Recoverable	Water	6010D	609755
240-202716-3	MW-16-03	Total Recoverable	Water	6010D	609755
240-202716-4	MW-17-17	Total Recoverable	Water	6010D	609755
240-202716-5	MW-17-16	Total Recoverable	Water	6010D	609755
240-202716-6	MW-17-06	Total Recoverable	Water	6010D	609755
240-202716-7	MW-17-07	Total Recoverable	Water	6010D	609755
240-202716-8	DUP-01	Total Recoverable	Water	6010D	609755
MB 240-609755/1-A	Method Blank	Total Recoverable	Water	6010D	609755
LCS 240-609755/2-A	Lab Control Sample	Total Recoverable	Water	6010D	609755

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Metals

Analysis Batch: 609946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total Recoverable	Water	6020B	609755
240-202716-2	MW-16-02	Total Recoverable	Water	6020B	609755
240-202716-3	MW-16-03	Total Recoverable	Water	6020B	609755
240-202716-4	MW-17-17	Total Recoverable	Water	6020B	609755
240-202716-5	MW-17-16	Total Recoverable	Water	6020B	609755
240-202716-6	MW-17-06	Total Recoverable	Water	6020B	609755
240-202716-7	MW-17-07	Total Recoverable	Water	6020B	609755
240-202716-8	DUP-01	Total Recoverable	Water	6020B	609755
MB 240-609755/1-A	Method Blank	Total Recoverable	Water	6020B	609755
LCS 240-609755/3-A	Lab Control Sample	Total Recoverable	Water	6020B	609755

General Chemistry

Analysis Batch: 609887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total/NA	Water	SM 2540C	
240-202716-2	MW-16-02	Total/NA	Water	SM 2540C	
240-202716-3	MW-16-03	Total/NA	Water	SM 2540C	
240-202716-4	MW-17-17	Total/NA	Water	SM 2540C	
240-202716-5	MW-17-16	Total/NA	Water	SM 2540C	
240-202716-8	DUP-01	Total/NA	Water	SM 2540C	
MB 240-609887/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-609887/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-202716-1 DU	MW-16-01	Total/NA	Water	SM 2540C	

Analysis Batch: 609905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-6	MW-17-06	Total/NA	Water	SM 2540C	
240-202716-7	MW-17-07	Total/NA	Water	SM 2540C	
MB 240-609905/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-609905/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 609981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total/NA	Water	9056A	
240-202716-1	MW-16-01	Total/NA	Water	9056A	
240-202716-2	MW-16-02	Total/NA	Water	9056A	
240-202716-2	MW-16-02	Total/NA	Water	9056A	
240-202716-3	MW-16-03	Total/NA	Water	9056A	
240-202716-4	MW-17-17	Total/NA	Water	9056A	
240-202716-5	MW-17-16	Total/NA	Water	9056A	
240-202716-6	MW-17-06	Total/NA	Water	9056A	
240-202716-7	MW-17-07	Total/NA	Water	9056A	
240-202716-7	MW-17-07	Total/NA	Water	9056A	
MB 240-609981/3	Method Blank	Total/NA	Water	9056A	
LCS 240-609981/4	Lab Control Sample	Total/NA	Water	9056A	
240-202716-5 MS	MW-17-16	Total/NA	Water	9056A	
240-202716-5 MSD	MW-17-16	Total/NA	Water	9056A	

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

General Chemistry

Analysis Batch: 610123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-8	DUP-01	Total/NA	Water	9056A	
MB 240-610123/3	Method Blank	Total/NA	Water	9056A	
LCS 240-610123/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 610291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-8	DUP-01	Total/NA	Water	9056A	
MB 240-610291/3	Method Blank	Total/NA	Water	9056A	
LCS 240-610291/4	Lab Control Sample	Total/NA	Water	9056A	



Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-202716-1

Date Collected: 04/10/24 08:20

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 11:44
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:17
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 10:54
Total/NA	Analysis	9056A		1	609981	JWW	EET CLE	04/19/24 11:37
Total/NA	Analysis	9056A		5	609981	JWW	EET CLE	04/19/24 11:59
Total/NA	Analysis	SM 2540C		1	609887	UWU2	EET CLE	04/17/24 09:25

Client Sample ID: MW-16-02

Lab Sample ID: 240-202716-2

Date Collected: 04/10/24 09:19

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 11:48
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:19
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 10:56
Total/NA	Analysis	9056A		1	609981	JWW	EET CLE	04/19/24 12:20
Total/NA	Analysis	9056A		5	609981	JWW	EET CLE	04/19/24 12:42
Total/NA	Analysis	SM 2540C		1	609887	UWU2	EET CLE	04/17/24 09:25

Client Sample ID: MW-16-03

Lab Sample ID: 240-202716-3

Date Collected: 04/10/24 10:02

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 11:53
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:21
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 10:59
Total/NA	Analysis	9056A		1	609981	JWW	EET CLE	04/19/24 13:04
Total/NA	Analysis	SM 2540C		1	609887	UWU2	EET CLE	04/17/24 09:25

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-17

Lab Sample ID: 240-202716-4

Date Collected: 04/10/24 10:52

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 11:57
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:24
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 11:01
Total/NA	Analysis	9056A		1	609981	JWW	EET CLE	04/19/24 13:26
Total/NA	Analysis	SM 2540C		1	609887	UWU2	EET CLE	04/17/24 09:25

Client Sample ID: MW-17-16

Lab Sample ID: 240-202716-5

Date Collected: 04/10/24 12:05

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 12:01
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:26
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 11:04
Total/NA	Analysis	9056A		1	609981	JWW	EET CLE	04/18/24 23:19
Total/NA	Analysis	SM 2540C		1	609887	UWU2	EET CLE	04/17/24 09:25

Client Sample ID: MW-17-06

Lab Sample ID: 240-202716-6

Date Collected: 04/10/24 13:57

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 12:15
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:34
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 11:06
Total/NA	Analysis	9056A		5	609981	JWW	EET CLE	04/19/24 14:52
Total/NA	Analysis	SM 2540C		1	609905	UWU2	EET CLE	04/17/24 11:04

Client Sample ID: MW-17-07

Lab Sample ID: 240-202716-7

Date Collected: 04/10/24 15:00

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 12:20

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Client Sample ID: MW-17-07

Lab Sample ID: 240-202716-7

Date Collected: 04/10/24 15:00

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:36
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 11:09
Total/NA	Analysis	9056A		5	609981	JWW	EET CLE	04/19/24 16:19
Total/NA	Analysis	9056A		25	609981	JWW	EET CLE	04/19/24 16:41
Total/NA	Analysis	SM 2540C		1	609905	UWU2	EET CLE	04/17/24 11:04

Client Sample ID: DUP-01

Lab Sample ID: 240-202716-8

Date Collected: 04/10/24 00:00

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6010D		1	609923	KLC	EET CLE	04/17/24 12:24
Total Recoverable	Prep	3005A			609755	BN	EET CLE	04/16/24 14:00
Total Recoverable	Analysis	6020B		1	609946	RKT	EET CLE	04/17/24 12:39
Total/NA	Prep	7470A			609759	BN	EET CLE	04/16/24 14:00
Total/NA	Analysis	7470A		1	609911	S4FJ	EET CLE	04/17/24 11:11
Total/NA	Analysis	9056A		1	610291	JWW	EET CLE	04/21/24 13:56
Total/NA	Analysis	9056A		10	610123	JWW	EET CLE	04/18/24 22:46
Total/NA	Analysis	SM 2540C		1	609887	UWU2	EET CLE	04/17/24 09:25

Laboratory References:

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

Accreditation/Certification Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Client Information		Sampler: <u>A. Whaley</u>		Lab PM: <u>Brooks, Kris M</u>		Carrier Tracking No(s):		COC No: <u>240-119327-41693.1</u>												
Client Contact: <u>Chris Scieszka Vince Buewing</u>		Phone: <u>734-210-9239</u>		E-Mail: <u>Kris.Brooks@et.eurofinsus.com</u>		State of Origin: <u>MI</u>		Page: <u>Page 1 of 1</u>												
Company: <u>TRC Environmental Corporation.</u>		PWSID:		Analysis Requested						Job #:										
Address: <u>1540 Eisenhower Place</u>		Due Date Requested: <u>Standard</u>		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Field Filled Sample (Yes or No)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Perform MS/MSD (Yes or No)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">2540C_Calcd - TDS</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">9056A_28D - Chloride, Fluoride and Sulfate</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">6010D_6020B</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">9315_Ra226 - Standard Target List</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">9320_Ra228 - Standard Target List</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">6020B_7470A</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn</td> </tr> </table>						Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate	6010D_6020B	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B_7470A	6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn	Preservation Codes:	
Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate							6010D_6020B	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B_7470A	6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn						
City: <u>Ann Arbor</u>		TAT Requested (days): <u>Standard</u>								A - HCL		M - Hexane								
State, Zip: <u>MI, 48108-7080</u>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								B - NaOH		N - None								
Phone: <u>243-974-7000(Tel) 313-974-9022(Fax)</u>		PO #: <u>214275</u>								C - Zn Acetate		O - AsNaO2								
Email: <u>C.Scieszka@trccompanies.com</u>		WO #: <u>548728-0005 553931.0005</u>		D - Nitric Acid		P - Na2O4S														
Project Name: <u>CCR DTE River Rouge Power Plant 553931.0005</u>		Project #: <u>24016806</u>		E - NaHSO4		Q - Na2SO3														
Site: <u>Michigan</u>		SSOW#:		F - MeOH		R - Na2S2O3														
				G - Amchlor		S - H2SO4														
				H - Ascorbic Acid		T - TSP Dodecahydrate														
				I - Ice		U - Acetone														
				J - DI Water		V - MCAA														
				K - EDTA		W - pH 4-5														
				L - EDA		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 Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate	6010D_6020B	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B_7470A	6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn	Total Number of Containers	Special Instructions/Remarks:																																																																																																																																																																																				
Preservation Code: N N D D D D																																																																																																																																																																																																				
MW-16-01	4/10/24	0820	G	Water	Water	N	N	X	X	X	X	X	X	X	6	240-202716 Chain of Custody																																																																																																																																																																																				
MW-16-02	4/10/24	0919	G	Water	Water	N	N	X	X	X	X	X	X	X	6																																																																																																																																																																																					
MW-16-03	4/10/24	1002	G	Water	Water	N	N	X	X	X	X	X	X	X	6																																																																																																																																																																																					
MW-17-17	4/10/24	1052	G	Water	Water	N	N	X	X	X	X	X	X	X	6																																																																																																																																																																																					
MW-17-16	4/10/24	1205	G	Water	Water	N	N	X	X	X	X	X	X	X	6																																																																																																																																																																																					
MW-17-06	4/10/24	1357	G	Water	Water	N	N	X	X	X	X	X	X	X	6																																																																																																																																																																																					
MW-17-07	4/10/24	1500	G	Water	Water	N	N	X	X	X	X	X	X	X	6																																																																																																																																																																																					
DUP-01	4/10/24	-	G	Water	Water	N	N	X	X	X	X	X	X	X	6																																																																																																																																																																																					
																			---	--	--------------------------------	--	-----------------------------	--	---------------------------------	--	--	---------------------------------	--	--	-----------------------------	-----------	--	--	--		Possible Hazard Identification								Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)										<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological								<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										Deliverable Requested: I, II, III, IV, Other (specify) <u>TRC EDD</u>								Special Instructions/QC Requirements:										Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:										Relinquished by: <u>[Signature]</u>		Date/Time: <u>4/11/24 0730</u>		Company: <u>TRC</u>		Received by: <u>[Signature]</u>			Date/Time: <u>4/11/24 130</u>			Company: <u>[Signature]</u>						Relinquished by: <u>[Signature]</u>		Date/Time: <u>4/11/24 1330</u>		Company: <u>[Signature]</u>		Received by: <u>J. MONISKO</u>			Date/Time: <u>04/12/24 0800</u>			Company: <u>ETWC</u>						Relinquished by:		Date/Time:		Company:		Received by:			Date/Time:			Company:						Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Page 30 of 33				Cooler Temperature(s) °C and Other Remarks:					4/22/2024																				


Eurofins - Cleveland Sample Receipt Form/Narrative Login # _____
 Barberon Facility

Client TFC Site Name _____ Cooler unpacked by J MORSKO
 Cooler Received on 04/12/24 Opened on 04/12/24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other
 Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # FEC Foam Box Client Cooler Box Other _____
 Packing material used Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: W/ Ice Blue Ice Dry Ice Water None
 1 Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN # 18 (CF 1-00 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

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

- 2 Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
 - 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 NA
 - 3 Shippers' packing slip attached to the cooler(s)? Yes No NA
 - 4 Did custody papers accompany the sample(s)? Yes No NA
 - 5 Were the custody papers relinquished & signed in the appropriate place? Yes No NA
 - 6 Was/were the person(s) who collected the samples clearly identified on the COC? Yes No NA
 - 7 Did all bottles arrive in good condition (Unbroken)? Yes No NA
 - 8 Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No NA
 - 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 NA
 - 11 Sufficient quantity received to perform indicated analyses? Yes No NA
 - 12 Are these work share samples and all listed on the COC? Yes No NA
 - 13 Were all preserved sample(s) at the correct pH upon receipt? Yes No NA
 - 14 Were VOAs on the COC? Yes No NA
 - 15 Were air bubbles >6 mm in any VOA vials? Yes No NA
 - 16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
 - 17 Was a LL Hg or Me Hg trip blank present? Yes No NA
- 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 _____

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

Login # _____

Eurofins Cleveland 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 #: _____	2.2	2.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	2.0	2.0	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	1.8	1.8	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

Temperature readings

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservation Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
MW-16-01	240-202716-A-1	Plastic 60 mL unpreserved				
MW 16-01	240-202716 B 1	Plastic 500ml - unpreserved				
MW-16-01	240-202716-C-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-01	240-202716-D-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-01	240-202716-E-1	Plastic 1 liter - Nitric Acid	<2			
MW 16-01	240-202716-F 1	Plastic 1 liter - Nitric Acid	<2			
MW-16-02	240-202716-A 2	Plastic 60 mL - unpreserved				
MW-16-02	240-202716-B-2	Plastic 500ml - unpreserved				
MW-16-02	240-202716-C-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-02	240-202716-D-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-02	240-202716-E-2	Plastic 1 liter - Nitric Acid	<2			
MW 16-02	240-202716-F 2	Plastic 1 liter - Nitric Acid	<2			
MW-16-03	240-202716-A-3	Plastic 60 mL unpreserved				
MW-16-03	240-202716-B-3	Plastic 500ml - unpreserved				
MW-16-03	240-202716-C-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-03	240-202716-D-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-03	240-202716-E-3	Plastic 1 liter - Nitric Acid	<2			
MW 16-03	240-202716-F 3	Plastic 1 liter - Nitric Acid	<2			
MW-17-17	240-202716-A-4	Plastic 60 mL - unpreserved				
MW 17 17	240-202716-B-4	Plastic 500ml - unpreserved				
MW-17-17	240-202716-C-4	Plastic 500ml with Nitric Acid	<2			
MW 17 17	240-202716-D-4	Plastic 500ml - with Nitric Acid	<2			
MW-17-17	240-202716-E-4	Plastic 1 liter Nitric Acid	<2			
MW-17 17	240-202716-F-4	Plastic 1 liter - Nitric Acid	<2			
MW-17-16	240-202716-A-5	Plastic 60 mL unpreserved				
MW 17 16	240-202716-B-5	Plastic 500ml - unpreserved				
MW-17-16	240-202716-C-5	Plastic 500ml with Nitric Acid	<2			
MW-17-16	240 202716-D-5	Plastic 500ml - with Nitric Acid	<2			
MW-17-16	240-202716 E-5	Plastic 1 liter Nitric Acid	<2			
MW 17 16	240-202716 F-5	Plastic 1 liter - Nitric Acid	<2			
MW-17-06	240-202716-A-6	Plastic 60 mL unpreserved				
MW 17-06	240-202716 B-6	Plastic 500ml unpreserved				
MW-17-06	240-202716-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-17-06	240-202716-D-6	Plastic 500ml with Nitric Acid	<2			
MW 17-06	240 202716 E-6	Plastic 1 liter - Nitric Acid	<2			



ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/15/2024 7:18:12 PM

JOB DESCRIPTION

CCR DTE River Rouge Power Plant

JOB NUMBER

240-202716-2

Eurofins Cleveland

Job Notes

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

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

Authorization



Generated
5/15/2024 7:18:12 PM

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



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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Job ID: 240-202716-2

Eurofins Cleveland

Job Narrative 240-202716-2

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

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

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

Receipt

The samples were received on 4/12/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.8°C, 2.0°C and 2.2°C.

Gas Flow Proportional Counter

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

Rad

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

Eurofins Cleveland

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-202716-1	MW-16-01	Water	04/10/24 08:20	04/12/24 08:00
240-202716-2	MW-16-02	Water	04/10/24 09:19	04/12/24 08:00
240-202716-3	MW-16-03	Water	04/10/24 10:02	04/12/24 08:00
240-202716-4	MW-17-17	Water	04/10/24 10:52	04/12/24 08:00
240-202716-5	MW-17-16	Water	04/10/24 12:05	04/12/24 08:00
240-202716-6	MW-17-06	Water	04/10/24 13:57	04/12/24 08:00
240-202716-7	MW-17-07	Water	04/10/24 15:00	04/12/24 08:00
240-202716-8	DUP-01	Water	04/10/24 00:00	04/12/24 08:00

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Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-16-01	Lab Sample ID: 240-202716-1
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-16-02	Lab Sample ID: 240-202716-2
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-16-03	Lab Sample ID: 240-202716-3
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-17-17	Lab Sample ID: 240-202716-4
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-17-16	Lab Sample ID: 240-202716-5
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-17-06	Lab Sample ID: 240-202716-6
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-17-07	Lab Sample ID: 240-202716-7
<input type="checkbox"/> No Detections.	
Client Sample ID: DUP-01	Lab Sample ID: 240-202716-8
<input type="checkbox"/> No Detections.	

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-16-01

Lab Sample ID: 240-202716-1

Date Collected: 04/10/24 08:20

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0832	U	0.0667	0.0671	1.00	0.0944	pCi/L	04/16/24 08:31	05/15/24 09:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					04/16/24 08:31	05/15/24 09:43	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.593		0.357	0.361	1.00	0.510	pCi/L	04/16/24 08:37	05/07/24 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					04/16/24 08:37	05/07/24 12:00	1
Y Carrier	81.5		30 - 110					04/16/24 08:37	05/07/24 12:00	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.676		0.363	0.367	5.00	0.510	pCi/L		05/15/24 14:59	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-16-02

Lab Sample ID: 240-202716-2

Date Collected: 04/10/24 09:19

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.532		0.140	0.148	1.00	0.105	pCi/L	04/16/24 08:31	05/15/24 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.5		30 - 110					04/16/24 08:31	05/15/24 09:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.18		0.436	0.449	1.00	0.530	pCi/L	04/16/24 08:37	05/07/24 12:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.5		30 - 110					04/16/24 08:37	05/07/24 12:01	1
Y Carrier	88.2		30 - 110					04/16/24 08:37	05/07/24 12:01	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.71		0.458	0.473	5.00	0.530	pCi/L		05/15/24 14:59	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-16-03

Lab Sample ID: 240-202716-3

Date Collected: 04/10/24 10:02

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.821		0.201	0.214	1.00	0.129	pCi/L	04/16/24 08:31	05/15/24 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		30 - 110					04/16/24 08:31	05/15/24 09:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.19		0.598	0.608	1.00	0.835	pCi/L	04/16/24 08:37	05/07/24 12:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		30 - 110					04/16/24 08:37	05/07/24 12:01	1
Y Carrier	89.3		30 - 110					04/16/24 08:37	05/07/24 12:01	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.01		0.631	0.645	5.00	0.835	pCi/L		05/15/24 14:59	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-17-17

Lab Sample ID: 240-202716-4

Date Collected: 04/10/24 10:52

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.315		0.132	0.135	1.00	0.138	pCi/L	04/16/24 08:31	05/15/24 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110					04/16/24 08:31	05/15/24 09:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.568	U	0.507	0.510	1.00	0.804	pCi/L	04/16/24 08:37	05/07/24 12:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110					04/16/24 08:37	05/07/24 12:01	1
Y Carrier	86.0		30 - 110					04/16/24 08:37	05/07/24 12:01	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.883		0.524	0.528	5.00	0.804	pCi/L		05/15/24 14:59	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-17-16

Lab Sample ID: 240-202716-5

Date Collected: 04/10/24 12:05

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.364		0.131	0.135	1.00	0.118	pCi/L	04/16/24 08:31	05/15/24 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		30 - 110					04/16/24 08:31	05/15/24 09:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.90		0.558	0.585	1.00	0.615	pCi/L	04/16/24 08:37	05/07/24 12:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		30 - 110					04/16/24 08:37	05/07/24 12:01	1
Y Carrier	89.0		30 - 110					04/16/24 08:37	05/07/24 12:01	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.26		0.573	0.600	5.00	0.615	pCi/L		05/15/24 14:59	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-17-06

Lab Sample ID: 240-202716-6

Date Collected: 04/10/24 13:57

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.991		0.192	0.211	1.00	0.118	pCi/L	04/16/24 08:31	05/15/24 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110					04/16/24 08:31	05/15/24 09:57	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.59		0.592	0.638	1.00	0.550	pCi/L	04/16/24 08:37	05/07/24 12:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110					04/16/24 08:37	05/07/24 12:01	1
Y Carrier	83.0		30 - 110					04/16/24 08:37	05/07/24 12:01	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.58		0.622	0.672	5.00	0.550	pCi/L		05/15/24 14:59	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-17-07

Lab Sample ID: 240-202716-7

Date Collected: 04/10/24 15:00

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.373		0.140	0.144	1.00	0.145	pCi/L	04/16/24 08:31	05/15/24 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		30 - 110					04/16/24 08:31	05/15/24 09:57	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.959		0.443	0.452	1.00	0.587	pCi/L	04/16/24 08:37	05/07/24 12:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		30 - 110					04/16/24 08:37	05/07/24 12:01	1
Y Carrier	90.5		30 - 110					04/16/24 08:37	05/07/24 12:01	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.33		0.465	0.474	5.00	0.587	pCi/L		05/15/24 14:59	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: DUP-01

Lab Sample ID: 240-202716-8

Date Collected: 04/10/24 00:00

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0479	U	0.117	0.117	1.00	0.214	pCi/L	04/16/24 08:31	05/15/24 09:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		30 - 110					04/16/24 08:31	05/15/24 09:57	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.248	U	0.509	0.509	1.00	0.885	pCi/L	04/16/24 08:37	05/07/24 12:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		30 - 110					04/16/24 08:37	05/07/24 12:01	1
Y Carrier	89.0		30 - 110					04/16/24 08:37	05/07/24 12:01	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.296	U	0.522	0.522	5.00	0.885	pCi/L		05/15/24 14:59	1

Tracer/Carrier Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-202716-1	MW-16-01	88.8	
240-202716-2	MW-16-02	82.5	
240-202716-3	MW-16-03	78.2	
240-202716-4	MW-17-17	87.8	
240-202716-5	MW-17-16	96.2	
240-202716-6	MW-17-06	82.0	
240-202716-7	MW-17-07	98.2	
240-202716-8	DUP-01	72.1	
LCS 160-657074/2-A	Lab Control Sample	96.2	
MB 160-657074/1-A	Method Blank	99.7	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-202716-1	MW-16-01	88.8	81.5
240-202716-2	MW-16-02	82.5	88.2
240-202716-3	MW-16-03	78.2	89.3
240-202716-4	MW-17-17	87.8	86.0
240-202716-5	MW-17-16	96.2	89.0
240-202716-6	MW-17-06	82.0	83.0
240-202716-7	MW-17-07	98.2	90.5
240-202716-8	DUP-01	72.1	89.0
LCS 160-657075/2-A	Lab Control Sample	96.2	86.7
MB 160-657075/1-A	Method Blank	99.7	87.1
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-657074/1-A
Matrix: Water
Analysis Batch: 661816

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657074

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02701	U	0.0626	0.0627	1.00	0.114	pCi/L	04/16/24 08:31	05/15/24 07:40	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	99.7		30 - 110			04/16/24 08:31	05/15/24 07:40	1		

Lab Sample ID: LCS 160-657074/2-A
Matrix: Water
Analysis Batch: 661816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657074

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.04		1.15	1.00	0.111	pCi/L	97	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	96.2		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-657075/1-A
Matrix: Water
Analysis Batch: 660411

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657075

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3043	U	0.266	0.267	1.00	0.414	pCi/L	04/16/24 08:37	05/07/24 11:56	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	99.7		30 - 110			04/16/24 08:37	05/07/24 11:56	1		
Y Carrier	87.1		30 - 110			04/16/24 08:37	05/07/24 11:56	1		

Lab Sample ID: LCS 160-657075/2-A
Matrix: Water
Analysis Batch: 660411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657075

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	8.96	8.009		1.12	1.00	0.467	pCi/L	89	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	96.2		30 - 110						
Y Carrier	86.7		30 - 110						

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Rad

Prep Batch: 657074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total/NA	Water	PrecSep-21	
240-202716-2	MW-16-02	Total/NA	Water	PrecSep-21	
240-202716-3	MW-16-03	Total/NA	Water	PrecSep-21	
240-202716-4	MW-17-17	Total/NA	Water	PrecSep-21	
240-202716-5	MW-17-16	Total/NA	Water	PrecSep-21	
240-202716-6	MW-17-06	Total/NA	Water	PrecSep-21	
240-202716-7	MW-17-07	Total/NA	Water	PrecSep-21	
240-202716-8	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-657074/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-657074/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 657075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202716-1	MW-16-01	Total/NA	Water	PrecSep_0	
240-202716-2	MW-16-02	Total/NA	Water	PrecSep_0	
240-202716-3	MW-16-03	Total/NA	Water	PrecSep_0	
240-202716-4	MW-17-17	Total/NA	Water	PrecSep_0	
240-202716-5	MW-17-16	Total/NA	Water	PrecSep_0	
240-202716-6	MW-17-06	Total/NA	Water	PrecSep_0	
240-202716-7	MW-17-07	Total/NA	Water	PrecSep_0	
240-202716-8	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-657075/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-657075/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-16-01
Date Collected: 04/10/24 08:20
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202716-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 09:43
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Client Sample ID: MW-16-02
Date Collected: 04/10/24 09:19
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202716-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 09:44
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Client Sample ID: MW-16-03
Date Collected: 04/10/24 10:02
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202716-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 09:44
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Client Sample ID: MW-17-17
Date Collected: 04/10/24 10:52
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202716-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 09:44
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Client Sample ID: MW-17-16

Lab Sample ID: 240-202716-5

Date Collected: 04/10/24 12:05

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 09:44
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Client Sample ID: MW-17-06

Lab Sample ID: 240-202716-6

Date Collected: 04/10/24 13:57

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661817	SWS	EET SL	05/15/24 09:57
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Client Sample ID: MW-17-07

Lab Sample ID: 240-202716-7

Date Collected: 04/10/24 15:00

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661817	SWS	EET SL	05/15/24 09:57
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Client Sample ID: DUP-01

Lab Sample ID: 240-202716-8

Date Collected: 04/10/24 00:00

Matrix: Water

Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			657074	MLT	EET SL	04/16/24 08:31
Total/NA	Analysis	9315		1	661817	SWS	EET SL	05/15/24 09:57
Total/NA	Prep	PrecSep_0			657075	MLT	EET SL	04/16/24 08:37
Total/NA	Analysis	9320		1	660394	MLK	EET SL	05/07/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	661852	FLC	EET SL	05/15/24 14:59

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-202716-2

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

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

Client Information		Sampler: <i>A. Whaley</i>		Lab PM: Brooks, Kris M		Carrier Tracking No(s):		COC No: 240-119327-41693.1																																																																																																																																																																																																																																																											
Client Contact: <i>Chris Seieszka Vince Buewing</i>		Phone: <i>734-210-9239</i>		E-Mail: Kris.Brooks@et.eurofinsus.com		State of Origin: <i>MI</i>		Page: Page 1 of 1																																																																																																																																																																																																																																																											
Company: TRC Environmental Corporation.		PWSID:		Analysis Requested						Job #:																																																																																																																																																																																																																																																									
Address: 1540 Eisenhower Place		Due Date Requested: <i>Standard</i>		<table border="1"> <tr> <td>Field Filled Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>2540C_Calcd - TDS</td> <td>9056A_28D - Chloride, Fluoride and Sulfate</td> <td>6010D_6020B</td> <td>9315_Ra226 - Standard Target List</td> <td>9320_Ra228 - Standard Target List</td> <td>6020B_7470A</td> <td>6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn</td> <td rowspan="6">Total Number of Containers</td> </tr> <tr> <td>City: Ann Arbor</td> <td>TAT Requested (days): <i>Standard</i></td> <td>Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td>PO #: 214275</td> <td>WO #: <i>548728-0005 553931.0005</i></td> <td>Project #: 24016806</td> <td>SSOW#:</td> <td>Preservation Codes:</td> </tr> <tr> <td>State, Zip: MI, 48108-7080</td> <td>Phone: 243-974-7000(Tel) 313-974-9022(Fax)</td> <td>Email: <i>CSeieszka@trccompanies.com VBuewing@trccompanies.com</i></td> <td>Site: Michigan</td> <td colspan="2">Project Name: CCR DTE River Rouge Power Plant <i>553931.0005</i></td> <td colspan="2">Other:</td> </tr> <tr> <td colspan="2">Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)</td> <td colspan="2">Preservation Code:</td> <td colspan="2">Special Instructions/Remarks:</td> </tr> <tr> <td colspan="2">Sample Identification</td> <td>Sample Date</td> <td>Sample Time</td> <td>Sample Type (C=comp, G=grab)</td> <td colspan="2">Matrix</td> <td colspan="2">Field Filled Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>2540C_Calcd - TDS</td> <td>9056A_28D - Chloride, Fluoride and Sulfate</td> <td>6010D_6020B</td> <td>9315_Ra226 - Standard Target List</td> <td>9320_Ra228 - Standard Target List</td> <td>6020B_7470A</td> <td>6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn</td> <td>Total Number of Containers</td> </tr> <tr> <td colspan="2">MW-16-01</td> <td>4/10/24</td> <td>0820</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">MW-16-02</td> <td>4/10/24</td> <td>0919</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">MW-16-03</td> <td>4/10/24</td> <td>1002</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">MW-17-17</td> <td>4/10/24</td> <td>1052</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">MW-17-16</td> <td>4/10/24</td> <td>1205</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">MW-17-06</td> <td>4/10/24</td> <td>1357</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">MW-17-07</td> <td>4/10/24</td> <td>1500</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">Dup-01</td> <td>4/10/24</td> <td>-</td> <td>G</td> <td>Water</td> <td>NN</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>XX</td> <td>6</td> </tr> <tr> <td colspan="2">Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2">Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2">Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate	6010D_6020B	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B_7470A	6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn	Total Number of Containers	City: Ann Arbor	TAT Requested (days): <i>Standard</i>	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	PO #: 214275	WO #: <i>548728-0005 553931.0005</i>	Project #: 24016806	SSOW#:	Preservation Codes:	State, Zip: MI, 48108-7080	Phone: 243-974-7000(Tel) 313-974-9022(Fax)	Email: <i>CSeieszka@trccompanies.com VBuewing@trccompanies.com</i>	Site: Michigan	Project Name: CCR DTE River Rouge Power Plant <i>553931.0005</i>		Other:		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:		Special Instructions/Remarks:		Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix		Field Filled Sample (Yes or No)		Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate	6010D_6020B	9315_Ra226 - Standard Target List	9320_Ra228 - 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Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate							6010D_6020B	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B_7470A	6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn	Total Number of Containers																																																																																																																																																																																																																																																				
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MW-17-06		4/10/24	1357	G	Water	NN	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	6																																																																																																																																																																																																																																																		
MW-17-07		4/10/24	1500	G	Water	NN	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	6																																																																																																																																																																																																																																																		
Dup-01		4/10/24	-	G	Water	NN	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	6																																																																																																																																																																																																																																																		
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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: <i>[Signature]</i>	Date/Time: <i>4/11/24 0730</i>	Company: <i>TRC</i>	Received by: <i>[Signature]</i>	Date/Time: <i>4/11/24 1130</i>	Company: <i>[Signature]</i>		
Relinquished by: <i>[Signature]</i>	Date/Time: <i>4/11/24 1330</i>	Company: <i>[Signature]</i>	Received by: <i>J. MONISKO</i>	Date/Time: <i>04/12/24 0800</i>	Company: <i>ETWC</i>		
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:		

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Eurofins - Cleveland Sample Receipt Form/Narrative Login # _____
 Barberon Facility

Client TFC Site Name _____ Cooler unpacked by J MORSKO

Cooler Received on 04/12/24 Opened on 04/12/24
 FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____
 Eurofins Cooler # FC Foam Box Client Cooler Box Other _____

Packing material used Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: W/Ice Blue Ice Dry Ice Water None _____

1 Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN # 18 (CF 1-00 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2 Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
 -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 NA

Were tamper/custody seals intact and uncompromised? Yes No NA

3 Shippers' packing slip attached to the cooler(s)? Yes No NA

4 Did custody papers accompany the sample(s)? Yes No NA

5 Were the custody papers relinquished & signed in the appropriate place? Yes No NA

6 Was/were the person(s) who collected the samples clearly identified on the COC? Yes No NA

7 Did all bottles arrive in good condition (Unbroken)? Yes No NA

8 Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No NA

9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No NA

10 Were correct bottle(s) used for the test(s) indicated? Yes No NA

11 Sufficient quantity received to perform indicated analyses? Yes No NA

12 Are these work share samples and all listed on the COC? Yes No NA

13 Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC329089

14 Were VOAs on the COC? Yes No NA

15 Were air bubbles >6 mm in any VOA vials? Yes No NA

16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA

17 Was a LL Hg or Mc Hg trip blank present? Yes No NA

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 _____

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

Login # _____

Eurofins - Cleveland - 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 #: 18	2.2	2.2	Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: 18	2.0	2.0	Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: 18	7.8	7.8	Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice

See Temperature Excursion Form

Temperature readings

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservation Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
MW-16-01	240-202716-A-1	Plastic 60 mL unpreserved	<2			
MW 16-01	240-202716 B 1	Plastic 500ml - unpreserved	<2			
MW-16-01	240-202716-C-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-01	240-202716-D-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-01	240-202716-E-1	Plastic 1 liter - Nitric Acid	<2			
MW 16-01	240-202716-F 1	Plastic 1 liter - Nitric Acid	<2			
MW-16-02	240-202716-A 2	Plastic 60 mL - unpreserved	<2			
MW-16-02	240-202716-B-2	Plastic 500ml - unpreserved	<2			
MW-16-02	240-202716-C-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-02	240-202716-D-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-02	240-202716-E-2	Plastic 1 liter - Nitric Acid	<2			
MW 16-02	240-202716-F 2	Plastic 1 liter - Nitric Acid	<2			
MW-16-03	240-202716-A-3	Plastic 60 mL unpreserved	<2			
MW-16-03	240-202716-B-3	Plastic 500ml - unpreserved	<2			
MW-16-03	240-202716-C-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-03	240-202716-D-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-03	240-202716-E-3	Plastic 1 liter - Nitric Acid	<2			
MW 16-03	240-202716-F 3	Plastic 1 liter - Nitric Acid	<2			
MW-17-17	240-202716-A-4	Plastic 60 mL - unpreserved	<2			
MW 17 17	240-202716-B-4	Plastic 500ml - unpreserved	<2			
MW-17-17	240-202716-C-4	Plastic 500ml with Nitric Acid	<2			
MW 17 17	240-202716-D-4	Plastic 500ml - with Nitric Acid	<2			
MW-17-17	240-202716-E-4	Plastic 1 liter Nitric Acid	<2			
MW-17 17	240-202716-F-4	Plastic 1 liter - Nitric Acid	<2			
MW-17-16	240-202716-A-5	Plastic 60 mL unpreserved	<2			
MW 17 16	240-202716-B-5	Plastic 500ml - unpreserved	<2			
MW-17-16	240-202716-C-5	Plastic 500ml with Nitric Acid	<2			
MW-17-16	240 202716-D-5	Plastic 500ml - with Nitric Acid	<2			
MW-17-16	240-202716 E-5	Plastic 1 liter Nitric Acid	<2			
MW 17 16	240-202716 F-5	Plastic 1 liter - Nitric Acid	<2			
MW-17-06	240-202716-A-6	Plastic 60 mL unpreserved	<2			
MW 17-06	240-202716 B-6	Plastic 500ml unpreserved	<2			
MW-17-06	240-202716-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-17-06	240-202716-D-6	Plastic 500ml with Nitric Acid	<2			
MW 17-06	240 202716 E-6	Plastic 1 liter - Nitric Acid	<2			

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Brooks, Kris M	Carrier Tracking No(s): 240-183134-1
Client Contact: Shipping/Receiving		E-Mail: Kris.Brooks@et.eurofins.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		State of Origin: Michigan	Job #: 240-202716-2
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-6566(Tel) 314-298-8757(Fax) Email:		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 Other: M - Hexane N - None O - AsNaO2 P - Na2OHS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Due Date Requested: 5/15/2024 TAT Requested (days):		Analysis Requested	
PO #: WO #: Project #: CCR DTE River Rouge Power Plant SSOW#:		9315_Ra226/Presep_21 Standard Target List 9320_Ra226/Presep_0 Standard Target List Ra226Ra228_GFPc	
Sample Date		Field Filtered Sample (Yes or No)	
Sample Time		Perform MS/MSD (Yes or No)	
Sample Type (C=Comp, G=grab)		Total Number of Containers	
Matrix (W=water, S=solid, O=water/oli, BT=Issue, A=Air)		Special Instructions/Note:	
MW-16-01 (240-202716-1)	4/10/24 08:20 Eastern	Water	2
MW-16-02 (240-202716-2)	4/10/24 09:19 Eastern	Water	2
MW-16-03 (240-202716-3)	4/10/24 10:02 Eastern	Water	2
MW-17-17 (240-202716-4)	4/10/24 10:52 Eastern	Water	2
MW-17-16 (240-202716-5)	4/10/24 12:05 Eastern	Water	2
MW-17-06 (240-202716-6)	4/10/24 13:57 Eastern	Water	2
MW-17-07 (240-202716-7)	4/10/24 15:00 Eastern	Water	2
DUP-01 (240-202716-8)	4/10/24 Eastern	Water	2

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

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:

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____

Received by: **Richard Thornley** Date/Time: **APR 16 2024 07:50** Company: **CH2SL**
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: TRC Environmental Corporation.

Job Number: 240-202716-2

Login Number: 202716

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 04/15/24 11:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/8/2024 3:41:10 PM Revision 1

JOB DESCRIPTION

CCR DTE River Rouge Power Plant

JOB NUMBER

240-213203-1

Eurofins Cleveland

Job Notes

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

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

Authorization



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

Generated
11/8/2024 3:41:10 PM
Revision 1



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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

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
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: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Job ID: 240-213203-1

Eurofins Cleveland

Job Narrative 240-213203-1

REVISION

The report being provided is a revision of the original report sent on 11/2/2024. The report (revision 1) is being revised due to update sample ID from MW-16-042 to MW-16-04S. Cancel test for MW-17-08, MW-12-12, MW-17-13, and MW17-19. Add part 115 metals to sample 1 through 11.

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

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

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

Receipt

The samples were received on 10/17/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.9°C, 3.5°C and 4.2°C.

Metals

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

General Chemistry

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

Eurofins Cleveland

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

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 River Rouge Power Plant

Job ID: 240-213203-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213203-1	MW-16-04S	Water	10/15/24 13:04	10/17/24 08:00
240-213203-2	MW-17-05	Water	10/15/24 07:15	10/17/24 08:00
240-213203-3	MW-17-08	Water	10/14/24 11:31	10/17/24 08:00
240-213203-4	MW-17-12	Water	10/15/24 08:03	10/17/24 08:00
240-213203-5	MW-17-13	Water	10/15/24 09:40	10/17/24 08:00
240-213203-6	MW-17-14	Water	10/15/24 10:45	10/17/24 08:00
240-213203-7	MW-17-15	Water	10/15/24 12:18	10/17/24 08:00
240-213203-8	MW-17-18	Water	10/15/24 13:38	10/17/24 08:00
240-213203-9	MW-17-19	Water	10/14/24 13:05	10/17/24 08:00
240-213203-10	MW-17-20	Water	10/14/24 14:07	10/17/24 08:00
240-213203-11	DUP-02	Water	10/14/24 00:00	10/17/24 08:00

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Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-16-04S

Lab Sample ID: 240-213203-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	700		100	ug/L	1		6010D	Total Recoverable
Barium	110		5.0	ug/L	1		6020B	Total Recoverable
Calcium	170000		1000	ug/L	1		6020B	Total Recoverable
Lithium	21		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	21		5.0	ug/L	1		6020B	Total Recoverable
Chloride	88		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.60		0.050	mg/L	1		9056A	Total/NA
Sulfate	430		5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	840		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-05

Lab Sample ID: 240-213203-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	650		100	ug/L	1		6010D	Total Recoverable
Barium	150		5.0	ug/L	1		6020B	Total Recoverable
Calcium	340000		1000	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	ug/L	1		6020B	Total Recoverable
Lithium	42		8.0	ug/L	1		6020B	Total Recoverable
Chloride	680		10	mg/L	10		9056A	Total/NA
Fluoride	0.43		0.10	mg/L	2		9056A	Total/NA
Sulfate	600		10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	2200		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-08

Lab Sample ID: 240-213203-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	260		100	ug/L	1		6010D	Total Recoverable
Barium	150		5.0	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	ug/L	1		6020B	Total Recoverable
Lithium	10		8.0	ug/L	1		6020B	Total Recoverable
Chloride	120		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.54		0.050	mg/L	1		9056A	Total/NA
Sulfate	57		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	620		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-12

Lab Sample ID: 240-213203-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	260		100	ug/L	1		6010D	Total Recoverable
Arsenic	7.3		5.0	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-12 (Continued)

Lab Sample ID: 240-213203-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	310		5.0	ug/L	1		6020B	Total Recoverable
Calcium	150000		1000	ug/L	1		6020B	Total Recoverable
Lithium	11		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	25		5.0	ug/L	1		6020B	Total Recoverable
Chloride	700		10	mg/L	10		9056A	Total/NA
Fluoride	0.97		0.050	mg/L	1		9056A	Total/NA
Sulfate	89		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1500		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-13

Lab Sample ID: 240-213203-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	ug/L	1		6010D	Total Recoverable
Barium	150		5.0	ug/L	1		6020B	Total Recoverable
Calcium	220000		1000	ug/L	1		6020B	Total Recoverable
Lithium	11		8.0	ug/L	1		6020B	Total Recoverable
Chloride	620		10	mg/L	10		9056A	Total/NA
Fluoride	0.53		0.050	mg/L	1		9056A	Total/NA
Sulfate	51		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1500		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-14

Lab Sample ID: 240-213203-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	610		100	ug/L	1		6010D	Total Recoverable
Barium	650		5.0	ug/L	1		6020B	Total Recoverable
Calcium	180000		1000	ug/L	1		6020B	Total Recoverable
Lithium	24		8.0	ug/L	1		6020B	Total Recoverable
Chloride	540		10	mg/L	10		9056A	Total/NA
Fluoride	0.74		0.050	mg/L	1		9056A	Total/NA
Sulfate	130		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1200		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-15

Lab Sample ID: 240-213203-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	950		100	ug/L	1		6010D	Total Recoverable
Arsenic	22		5.0	ug/L	1		6020B	Total Recoverable
Barium	300		5.0	ug/L	1		6020B	Total Recoverable
Calcium	150000		1000	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-15 (Continued)

Lab Sample ID: 240-213203-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	45		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	19		5.0	ug/L	1		6020B	Total Recoverable
Chloride	290		5.0	mg/L	5		9056A	Total/NA
Fluoride	0.92		0.050	mg/L	1		9056A	Total/NA
Sulfate	260		5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	1000		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-18

Lab Sample ID: 240-213203-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	ug/L	1		6010D	Total Recoverable
Barium	120		5.0	ug/L	1		6020B	Total Recoverable
Calcium	210000		1000	ug/L	1		6020B	Total Recoverable
Lithium	17		8.0	ug/L	1		6020B	Total Recoverable
Chloride	480		10	mg/L	10		9056A	Total/NA
Fluoride	0.38		0.050	mg/L	1		9056A	Total/NA
Sulfate	130		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1400		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-19

Lab Sample ID: 240-213203-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	940		100	ug/L	1		6010D	Total Recoverable
Barium	14		5.0	ug/L	1		6020B	Total Recoverable
Calcium	260000		1000	ug/L	1		6020B	Total Recoverable
Lithium	41		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	6.2		5.0	ug/L	1		6020B	Total Recoverable
Chloride	240		10	mg/L	10		9056A	Total/NA
Fluoride	0.45		0.050	mg/L	1		9056A	Total/NA
Sulfate	1400		10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	1800		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-20

Lab Sample ID: 240-213203-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	460		100	ug/L	1		6010D	Total Recoverable
Barium	160		5.0	ug/L	1		6020B	Total Recoverable
Calcium	400000		1000	ug/L	1		6020B	Total Recoverable
Lithium	32		8.0	ug/L	1		6020B	Total Recoverable
Chloride	1400		20	mg/L	20		9056A	Total/NA
Fluoride	0.36		0.10	mg/L	2		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-20 (Continued)

Lab Sample ID: 240-213203-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	330		2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	3100		40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-02

Lab Sample ID: 240-213203-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	260		100	ug/L	1		6010D	Total Recoverable
Barium	150		5.0	ug/L	1		6020B	Total Recoverable
Calcium	110000		1000	ug/L	1		6020B	Total Recoverable
Lithium	10		8.0	ug/L	1		6020B	Total Recoverable
Chloride	120		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.54		0.050	mg/L	1		9056A	Total/NA
Sulfate	57		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	710		10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-16-04S

Lab Sample ID: 240-213203-1

Date Collected: 10/15/24 13:04

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	700		100	ug/L		10/18/24 14:00	10/22/24 17:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 13:53	1
Barium	110		5.0	ug/L		10/18/24 14:00	10/20/24 13:53	1
Calcium	170000		1000	ug/L		10/18/24 14:00	10/20/24 13:53	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 13:53	1
Lithium	21		8.0	ug/L		10/18/24 14:00	10/20/24 13:53	1
Molybdenum	21		5.0	ug/L		10/18/24 14:00	10/20/24 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	88		1.0	mg/L			10/28/24 19:43	1
Fluoride (SW846 9056A)	0.60		0.050	mg/L			10/28/24 19:43	1
Sulfate (SW846 9056A)	430		5.0	mg/L			10/28/24 20:03	5
Total Dissolved Solids (SM 2540C)	840		10	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-05

Lab Sample ID: 240-213203-2

Date Collected: 10/15/24 07:15

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	650		100	ug/L		10/18/24 14:00	10/22/24 18:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:06	1
Barium	150		5.0	ug/L		10/18/24 14:00	10/20/24 14:06	1
Calcium	340000		1000	ug/L		10/18/24 14:00	10/20/24 14:06	1
Cobalt	1.2		1.0	ug/L		10/18/24 14:00	10/20/24 14:06	1
Lithium	42		8.0	ug/L		10/18/24 14:00	10/20/24 14:06	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	680		10	mg/L			10/28/24 20:43	10
Fluoride (SW846 9056A)	0.43		0.10	mg/L			10/28/24 20:23	2
Sulfate (SW846 9056A)	600		10	mg/L			10/28/24 20:43	10
Total Dissolved Solids (SM 2540C)	2200		20	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-08

Lab Sample ID: 240-213203-3

Date Collected: 10/14/24 11:31

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	260		100	ug/L		10/18/24 14:00	10/22/24 18:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:11	1
Barium	150		5.0	ug/L		10/18/24 14:00	10/20/24 14:11	1
Calcium	100000		1000	ug/L		10/18/24 14:00	10/20/24 14:11	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:11	1
Lithium	10		8.0	ug/L		10/18/24 14:00	10/20/24 14:11	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:11	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	120		1.0	mg/L			10/28/24 21:02	1
Fluoride (SW846 9056A)	0.54		0.050	mg/L			10/28/24 21:02	1
Sulfate (SW846 9056A)	57		1.0	mg/L			10/28/24 21:02	1
Total Dissolved Solids (SM 2540C)	620		10	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-12

Lab Sample ID: 240-213203-4

Date Collected: 10/15/24 08:03

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	260		100	ug/L		10/18/24 14:00	10/22/24 18:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.3		5.0	ug/L		10/18/24 14:00	10/20/24 14:19	1
Barium	310		5.0	ug/L		10/18/24 14:00	10/20/24 14:19	1
Calcium	150000		1000	ug/L		10/18/24 14:00	10/20/24 14:19	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:19	1
Lithium	11		8.0	ug/L		10/18/24 14:00	10/20/24 14:19	1
Molybdenum	25		5.0	ug/L		10/18/24 14:00	10/20/24 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	700		10	mg/L			10/28/24 22:41	10
Fluoride (SW846 9056A)	0.97		0.050	mg/L			10/28/24 22:21	1
Sulfate (SW846 9056A)	89		1.0	mg/L			10/28/24 22:21	1
Total Dissolved Solids (SM 2540C)	1500		20	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-13

Lab Sample ID: 240-213203-5

Date Collected: 10/15/24 09:40

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	ug/L		10/18/24 14:00	10/22/24 18:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:22	1
Barium	150		5.0	ug/L		10/18/24 14:00	10/20/24 14:22	1
Calcium	220000		1000	ug/L		10/18/24 14:00	10/20/24 14:22	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:22	1
Lithium	11		8.0	ug/L		10/18/24 14:00	10/20/24 14:22	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	620		10	mg/L			10/28/24 23:20	10
Fluoride (SW846 9056A)	0.53		0.050	mg/L			10/28/24 23:01	1
Sulfate (SW846 9056A)	51		1.0	mg/L			10/28/24 23:01	1
Total Dissolved Solids (SM 2540C)	1500		20	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-14

Lab Sample ID: 240-213203-6

Date Collected: 10/15/24 10:45

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	610		100	ug/L		10/18/24 14:00	10/22/24 18:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:24	1
Barium	650		5.0	ug/L		10/18/24 14:00	10/20/24 14:24	1
Calcium	180000		1000	ug/L		10/18/24 14:00	10/20/24 14:24	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:24	1
Lithium	24		8.0	ug/L		10/18/24 14:00	10/20/24 14:24	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	540		10	mg/L			10/29/24 00:00	10
Fluoride (SW846 9056A)	0.74		0.050	mg/L			10/28/24 23:40	1
Sulfate (SW846 9056A)	130		1.0	mg/L			10/28/24 23:40	1
Total Dissolved Solids (SM 2540C)	1200		20	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-15

Lab Sample ID: 240-213203-7

Date Collected: 10/15/24 12:18

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	950		100	ug/L		10/18/24 14:00	10/22/24 18:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	22		5.0	ug/L		10/18/24 14:00	10/20/24 14:27	1
Barium	300		5.0	ug/L		10/18/24 14:00	10/20/24 14:27	1
Calcium	150000		1000	ug/L		10/18/24 14:00	10/20/24 14:27	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:27	1
Lithium	45		8.0	ug/L		10/18/24 14:00	10/20/24 14:27	1
Molybdenum	19		5.0	ug/L		10/18/24 14:00	10/20/24 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	290		5.0	mg/L			10/29/24 00:39	5
Fluoride (SW846 9056A)	0.92		0.050	mg/L			10/29/24 00:19	1
Sulfate (SW846 9056A)	260		5.0	mg/L			10/29/24 00:39	5
Total Dissolved Solids (SM 2540C)	1000		20	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-18

Lab Sample ID: 240-213203-8

Date Collected: 10/15/24 13:38

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	300		100	ug/L		10/18/24 14:00	10/22/24 18:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:30	1
Barium	120		5.0	ug/L		10/18/24 14:00	10/20/24 14:30	1
Calcium	210000		1000	ug/L		10/18/24 14:00	10/20/24 14:30	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:30	1
Lithium	17		8.0	ug/L		10/18/24 14:00	10/20/24 14:30	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	480		10	mg/L			10/29/24 01:58	10
Fluoride (SW846 9056A)	0.38		0.050	mg/L			10/29/24 00:59	1
Sulfate (SW846 9056A)	130		1.0	mg/L			10/29/24 00:59	1
Total Dissolved Solids (SM 2540C)	1400		20	mg/L			10/18/24 12:13	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-19

Lab Sample ID: 240-213203-9

Date Collected: 10/14/24 13:05

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	940		100	ug/L		10/18/24 14:00	10/22/24 18:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:32	1
Barium	14		5.0	ug/L		10/18/24 14:00	10/20/24 14:32	1
Calcium	260000		1000	ug/L		10/18/24 14:00	10/20/24 14:32	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:32	1
Lithium	41		8.0	ug/L		10/18/24 14:00	10/20/24 14:32	1
Molybdenum	6.2		5.0	ug/L		10/18/24 14:00	10/20/24 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	240		10	mg/L			10/29/24 02:38	10
Fluoride (SW846 9056A)	0.45		0.050	mg/L			10/29/24 02:18	1
Sulfate (SW846 9056A)	1400		10	mg/L			10/29/24 02:38	10
Total Dissolved Solids (SM 2540C)	1800		20	mg/L			10/18/24 08:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-20

Lab Sample ID: 240-213203-10

Date Collected: 10/14/24 14:07

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	460		100	ug/L		10/18/24 14:00	10/22/24 19:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:35	1
Barium	160		5.0	ug/L		10/18/24 14:00	10/20/24 14:35	1
Calcium	400000		1000	ug/L		10/18/24 14:00	10/20/24 14:35	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:35	1
Lithium	32		8.0	ug/L		10/18/24 14:00	10/20/24 14:35	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1400		20	mg/L			10/29/24 04:16	20
Fluoride (SW846 9056A)	0.36		0.10	mg/L			10/29/24 03:56	2
Sulfate (SW846 9056A)	330		2.0	mg/L			10/29/24 03:56	2
Total Dissolved Solids (SM 2540C)	3100		40	mg/L			10/18/24 08:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: DUP-02

Lab Sample ID: 240-213203-11

Date Collected: 10/14/24 00:00

Matrix: Water

Date Received: 10/17/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	260		100	ug/L		10/18/24 14:00	10/22/24 19:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:38	1
Barium	150		5.0	ug/L		10/18/24 14:00	10/20/24 14:38	1
Calcium	110000		1000	ug/L		10/18/24 14:00	10/20/24 14:38	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 14:38	1
Lithium	10		8.0	ug/L		10/18/24 14:00	10/20/24 14:38	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	120		1.0	mg/L			10/29/24 04:36	1
Fluoride (SW846 9056A)	0.54		0.050	mg/L			10/29/24 04:36	1
Sulfate (SW846 9056A)	57		1.0	mg/L			10/29/24 04:36	1
Total Dissolved Solids (SM 2540C)	710		10	mg/L			10/18/24 08:10	1

QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-631450/1-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	ug/L		10/18/24 14:00	10/22/24 17:29	1

Lab Sample ID: LCS 240-631450/2-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	996		ug/L		100	80 - 120

Lab Sample ID: 240-213203-1 MS
Matrix: Water
Analysis Batch: 631995

Client Sample ID: MW-16-04S
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	700		1000	1740		ug/L		104	75 - 125

Lab Sample ID: 240-213203-1 MSD
Matrix: Water
Analysis Batch: 631995

Client Sample ID: MW-16-04S
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	700		1000	1700		ug/L		100	75 - 125	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631450/1-A
Matrix: Water
Analysis Batch: 631567

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 13:48	1
Barium	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 13:48	1
Calcium	1000	U	1000	ug/L		10/18/24 14:00	10/20/24 13:48	1
Cobalt	1.0	U	1.0	ug/L		10/18/24 14:00	10/20/24 13:48	1
Lithium	8.0	U	8.0	ug/L		10/18/24 14:00	10/20/24 13:48	1
Molybdenum	5.0	U	5.0	ug/L		10/18/24 14:00	10/20/24 13:48	1

Lab Sample ID: LCS 240-631450/3-A
Matrix: Water
Analysis Batch: 631567

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1000	989		ug/L		99	80 - 120
Barium	1000	985		ug/L		99	80 - 120
Calcium	25000	26000		ug/L		104	80 - 120
Cobalt	500	491		ug/L		98	80 - 120
Lithium	500	492		ug/L		98	80 - 120
Molybdenum	500	490		ug/L		98	80 - 120

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QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

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

Lab Sample ID: 240-213203-1 MS
Matrix: Water
Analysis Batch: 631567

Client Sample ID: MW-16-04S
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	5.0	U	1000	1050		ug/L		105		80 - 120
Barium	110		1000	1130		ug/L		102		80 - 120
Calcium	170000		25000	198000	4	ug/L		110		80 - 120
Cobalt	1.0	U	500	508		ug/L		102		80 - 120
Lithium	21		500	530		ug/L		102		80 - 120
Molybdenum	21		500	537		ug/L		103		80 - 120

Lab Sample ID: 240-213203-1 MSD
Matrix: Water
Analysis Batch: 631567

Client Sample ID: MW-16-04S
Prep Type: Total Recoverable
Prep Batch: 631450

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier								
Arsenic	5.0	U	1000	1030		ug/L		103		80 - 120	2		20
Barium	110		1000	1120		ug/L		101		80 - 120	1		20
Calcium	170000		25000	186000	4	ug/L		64		80 - 120	6		20
Cobalt	1.0	U	500	498		ug/L		100		80 - 120	2		20
Lithium	21		500	524		ug/L		101		80 - 120	1		20
Molybdenum	21		500	528		ug/L		101		80 - 120	2		20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-632814/3
Matrix: Water
Analysis Batch: 632814

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	1.0	U	1.0	mg/L			10/28/24 18:05	1
Fluoride	0.050	U	0.050	mg/L			10/28/24 18:05	1
Sulfate	1.0	U	1.0	mg/L			10/28/24 18:05	1

Lab Sample ID: LCS 240-632814/4
Matrix: Water
Analysis Batch: 632814

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Added	Result					
Chloride	50.0	48.8		mg/L		98		90 - 110
Fluoride	2.50	2.53		mg/L		101		90 - 110
Sulfate	50.0	50.7		mg/L		101		90 - 110

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

Lab Sample ID: MB 240-631393/1
Matrix: Water
Analysis Batch: 631393

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Dissolved Solids	10	U	10	mg/L			10/18/24 08:10	1

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QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

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

Lab Sample ID: LCS 240-631393/2
Matrix: Water
Analysis Batch: 631393

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	459		mg/L		93	80 - 120

Lab Sample ID: MB 240-631490/1
Matrix: Water
Analysis Batch: 631490

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	mg/L			10/18/24 12:13	1

Lab Sample ID: LCS 240-631490/2
Matrix: Water
Analysis Batch: 631490

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	451		mg/L		91	80 - 120

Lab Sample ID: 240-213203-2 DU
Matrix: Water
Analysis Batch: 631490

Client Sample ID: MW-17-05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2200		2390		mg/L		7	20

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Metals

Prep Batch: 631450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-1	MW-16-04S	Total Recoverable	Water	3005A	
240-213203-2	MW-17-05	Total Recoverable	Water	3005A	
240-213203-3	MW-17-08	Total Recoverable	Water	3005A	
240-213203-4	MW-17-12	Total Recoverable	Water	3005A	
240-213203-5	MW-17-13	Total Recoverable	Water	3005A	
240-213203-6	MW-17-14	Total Recoverable	Water	3005A	
240-213203-7	MW-17-15	Total Recoverable	Water	3005A	
240-213203-8	MW-17-18	Total Recoverable	Water	3005A	
240-213203-9	MW-17-19	Total Recoverable	Water	3005A	
240-213203-10	MW-17-20	Total Recoverable	Water	3005A	
240-213203-11	DUP-02	Total Recoverable	Water	3005A	
MB 240-631450/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631450/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-631450/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-213203-1 MS	MW-16-04S	Total Recoverable	Water	3005A	
240-213203-1 MS	MW-16-04S	Total Recoverable	Water	3005A	
240-213203-1 MSD	MW-16-04S	Total Recoverable	Water	3005A	
240-213203-1 MSD	MW-16-04S	Total Recoverable	Water	3005A	

Analysis Batch: 631567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-1	MW-16-04S	Total Recoverable	Water	6020B	631450
240-213203-2	MW-17-05	Total Recoverable	Water	6020B	631450
240-213203-3	MW-17-08	Total Recoverable	Water	6020B	631450
240-213203-4	MW-17-12	Total Recoverable	Water	6020B	631450
240-213203-5	MW-17-13	Total Recoverable	Water	6020B	631450
240-213203-6	MW-17-14	Total Recoverable	Water	6020B	631450
240-213203-7	MW-17-15	Total Recoverable	Water	6020B	631450
240-213203-8	MW-17-18	Total Recoverable	Water	6020B	631450
240-213203-9	MW-17-19	Total Recoverable	Water	6020B	631450
240-213203-10	MW-17-20	Total Recoverable	Water	6020B	631450
240-213203-11	DUP-02	Total Recoverable	Water	6020B	631450
MB 240-631450/1-A	Method Blank	Total Recoverable	Water	6020B	631450
LCS 240-631450/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631450
240-213203-1 MS	MW-16-04S	Total Recoverable	Water	6020B	631450
240-213203-1 MSD	MW-16-04S	Total Recoverable	Water	6020B	631450

Analysis Batch: 631995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-1	MW-16-04S	Total Recoverable	Water	6010D	631450
240-213203-2	MW-17-05	Total Recoverable	Water	6010D	631450
240-213203-3	MW-17-08	Total Recoverable	Water	6010D	631450
240-213203-4	MW-17-12	Total Recoverable	Water	6010D	631450
240-213203-5	MW-17-13	Total Recoverable	Water	6010D	631450
240-213203-6	MW-17-14	Total Recoverable	Water	6010D	631450
240-213203-7	MW-17-15	Total Recoverable	Water	6010D	631450
240-213203-8	MW-17-18	Total Recoverable	Water	6010D	631450
240-213203-9	MW-17-19	Total Recoverable	Water	6010D	631450
240-213203-10	MW-17-20	Total Recoverable	Water	6010D	631450
240-213203-11	DUP-02	Total Recoverable	Water	6010D	631450
MB 240-631450/1-A	Method Blank	Total Recoverable	Water	6010D	631450

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QC Association Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Metals (Continued)

Analysis Batch: 631995 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-631450/2-A	Lab Control Sample	Total Recoverable	Water	6010D	631450
240-213203-1 MS	MW-16-04S	Total Recoverable	Water	6010D	631450
240-213203-1 MSD	MW-16-04S	Total Recoverable	Water	6010D	631450

General Chemistry

Analysis Batch: 631393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-9	MW-17-19	Total/NA	Water	SM 2540C	
240-213203-10	MW-17-20	Total/NA	Water	SM 2540C	
240-213203-11	DUP-02	Total/NA	Water	SM 2540C	
MB 240-631393/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-631393/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 631490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-1	MW-16-04S	Total/NA	Water	SM 2540C	
240-213203-2	MW-17-05	Total/NA	Water	SM 2540C	
240-213203-3	MW-17-08	Total/NA	Water	SM 2540C	
240-213203-4	MW-17-12	Total/NA	Water	SM 2540C	
240-213203-5	MW-17-13	Total/NA	Water	SM 2540C	
240-213203-6	MW-17-14	Total/NA	Water	SM 2540C	
240-213203-7	MW-17-15	Total/NA	Water	SM 2540C	
240-213203-8	MW-17-18	Total/NA	Water	SM 2540C	
MB 240-631490/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-631490/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-213203-2 DU	MW-17-05	Total/NA	Water	SM 2540C	

Analysis Batch: 632814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-1	MW-16-04S	Total/NA	Water	9056A	
240-213203-1	MW-16-04S	Total/NA	Water	9056A	
240-213203-2	MW-17-05	Total/NA	Water	9056A	
240-213203-2	MW-17-05	Total/NA	Water	9056A	
240-213203-3	MW-17-08	Total/NA	Water	9056A	
240-213203-4	MW-17-12	Total/NA	Water	9056A	
240-213203-4	MW-17-12	Total/NA	Water	9056A	
240-213203-5	MW-17-13	Total/NA	Water	9056A	
240-213203-5	MW-17-13	Total/NA	Water	9056A	
240-213203-6	MW-17-14	Total/NA	Water	9056A	
240-213203-6	MW-17-14	Total/NA	Water	9056A	
240-213203-7	MW-17-15	Total/NA	Water	9056A	
240-213203-7	MW-17-15	Total/NA	Water	9056A	
240-213203-8	MW-17-18	Total/NA	Water	9056A	
240-213203-8	MW-17-18	Total/NA	Water	9056A	
240-213203-9	MW-17-19	Total/NA	Water	9056A	
240-213203-9	MW-17-19	Total/NA	Water	9056A	
240-213203-10	MW-17-20	Total/NA	Water	9056A	
240-213203-10	MW-17-20	Total/NA	Water	9056A	
240-213203-11	DUP-02	Total/NA	Water	9056A	
MB 240-632814/3	Method Blank	Total/NA	Water	9056A	

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QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

General Chemistry (Continued)

Analysis Batch: 632814 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-632814/4	Lab Control Sample	Total/NA	Water	9056A	

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

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-16-04S

Lab Sample ID: 240-213203-1

Date Collected: 10/15/24 13:04

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 17:37
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 13:53
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/28/24 19:43
Total/NA	Analysis	9056A		5	632814	JMR	EET CLE	10/28/24 20:03
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Client Sample ID: MW-17-05

Lab Sample ID: 240-213203-2

Date Collected: 10/15/24 07:15

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:06
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:06
Total/NA	Analysis	9056A		2	632814	JMR	EET CLE	10/28/24 20:23
Total/NA	Analysis	9056A		10	632814	JMR	EET CLE	10/28/24 20:43
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Client Sample ID: MW-17-08

Lab Sample ID: 240-213203-3

Date Collected: 10/14/24 11:31

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:23
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:11
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/28/24 21:02
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Client Sample ID: MW-17-12

Lab Sample ID: 240-213203-4

Date Collected: 10/15/24 08:03

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:27
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:19
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/28/24 22:21
Total/NA	Analysis	9056A		10	632814	JMR	EET CLE	10/28/24 22:41

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Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-12

Date Collected: 10/15/24 08:03

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Client Sample ID: MW-17-13

Date Collected: 10/15/24 09:40

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:32
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:22
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/28/24 23:01
Total/NA	Analysis	9056A		10	632814	JMR	EET CLE	10/28/24 23:20
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Client Sample ID: MW-17-14

Date Collected: 10/15/24 10:45

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:36
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:24
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/28/24 23:40
Total/NA	Analysis	9056A		10	632814	JMR	EET CLE	10/29/24 00:00
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Client Sample ID: MW-17-15

Date Collected: 10/15/24 12:18

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:49
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:27
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/29/24 00:19
Total/NA	Analysis	9056A		5	632814	JMR	EET CLE	10/29/24 00:39
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: MW-17-18

Date Collected: 10/15/24 13:38

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:53
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:30
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/29/24 00:59
Total/NA	Analysis	9056A		10	632814	JMR	EET CLE	10/29/24 01:58
Total/NA	Analysis	SM 2540C		1	631490	TAV2	EET CLE	10/18/24 12:13

Client Sample ID: MW-17-19

Date Collected: 10/14/24 13:05

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 18:57
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:32
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/29/24 02:18
Total/NA	Analysis	9056A		10	632814	JMR	EET CLE	10/29/24 02:38
Total/NA	Analysis	SM 2540C		1	631393	TAV2	EET CLE	10/18/24 08:10

Client Sample ID: MW-17-20

Date Collected: 10/14/24 14:07

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 19:01
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:35
Total/NA	Analysis	9056A		2	632814	JMR	EET CLE	10/29/24 03:56
Total/NA	Analysis	9056A		20	632814	JMR	EET CLE	10/29/24 04:16
Total/NA	Analysis	SM 2540C		1	631393	TAV2	EET CLE	10/18/24 08:10

Client Sample ID: DUP-02

Date Collected: 10/14/24 00:00

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 19:06
Total Recoverable	Prep	3005A			631450	XWS6	EET CLE	10/18/24 14:00
Total Recoverable	Analysis	6020B		1	631567	AJC	EET CLE	10/20/24 14:38
Total/NA	Analysis	9056A		1	632814	JMR	EET CLE	10/29/24 04:36

Eurofins Cleveland

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Client Sample ID: DUP-02

Date Collected: 10/14/24 00:00

Date Received: 10/17/24 08:00

Lab Sample ID: 240-213203-11

Matrix: Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Analysis	SM 2540C		1	631393	TAV2	EET CLE	10/18/24 08:10

Laboratory References:

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

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Accreditation/Certification Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Chain of Custody Record

Client Information		Sampler: <u>JACOB KRENZ</u>		Lab PM: Brooks, Kris M		Carrier Tracking No(s):		COC No: 240-125206-43681.1																			
Client Contact: Jacob Krenz		Phone: <u>334 904 3310</u>		E-Mail: Kris.Brooks@et.eurofinsus.com		State of Origin:		Page: Page 1 of 2																			
Company: TRC Environmental Corporation.		PWSID:		Analysis Requested						Job #:																	
Address: 1540 Eisenhower Place		Due Date Requested:		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>2540C_Calcd - TDS</td> <td>9056A_28D - Chloride, Fluoride and Sulfate</td> <td>6010B_Bo, 6020_Ca,As,Ba,Co,Li,Mo</td> <td>9315_Ra226 - Standard Target List</td> <td>9320_Ra228 - Standard Target List</td> <td>Total Number of containers</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate	6010B_Bo, 6020_Ca,As,Ba,Co,Li,Mo	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Total Number of containers									Preservation Codes: N - None D - HNO3	
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City: Ann Arbor		TAT Requested (days):								Other:																	
State, Zip: MI, 48108-7080		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																									
Phone: 313-971-7080(Tel) 313-971-9022(Fax)		PO #: <u>215200</u>		WO #: 605116 phase 1		Project #: 24016806		SSOW#:																			
Email: JKrenz@trccompanies.com		Project Name: CCR DTE River Rouge Power Plant		Site: Michigan		Special Instructions/Note:																					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Preservation Code:																	
										<table border="1"> <tr> <td>X</td> <td>X</td> <td>N</td> <td>N</td> <td>D</td> <td>D</td> <td>D</td> <td></td> <td></td> <td></td> </tr> </table>		X	X	N	N	D	D	D									
X	X	N	N	D	D	D																					
MW-16-04S		10/15/24		1304		G		Water		3 Nature & Extent																	
MW-17-05		10/15/24		0715		G		Water		3 Wells 17-08																	
MW-17-08		10/14/24		1131		G		Water		3 17-12, 17-13																	
MW-17-12		10/15/24		0823		G		Water		3 17-19 AS Held																	
MW-17-13		10/15/24		0940		G		Water		3 but Except																	
MW-17-14		10/15/24		1045		G		Water		3 Run TDS																	
MW-17-15		10/15/24		1218		G		Water		3 Dat Do not																	
MW-17-18		10/15/24		1338		G		Water		3 Re point																	
MW-17-19		10/14/24		1305		G		Water		3																	
MW-17-20		10/14/24		1407		G		Water		3																	
DUP-02		10/15/24		-		G		Water		3																	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																					
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:																					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																					
Relinquished by: <u>[Signature]</u>		Date/Time: 10/16/24 0500		Company: <u>TRC</u>		Received by: <u>[Signature]</u>		Date/Time: 10/16/24 1312		Company: <u>EFTA</u>																	
Relinquished by: <u>[Signature]</u>		Date/Time: 10/16/24 1312		Company: <u>EFTA</u>		Received by: <u>[Signature]</u>		Date/Time: 10/17/24 8:00		Company: <u>Euro</u>																	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																							



Client Information		Sampler: <u>Jacob Krenz</u>		Lab PM: <u>Brooks, Kris M</u>		Carrier Tracking No(s):		COC No: <u>240-125206-43681.2</u>																			
Client Contact: <u>Jacob Krenz</u>		Phone: <u>734 94 3310</u>		E-Mail: <u>Kris.Brooks@et.eurofinsus.com</u>		State of Origin:		Page: <u>Page 2 of 2</u>																			
Company: <u>TRC Environmental Corporation.</u>		PWSID:		Analysis Requested						Job #:																	
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Phone: <u>313-971-7080(Tel) 313-971-9022(Fax)</u>		PO #: <u>215800</u>		WO #: <u>605116 phase 1</u>		Project #: <u>24016806</u>		SSOW#:																			
Email: <u>JKrenz@trccompanies.com</u>		Project Name: <u>CCR DTE River Rouge Power Plant</u>		Site: <u>Michigan</u>		Special Instructions/Note:																					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, AA=Air)		Preservation Code:																	
<u>MW-17-08</u>		<u>10/11/24</u>		<u>1131</u>		<u>G</u>		<u>Water</u>		<u>N</u>																	
<u>Dup #02</u>		<u>11 11</u>		<u>---</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-09</u>		<u>11 11</u>		<u>1305</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-20</u>		<u>11 11</u>		<u>1407</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-05</u>		<u>10/15/24</u>		<u>0715</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-12</u>		<u>10/15/24</u>		<u>0833</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-13</u>		<u>10/15/24</u>		<u>0940</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-14</u>		<u>10/15/24</u>		<u>1041</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-15</u>		<u>10/15/24</u>		<u>1214</u>		<u>G</u>				<u>N</u>																	
<u>MW 16-045</u>		<u>10/15/24</u>		<u>1304</u>		<u>G</u>				<u>N</u>																	
<u>MW-17-14</u>		<u>10/15/24</u>		<u>1330</u>		<u>G</u>				<u>N</u>																	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																					
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Relinquished by: <u>[Signature]</u>		Date/Time: <u>10/16/24 1310</u>		Company: <u>EETA</u>		Received by: <u>[Signature]</u>		Date/Time: <u>10/17/24 8:00</u>		Company: <u>EURO</u>																	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																							

Eurofins - Cleveland Sample Receipt Form/Narrative Login # : _____
 Barberton Facility Cooler unpacked by TRC

Client TRC Environmental Site Name _____
 Cooler Received on 10/17/24 Opened on 10/17/24

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 Water Blue Ice Dry Ice Water None _____
 1 Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 7 (CF 701 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

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

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 3
 - 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/Methg)? Yes No NA
 - 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)? Yes No
- 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
- 13 If yes, Questions 13-17 have been checked at the originating laboratory
- 14 Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC447997
- 15 Were VOAs on the COC? Yes No
- 16 Were air bubbles >6 mm in any VOA vials? Yes No NA Larger than this.
- 17 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

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 _____



10/17/2024

Login Container Summary Report

240-213203

Temperature readings.

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservation Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
MW-16-042	240-213203-A-1	Plastic 125mL - unpreserved				
MW-16-042	240-213203-B-1	Plastic 500ml - unpreserved				
MW-16-042	240-213203-C-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-042	240-213203-D-1	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-05	240-213203-E-1	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-05	240-213203-A-2	Plastic 125mL - unpreserved				
MW-17-05	240-213203-B-2	Plastic 500ml - unpreserved				
MW-17-05	240-213203-C-2	Plastic 500ml - with Nitric Acid	<2			
MW-17-05	240-213203-D-2	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-05	240-213203-E-2	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-08	240-213203-A-3	Plastic 125mL - unpreserved				
MW-17-08	240-213203-B-3	Plastic 500ml - unpreserved				
MW-17-08	240-213203-C-3	Plastic 500ml - with Nitric Acid	<2			
MW-17-08	240-213203-D-3	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-08	240-213203-E-3	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-12	240-213203-A-4	Plastic 125mL - unpreserved				
MW-17-12	240-213203-B-4	Plastic 500ml - unpreserved				
MW-17-12	240-213203-C-4	Plastic 500ml - with Nitric Acid	<2			
MW-17-12	240-213203-D-4	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-12	240-213203-E-4	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-13	240-213203-A-5	Plastic 125mL - unpreserved				
MW-17-13	240-213203-B-5	Plastic 500ml - unpreserved				
MW-17-13	240-213203-C-5	Plastic 500ml - with Nitric Acid	<2			
MW-17-13	240-213203-D-5	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-13	240-213203-E-5	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-14	240-213203-A-6	Plastic 125mL - unpreserved				
MW-17-14	240-213203-B-6	Plastic 500ml - unpreserved				
MW-17-14	240-213203-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-17-14	240-213203-D-6	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-14	240-213203-E-6	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-15	240-213203-A-7	Plastic 125mL - unpreserved				
MW-17-15	240-213203-B-7	Plastic 500ml - unpreserved				
MW-17-15	240-213203-C-7	Plastic 500ml - with Nitric Acid	<2			
MW-17-15	240-213203-D-7	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-15	240-213203-E-7	Amber Glass 1 liter - Nitric Acid	<2			



<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>	<u>Preservation</u>	<u>Preservation</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added</u>	<u>Lot Number</u>
MW-17-18	240-213203-A-8	Plastic 125mL - unpreserved				
MW-17-18	240-213203-B-8	Plastic 500ml - unpreserved				
MW-17-18	240-213203-C-8	Plastic 500ml - with Nitric Acid	<2			
MW-17-18	240-213203-D-8	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-18	240-213203-E-8	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-19	240-213203-A-9	Plastic 125mL - unpreserved				
MW-17-19	240-213203-B-9	Plastic 500ml - unpreserved				
MW-17-19	240-213203-C-9	Plastic 500ml - with Nitric Acid	<2			
MW-17-19	240-213203-D-9	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-19	240-213203-E-9	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-20	240-213203-A-10	Plastic 125mL - unpreserved				
MW-17-20	240-213203-B-10	Plastic 500ml - unpreserved				
MW-17-20	240-213203-C-10	Plastic 500ml - with Nitric Acid	<2			
MW-17-20	240-213203-D-10	Amber Glass 1 liter - Nitric Acid	<2			
MW-17-20	240-213203-E-10	Amber Glass 1 liter - Nitric Acid	<2			
DUP-02	240-213203-A-11	Plastic 125mL - unpreserved				
DUP-02	240-213203-B-11	Plastic 500ml - unpreserved				
DUP-02	240-213203-C-11	Plastic 500ml - with Nitric Acid	<2			
DUP-02	240-213203-D-11	Amber Glass 1 liter - Nitric Acid	<2			
DUP-02	240-213203-E-11	Amber Glass 1 liter - Nitric Acid	<2			

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-192294.1
Client Contact: Shipping/Receiving		Phone: E-Mail: Kris.Brooks@et.eurofins.com	State of Origin: Michigan	Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Job #: 240-213203-1		
Address: 13715 Rider Trail North,		Preservation Codes:		
City: Earth City	State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR DTE River Rouge Power Plant	Project #: 24016806			
Site: TRC CCR DTE River Rouge Power Plant	SSOW #:			
Due Date Requested: 10/30/2024		Analysis Requested:		
TAT Requested (days):		9315_Ra2z6/Precep_21 Standard Target List		
		9320_Ra2z6/Precep_0 Standard Target List		
		Field Filtered Sample (Yes or No)		
		Perform MSMSD (Yes or No)		
		Total Number of Containers		
		Other:		
		Special Instructions/Note:		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, ST=issue, AA=air)
MW-16-042 (240-213203-1)	10/15/24	13:04 Eastern	G	Water
MW-17-05 (240-213203-2)	10/15/24	07:15 Eastern	G	Water
MW-17-08 (240-213203-3)	10/15/24	11:31 Eastern	G	Water
MW-17-12 (240-213203-4)	10/15/24	08:03 Eastern	G	Water
MW-17-13 (240-213203-5)	10/15/24	09:40 Eastern	G	Water
MW-17-14 (240-213203-6)	10/15/24	10:45 Eastern	G	Water
MW-17-15 (240-213203-7)	10/15/24	12:18 Eastern	G	Water
MW-17-18 (240-213203-8)	10/15/24	13:38 Eastern	G	Water
MW-17-19 (240-213203-9)	10/14/24	13:05 Eastern	G	Water

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: **MALISSA LOAR** Date: 10/17/24
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Custody Seals Intact: Yes No Δ No Δ No
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: Meadow Pinette

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: _____
 Method of Shipment: _____
 Received by: _____ Date/Time: _____
 Received by: **M. Pinette** Date/Time: **OCT 18 2024 0900**
 Received by: _____ Date/Time: _____
 Cooler Temperature(s) °C and Other Remarks: Meadow Pinette



ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/15/2024 7:11:23 PM

JOB DESCRIPTION

CCR DTE River Rouge Power Plant

JOB NUMBER

240-213203-2

Eurofins Cleveland

Job Notes

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

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

Authorization



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



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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

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: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Job ID: 240-213203-2

Eurofins Cleveland

Job Narrative 240-213203-2

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

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

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

Receipt

The samples were received on 10/17/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.9°C, 3.5°C and 4.2°C.

Gas Flow Proportional Counter

Method 9320_Ra228: Radium-228 batch 684317

The detection goal was not met for the following sample due to the reduced sample volume used in prep attributed to the presence of matrix interferences: MW-17-14 (240-213203-6). Analytical results are reported with the detection limit achieved.

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

Rad

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

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Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213203-1	MW-16-04S	Water	10/15/24 13:04	10/17/24 08:00
240-213203-2	MW-17-05	Water	10/15/24 07:15	10/17/24 08:00
240-213203-3	MW-17-08	Water	10/14/24 11:31	10/17/24 08:00
240-213203-4	MW-17-12	Water	10/15/24 08:03	10/17/24 08:00
240-213203-5	MW-17-13	Water	10/15/24 09:40	10/17/24 08:00
240-213203-6	MW-17-14	Water	10/15/24 10:45	10/17/24 08:00
240-213203-7	MW-17-15	Water	10/15/24 12:18	10/17/24 08:00
240-213203-8	MW-17-18	Water	10/15/24 13:38	10/17/24 08:00
240-213203-9	MW-17-19	Water	10/14/24 13:05	10/17/24 08:00
240-213203-10	MW-17-20	Water	10/14/24 14:07	10/17/24 08:00
240-213203-11	DUP-02	Water	10/14/24 00:00	10/17/24 08:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-16-04S **Lab Sample ID: 240-213203-1**

No Detections.

Client Sample ID: MW-17-05 **Lab Sample ID: 240-213203-2**

No Detections.

Client Sample ID: MW-17-08 **Lab Sample ID: 240-213203-3**

No Detections.

Client Sample ID: MW-17-12 **Lab Sample ID: 240-213203-4**

No Detections.

Client Sample ID: MW-17-13 **Lab Sample ID: 240-213203-5**

No Detections.

Client Sample ID: MW-17-14 **Lab Sample ID: 240-213203-6**

No Detections.

Client Sample ID: MW-17-15 **Lab Sample ID: 240-213203-7**

No Detections.

Client Sample ID: MW-17-18 **Lab Sample ID: 240-213203-8**

No Detections.

Client Sample ID: MW-17-19 **Lab Sample ID: 240-213203-9**

No Detections.

Client Sample ID: MW-17-20 **Lab Sample ID: 240-213203-10**

No Detections.

Client Sample ID: DUP-02 **Lab Sample ID: 240-213203-11**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland



Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-16-04S

Lab Sample ID: 240-213203-1

Date Collected: 10/15/24 13:04

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.350		0.198	0.201	1.00	0.266	pCi/L	10/21/24 07:59	11/12/24 07:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.5		30 - 110					10/21/24 07:59	11/12/24 07:20	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.35		0.689	0.700	1.00	0.972	pCi/L	10/21/24 08:03	11/10/24 12:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.5		30 - 110					10/21/24 08:03	11/10/24 12:56	1
Y Carrier	72.1		30 - 110					10/21/24 08:03	11/10/24 12:56	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.70		0.717	0.728	5.00	0.972	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-05

Lab Sample ID: 240-213203-2

Date Collected: 10/15/24 07:15

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.18		0.275	0.295	1.00	0.231	pCi/L	10/21/24 07:59	11/12/24 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110					10/21/24 07:59	11/12/24 09:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.70		0.504	0.528	1.00	0.541	pCi/L	10/21/24 08:03	11/10/24 12:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110					10/21/24 08:03	11/10/24 12:02	1
Y Carrier	75.1		30 - 110					10/21/24 08:03	11/10/24 12:02	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.88		0.574	0.605	5.00	0.541	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-08

Lab Sample ID: 240-213203-3

Date Collected: 10/14/24 11:31

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.555		0.192	0.198	1.00	0.197	pCi/L	10/21/24 07:59	11/12/24 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110					10/21/24 07:59	11/12/24 09:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.362	U	0.337	0.338	1.00	0.534	pCi/L	10/21/24 08:03	11/10/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110					10/21/24 08:03	11/10/24 12:03	1
Y Carrier	75.5		30 - 110					10/21/24 08:03	11/10/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.917		0.388	0.392	5.00	0.534	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-12

Lab Sample ID: 240-213203-4

Date Collected: 10/15/24 08:03

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.714		0.216	0.226	1.00	0.199	pCi/L	10/21/24 07:59	11/12/24 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		30 - 110					10/21/24 07:59	11/12/24 09:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.618	U	0.430	0.433	1.00	0.650	pCi/L	10/21/24 08:03	11/10/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		30 - 110					10/21/24 08:03	11/10/24 12:03	1
Y Carrier	75.1		30 - 110					10/21/24 08:03	11/10/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.33		0.481	0.488	5.00	0.650	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-13

Lab Sample ID: 240-213203-5

Date Collected: 10/15/24 09:40

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.493		0.175	0.181	1.00	0.167	pCi/L	10/21/24 07:59	11/12/24 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.2		30 - 110					10/21/24 07:59	11/12/24 09:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.661		0.376	0.380	1.00	0.537	pCi/L	10/21/24 08:03	11/10/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.2		30 - 110					10/21/24 08:03	11/10/24 12:03	1
Y Carrier	77.4		30 - 110					10/21/24 08:03	11/10/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.15		0.415	0.421	5.00	0.537	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-14

Lab Sample ID: 240-213203-6

Date Collected: 10/15/24 10:45

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.95		0.390	0.428	1.00	0.255	pCi/L	10/21/24 07:59	11/12/24 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		30 - 110					10/21/24 07:59	11/12/24 09:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.87	G	0.929	0.995	1.00	1.02	pCi/L	10/21/24 08:03	11/10/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		30 - 110					10/21/24 08:03	11/10/24 12:03	1
Y Carrier	70.3		30 - 110					10/21/24 08:03	11/10/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.82		1.01	1.08	5.00	1.02	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-15

Lab Sample ID: 240-213203-7

Date Collected: 10/15/24 12:18

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.714		0.253	0.261	1.00	0.259	pCi/L	10/21/24 07:59	11/12/24 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		30 - 110					10/21/24 07:59	11/12/24 09:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.590	U	0.480	0.483	1.00	0.743	pCi/L	10/21/24 08:03	11/10/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		30 - 110					10/21/24 08:03	11/10/24 12:04	1
Y Carrier	74.4		30 - 110					10/21/24 08:03	11/10/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.30		0.543	0.549	5.00	0.743	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-18

Lab Sample ID: 240-213203-8

Date Collected: 10/15/24 13:38

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.593		0.237	0.243	1.00	0.256	pCi/L	10/21/24 07:59	11/12/24 09:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		30 - 110					10/21/24 07:59	11/12/24 09:15	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.32		0.596	0.609	1.00	0.806	pCi/L	10/21/24 08:03	11/10/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		30 - 110					10/21/24 08:03	11/10/24 12:04	1
Y Carrier	76.6		30 - 110					10/21/24 08:03	11/10/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.91		0.641	0.656	5.00	0.806	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-19

Lab Sample ID: 240-213203-9

Date Collected: 10/14/24 13:05

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.472		0.192	0.197	1.00	0.224	pCi/L	10/21/24 07:59	11/12/24 09:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110					10/21/24 07:59	11/12/24 09:15	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.73		0.570	0.592	1.00	0.707	pCi/L	10/21/24 08:03	11/10/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110					10/21/24 08:03	11/10/24 12:04	1
Y Carrier	68.4		30 - 110					10/21/24 08:03	11/10/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.20		0.601	0.624	5.00	0.707	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-20

Lab Sample ID: 240-213203-10

Date Collected: 10/14/24 14:07

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.25		0.330	0.348	1.00	0.275	pCi/L	10/21/24 07:59	11/12/24 09:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		30 - 110					10/21/24 07:59	11/12/24 09:15	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.47		0.627	0.642	1.00	0.830	pCi/L	10/21/24 08:03	11/10/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		30 - 110					10/21/24 08:03	11/10/24 12:04	1
Y Carrier	76.3		30 - 110					10/21/24 08:03	11/10/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.72		0.709	0.730	5.00	0.830	pCi/L		11/13/24 18:10	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: DUP-02

Lab Sample ID: 240-213203-11

Date Collected: 10/14/24 00:00

Matrix: Water

Date Received: 10/17/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.242		0.174	0.176	1.00	0.240	pCi/L	10/21/24 07:59	11/12/24 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		30 - 110					10/21/24 07:59	11/12/24 09:16	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.525	U	0.486	0.488	1.00	0.768	pCi/L	10/21/24 08:03	11/10/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		30 - 110					10/21/24 08:03	11/10/24 12:04	1
Y Carrier	73.6		30 - 110					10/21/24 08:03	11/10/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.767	U	0.516	0.519	5.00	0.768	pCi/L		11/13/24 18:10	1

Tracer/Carrier Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-213203-1	MW-16-04S	79.5	
240-213203-1 DU	MW-16-04S	95.2	
240-213203-2	MW-17-05	88.6	
240-213203-3	MW-17-08	98.0	
240-213203-4	MW-17-12	89.9	
240-213203-5	MW-17-13	99.2	
240-213203-6	MW-17-14	90.6	
240-213203-7	MW-17-15	96.2	
240-213203-8	MW-17-18	90.9	
240-213203-9	MW-17-19	98.0	
240-213203-10	MW-17-20	90.4	
240-213203-11	DUP-02	87.6	
LCS 160-684316/2-A	Lab Control Sample	96.7	
MB 160-684316/1-A	Method Blank	100	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-213203-1	MW-16-04S	79.5	72.1
240-213203-1 DU	MW-16-04S	95.2	75.9
240-213203-2	MW-17-05	88.6	75.1
240-213203-3	MW-17-08	98.0	75.5
240-213203-4	MW-17-12	89.9	75.1
240-213203-5	MW-17-13	99.2	77.4
240-213203-6	MW-17-14	90.6	70.3
240-213203-7	MW-17-15	96.2	74.4
240-213203-8	MW-17-18	90.9	76.6
240-213203-9	MW-17-19	98.0	68.4
240-213203-10	MW-17-20	90.4	76.3
240-213203-11	DUP-02	87.6	73.6
LCS 160-684317/2-A	Lab Control Sample	96.7	77.4
MB 160-684317/1-A	Method Blank	100	82.6
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-684316/1-A
Matrix: Water
Analysis Batch: 688157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684316

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.08473	U	0.115	0.115	1.00	0.194	pCi/L	10/21/24 07:59	11/12/24 07:20	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	100		30 - 110		10/21/24 07:59	11/12/24 07:20	1			

Lab Sample ID: LCS 160-684316/2-A
Matrix: Water
Analysis Batch: 688157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684316

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	9.58	9.409		1.10	1.00	0.189	pCi/L	98	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.7		30 - 110						

Lab Sample ID: 240-213203-1 DU
Matrix: Water
Analysis Batch: 688157

Client Sample ID: MW-16-04S
Prep Type: Total/NA
Prep Batch: 684316

Analyte	Sample		DU		Total	RL	MDC	Unit	RER	RER Limit
	Result	Sample Qual	Result	DU Qual	Uncert. (2σ+/-)					
Radium-226	0.350		0.6813		0.220	1.00	0.198	pCi/L	0.79	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	95.2		30 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-684317/1-A
Matrix: Water
Analysis Batch: 687857

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684317

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2471	U	0.382	0.383	1.00	0.648	pCi/L	10/21/24 08:03	11/10/24 12:58	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	100		30 - 110		10/21/24 08:03	11/10/24 12:58	1			
Y Carrier	82.6		30 - 110		10/21/24 08:03	11/10/24 12:58	1			

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-684317/2-A
Matrix: Water
Analysis Batch: 687857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684317

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	
										Radium-228
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	96.7		30 - 110							
Y Carrier	77.4		30 - 110							

Lab Sample ID: 240-213203-1 DU
Matrix: Water
Analysis Batch: 687784

Client Sample ID: MW-16-04S
Prep Type: Total/NA
Prep Batch: 684317

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.2		30 - 110							
Y Carrier	75.9		30 - 110							

QC Association Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Rad

Prep Batch: 684316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-1	MW-16-04S	Total/NA	Water	PrecSep-21	
240-213203-2	MW-17-05	Total/NA	Water	PrecSep-21	
240-213203-3	MW-17-08	Total/NA	Water	PrecSep-21	
240-213203-4	MW-17-12	Total/NA	Water	PrecSep-21	
240-213203-5	MW-17-13	Total/NA	Water	PrecSep-21	
240-213203-6	MW-17-14	Total/NA	Water	PrecSep-21	
240-213203-7	MW-17-15	Total/NA	Water	PrecSep-21	
240-213203-8	MW-17-18	Total/NA	Water	PrecSep-21	
240-213203-9	MW-17-19	Total/NA	Water	PrecSep-21	
240-213203-10	MW-17-20	Total/NA	Water	PrecSep-21	
240-213203-11	DUP-02	Total/NA	Water	PrecSep-21	
MB 160-684316/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-684316/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-213203-1 DU	MW-16-04S	Total/NA	Water	PrecSep-21	

Prep Batch: 684317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213203-1	MW-16-04S	Total/NA	Water	PrecSep_0	
240-213203-2	MW-17-05	Total/NA	Water	PrecSep_0	
240-213203-3	MW-17-08	Total/NA	Water	PrecSep_0	
240-213203-4	MW-17-12	Total/NA	Water	PrecSep_0	
240-213203-5	MW-17-13	Total/NA	Water	PrecSep_0	
240-213203-6	MW-17-14	Total/NA	Water	PrecSep_0	
240-213203-7	MW-17-15	Total/NA	Water	PrecSep_0	
240-213203-8	MW-17-18	Total/NA	Water	PrecSep_0	
240-213203-9	MW-17-19	Total/NA	Water	PrecSep_0	
240-213203-10	MW-17-20	Total/NA	Water	PrecSep_0	
240-213203-11	DUP-02	Total/NA	Water	PrecSep_0	
MB 160-684317/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-684317/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-213203-1 DU	MW-16-04S	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-16-04S

Lab Sample ID: 240-213203-1

Date Collected: 10/15/24 13:04

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 07:20
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687857	FLC	EET SL	11/10/24 12:56
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: MW-17-05

Lab Sample ID: 240-213203-2

Date Collected: 10/15/24 07:15

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:14
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:02
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: MW-17-08

Lab Sample ID: 240-213203-3

Date Collected: 10/14/24 11:31

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:14
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: MW-17-12

Lab Sample ID: 240-213203-4

Date Collected: 10/15/24 08:03

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:14
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-13

Lab Sample ID: 240-213203-5

Date Collected: 10/15/24 09:40

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:14
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: MW-17-14

Lab Sample ID: 240-213203-6

Date Collected: 10/15/24 10:45

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:14
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: MW-17-15

Lab Sample ID: 240-213203-7

Date Collected: 10/15/24 12:18

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:14
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: MW-17-18

Lab Sample ID: 240-213203-8

Date Collected: 10/15/24 13:38

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:15
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Client Sample ID: MW-17-19

Lab Sample ID: 240-213203-9

Date Collected: 10/14/24 13:05

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:15
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: MW-17-20

Lab Sample ID: 240-213203-10

Date Collected: 10/14/24 14:07

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688157	CMM	EET SL	11/12/24 09:15
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Client Sample ID: DUP-02

Lab Sample ID: 240-213203-11

Date Collected: 10/14/24 00:00

Matrix: Water

Date Received: 10/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684316	BCE	EET SL	10/21/24 07:59
Total/NA	Analysis	9315		1	688057	SWS	EET SL	11/12/24 09:16
Total/NA	Prep	PrecSep_0			684317	BCE	EET SL	10/21/24 08:03
Total/NA	Analysis	9320		1	687784	FLC	EET SL	11/10/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	688418	SCB	EET SL	11/13/24 18:10

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213203-2

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Chain of Custody Record

Client Information		Sampler: <u>JACOB KRENTZ</u>		Lab PM: Brooks, Kris M		Carrier Tracking No(s):		COC No: 240-125206-43681.1																			
Client Contact: Jacob Krenz		Phone: <u>334 904 3310</u>		E-Mail: Kris.Brooks@et.eurofinsus.com		State of Origin:		Page: Page 1 of 2																			
Company: TRC Environmental Corporation.		PWSID:		Analysis Requested						Job #:																	
Address: 1540 Eisenhower Place		Due Date Requested:		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>2540C_Calcd - TDS</td> <td>9056A_28D - Chloride, Fluoride and Sulfate</td> <td>6010B_Bo, 6020_Ca,As,Ba,Co,Li,Mo</td> <td>9315_Ra226 - Standard Target List</td> <td>9320_Ra228 - Standard Target List</td> <td>Total Number of containers</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate	6010B_Bo, 6020_Ca,As,Ba,Co,Li,Mo	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Total Number of containers									Preservation Codes: N - None D - HNO3	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	9056A_28D - Chloride, Fluoride and Sulfate							6010B_Bo, 6020_Ca,As,Ba,Co,Li,Mo	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	Total Number of containers														
City: Ann Arbor		TAT Requested (days):								Other:																	
State, Zip: MI, 48108-7080		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																									
Phone: 313-971-7080(Tel) 313-971-9022(Fax)		PO #: <u>215206</u>		Project #: 24016806		SSOW#:		Special Instructions/Note:																			
Email: JKrenz@trccompanies.com		WO #: 605116 phase 1		Project Name: CCR DTE River Rouge Power Plant		Site: Michigan																					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)																			
						Preservation Code:																					
MW-16-04S		10/15/24		1304		G		Water																			
MW-17-05		10/15/24		0715		G		Water																			
MW-17-08		10/14/24		1131		G		Water																			
MW-17-12		10/15/24		0823		G		Water																			
MW-17-13		10/15/24		0940		G		Water																			
MW-17-14		10/15/24		1045		G		Water																			
MW-17-15		10/15/24		1218		G		Water																			
MW-17-18		10/15/24		1338		G		Water																			
MW-17-19		10/14/24		1305		G		Water																			
MW-17-20		10/14/24		1407		G		Water																			
DUP-02		10/15/24		-		G		Water																			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																						
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:																						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																					
Relinquished by: <u>[Signature]</u>		Date/Time: 10/16/24 0500		Company: <u>TRC</u>		Received by: <u>[Signature]</u>		Date/Time: 10/16/24 1312																			
Relinquished by: <u>[Signature]</u>		Date/Time: 10/16/24 1312		Company: <u>EFTA</u>		Received by: <u>[Signature]</u>		Date/Time: 10/17/24 8:00																			
Relinquished by: <u>[Signature]</u>		Date/Time:		Company:		Received by:		Date/Time:																			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																							



Eurofins - Cleveland Sample Receipt Form/Narrative

Client: TRC Environmental Site Name: _____ Login #: _____
 Barberton Facility

Cooler Received on 10/17/24 UPS FAS Waypoint Client Drop Off 10/17/24 Eurofins Courier Other _____
 Received After-hours Drop-off Date/Time _____ Storage Location _____
 Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Water Blue Ice Dry Ice Water None _____
 IR GUN # 7 (CF 701 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

1 Cooler temperature upon receipt See Multiple Cooler Form

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 3
 -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/Methg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
 3 Shippers' packing slip attached to the cooler(s)? Yes No NA
 4. Did custody papers accompany the sample(s)? Yes No NA
 5 Were the custody papers relinquished & signed in the appropriate place? Yes No NA
 6 Was/were the person(s) who collected the samples clearly identified on the COC? Yes No NA
 7 Did all bottles arrive in good condition (Unbroken)? Yes No NA
 8 Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No NA
 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 NA
 11 Sufficient quantity received to perform indicated analyses? Yes No NA
 12. Are these work share samples and all listed on the COC? Yes No NA
 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# HC447997
 14 Were VOAs on the COC? Yes No NA
 15 Were air bubbles >6 mm in any VOA vials? Yes No NA
 16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____
 17 Was a LL Hg or Me Hg trip blank present? Yes No NA

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.

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservation Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
MW-16-042	240-213203-A-1	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-16-042	240-213203-B-1	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-16-042	240-213203-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-16-042	240-213203-D-1	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-16-042	240-213203-E-1	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-05	240-213203-A-2	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-05	240-213203-B-2	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-05	240-213203-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-05	240-213203-D-2	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-05	240-213203-E-2	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-08	240-213203-A-3	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-08	240-213203-B-3	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-08	240-213203-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-08	240-213203-D-3	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-08	240-213203-E-3	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-12	240-213203-A-4	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-12	240-213203-B-4	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-12	240-213203-C-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-12	240-213203-D-4	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-12	240-213203-E-4	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-13	240-213203-A-5	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-13	240-213203-B-5	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-13	240-213203-C-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-13	240-213203-D-5	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-13	240-213203-E-5	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-14	240-213203-A-6	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-14	240-213203-B-6	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-14	240-213203-C-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-14	240-213203-D-6	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-14	240-213203-E-6	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-15	240-213203-A-7	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-15	240-213203-B-7	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-15	240-213203-C-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-15	240-213203-D-7	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-15	240-213203-E-7	Amber Glass 1 liter - Nitric Acid	<2	_____	_____	_____



<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>	<u>Preservation</u>	<u>Preservation</u>
			<u>pH</u>	<u>Temp</u>	<u>Lot Number</u>
MW-17-18	240-213203-A-8	Plastic 125mL - unpreserved			
MW-17-18	240-213203-B-8	Plastic 500ml - unpreserved			
MW-17-18	240-213203-C-8	Plastic 500ml - with Nitric Acid	<2		
MW-17-18	240-213203-D-8	Amber Glass 1 liter - Nitric Acid	<2		
MW-17-18	240-213203-E-8	Amber Glass 1 liter - Nitric Acid	<2		
MW-17-19	240-213203-A-9	Plastic 125mL - unpreserved			
MW-17-19	240-213203-B-9	Plastic 500ml - unpreserved			
MW-17-19	240-213203-C-9	Plastic 500ml - with Nitric Acid	<2		
MW-17-19	240-213203-D-9	Amber Glass 1 liter - Nitric Acid	<2		
MW-17-19	240-213203-E-9	Amber Glass 1 liter - Nitric Acid	<2		
MW-17-20	240-213203-A-10	Plastic 125mL - unpreserved			
MW-17-20	240-213203-B-10	Plastic 500ml - unpreserved			
MW-17-20	240-213203-C-10	Plastic 500ml - with Nitric Acid	<2		
MW-17-20	240-213203-D-10	Amber Glass 1 liter - Nitric Acid	<2		
MW-17-20	240-213203-E-10	Amber Glass 1 liter - Nitric Acid	<2		
DUP-02	240-213203-A-11	Plastic 125mL - unpreserved			
DUP-02	240-213203-B-11	Plastic 500ml - unpreserved			
DUP-02	240-213203-C-11	Plastic 500ml - with Nitric Acid	<2		
DUP-02	240-213203-D-11	Amber Glass 1 liter - Nitric Acid	<2		
DUP-02	240-213203-E-11	Amber Glass 1 liter - Nitric Acid	<2		

Login Sample Receipt Checklist

Client: TRC Environmental Corporation.

Job Number: 240-213203-2

Login Number: 213203

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 10/18/24 12:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/5/2024 2:14:00 PM Revision 1

JOB DESCRIPTION

CCR DTE River Rouge Power Plant

JOB NUMBER

240-213361-1

Eurofins Cleveland

Job Notes

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

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

Authorization



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

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Revision 1



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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Qualifiers

Metals

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

General Chemistry

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

Glossary

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

Case Narrative

Client: TRC Environmental Corporation.
Project: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Job ID: 240-213361-1

Eurofins Cleveland

**Job Narrative
240-213361-1**

REVISION

The report being provided is a revision of the original report sent on 10/31/2024. The report (revision 1) is being revised due to client would like six metals reported separately.

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

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

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

Receipt

The samples were received on 10/19/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.3°C, 1.7°C, 2.2°C and 2.4°C.

Metals

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

General Chemistry

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

Eurofins Cleveland

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

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 River Rouge Power Plant

Job ID: 240-213361-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213361-1	MW-17-06	Water	10/16/24 07:40	10/19/24 08:00
240-213361-2	DUP-01	Ground Water	10/16/24 00:00	10/19/24 08:00
240-213361-3	MW-17-07	Water	10/16/24 09:01	10/19/24 08:00
240-213361-4	MW-16-03	Ground Water	10/16/24 10:06	10/19/24 08:00
240-213361-5	MW-17-17	Water	10/16/24 10:35	10/19/24 08:00
240-213361-6	MW-16-02	Ground Water	10/16/24 12:10	10/19/24 08:00
240-213361-7	MW-17-16	Water	10/16/24 12:40	10/19/24 08:00
240-213361-8	MW-16-01	Ground Water	10/16/24 13:35	10/19/24 08:00

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Detection Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-06

Lab Sample ID: 240-213361-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	500		100	ug/L	1		6010D	Total Recoverable
Arsenic	20		5.0	ug/L	1		6020B	Total Recoverable
Barium	160		5.0	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	ug/L	1		6020B	Total Recoverable
Lithium	27		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	8.0		5.0	ug/L	1		6020B	Total Recoverable
Calcium	300000		1000	ug/L	1		6020B	Total Recoverable
Chloride	710		10	mg/L	10		9056A	Total/NA
Fluoride	0.35		0.10	mg/L	2		9056A	Total/NA
Sulfate	530		10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	1900		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01

Lab Sample ID: 240-213361-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	510		100	ug/L	1		6010D	Total Recoverable
Arsenic	13		5.0	ug/L	1		6020B	Total Recoverable
Barium	150		5.0	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	ug/L	1		6020B	Total Recoverable
Lithium	28		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	8.0		5.0	ug/L	1		6020B	Total Recoverable
Calcium	310000		1000	ug/L	1		6020B	Total Recoverable
Chloride	730		10	mg/L	10		9056A	Total/NA
Fluoride	0.35		0.10	mg/L	2		9056A	Total/NA
Sulfate	550		10	mg/L	10		9056A	Total/NA
Total Dissolved Solids	2100		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-07

Lab Sample ID: 240-213361-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	690		100	ug/L	1		6010D	Total Recoverable
Arsenic	16		5.0	ug/L	1		6020B	Total Recoverable
Barium	35		5.0	ug/L	1		6020B	Total Recoverable
Cobalt	6.8		1.0	ug/L	1		6020B	Total Recoverable
Lithium	29		8.0	ug/L	1		6020B	Total Recoverable
Molybdenum	13		5.0	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-07 (Continued)

Lab Sample ID: 240-213361-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Calcium	460000		1000	ug/L	1		6020B	Total Recoverable
Chloride	2300		25	mg/L	25		9056A	Total/NA
Fluoride	0.44		0.25	mg/L	5		9056A	Total/NA
Sulfate	1400		25	mg/L	25		9056A	Total/NA
Total Dissolved Solids	5400		50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-03

Lab Sample ID: 240-213361-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	ug/L	1		6010D	Total Recoverable
Barium	35		5.0	ug/L	1		6020B	Total Recoverable
Lithium	10		8.0	ug/L	1		6020B	Total Recoverable
Calcium	78000		1000	ug/L	1		6020B	Total Recoverable
Chloride	69		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.31		0.050	mg/L	1		9056A	Total/NA
Sulfate	6.6		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	390		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-17

Lab Sample ID: 240-213361-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	470		100	ug/L	1		6010D	Total Recoverable
Barium	59		5.0	ug/L	1		6020B	Total Recoverable
Lithium	14		8.0	ug/L	1		6020B	Total Recoverable
Calcium	76000		1000	ug/L	1		6020B	Total Recoverable
Chloride	49		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.67		0.050	mg/L	1		9056A	Total/NA
Sulfate	16		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	400		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-02

Lab Sample ID: 240-213361-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	750		100	ug/L	1		6010D	Total Recoverable
Barium	170		5.0	ug/L	1		6020B	Total Recoverable
Lithium	43		8.0	ug/L	1		6020B	Total Recoverable
Calcium	210000		1000	ug/L	1		6020B	Total Recoverable
Chloride	57		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.38		0.050	mg/L	1		9056A	Total/NA
Sulfate	550		5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	1100		10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-16

Lab Sample ID: 240-213361-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	340		100	ug/L	1		6010D	Total Recoverable
Arsenic	99		5.0	ug/L	1		6020B	Total Recoverable
Barium	150		5.0	ug/L	1		6020B	Total Recoverable
Lithium	55		8.0	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	ug/L	1		6020B	Total Recoverable
Chloride	47		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.98		0.050	mg/L	1		9056A	Total/NA
Sulfate	140		1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	520		10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-01

Lab Sample ID: 240-213361-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Boron	960		100	ug/L	1		6010D	Total Recoverable
Arsenic	10		5.0	ug/L	1		6020B	Total Recoverable
Barium	120		5.0	ug/L	1		6020B	Total Recoverable
Lithium	44		8.0	ug/L	1		6020B	Total Recoverable
Calcium	24000		1000	ug/L	1		6020B	Total Recoverable
Chloride	180		1.0	mg/L	1		9056A	Total/NA
Fluoride	0.68		0.050	mg/L	1		9056A	Total/NA
Sulfate	280		5.0	mg/L	5		9056A	Total/NA
Total Dissolved Solids	690		10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-06

Lab Sample ID: 240-213361-1

Date Collected: 10/16/24 07:40

Matrix: Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	500		100	ug/L		10/21/24 14:00	10/22/24 16:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20		5.0	ug/L		10/21/24 14:00	10/22/24 16:07	1
Barium	160		5.0	ug/L		10/21/24 14:00	10/22/24 16:07	1
Cobalt	1.2		1.0	ug/L		10/21/24 14:00	10/22/24 16:07	1
Lithium	27		8.0	ug/L		10/21/24 14:00	10/22/24 16:07	1
Molybdenum	8.0		5.0	ug/L		10/21/24 14:00	10/22/24 16:07	1
Calcium	300000		1000	ug/L		10/21/24 14:00	10/22/24 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	710		10	mg/L			10/30/24 11:52	10
Fluoride (SW846 9056A)	0.35		0.10	mg/L			10/30/24 11:32	2
Sulfate (SW846 9056A)	530		10	mg/L			10/30/24 11:52	10
Total Dissolved Solids (SM 2540C)	1900		20	mg/L			10/22/24 08:01	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: DUP-01

Lab Sample ID: 240-213361-2

Date Collected: 10/16/24 00:00

Matrix: Ground Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100	ug/L		10/21/24 14:00	10/22/24 16:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		5.0	ug/L		10/21/24 14:00	10/22/24 16:10	1
Barium	150		5.0	ug/L		10/21/24 14:00	10/22/24 16:10	1
Cobalt	1.2		1.0	ug/L		10/21/24 14:00	10/22/24 16:10	1
Lithium	28		8.0	ug/L		10/21/24 14:00	10/22/24 16:10	1
Molybdenum	8.0		5.0	ug/L		10/21/24 14:00	10/22/24 16:10	1
Calcium	310000		1000	ug/L		10/21/24 14:00	10/22/24 16:10	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	730		10	mg/L			10/30/24 13:31	10
Fluoride (SW846 9056A)	0.35		0.10	mg/L			10/30/24 13:11	2
Sulfate (SW846 9056A)	550		10	mg/L			10/30/24 13:31	10
Total Dissolved Solids (SM 2540C)	2100		20	mg/L			10/22/24 08:01	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-07

Lab Sample ID: 240-213361-3

Date Collected: 10/16/24 09:01

Matrix: Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	690		100	ug/L		10/21/24 14:00	10/22/24 16:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16		5.0	ug/L		10/21/24 14:00	10/22/24 16:12	1
Barium	35		5.0	ug/L		10/21/24 14:00	10/22/24 16:12	1
Cobalt	6.8		1.0	ug/L		10/21/24 14:00	10/22/24 16:12	1
Lithium	29		8.0	ug/L		10/21/24 14:00	10/22/24 16:12	1
Molybdenum	13		5.0	ug/L		10/21/24 14:00	10/22/24 16:12	1
Calcium	460000		1000	ug/L		10/21/24 14:00	10/22/24 16:12	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	2300		25	mg/L			10/30/24 14:49	25
Fluoride (SW846 9056A)	0.44		0.25	mg/L			10/30/24 13:50	5
Sulfate (SW846 9056A)	1400		25	mg/L			10/30/24 14:49	25
Total Dissolved Solids (SM 2540C)	5400		50	mg/L			10/22/24 11:48	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-16-03

Lab Sample ID: 240-213361-4

Date Collected: 10/16/24 10:06

Matrix: Ground Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130		100	ug/L		10/21/24 14:00	10/22/24 17:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:15	1
Barium	35		5.0	ug/L		10/21/24 14:00	10/22/24 16:15	1
Cobalt	1.0	U	1.0	ug/L		10/21/24 14:00	10/22/24 16:15	1
Lithium	10		8.0	ug/L		10/21/24 14:00	10/22/24 16:15	1
Molybdenum	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:15	1
Calcium	78000		1000	ug/L		10/21/24 14:00	10/22/24 16:15	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	69		1.0	mg/L			10/30/24 12:12	1
Fluoride (SW846 9056A)	0.31		0.050	mg/L			10/30/24 12:12	1
Sulfate (SW846 9056A)	6.6		1.0	mg/L			10/30/24 12:12	1
Total Dissolved Solids (SM 2540C)	390		10	mg/L			10/22/24 11:48	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-17

Lab Sample ID: 240-213361-5

Date Collected: 10/16/24 10:35

Matrix: Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	470		100	ug/L		10/21/24 14:00	10/22/24 17:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:18	1
Barium	59		5.0	ug/L		10/21/24 14:00	10/22/24 16:18	1
Cobalt	1.0	U	1.0	ug/L		10/21/24 14:00	10/22/24 16:18	1
Lithium	14		8.0	ug/L		10/21/24 14:00	10/22/24 16:18	1
Molybdenum	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:18	1
Calcium	76000		1000	ug/L		10/21/24 14:00	10/22/24 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	49		1.0	mg/L			10/30/24 15:09	1
Fluoride (SW846 9056A)	0.67		0.050	mg/L			10/30/24 15:09	1
Sulfate (SW846 9056A)	16		1.0	mg/L			10/30/24 15:09	1
Total Dissolved Solids (SM 2540C)	400		10	mg/L			10/22/24 11:48	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-16-02

Lab Sample ID: 240-213361-6

Date Collected: 10/16/24 12:10

Matrix: Ground Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	750		100	ug/L		10/21/24 14:00	10/22/24 17:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:20	1
Barium	170		5.0	ug/L		10/21/24 14:00	10/22/24 16:20	1
Cobalt	1.0	U	1.0	ug/L		10/21/24 14:00	10/22/24 16:20	1
Lithium	43		8.0	ug/L		10/21/24 14:00	10/22/24 16:20	1
Molybdenum	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:20	1
Calcium	210000		1000	ug/L		10/21/24 14:00	10/22/24 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	57		1.0	mg/L			10/30/24 15:29	1
Fluoride (SW846 9056A)	0.38		0.050	mg/L			10/30/24 15:29	1
Sulfate (SW846 9056A)	550		5.0	mg/L			10/30/24 15:49	5
Total Dissolved Solids (SM 2540C)	1100		10	mg/L			10/23/24 08:00	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-16

Lab Sample ID: 240-213361-7

Date Collected: 10/16/24 12:40

Matrix: Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	340		100	ug/L		10/21/24 14:00	10/22/24 17:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	99		5.0	ug/L		10/21/24 14:00	10/22/24 16:23	1
Barium	150		5.0	ug/L		10/21/24 14:00	10/22/24 16:23	1
Cobalt	1.0	U	1.0	ug/L		10/21/24 14:00	10/22/24 16:23	1
Lithium	55		8.0	ug/L		10/21/24 14:00	10/22/24 16:23	1
Molybdenum	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:23	1
Calcium	100000		1000	ug/L		10/21/24 14:00	10/22/24 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	47		1.0	mg/L			10/30/24 16:08	1
Fluoride (SW846 9056A)	0.98		0.050	mg/L			10/30/24 16:08	1
Sulfate (SW846 9056A)	140		1.0	mg/L			10/30/24 16:08	1
Total Dissolved Solids (SM 2540C)	520		10	mg/L			10/22/24 11:48	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-213361-8

Date Collected: 10/16/24 13:35

Matrix: Ground Water

Date Received: 10/19/24 08:00

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	960		100	ug/L		10/21/24 14:00	10/22/24 17:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		5.0	ug/L		10/21/24 14:00	10/22/24 16:26	1
Barium	120		5.0	ug/L		10/21/24 14:00	10/22/24 16:26	1
Cobalt	1.0	U	1.0	ug/L		10/21/24 14:00	10/22/24 16:26	1
Lithium	44		8.0	ug/L		10/21/24 14:00	10/22/24 16:26	1
Molybdenum	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 16:26	1
Calcium	24000		1000	ug/L		10/21/24 14:00	10/22/24 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	180		1.0	mg/L			10/30/24 16:28	1
Fluoride (SW846 9056A)	0.68		0.050	mg/L			10/30/24 16:28	1
Sulfate (SW846 9056A)	280		5.0	mg/L			10/30/24 16:48	5
Total Dissolved Solids (SM 2540C)	690		10	mg/L			10/22/24 11:48	1



QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	ug/L		10/21/24 14:00	10/22/24 15:06	1

Lab Sample ID: LCS 240-631641/2-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1020		ug/L		102	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 15:09	1
Barium	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 15:09	1
Cobalt	1.0	U	1.0	ug/L		10/21/24 14:00	10/22/24 15:09	1
Lithium	8.0	U	8.0	ug/L		10/21/24 14:00	10/22/24 15:09	1
Molybdenum	5.0	U	5.0	ug/L		10/21/24 14:00	10/22/24 15:09	1
Calcium	1000	U	1000	ug/L		10/21/24 14:00	10/22/24 15:09	1

Lab Sample ID: LCS 240-631641/3-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1000	969		ug/L		97	80 - 120
Barium	1000	998		ug/L		100	80 - 120
Cobalt	500	487		ug/L		97	80 - 120
Lithium	500	507		ug/L		101	80 - 120
Molybdenum	500	494		ug/L		99	80 - 120
Calcium	25000	26100		ug/L		104	80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-632819/3
Matrix: Water
Analysis Batch: 632819

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			10/30/24 02:59	1
Fluoride	0.050	U	0.050	mg/L			10/30/24 02:59	1
Sulfate	1.0	U	1.0	mg/L			10/30/24 02:59	1

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QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

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

Lab Sample ID: LCS 240-632819/4
Matrix: Water
Analysis Batch: 632819

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	49.2		mg/L		98	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	51.0		mg/L		102	90 - 110

Lab Sample ID: 240-213361-4 MS
Matrix: Ground Water
Analysis Batch: 632819

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	69		50.0	120		mg/L		100	80 - 120
Fluoride	0.31		2.50	3.07		mg/L		110	80 - 120
Sulfate	6.6		50.0	61.0		mg/L		109	80 - 120

Lab Sample ID: 240-213361-4 MSD
Matrix: Ground Water
Analysis Batch: 632819

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	69		50.0	120		mg/L		100	80 - 120	0	15
Fluoride	0.31		2.50	3.09		mg/L		111	80 - 120	1	15
Sulfate	6.6		50.0	61.0		mg/L		109	80 - 120	0	15

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

Lab Sample ID: MB 240-631808/1
Matrix: Water
Analysis Batch: 631808

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	mg/L			10/22/24 08:01	1

Lab Sample ID: LCS 240-631808/2
Matrix: Water
Analysis Batch: 631808

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	469		mg/L		95	80 - 120

Lab Sample ID: MB 240-631901/1
Matrix: Water
Analysis Batch: 631901

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	mg/L			10/22/24 11:48	1

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QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

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

Lab Sample ID: LCS 240-631901/2
Matrix: Water
Analysis Batch: 631901

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	426		mg/L		86	80 - 120

Lab Sample ID: 240-213361-7 DU
Matrix: Water
Analysis Batch: 631901

Client Sample ID: MW-17-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	520		459		mg/L		12	20

Lab Sample ID: MB 240-632010/1
Matrix: Water
Analysis Batch: 632010

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	mg/L			10/23/24 08:00	1

Lab Sample ID: LCS 240-632010/2
Matrix: Water
Analysis Batch: 632010

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	462		mg/L		93	80 - 120

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Metals

Prep Batch: 631641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-1	MW-17-06	Total Recoverable	Water	3005A	
240-213361-2	DUP-01	Total Recoverable	Ground Water	3005A	
240-213361-3	MW-17-07	Total Recoverable	Water	3005A	
240-213361-4	MW-16-03	Total Recoverable	Ground Water	3005A	
240-213361-5	MW-17-17	Total Recoverable	Water	3005A	
240-213361-6	MW-16-02	Total Recoverable	Ground Water	3005A	
240-213361-7	MW-17-16	Total Recoverable	Water	3005A	
240-213361-8	MW-16-01	Total Recoverable	Ground Water	3005A	
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 631977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-1	MW-17-06	Total Recoverable	Water	6020B	631641
240-213361-2	DUP-01	Total Recoverable	Ground Water	6020B	631641
240-213361-3	MW-17-07	Total Recoverable	Water	6020B	631641
240-213361-4	MW-16-03	Total Recoverable	Ground Water	6020B	631641
240-213361-5	MW-17-17	Total Recoverable	Water	6020B	631641
240-213361-6	MW-16-02	Total Recoverable	Ground Water	6020B	631641
240-213361-7	MW-17-16	Total Recoverable	Water	6020B	631641
240-213361-8	MW-16-01	Total Recoverable	Ground Water	6020B	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6020B	631641
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631641

Analysis Batch: 631995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-1	MW-17-06	Total Recoverable	Water	6010D	631641
240-213361-2	DUP-01	Total Recoverable	Ground Water	6010D	631641
240-213361-3	MW-17-07	Total Recoverable	Water	6010D	631641
240-213361-4	MW-16-03	Total Recoverable	Ground Water	6010D	631641
240-213361-5	MW-17-17	Total Recoverable	Water	6010D	631641
240-213361-6	MW-16-02	Total Recoverable	Ground Water	6010D	631641
240-213361-7	MW-17-16	Total Recoverable	Water	6010D	631641
240-213361-8	MW-16-01	Total Recoverable	Ground Water	6010D	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6010D	631641
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	6010D	631641

General Chemistry

Analysis Batch: 631808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-1	MW-17-06	Total/NA	Water	SM 2540C	
240-213361-2	DUP-01	Total/NA	Ground Water	SM 2540C	
MB 240-631808/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-631808/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 631901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-3	MW-17-07	Total/NA	Water	SM 2540C	
240-213361-4	MW-16-03	Total/NA	Ground Water	SM 2540C	

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QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

General Chemistry (Continued)

Analysis Batch: 631901 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-5	MW-17-17	Total/NA	Water	SM 2540C	
240-213361-7	MW-17-16	Total/NA	Water	SM 2540C	
240-213361-8	MW-16-01	Total/NA	Ground Water	SM 2540C	
MB 240-631901/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-631901/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-213361-7 DU	MW-17-16	Total/NA	Water	SM 2540C	

Analysis Batch: 632010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-6	MW-16-02	Total/NA	Ground Water	SM 2540C	
MB 240-632010/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-632010/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 632819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213361-1	MW-17-06	Total/NA	Water	9056A	
240-213361-1	MW-17-06	Total/NA	Water	9056A	
240-213361-2	DUP-01	Total/NA	Ground Water	9056A	
240-213361-2	DUP-01	Total/NA	Ground Water	9056A	
240-213361-3	MW-17-07	Total/NA	Water	9056A	
240-213361-3	MW-17-07	Total/NA	Water	9056A	
240-213361-4	MW-16-03	Total/NA	Ground Water	9056A	
240-213361-5	MW-17-17	Total/NA	Water	9056A	
240-213361-6	MW-16-02	Total/NA	Ground Water	9056A	
240-213361-6	MW-16-02	Total/NA	Ground Water	9056A	
240-213361-7	MW-17-16	Total/NA	Water	9056A	
240-213361-8	MW-16-01	Total/NA	Ground Water	9056A	
240-213361-8	MW-16-01	Total/NA	Ground Water	9056A	
MB 240-632819/3	Method Blank	Total/NA	Water	9056A	
LCS 240-632819/4	Lab Control Sample	Total/NA	Water	9056A	
240-213361-4 MS	MW-16-03	Total/NA	Ground Water	9056A	
240-213361-4 MSD	MW-16-03	Total/NA	Ground Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-17-06

Lab Sample ID: 240-213361-1

Date Collected: 10/16/24 07:40

Matrix: Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 16:46
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:07
Total/NA	Analysis	9056A		2	632819	JMR	EET CLE	10/30/24 11:32
Total/NA	Analysis	9056A		10	632819	JMR	EET CLE	10/30/24 11:52
Total/NA	Analysis	SM 2540C		1	631808	TAV2	EET CLE	10/22/24 08:01

Client Sample ID: DUP-01

Lab Sample ID: 240-213361-2

Date Collected: 10/16/24 00:00

Matrix: Ground Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 16:50
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:10
Total/NA	Analysis	9056A		2	632819	JMR	EET CLE	10/30/24 13:11
Total/NA	Analysis	9056A		10	632819	JMR	EET CLE	10/30/24 13:31
Total/NA	Analysis	SM 2540C		1	631808	TAV2	EET CLE	10/22/24 08:01

Client Sample ID: MW-17-07

Lab Sample ID: 240-213361-3

Date Collected: 10/16/24 09:01

Matrix: Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 16:54
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:12
Total/NA	Analysis	9056A		5	632819	JMR	EET CLE	10/30/24 13:50
Total/NA	Analysis	9056A		25	632819	JMR	EET CLE	10/30/24 14:49
Total/NA	Analysis	SM 2540C		1	631901	TAV2	EET CLE	10/22/24 11:48

Client Sample ID: MW-16-03

Lab Sample ID: 240-213361-4

Date Collected: 10/16/24 10:06

Matrix: Ground Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 17:07
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:15
Total/NA	Analysis	9056A		1	632819	JMR	EET CLE	10/30/24 12:12

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Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-16-03

Date Collected: 10/16/24 10:06

Date Received: 10/19/24 08:00

Lab Sample ID: 240-213361-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	631901	TAV2	EET CLE	10/22/24 11:48

Client Sample ID: MW-17-17

Date Collected: 10/16/24 10:35

Date Received: 10/19/24 08:00

Lab Sample ID: 240-213361-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 17:12
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:18
Total/NA	Analysis	9056A		1	632819	JMR	EET CLE	10/30/24 15:09
Total/NA	Analysis	SM 2540C		1	631901	TAV2	EET CLE	10/22/24 11:48

Client Sample ID: MW-16-02

Date Collected: 10/16/24 12:10

Date Received: 10/19/24 08:00

Lab Sample ID: 240-213361-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 17:16
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:20
Total/NA	Analysis	9056A		1	632819	JMR	EET CLE	10/30/24 15:29
Total/NA	Analysis	9056A		5	632819	JMR	EET CLE	10/30/24 15:49
Total/NA	Analysis	SM 2540C		1	632010	TAV2	EET CLE	10/23/24 08:00

Client Sample ID: MW-17-16

Date Collected: 10/16/24 12:40

Date Received: 10/19/24 08:00

Lab Sample ID: 240-213361-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 17:20
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:23
Total/NA	Analysis	9056A		1	632819	JMR	EET CLE	10/30/24 16:08
Total/NA	Analysis	SM 2540C		1	631901	TAV2	EET CLE	10/22/24 11:48

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-213361-8

Date Collected: 10/16/24 13:35

Matrix: Ground Water

Date Received: 10/19/24 08:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 17:24
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 16:26
Total/NA	Analysis	9056A		1	632819	JMR	EET CLE	10/30/24 16:28
Total/NA	Analysis	9056A		5	632819	JMR	EET CLE	10/30/24 16:48
Total/NA	Analysis	SM 2540C		1	631901	TAV2	EET CLE	10/22/24 11:48

Laboratory References:

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



Accreditation/Certification Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213361-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24


Eurofins Cleveland

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

Chain of Custody Record



eurofins | Environment Testing

Client Information		Sampler: <u>JAWA JASSY</u>		Lab PM: Brooks, Kris M		Carrier Tracking No(s):		COC No: 240-125168-41693.2			
Client Contact: Chris Scieszka		Phone: <u>334 904 336</u>		E-Mail: Kris.Brooks@et.eurofinsus.com		State of Origin:		Page: Page of			
Company: TRC Environmental Corporation.		PWSID:		Analysis Requested						Job #:	
Address: 1540 Eisenhower Place		Due Date Requested:								Preservation Codes: N - None D - HNO3	
City: Ann Arbor		TAT Requested (days):		Field Filtered Sample (Yes or No) Field Filtered MSD (Yes or No) 2540C_Calcd - TDS 9056A_28D - Chloride, Fluoride and Sulfate 6010D B, 6020B Ca 9315_Re226 - Standard Target List 9320_Re228 - Standard Target List 6020B - 11 Metals - App IV/Part 115		Total Number of containers		Other:			
State, Zip: MI, 48108-7080		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 313-971-7080(Tel) 313-971-9022(Fax)		PO #: <u>244275</u>									
Email: CScieszka@trccompanies.com		WO #: 605116 phase 1									
Project Name: CCR DTE River Rouge Power Plant		Project #: 24016806									
Site: Michigan		SSOW#:									
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)		Special Instructions/Note:	
								Preservation Code:			
<u>MW-17-04</u>		<u>10/16/24</u>		<u>0740</u>		<u>G</u>		<u>Water</u>		 24C 213361 COC	
<u>Dup #01</u>		<u>" "</u>		<u>" "</u>		<u>G</u>		<u>Water</u>			
<u>MW-17-07</u>		<u>11/11/24</u>		<u>0801</u>		<u>G</u>		<u>Water</u>			
<u>MW-16-03</u>		<u>11/17/24</u>		<u>1006</u>		<u>G</u>		<u>Water</u>			
<u>MW-17-15</u>		<u>11/11/24</u>		<u>1035</u>		<u>G</u>		<u>Water</u>			
<u>MW-16-02</u>		<u>11/11/24</u>		<u>1210</u>		<u>G</u>		<u>Water</u>			
<u>MW-17-16</u>		<u>11/11/24</u>		<u>1240</u>		<u>G</u>		<u>Water</u>			
<u>MW-16-01</u>		<u>11/11/24</u>		<u>1305</u>		<u>G</u>		<u>Water</u>			
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Deliverable Requested: I, II, III, IV, Other (specify)				<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>10/16/24 1500</u>		Company: <u>TRC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>10/18/24 1216</u>		Company: <u>EETA</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>10/18/24 1400</u>		Company: <u>EETA</u>		Received by: <u>J MOROSKO</u>		Date/Time: <u>10/19/24 0800</u>		Company: <u>EETA</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:							



Eurofins - Cleveland Sample Receipt Form/Narrative Login # : _____
 Barberton Facility Cooler unpacked by: MMOROSKO

Client TRC Site Name _____
 Cooler Received on 10/14/24 Opened on 10/14/24
 FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____
 Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # FC 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 # 17 (CF TD.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

Tests that are not checked for pH by Receiving: VOA's Oil and Grease TOC

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No NA
 -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/Methg)? Yes No NA
 -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)? Yes No
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
13. Were all preserved sample(s) at the correct pH upon receipt? If yes, Questions 13-17 have been checked at the originating laboratory. Yes No NA pH Strip Lot# HC447997
14. Were VOAs on the COC? Yes No NA
15. Were air bubbles >6 mm in any VOA vials? Yes No NA Larger than this.
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

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: _____



Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservation Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
MW17-06	240-213361-A-1	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW17-06	240-213361-B-1	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW17-06	240-213361-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW17-06	240-213361-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-01	240-213361-A-2	Plastic 125mL - unpreserved	_____	_____	_____	_____
DUP-01	240-213361-B-2	Plastic 500ml - unpreserved	_____	_____	_____	_____
DUP-01	240-213361-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-01	240-213361-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW17-07	240-213361-A-3	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW17-07	240-213361-B-3	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW17-07	240-213361-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW17-07	240-213361-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-16-03	240-213361-A-4	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-16-03	240-213361-B-4	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-16-03	240-213361-C-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-16-03	240-213361-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-17	240-213361-A-5	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-17	240-213361-B-5	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-17	240-213361-C-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-17	240-213361-D-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-16-02	240-213361-A-6	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-16-02	240-213361-B-6	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-16-02	240-213361-C-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-16-02	240-213361-D-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-16	240-213361-A-7	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-17-16	240-213361-B-7	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-17-16	240-213361-C-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-16	240-213361-D-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-16-01	240-213361-A-8	Plastic 125mL - unpreserved	_____	_____	_____	_____
MW-16-01	240-213361-B-8	Plastic 500ml - unpreserved	_____	_____	_____	_____
MW-16-01	240-213361-C-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-16-01	240-213361-D-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

CCR DTE River Rouge Power Plant

JOB NUMBER

240-213362-1

Eurofins Cleveland

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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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Job ID: 240-213362-1

Eurofins Cleveland

Job Narrative 240-213362-1

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

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

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

Receipt

The samples were received on 10/19/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.3°C, 1.7°C, 2.2°C and 2.4°C.

Gas Flow Proportional Counter

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

Rad

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

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Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213362-1	MW-17-06	Water	10/16/24 17:42	10/19/24 08:00
240-213362-2	DUP-01	Ground Water	10/16/24 00:00	10/19/24 08:00
240-213362-3	MW17-07	Water	10/16/24 09:01	10/19/24 08:00
240-213362-4	MW-16-03	Ground Water	10/16/24 10:06	10/19/24 08:00
240-213362-5	MW-17-17	Water	10/16/24 10:35	10/19/24 08:00
240-213362-6	MW-16-02	Ground Water	10/16/24 12:10	10/19/24 08:00
240-213362-7	MW-17-16	Water	10/16/24 12:40	10/19/24 08:00
240-213362-8	MW-16-01	Ground Water	10/16/24 13:05	10/19/24 08:00

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Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-17-06 **Lab Sample ID: 240-213362-1**

No Detections.

Client Sample ID: DUP-01 **Lab Sample ID: 240-213362-2**

No Detections.

Client Sample ID: MW17-07 **Lab Sample ID: 240-213362-3**

No Detections.

Client Sample ID: MW-16-03 **Lab Sample ID: 240-213362-4**

No Detections.

Client Sample ID: MW-17-17 **Lab Sample ID: 240-213362-5**

No Detections.

Client Sample ID: MW-16-02 **Lab Sample ID: 240-213362-6**

No Detections.

Client Sample ID: MW-17-16 **Lab Sample ID: 240-213362-7**

No Detections.

Client Sample ID: MW-16-01 **Lab Sample ID: 240-213362-8**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland



Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-17-06

Lab Sample ID: 240-213362-1

Date Collected: 10/16/24 17:42

Matrix: Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.871		0.202	0.217	1.00	0.163	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.21		0.492	0.532	1.00	0.490	pCi/L	10/23/24 08:36	11/12/24 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110					10/23/24 08:36	11/12/24 11:59	1
Y Carrier	82.2		30 - 110					10/23/24 08:36	11/12/24 11:59	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.08		0.532	0.575	5.00	0.490	pCi/L		11/18/24 13:20	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: DUP-01

Lab Sample ID: 240-213362-2

Date Collected: 10/16/24 00:00

Matrix: Ground Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.798		0.190	0.203	1.00	0.135	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.61		0.402	0.429	1.00	0.397	pCi/L	10/23/24 08:36	11/12/24 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110					10/23/24 08:36	11/12/24 11:59	1
Y Carrier	89.3		30 - 110					10/23/24 08:36	11/12/24 11:59	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.41		0.445	0.475	5.00	0.397	pCi/L		11/18/24 13:20	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW17-07

Lab Sample ID: 240-213362-3

Date Collected: 10/16/24 09:01

Matrix: Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.222		0.116	0.118	1.00	0.139	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.0		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.882		0.381	0.389	1.00	0.489	pCi/L	10/23/24 08:36	11/12/24 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.0		30 - 110					10/23/24 08:36	11/12/24 11:59	1
Y Carrier	75.5		30 - 110					10/23/24 08:36	11/12/24 11:59	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.398	0.407	5.00	0.489	pCi/L		11/18/24 13:20	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-16-03

Lab Sample ID: 240-213362-4

Date Collected: 10/16/24 10:06

Matrix: Ground Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.129	U	0.117	0.118	1.00	0.177	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.8		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.17		0.520	0.531	1.00	0.685	pCi/L	10/23/24 08:36	11/12/24 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.8		30 - 110					10/23/24 08:36	11/12/24 11:59	1
Y Carrier	74.4		30 - 110					10/23/24 08:36	11/12/24 11:59	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.30		0.533	0.544	5.00	0.685	pCi/L		11/18/24 13:20	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-17-17

Lab Sample ID: 240-213362-5

Date Collected: 10/16/24 10:35

Matrix: Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.216		0.148	0.149	1.00	0.210	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.4		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.433	U	0.383	0.385	1.00	0.603	pCi/L	10/23/24 08:36	11/12/24 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.4		30 - 110					10/23/24 08:36	11/12/24 11:59	1
Y Carrier	79.6		30 - 110					10/23/24 08:36	11/12/24 11:59	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.649		0.411	0.413	5.00	0.603	pCi/L		11/18/24 13:20	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-16-02

Lab Sample ID: 240-213362-6

Date Collected: 10/16/24 12:10

Matrix: Ground Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.580		0.175	0.183	1.00	0.151	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.754		0.375	0.382	1.00	0.506	pCi/L	10/23/24 08:36	11/12/24 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					10/23/24 08:36	11/12/24 11:59	1
Y Carrier	83.0		30 - 110					10/23/24 08:36	11/12/24 11:59	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.33		0.414	0.424	5.00	0.506	pCi/L		11/18/24 13:20	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-17-16

Lab Sample ID: 240-213362-7

Date Collected: 10/16/24 12:40

Matrix: Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.336		0.140	0.143	1.00	0.147	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.746		0.367	0.374	1.00	0.490	pCi/L	10/23/24 08:36	11/12/24 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					10/23/24 08:36	11/12/24 11:59	1
Y Carrier	80.4		30 - 110					10/23/24 08:36	11/12/24 11:59	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.393	0.400	5.00	0.490	pCi/L		11/18/24 13:20	1

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-213362-8

Date Collected: 10/16/24 13:05

Matrix: Ground Water

Date Received: 10/19/24 08:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.119	U	0.111	0.112	1.00	0.172	pCi/L	10/23/24 08:32	11/15/24 20:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		30 - 110					10/23/24 08:32	11/15/24 20:12	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.621		0.374	0.378	1.00	0.546	pCi/L	10/23/24 08:36	11/12/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		30 - 110					10/23/24 08:36	11/12/24 12:05	1
Y Carrier	85.2		30 - 110					10/23/24 08:36	11/12/24 12:05	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.741		0.390	0.394	5.00	0.546	pCi/L		11/18/24 13:20	1

Tracer/Carrier Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Ground Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-213362-2	DUP-01	104	
240-213362-4	MW-16-03	74.8	
240-213362-6	MW-16-02	85.6	
240-213362-8	MW-16-01	89.0	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-213362-1	MW-17-06	104	
240-213362-3	MW17-07	99.0	
240-213362-5	MW-17-17	83.4	
240-213362-7	MW-17-16	91.2	
LCS 160-684724/2-A	Lab Control Sample	97.8	
MB 160-684724/1-A	Method Blank	96.1	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Ground Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-213362-2	DUP-01	104	89.3
240-213362-4	MW-16-03	74.8	74.4
240-213362-6	MW-16-02	85.6	83.0
240-213362-8	MW-16-01	89.0	85.2
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-213362-1	MW-17-06	104	82.2
240-213362-3	MW17-07	99.0	75.5
240-213362-5	MW-17-17	83.4	79.6
240-213362-7	MW-17-16	91.2	80.4
LCS 160-684725/2-A	Lab Control Sample	97.8	80.4
MB 160-684725/1-A	Method Blank	96.1	87.9
Tracer/Carrier Legend			

Tracer/Carrier Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant
Ba = Ba Carrier
Y = Y Carrier

Job ID: 240-213362-1

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QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-684724/1-A
Matrix: Water
Analysis Batch: 688645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684724

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.02842	U	0.0745	0.0746	1.00	0.165	pCi/L	10/23/24 08:32	11/15/24 20:02	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	96.1		30 - 110		10/23/24 08:32	11/15/24 20:02	1			

Lab Sample ID: LCS 160-684724/2-A
Matrix: Water
Analysis Batch: 688645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684724

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	9.58	8.817		0.993	1.00	0.122	pCi/L	92	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	97.8		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-684725/1-A
Matrix: Water
Analysis Batch: 688057

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684725

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2912	U	0.290	0.291	1.00	0.466	pCi/L	10/23/24 08:36	11/12/24 11:56	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	96.1		30 - 110		10/23/24 08:36	11/12/24 11:56	1			
Y Carrier	87.9		30 - 110		10/23/24 08:36	11/12/24 11:56	1			

Lab Sample ID: LCS 160-684725/2-A
Matrix: Water
Analysis Batch: 688057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684725

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	8.35	8.036		1.13	1.00	0.448	pCi/L	96	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	97.8		30 - 110						
Y Carrier	80.4		30 - 110						

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Rad

Prep Batch: 684724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213362-1	MW-17-06	Total/NA	Water	PrecSep-21	
240-213362-2	DUP-01	Total/NA	Ground Water	PrecSep-21	
240-213362-3	MW17-07	Total/NA	Water	PrecSep-21	
240-213362-4	MW-16-03	Total/NA	Ground Water	PrecSep-21	
240-213362-5	MW-17-17	Total/NA	Water	PrecSep-21	
240-213362-6	MW-16-02	Total/NA	Ground Water	PrecSep-21	
240-213362-7	MW-17-16	Total/NA	Water	PrecSep-21	
240-213362-8	MW-16-01	Total/NA	Ground Water	PrecSep-21	
MB 160-684724/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-684724/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 684725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213362-1	MW-17-06	Total/NA	Water	PrecSep_0	
240-213362-2	DUP-01	Total/NA	Ground Water	PrecSep_0	
240-213362-3	MW17-07	Total/NA	Water	PrecSep_0	
240-213362-4	MW-16-03	Total/NA	Ground Water	PrecSep_0	
240-213362-5	MW-17-17	Total/NA	Water	PrecSep_0	
240-213362-6	MW-16-02	Total/NA	Ground Water	PrecSep_0	
240-213362-7	MW-17-16	Total/NA	Water	PrecSep_0	
240-213362-8	MW-16-01	Total/NA	Ground Water	PrecSep_0	
MB 160-684725/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-684725/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-17-06

Lab Sample ID: 240-213362-1

Date Collected: 10/16/24 17:42

Matrix: Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688057	SWS	EET SL	11/12/24 11:59
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Client Sample ID: DUP-01

Lab Sample ID: 240-213362-2

Date Collected: 10/16/24 00:00

Matrix: Ground Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688057	SWS	EET SL	11/12/24 11:59
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Client Sample ID: MW17-07

Lab Sample ID: 240-213362-3

Date Collected: 10/16/24 09:01

Matrix: Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688057	SWS	EET SL	11/12/24 11:59
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Client Sample ID: MW-16-03

Lab Sample ID: 240-213362-4

Date Collected: 10/16/24 10:06

Matrix: Ground Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688057	SWS	EET SL	11/12/24 11:59
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Client Sample ID: MW-17-17

Lab Sample ID: 240-213362-5

Date Collected: 10/16/24 10:35

Matrix: Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688057	SWS	EET SL	11/12/24 11:59
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Client Sample ID: MW-16-02

Lab Sample ID: 240-213362-6

Date Collected: 10/16/24 12:10

Matrix: Ground Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688057	SWS	EET SL	11/12/24 11:59
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Client Sample ID: MW-17-16

Lab Sample ID: 240-213362-7

Date Collected: 10/16/24 12:40

Matrix: Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688057	SWS	EET SL	11/12/24 11:59
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Client Sample ID: MW-16-01

Lab Sample ID: 240-213362-8

Date Collected: 10/16/24 13:05

Matrix: Ground Water

Date Received: 10/19/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684724	MLT	EET SL	10/23/24 08:32
Total/NA	Analysis	9315		1	688682	SWS	EET SL	11/15/24 20:12
Total/NA	Prep	PrecSep_0			684725	MLT	EET SL	10/23/24 08:36
Total/NA	Analysis	9320		1	688158	CMM	EET SL	11/12/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	689179	SCB	EET SL	11/18/24 13:20

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: TRC Environmental Corporation.
 Project/Site: CCR DTE River Rouge Power Plant

Job ID: 240-213362-1

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* 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



Chain of Custody Record



Environment Testing

Client Information		Sampler: JAWW JASSO		Lab PM: Brooks, Kris M		Carrier Tracking No(s):		COC No: 240-125168-41693.2																																																																																																																																																									
Client Contact: Chris Scieszka		Phone: 734 904 376		E-Mail: Kris.Brooks@et.eurofinsus.com		State of Origin:		Page: Page of																																																																																																																																																									
Company: TRC Environmental Corporation.		PWSID:		Analysis Requested						Job #:																																																																																																																																																							
Address: 1540 Eisenhower Place		Due Date Requested:		<table border="1"> <tr> <td rowspan="5">Field Filtered Sample (Yes or No)</td> <td rowspan="5">Perform MS/MSD (Yes or No)</td> <td rowspan="5">2640C_Calcd - TDS</td> <td rowspan="5">9086A_28D - Chloride, Fluoride and Sulfate</td> <td rowspan="5">6010D B, 6020B Ca</td> <td rowspan="5">9315_Ra226 - Standard Target List</td> <td rowspan="5">9320_Ra228 - Standard Target List</td> <td rowspan="5">6020B - 11 Metals - App IV/Part 115</td> <td rowspan="5">Total Number of containers</td> </tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2640C_Calcd - TDS	9086A_28D - Chloride, Fluoride and Sulfate	6010D B, 6020B Ca	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B - 11 Metals - App IV/Part 115	Total Number of containers					Preservation Codes: N - None D - HNO3																																																																																																																																										
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2640C_Calcd - TDS	9086A_28D - Chloride, Fluoride and Sulfate																6010D B, 6020B Ca	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B - 11 Metals - App IV/Part 115	Total Number of containers																																																																																																																																										
City: Ann Arbor		TAT Requested (days):		Other:																																																																																																																																																													
State, Zip: MI, 48108-7080		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Special Instructions/Note:																																																																																																																																																													
Phone: 313-971-7080(Tel) 313-971-9022(Fax)		PO #: 214275 - 214275		<table border="1"> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, AA=Air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>2640C_Calcd - TDS</th> <th>9086A_28D - Chloride, Fluoride and Sulfate</th> <th>6010D B, 6020B Ca</th> <th>9315_Ra226 - Standard Target List</th> <th>9320_Ra228 - Standard Target List</th> <th>6020B - 11 Metals - App IV/Part 115</th> <th>Total Number of containers</th> </tr> <tr> <td colspan="14">Preservation Code: N N D D D D</td> </tr> <tr> <td>MW-17-06</td> <td>10/16/24</td> <td>0742</td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>DUP #01</td> <td>11/1/24</td> <td> </td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>MW-17-07</td> <td>11/1/24</td> <td>0901</td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>MW-16-03</td> <td>11/11/24</td> <td>1000</td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>MW-17-17</td> <td>11/11/24</td> <td>1035</td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>MW-16-02</td> <td>11/11/24</td> <td>1240</td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>MW-17-16</td> <td>11/11/24</td> <td>1340</td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>MW-16-01</td> <td>11/11/24</td> <td>1355</td> <td>G</td> <td>Water</td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>						Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, AA=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2640C_Calcd - TDS	9086A_28D - Chloride, Fluoride and Sulfate	6010D B, 6020B Ca	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	6020B - 11 Metals - App IV/Part 115	Total Number of containers	Preservation Code: N N D D D D														MW-17-06	10/16/24	0742	G	Water										DUP #01	11/1/24		G	Water										MW-17-07	11/1/24	0901	G	Water										MW-16-03	11/11/24	1000	G	Water										MW-17-17	11/11/24	1035	G	Water										MW-16-02	11/11/24	1240	G	Water										MW-17-16	11/11/24	1340	G	Water										MW-16-01	11/11/24	1355	G	Water																					
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Client TRC Site Name _____
 Cooler Received on 10/19/24 Opened on 10/19/24
 FedEx: 1st Grd Exp UPS FAS Wagpoint Client Drop Off Eurofins Courier Other _____
 Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # FC 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 # 17 (CF TD | °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 Cooler unpacked by: IMOROSKO

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
 -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 (LIHg/MeHg)? Yes No NA
 -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)? Yes No
 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.

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

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC447997
 14. Were VOAs on the COC? Yes No
 15. Were air bubbles >6 mm in any VOA vials? Yes No NA Larger than this.
 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

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: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Container Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
MW17-06	240-213362-A-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW17-06	240-213362-B-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-01	240-213362-A-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-01	240-213362-B-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW17-07	240-213362-A-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW17-07	240-213362-B-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-16-03	240-213362-A-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-16-03	240-213362-B-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW17-17	240-213362-A-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW17-17	240-213362-B-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-16-02	240-213362-A-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-16-02	240-213362-B-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW17-10	240-213362-A-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW17-10	240-213362-B-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-16-01	240-213362-A-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-16-01	240-213362-B-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Brooks, Kris M	Carrier Tracking No(s): N/A	COC No: 240-192458.1
Shipping/Receiving Company: TestAmerica Laboratories, Inc.		E-Mail: Kris.Brooks@et.eurofins.com	State of Origin: Michigan	Page 1 of 1
Address: 13715 Rider Trail North, Earth City, MO, 63045		Accreditations Required (See note): N/A	Job #: 240-213362-1	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Preservation Codes:		
Email: N/A		Analysis Requested		
Project Name: CCR DTE River Rouge Power Plant		Perform MS/MSD (Yes or No)		
Site: TRC CCR DTE River Rouge Power Plant		Field Returned Samples (Yes or No)		
		9315_Ra226/PreSep_21 Standard Target List		
		9320_Ra226/PreSep_0 Standard Target List		
		Ra226Ra228_GFPc		
		Total Number of Containers		
		Special Instructions/Note:		
		Other: N/A		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=soil, BT=Tissue, A=Air)	Preservation Code	Field Returned Samples (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PreSep_21 Standard Target List	9320_Ra226/PreSep_0 Standard Target List	Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note
MW-17-06 (240-213362-1)	10/16/24	17:42 Eastern	G	Water		X	X	X	X		2	
DUP-01 (240-213362-2)	10/16/24	Eastern	G	Water		X	X	X	X		2	
MW17-07 (240-213362-3)	10/16/24	09:01 Eastern	G	Water		X	X	X	X		2	
MW-16-03 (240-213362-4)	10/16/24	10:06 Eastern	G	Water		X	X	X	X		2	
MW-17-17 (240-213362-5)	10/16/24	10:35 Eastern	G	Water		X	X	X	X		2	
MW-16-02 (240-213362-6)	10/16/24	12:10 Eastern	G	Water		X	X	X	X		2	
MW-17-16 (240-213362-7)	10/16/24	12:40 Eastern	G	Water		X	X	X	X		2	
MW-16-01 (240-213362-8)	10/16/24	13:05 Eastern	G	Water		X	X	X	X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

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:

Empty Kit Relinquished by: _____ Date: _____ Time: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

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

Received by: _____ Date/Time: _____ Company: _____
 Received by: *M. Pinetta* Date/Time: *Oct 22 2024 09:00* Company: _____
 Received by: **Meadow Pinette** Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: TRC Environmental Corporation.

Job Number: 240-213362-1

Login Number: 213362

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 10/22/24 01:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Field Notes



PROJECT NAME:	DTE CCR RRPP 1SA24
PROJECT NUMBER:	553931.0005
PROJECT MANAGER:	V Buening
SITE LOCATION:	1 Belanger Park Drive Detroit, MI 48218
DATES OF FIELDWORK:	4/10/2024
	CCR GW 1SA2024
PURPOSE OF FIELDWORK:	
	A. Whaley, E. Rinehart
WORK PERFORMED BY:	

A. Whaley 4/11/24
SIGNED DATE

[Signature] 4/11/24
CHECKED BY DATE



GENERAL NOTES

PROJECT NAME: DTE CCR RPP 1SA24	DATE: <u>4/10/24</u>	TIME ARRIVED: <u>0710</u>
PROJECT NUMBER: 553931.0005	AUTHOR: <u>AW</u> ER	TIME LEFT: <u>1540</u>

WEATHER

TEMPERATURE: 50-68 °F WIND: 0-5 MPH VISIBILITY: Clear - Partly Cloudy

WORK / SAMPLING PERFORMED

Sitewide SWL - Elric | Sign on w/ security and complete site
 CCR GW sampling - Safety orientation w/ contact
Sample MW-16-01 (Dup-01), MW-16-02, MW-16-03, MW-17-07,
MW-17-16, MW-17-06

PROBLEMS ENCOUNTERED **CORRECTIVE ACTION TAKEN**

<u>MP-04 Destroyed</u>	<u>NA</u>

COMMUNICATION

NAME	REPRESENTING	SUBJECT / COMMENTS
<u>K Cratsenburg</u>	<u>TRC</u>	<u>Daily checkin, updates</u>
<u>Zach Pinkowski</u>	<u>DTE</u>	<u>Site contact, checkin/out</u>

INVESTIGATION DERIVED WASTE SUMMARY

WASTE MATRIX	QUANTITY	COMMENTS
<u>GW</u>	<u>NM</u>	<u>Purge to ground</u>
<u>Soil Drums</u>	<u>6 -55 gal</u>	<u>onsite from June 2023 MW Install</u>
<u>Purge water Drums</u>	<u>4 -55 gal</u>	

[Signature] 4/11/24
 SIGNED DATE

[Signature] 4/16/24
 CHECKED BY DATE



GENERAL NOTES

PROJECT NAME: DTE CCR RRPP 1SA24	DATE: 4/10/24	TIME ARRIVED: 740
PROJECT NUMBER: 553931.0005	AUTHOR: AW ER	TIME LEFT: 1540

WEATHER		
TEMPERATURE: <u>50-70</u> °F	WIND: <u>0-5</u> MPH	VISIBILITY: <u>Clear</u>
WORK / SAMPLING PERFORMED		
Sitewide SWL		
CCR GW sampling		
<u>Sign in with security 3 Safety orientation</u>		
<u>Water levels site wide</u>		
<u>Sample well MW 17-07</u>		

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN
<u>MW-17-15 P Missing</u>	<u>NA</u>
<u>MP-04 Destroyed</u>	<u>NA</u>

COMMUNICATION		
NAME	REPRESENTING	SUBJECT / COMMENTS
<u>K Cratsenburg</u>	<u>TRC</u>	<u>Daily checkin, updates</u>
<u>Zach Pinkowski</u>	<u>DTE</u>	<u>Site contact, checkin/out</u>

INVESTIGATION DERIVED WASTE SUMMARY		
WASTE MATRIX	QUANTITY	COMMENTS
<u>GW</u>	<u>NM</u>	<u>Purge to ground</u>
<u>Soil</u>	<u>6 - 55 gal</u>	<u>June 2023 MW mobilis</u>
<u>Water</u>	<u>4 - 55 gal</u>	<u>"</u>

[Signature] 4/10/24
 SIGNED DATE

[Signature] 4-11-24
 CHECKED BY DATE



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: DTE CCR RRPP 1SA24	MODEL: YSI ProDSS	SAMPLER: <u>(AW)</u> ER
PROJECT NO.: 553931.0005	SERIAL #: PROJECT	DATE: 4/10/24

PH CALIBRATION CHECK

(LOT #): <u>8621232</u> (EXP. DATE): <u>NOV/25</u>	(LOT #): <u>8621164</u> (EXP. DATE): <u>NOV/25</u>	CAL. RANGE	TIME
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
7.04 / 7.01	4.00 / 4.00	<input checked="" type="checkbox"/> WITHIN RANGE	0720
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

(LOT #): <u>4610971</u> (EXP. DATE): <u>5ant25</u>	TEMPERATURE (*CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
1160 / 1160	14.8	<input checked="" type="checkbox"/> WITHIN RANGE	0725
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

(LOT #): <u>235100312</u> (EXP. DATE): <u>4/28</u>	TEMPERATURE (*CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
237.1 / 237.1	15.2	<input checked="" type="checkbox"/> WITHIN RANGE	0730
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

(LOT #): <u>235100312</u> (EXP. DATE): <u>4/28</u>	TEMPERATURE (*CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / SATURATED AIR			
4.71 / 4.71	15.5	<input checked="" type="checkbox"/> WITHIN RANGE	0733
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): <u>21082077</u> (EXP. DATE): <u>4/22</u>	(LOT #): <u>21091013</u> (EXP. DATE): <u>7/22</u>		
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
0.00 / 0.00	10.0 / 10.0	<input checked="" type="checkbox"/> WITHIN RANGE	0740
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input type="checkbox"/> AUTOCAL SOLUTION	<input checked="" type="checkbox"/> STANDARD SOLUTION (S)
(LOT #):	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
(EXP. DATE):	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER

NOTES

Separate turbidity meter
LaMotte 2020t

PROBLEMS ENCOUNTERED	CORRECTIVE ACTIONS
None	

SIGNED: *Alan White* DATE: 4/11/24

CHECKED BY: *[Signature]* DATE: 4/11/24



WATER LEVEL DATA

PROJECT NAME: DTE CCR RRPP 1SA24	DATE: 4/10/24
PROJECT NUMBER: 553931.0005	AUTHOR: E. Rischert

WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	DEPTH TO BOTTOM (FEET)	DEPTH TO PRODUCT (FEET)	WATER ELEVATION
MW-17-01	858	TOC	2.74	20.75	NA	NM
MW-17-02	8:54	↓	6.5	27.48		
MW-17-03	9:03		5.75	27.97		
MW-17-03P	9:06		5.5	11.5		
MW-17-04	9:13		3.52	24.81		
MW-17-04P	9:17		2.35	8.28		
MW-17-05	9:33		6.12	26.3		
MW-17-06	10:40		6.93	28.13		
MW-17-07	7:45		5.2	24.25		
MW-17-07P	7:50		5.56	11.88		
MW-17-08	12:17		5.89	27.38		
MW-17-08P	12:20		5.95	13.76		
MW-17-09	8:14		6.72	27.76		
MW-17-10	7:58		6.0	25.56		
MW-17-11P	8:44		7.86	9.28		
MW-17-12	10:25		5.25	24.31		
MW-17-12P	10:24		2.87	6.58		
MW-17-13	10:55	4.23	23.22			
MW-17-13P	11:05	3.22	8.6			
MW-17-14	11:50	4.7	25.16			
MW-17-14P	12:43	4.88	9.9			
MW-17-15	10:15	5.04	23.95			
MW-17-15P	Missing					
MW-17-16	11:15	5.25	21.61			

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

SIGNED DATE 4/10/24

CHECKED DATE 4-11-24



WATER LEVEL DATA

PROJECT NAME: DTE CCR RRPP 1SA24	DATE: 4/10/24
PROJECT NUMBER: 553931.0005	AUTHOR: E. Rindoff

WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	DEPTH TO BOTTOM (FEET)	DEPTH TO PRODUCT (FEET)	WATER ELEVATION
MW-17-16P	1119	TOC	5.4	7.32		
MW-17-17	6032	↓	4.91	21.93		
MW-17-17P	1103		4.41	7.15		
MW-17-18	943		3.37	21.82		
MW-17-19	922		2.25	27.53		
MW-17-19P	959 965		1.54	7.17		
MW-17-20	1225		3.83	24.72		
MW-16-01	0800		8.66	NM		
MW-16-01P	1143		5.22	10.13		
MW-16-02	904		8.34	NM		
MW-16-02P	1112		7.9	15.16		
MW-16-03	947		8.44	NM		
MW-16-03P	1055		7.32	11.23		
MW-16-04S	1000		7.17	NM		
MW-16-04P	1010		0	NM		
MP-01	1100		2.06	NM		
MP-02	Removed					
MP-03-TRC	1249	4.21	NM			
MP-04	Removed					
PT-TW-01	1130	6.43	25.03			
PT-TW-02	1139	7.83	26.95			
PT-TW-03R	1133	7.55	26.40			
PT-TW-04R	1136	8.22	27.32			

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

SIGNED  DATE 4/10/24

CHECKED  DATE 4-11-24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 1SA24		PREPARED		CHECKED	
PROJECT NUMBER: 553931.0005		BY: <u>AW</u> ER	DATE: <u>4/10/24</u>	BY: <u>EIL</u>	DATE: <u>4/11/24</u>
SAMPLE ID: <u>MW-16-01</u>		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: <u>0800</u>	DATE: <u>4/10/24</u>	SAMPLE	TIME: <u>0820</u>	DATE: <u>4/10/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <u>Dedicated Bladder Pump</u>			PH: <u>10.12</u> SU	CONDUCTIVITY: <u>776</u> umhos/cm	
<input type="checkbox"/> BAILER			ORP: <u>-86.3</u> mV	DO: <u>2.04</u> mg/L	
DEPTH TO WATER: <u>8.66</u> T/ PVC			TURBIDITY: <u>3.16</u> NTU		
DEPTH TO BOTTOM: NM T/ PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			TEMPERATURE: <u>11.1</u> °C	OTHER: <u>-</u>	
VOLUME REMOVED: <u>4.0</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			COLOR: <u>Clear</u>	ODOR: <u>None</u>	
COLOR: <u>Clear</u>	ODOR: <u>None</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY			FILTRATE COLOR: NA		FILTRATE ODOR: NA
<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			QC SAMPLE: <input type="checkbox"/> MS/MSD <input checked="" type="checkbox"/> DUP- <u>01</u>		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR)
<u>0800</u>	<u>200</u>	<u>8.34</u>	<u>1011</u>	<u>46.2</u>	<u>3.70</u>	<u>1.98</u>	<u>11.2</u>	<u>8.66</u>	INITIAL
<u>0805</u>	<u>↓</u>	<u>9.87</u>	<u>811</u>	<u>-35.1</u>	<u>2.17</u>	<u>1.08</u>	<u>11.2</u>	<u>8.80</u>	<u>1.0</u>
<u>0810</u>	<u>↓</u>	<u>10.06</u>	<u>780</u>	<u>-54.4</u>	<u>2.10</u>	<u>1.52</u>	<u>11.2</u>	<u>↓</u>	<u>2.0</u>
<u>0815</u>	<u>↓</u>	<u>10.05</u>	<u>774</u>	<u>-72.8</u>	<u>2.07</u>	<u>3.50</u>	<u>11.1</u>	<u>↓</u>	<u>3.0</u>
<u>0820</u>	<u>↓</u>	<u>10.12</u>	<u>776</u>	<u>-86.3</u>	<u>2.04</u>	<u>3.16</u>	<u>11.1</u>	<u>↓</u>	<u>4.0</u>

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____							
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
<u>2</u>	<u>500</u> <u>250 mL</u>	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
<u>6</u>	<u>500</u> <u>250 mL</u>	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
<u>4</u>	1 L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
<u>2</u>	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>4/11/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE: <u>A. [Signature]</u>	DATE SIGNED: <u>4/11/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 1SA24		PREPARED		CHECKED	
PROJECT NUMBER: 553931.0005		BY: <u>AW</u> ER	DATE: <u>4/10/24</u>	BY: <u>ELL</u>	DATE: <u>4/10/24</u>
SAMPLE ID: <u>MW-16-02</u>		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: <u>0904</u>	DATE: <u>4/10/24</u>	SAMPLE	TIME: <u>0919</u>	DATE: <u>4/10/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <u>Dedicated Bladder Pump</u>			PH: <u>6.94</u> SU	CONDUCTIVITY: <u>1067</u> umhos/cm	
<input type="checkbox"/> BAILER			ORP: <u>4.0</u> mV	DO: <u>2.00</u> mg/L	
DEPTH TO WATER: <u>8.34</u> T/ PVC		TURBIDITY: <u>3.86</u> NTU			
DEPTH TO BOTTOM: NM T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: <u>11.9</u> °C		OTHER:	
VOLUME REMOVED: <u>3.0</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: <u>Clear</u>		ODOR: <u>None</u>	
COLOR: <u>Clear</u>		ODOR: <u>None</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
TURBIDITY		FILTRATE COLOR: NA		FILTRATE ODOR: NA	
<input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-			
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		COMMENTS:			

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
<u>0904</u>	<u>200</u>	<u>7.05</u>	<u>1045</u>	<u>26.0</u>	<u>5.40</u>	<u>1.12</u>	<u>11.8</u>	<u>8.8</u>	INITIAL
<u>0909</u>	↓	<u>6.95</u>	<u>1062</u>	<u>20.8</u>	<u>3.09</u>	<u>4.64</u>	<u>11.7</u>	↓	<u>1.0</u>
<u>0914</u>	↓	<u>6.93</u>	<u>1064</u>	<u>11.9</u>	<u>2.15</u>	<u>4.14</u>	<u>11.8</u>	↓	<u>2.0</u>
<u>0919</u>	↓	<u>6.94</u>	<u>1067</u>	<u>4.0</u>	<u>2.00</u>	<u>3.86</u>	<u>11.9</u>	↓	<u>3.0</u>

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
<u>1</u>	<u>250 mL</u>	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>3</u>	<u>250 mL</u>	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>2</u>	<u>1 L</u>	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>1</u>	<u>60 mL</u>	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>4/12/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE: <u>A. W...</u>	DATE SIGNED: <u>4/11/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 1SA24		PREPARED		CHECKED	
PROJECT NUMBER: 553931.0005		BY: <u>AW</u> ER	DATE: <u>4/10/24</u>	BY: <u>ER</u>	DATE: <u>4/11/24</u>
SAMPLE ID: <u>MW-16-03</u>		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: <u>0947</u>	DATE: <u>4/10/24</u>	SAMPLE	TIME: <u>1002</u>	DATE: <u>4/10/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <u>Dedicated Bladder</u> <input type="checkbox"/> BAILER	PH: <u>7.19</u> SU		CONDUCTIVITY: <u>485.3</u> umhos/cm		
		ORP: <u>-10.9</u> mV	DO: <u>1.90</u> mg/L		
DEPTH TO WATER: <u>8.44</u> T/ PVC		TURBIDITY: <u>6.52</u> NTU			
DEPTH TO BOTTOM: NM T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: <u>11.9</u> °C		OTHER:	
VOLUME REMOVED: <u>3</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: <u>Clear</u>		ODOR: <u>None</u>	
COLOR: <u>Clear</u> ODOR: <u>None</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
TURBIDITY <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR: NA		FILTRATE ODOR: NA	
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____			
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OF)
<u>0947</u>	<u>200</u>	<u>7.20</u>	<u>468.3</u>	<u>6.50</u>	<u>6.50</u>	<u>1.34</u>	<u>11.8</u>	<u>8.44</u>	INITIAL
<u>0952</u>	↓	<u>7.16</u>	<u>504</u>	<u>10.8</u>	<u>2.10</u>	<u>1.06</u>	<u>11.8</u>	<u>8.48</u>	<u>1.0</u>
<u>0957</u>	↓	<u>7.18</u>	<u>493.5</u>	<u>-2.0</u>	<u>1.94</u>	<u>0.88</u>	<u>11.9</u>	↓	<u>2.0</u>
<u>1002</u>	↓	<u>7.19</u>	<u>485.3</u>	<u>-10.9</u>	<u>1.90</u>	<u>0.52</u>	<u>11.9</u>	↓	<u>3.0</u>

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
<u>1</u>	<u>250</u> mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>3</u>	<u>250</u> mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>2</u>	1 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>1</u>	60 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>4-12-24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE: <u>A. White</u>	DATE SIGNED: <u>4-11-24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 1SA24	PREPARED	CHECKED
PROJECT NUMBER: 553931.0005	BY: <u>AW</u> ER	DATE: <u>4/10/24</u>
	BY: <u>ER</u>	DATE: <u>4/11/24</u>

SAMPLE ID: MW-17-17	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1032</u>	DATE: <u>4/10/24</u>	SAMPLE	TIME: <u>1052</u>	DATE: <u>4/10/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <u>Peristaltic</u>			PH: <u>7.06</u> SU	CONDUCTIVITY: <u>581</u> umhos/cm	
<input type="checkbox"/> BAILER			ORP: <u>-13.2</u> mV	DO: <u>1.88</u> mg/L	
DEPTH TO WATER: <u>4.91</u> T/ PVC			TURBIDITY: <u>1.00</u> NTU		
DEPTH TO BOTTOM: NM <u>2.95</u> PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			TEMPERATURE: <u>12.2</u> °C	OTHER: <u>-</u>	
VOLUME REMOVED: <u>3.0</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			COLOR: <u>Clear</u>	ODOR: <u>None</u>	
COLOR: <u>Clear - black sediment</u>	ODOR: <u>None</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY			FILTRATE COLOR: <u>NA</u>	FILTRATE ODOR: <u>NA</u>	
<input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> VERY			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- <u>-</u>		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1037	200	7.33	606	59.0	5.32	1.56	13.0	4.91	INITIAL
1042	↓	7.02	583	7.3	1.95	1.16	12.1	↓	1.0
1047	↓	7.05	581	-7.0	1.89	0.97	12.2	↓	2.0
1052	↓	7.06	581	-13.2	1.88	1.00	12.2	↓	3.0

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
3	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
2	1 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>4-12-24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE: <u>A. v. [Signature]</u>	DATE SIGNED: <u>4/11/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 1SA24	PREPARED	CHECKED
PROJECT NUMBER: 553931.0005	BY: <u>AW</u> ER	DATE: <u>4/10/24</u> BY: <u>EIL</u> DATE: <u>4/11/24</u>

SAMPLE ID: <u>MW-17-16</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1130</u>	DATE: <u>4/10/24</u>	SAMPLE	TIME: <u>1205</u>	DATE: <u>4/10/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <u>Peristaltic</u> <input type="checkbox"/> BAILER	PH: <u>7.30</u> SU	CONDUCTIVITY: <u>550</u> umhos/cm	ORP: <u>16.4</u> mV	DO: <u>1.80</u> mg/L	
DEPTH TO WATER: <u>5.25</u> T/ PVC	TURBIDITY: <u>5.78</u> NTU	<input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
DEPTH TO BOTTOM: <u>21.61</u> T/ PVC	TEMPERATURE: <u>12.4</u> °C	OTHER:			
WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: <u>Clear</u>	ODOR: <u>None</u>			
VOLUME REMOVED: <u>7.0</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FILTRATE COLOR: <u>NA</u> FILTRATE ODOR: <u>NA</u>			
COLOR: <u>Clear</u> ODOR: <u>None</u>	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-				
TURBIDITY <input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			COMMENTS:		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR $\frac{1}{8}$)
1130	↓	7.81	574	72.5	6.80	8.13	13.3	5.32	INITIAL
1135		7.46	537	76.3	2.26	6.84	12.1	5.70	1.0
1140		7.37	544	69.7	2.00	11.67	12.2		2.0
1145		7.34	546	64.5	1.95	8.19	12.2		3.0
1150		7.31	548	51.9	1.82	7.66	12.3		4.0
1155		7.29	552	36.6	1.80	5.84	12.3		5.0
1200		7.29	552	27.4	1.80	5.56	12.4		6.0
1205		7.30	550	16.4	1.80	5.78	12.4		7.0

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
3	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
2	1 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>4-12-24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE: <u>A. Whiteley</u>	DATE SIGNED: <u>4-11-24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 1SA24		PREPARED		CHECKED	
PROJECT NUMBER: 553931.0005		BY: <u>AW</u> ER	DATE: <u>4/11/04</u>	BY: <u>ER</u>	DATE: <u>4/11/04</u>
SAMPLE ID: <u>MW-17-06</u>		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: <u>1252</u>	DATE: <u>4/11/04</u>	SAMPLE	TIME: <u>1357</u>	DATE: <u>4/11/04</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <u>Peristaltic</u> <input type="checkbox"/> BAILER	PH: <u>6.69</u> SU		CONDUCTIVITY: <u>2951</u> umhos/cm		
DEPTH TO WATER: <u>6.97</u> T/ PVC		ORP: <u>-18.6</u> mV		DO: <u>1.68</u> mg/L	
DEPTH TO BOTTOM: <u>M28.13</u> T/ PVC		TURBIDITY: <u>14.1</u> NTU <input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: <u>NA</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: <u>14.9</u> °C		OTHER: <u>-</u>	
VOLUME REMOVED: <u>130</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: <u>Clear orange</u>		ODOR: <u>None</u>	
COLOR: <u>Orange tint</u>		ODOR: <u>None</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
TURBIDITY <input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR: <u>NA</u>		FILTRATE ODOR: <u>NA</u>	
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____			
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1252	200	6.97	3080	33.0	2.70	109.9	14.6	6.97	INITIAL
1257		6.63	3065	0.7	1.78	77.9	14.8		1.0
1302		6.64	3040	-11.0	1.70	56.4	14.8		2.0
1307		6.65	3012	-13.8	1.69	47.5	14.7		3.0
1312		6.66	2991	-16.5	1.67	38.7	14.8		4.0
1317		6.66	2973	-18.1	1.66	31.0	14.8		5.0
1322		6.67	2967	-18.9	1.66	26.9	14.8		6.0
1327		6.67	2952	-18.9	1.67	23.0	14.7		7.0
1332		6.68	2945	-18.8	1.67	19.0	14.7		8.0
1337		6.68	2933	-19.0	1.66	18.9	14.8		9.0

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
3	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
2	1 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>4-12-04</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE: <u>A. White</u>	DATE SIGNED: <u>4-11-04</u>



WATER SAMPLE LOG

(CONTINUED FROM PREVIOUS PAGE)

PROJECT NAME: DTE CCR RRPP 1SA24	PREPARED		CHECKED	
PROJECT NUMBER: 553931.0005	BY: <u>AW</u> ER	DATE: <u>4/10/24</u>	BY: <u>EIL</u>	DATE: <u>4/11/24</u>

SAMPLE ID: MW-17-06

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1342	200	6.68	2937	-18.9	1.65	16.0	14.9	6.97	10.0
1347	↓	6.69	2935	-18.6	1.65	14.4	14.9	↓	11.0
1352	↓	6.69	2942	-18.6	1.64	15.5	14.9	↓	12.0
1357	↓	6.69	2934	-18.6	1.64	14.1	14.9	↓	13.0

SIGNATURE: [Signature]

DATE SIGNED: 4-11-24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 1SA24	PREPARED	CHECKED
PROJECT NUMBER: 553931.0005	BY: AW <i>ER</i> DATE: 4/10/24	BY: AW DATE: 4-11-24

SAMPLE ID: MW- 17-07	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1410	DATE: 4/10/24	SAMPLE	TIME: 1500	DATE: 4/10/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <i>Peristaltic</i> <input type="checkbox"/> BAILER	PH: 6.74	SU	CONDUCTIVITY: 6704	umhos/cm	
	ORP: -9.5	mV	DO: 1.73	mg/L	
DEPTH TO WATER: 5.3	T/ PVC		TURBIDITY: 4.42	NTU	
DEPTH TO BOTTOM: 11.25 25.25	T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: NM	<input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	TEMPERATURE: 12.5	°C OTHER:		
VOLUME REMOVED: 4.0	<input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: Clear	ODOR: No		
COLOR: Orange	ODOR: No	FILTRATE (0.45 um)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY			FILTRATE COLOR: NA	FILTRATE ODOR: NA	
<input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> VERY	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-				
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER	COMMENTS:				

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1410	200	6.8	6904	72.2	2.22	0.7	12.8	5.3	INITIAL
1415	↓	6.75	6845	62.7	2.06	68.7	12.7	7.53	1.00
1420		6.72	6829	32.7	1.83	38.1	12.7	7.65	2.00
1425		6.72	6803	12.9	1.77	20.7	12.8	7.64	3.00
1430		6.73	6782	9.3	1.75	14.6	12.7	—	4.0
1435		6.73	6775	3.6	1.74	14.3	12.7	↓	5.0
1440		6.73	6735	-0.5	1.77	14.3	12.5	↓	6.0
1445		6.74	6715	-3.5	1.73	9.34	12.4	↓	7.0
1450		6.74	6714	-5.8	1.72	5.08	12.5	↓	8.0
1455	6.74	6705	-7.9	1.77	3.05	12.4	↓	9.0	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
3	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
2	1 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: Courier	DATE SHIPPED: 4-11-24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE: <i>[Signature]</i>	DATE SIGNED: 4/12/24



WATER SAMPLE LOG

(CONTINUED FROM PREVIOUS PAGE)

PROJECT NAME: DTE CCR RRPP 1SA24	PREPARED	CHECKED
PROJECT NUMBER: 553931.0005	BY: AW ER DATE: <u>4/10/24</u>	BY: <u>AW</u> DATE: <u>4-11-24</u>

SAMPLE ID: MW- 17-07

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
<u>1500</u>	<u>200</u>	<u>6.74</u>	<u>6704</u>	<u>-9.5</u>	<u>1.73</u>	<u>4.42</u>	<u>12.5</u>	<u>7.64</u>	<u>10.0</u>

SIGNATURE: [Handwritten Signature]

DATE SIGNED: 4/10/24

REVISED 04/2019

Client Information Company: TRC Environmental Corporation. Address: 1540 Eisenhower Place City: Ann Arbor State, Zip: MI, 48108-7080 Phone: 248-774-7000 (Tel) 949-974-9022 (Fax) Email: C.Solteszka@trccompanies.com Project Name: CCR DTE River Rouge Power Plant Site: Michigan		Sampler: A. Whaley Lab PM: Brooks, Kris M Phone: 734-210-9239 E-Mail: Kris.Brooks@et.eurolins.com PWSID:		Carrier Tracking No(s): State of Origin: MI		COC No: 240-119327-41993.1 Page: Page 1 of 1 Job #:			
Due Date Requested: Standard TAT Requested (days): Standard Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 214275 WO #: 548728-0005 553931.0005 Project #: 24016806 SSSOW#:		Analysis Requested 2540C_Calcd - TDS 9056A_28D - Chloride, Fluoride and Sulfate 6010D, 6020B 9315_Ra226 - Standard Target List 9320_Ra228 - Standard Target List 6020B, 7470A 6020B - (MOD) Cu, Fe, Ni, Ag, V, Zn Total Number of Containers:							
Sample Identification MW-16-01 MW-16-02 MW-16-03 MW-17-17 MW-17-16 MW-17-06 MW-17-07 Dup-01		Sample Date 4/10/24 4/10/24 4/10/24 4/10/24 4/10/24 4/10/24 4/10/24		Sample Time 0820 0919 1002 1052 1205 1357 1500 -		Sample Type (C=Comp, G=grab) G G G G G G G G		Matrix (W=water, S=solid, O=wastewater, BT=biota, A=air) Water Water Water Water Water Water Water Water Water Water Water Water Water	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify) TRC EDD		Special Instructions/QC Requirements:							
Empty Kit Relinquished by: <i>Colleen Whaley</i> Relinquished by: <i>Colleen Whaley</i> Relinquished by:		Date: 4/11/24 0730 Date/Time:		Date: 4/11/24 1330 Date/Time:		Method of Shipment:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Company: TRC Company: TRC Company: TRC			

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PROJECT NAME:	DTE CCR RRPP 2SA24
PROJECT NUMBER:	551953.0005 553931.0005
PROJECT MANAGER:	V Buening
SITE LOCATION:	1 Belanger Park Drive Detroit, MI 48218
DATES OF FIELDWORK:	10/14/2024
	CCR GW 2SA2024
PURPOSE OF FIELDWORK:	
	Javier Jasso
WORK PERFORMED BY:	

SIGNED [Signature] 10/16/24
DATE

CHECKED BY [Signature] 10/23/24
DATE



GENERAL NOTES

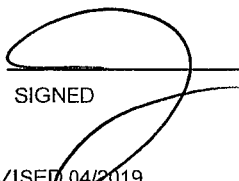
PROJECT NAME: DTE CCR RRPP 2SA24	DATE: 10/14/04	TIME ARRIVED: 0630
PROJECT NUMBER: 654050.0005 553931 .0005	AUTHOR: JJ	TIME LEFT: 1441

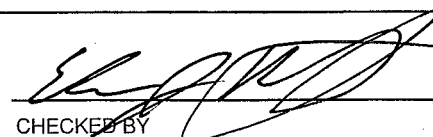
WEATHER		
TEMPERATURE: 43 °F	WIND: 15 MPH	VISIBILITY: overcast + Rain
WORK / SAMPLING PERFORMED		
Water levels		
Wells Sampled mw-1708, Dup #02, 1709, 17-20		

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN

COMMUNICATION		
NAME	REPRESENTING	SUBJECT / COMMENTS
V. Buening	TRC	Daily checkin, updates
Garnet Weems	DTE	Site contact, checkin/out (248-709-6346)
Sara Nevedal	DTE	Alternate site contact/Gate access (313-573-1291)

INVESTIGATION DERIVED WASTE SUMMARY		
WASTE MATRIX	QUANTITY	COMMENTS
GW	NM	Purge to ground

SIGNED  DATE 10/14/04

CHECKED BY  DATE 10/23/04



GENERAL NOTES

PROJECT NAME: DTE CCR RRPP 2SA24	DATE: 10/15/20	TIME ARRIVED: 0630
PROJECT NUMBER: 554953.0005 553481.0005	AUTHOR: JJ	TIME LEFT: 1410

WEATHER		
TEMPERATURE: <u>48</u> °F	WIND: <u>15</u> MPH	VISIBILITY: <u>Overcast</u>
WORK / SAMPLING PERFORMED		
<u>Wells Sample Me - 17-01, 17-12, 17-13, 17-14, 17-15, 16-04s, 17-18</u>		

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN

COMMUNICATION		
NAME	REPRESENTING	SUBJECT / COMMENTS
V. Buening	TRC	Daily checkin, updates
Garnet Weems	DTE	Site contact, checkin/out (248-709-6346)
Sara Nevedal	DTE	Alternate site contact/Gate access (313-573-1291)

INVESTIGATION DERIVED WASTE SUMMARY		
WASTE MATRIX	QUANTITY	COMMENTS
GW	NM	Purge to ground

SIGNED [Signature] 10/16/20
DATE

CHECKED BY [Signature] 10/23/20
DATE



GENERAL NOTES

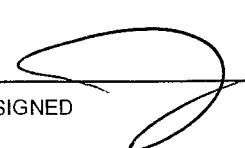
PROJECT NAME: DTE CCR RRPP 2SA24	DATE: 10/16/24	TIME ARRIVED: 0600
PROJECT NUMBER: 551953-0005 552121	AUTHOR: JJ	TIME LEFT: 1340

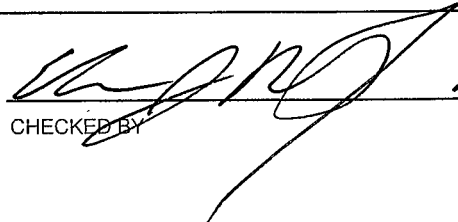
WEATHER		
TEMPERATURE: 40 °F	WIND: 20 MPH	VISIBILITY: over cast
WORK / SAMPLING PERFORMED		
wells sampled = MW-17-06, Dup #01, 17-07, 1603 17-17, 1602, 17-16, 16-01		

PROBLEMS ENCOUNTERED	CORRECTIVE ACTION TAKEN

COMMUNICATION		
NAME	REPRESENTING	SUBJECT / COMMENTS
V. Buening	TRC	Daily checkin, updates
Garnet Weems	DTE	Site contact, checkin/out (248-709-6346)
Sara Nevedal	DTE	Alternate site contact/Gate access (313-573-1291)

INVESTIGATION DERIVED WASTE SUMMARY		
WASTE MATRIX	QUANTITY	COMMENTS
GW	NM	Purge to ground


10/16/24
 SIGNED _____ DATE


10/23/24
 CHECKED BY _____ DATE



EQUIPMENT SUMMARY

PROJECT NAME: DTE CCR RRPP 2SA24	SAMPLER NAME: Javier Jasso
PROJECT NO.: 554053-0005 <u>553937</u>	

WATER LEVEL MEASUREMENTS COLLECTED WITH:

HERON DIPPER-T	PROJECT DEDICATED
NAME AND MODEL OF INSTRUMENT	SERIAL NUMBER (IF APPLICABLE)

PRODUCT LEVEL MEASUREMENTS COLLECTED WITH:

NA	
NAME AND MODEL OF INSTRUMENT	SERIAL NUMBER (IF APPLICABLE)

DEPTH TO BOTTOM OF WELL MEASUREMENTS COLLECTED WITH:

HERON DIPPER-T	PROJECT DEDICATED
NAME AND MODEL OF INSTRUMENT	SERIAL NUMBER (IF APPLICABLE)

PURGING METHOD

BLADDER PUMP (DEDICATED)	PROJECT DEDICATED
NAME AND MODEL OF PUMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)

SAMPLING METHOD

BLADDER PUMP (DEDICATED)	PROJECT DEDICATED
NAME AND MODEL OF PUMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)

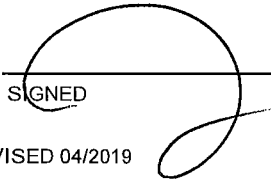
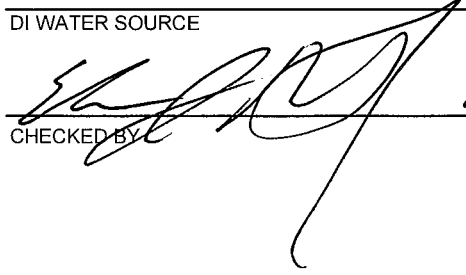
NA	NA
NAME AND MODEL OF FILTRATION DEVICE	FILTER TYPE AND SIZE

DEDICATED POLY TUBING	<input checked="" type="checkbox"/> LOW-FLOW SAMPLING EVENT
TUBING TYPE	

PURGE WATER DISPOSAL METHOD

GROUND
 DRUM
 POTW
 POLYTANK
 OTHER _____

DECONTAMINATION AND FIELD BLANK WATER SOURCE

STORE BOUGHT	STORE BOUGHT
POTABLE WATER SOURCE	DI WATER SOURCE
	
SIGNED	CHECKED BY
<u>10/16/24</u>	<u>10/23/24</u>
DATE	DATE



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: DTE CCR RRPP 2SA24	MODEL: YSI ProDSS	SAMPLER: JJ
PROJECT NO.: 561058-0005 553931.0005	SERIAL #: PROJECT	DATE: 10/14/2024

PH CALIBRATION CHECK

pH 7 (LOT #): 3000918 (EXP. DATE): 10/15	pH 4 / 10 (LOT #): 4601317 (EXP. DATE): 8/20	CAL. RANGE	TIME
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
700 / 700	441 / 440	<input checked="" type="checkbox"/> WITHIN RANGE	10:30
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): 4600784 (EXP. DATE): 5/25	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
1213 / 1213	17.0	<input checked="" type="checkbox"/> WITHIN RANGE	10:30
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): 2351031 (EXP. DATE): 9/20	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
237 / 237	15.0	<input checked="" type="checkbox"/> WITHIN RANGE	10:30
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CAL. READING	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / SATURATED AIR			
9.61 / 9.61	16.0	<input checked="" type="checkbox"/> WITHIN RANGE	10:30
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): A3097 (EXP. DATE): 4/15	(LOT #): (EXP. DATE):		
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
0 / 0	/	<input checked="" type="checkbox"/> WITHIN RANGE	10:30
100 / 100	/	<input checked="" type="checkbox"/> WITHIN RANGE	10:30
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input type="checkbox"/> AUTOCAL SOLUTION	<input checked="" type="checkbox"/> STANDARD SOLUTION (S)
(LOT #):	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
(EXP. DATE):	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/>	
<input type="checkbox"/>	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER

NOTES

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

SIGNED: [Signature] DATE: 10/16/24

CHECKED BY: [Signature] DATE: 10/23/24



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: DTE CCR RPP 2SA24	MODEL: YSI ProDSS	SAMPLER: JJ
PROJECT NO.: 551953-0005 553931.0005	SERIAL #: PROJECT	DATE: 10/15/14

PH CALIBRATION CHECK

pH 7 (LOT #): 365918 (EXP. DATE): 10/11	pH 4 / 10 (LOT #): 460131 (EXP. DATE):	CAL. RANGE	TIME
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
7.0174	4.0144	<input checked="" type="checkbox"/> WITHIN RANGE	06:27
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): 46E078 (EXP. DATE): 5/11	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
1213 / 1013	13	<input type="checkbox"/> WITHIN RANGE	06:30
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): 221031 (EXP. DATE): 9/18	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
237 / 237	15	<input checked="" type="checkbox"/> WITHIN RANGE	06:37
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CAL. READING	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / SATURATED AIR			
9.61 / 9.6	16	<input checked="" type="checkbox"/> WITHIN RANGE	06:37
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): 4309 (EXP. DATE): 4/11	(LOT #): (EXP. DATE):		
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
0 / 0	/	<input checked="" type="checkbox"/> WITHIN RANGE	06:37
10 / 10	/	<input type="checkbox"/> WITHIN RANGE	06:37
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input type="checkbox"/> AUTOCAL SOLUTION	<input checked="" type="checkbox"/> STANDARD SOLUTION (S)
(LOT #):	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
(EXP. DATE):	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

SIGNED

DATE

[Signature]

10/16/14

CHECKED BY

DATE

[Signature]

10/23/14



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: DTE CCR RRP 2SA24	MODEL: YSI ProDSS	SAMPLER: JJ
PROJECT NO.: 551953.0000 553131.0005	SERIAL #: PROJECT	DATE: 10/16/24

PH CALIBRATION CHECK

PH 7 (LOT #): 363 0916 (EXP. DATE): 10/25	PH 4 / 10 (LOT #): 460 1307 (EXP. DATE): 4/26	CAL. RANGE	TIME
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
700 / 700	400 / 400	<input checked="" type="checkbox"/> WITHIN RANGE	done
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): 46E 0768 (EXP. DATE): 5/25	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
1213 / 1213	17.0	<input checked="" type="checkbox"/> WITHIN RANGE	done
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): 220100312 (EXP. DATE): 9/28	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / STANDARD			
237 / 237	15.0	<input checked="" type="checkbox"/> WITHIN RANGE	done
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CAL. READING	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
POST-CAL. READING / SATURATED AIR			
9.61 / 9.61	16.0	<input checked="" type="checkbox"/> WITHIN RANGE	done
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): A3097 (EXP. DATE): 4/15	(LOT #): (EXP. DATE):		
POST-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
0 / 0	/	<input checked="" type="checkbox"/> WITHIN RANGE	done
100 / 100	/	<input checked="" type="checkbox"/> WITHIN RANGE	done
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input type="checkbox"/> AUTOCAL SOLUTION	<input checked="" type="checkbox"/> STANDARD SOLUTION (S)
(LOT #):	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
(EXP. DATE):	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/>	
<input type="checkbox"/>	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER

NOTES

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

SIGNED

DATE

[Signature] 10/16/24

CHECKED BY

DATE

[Signature] 10/23/24



WATER LEVEL DATA

PROJECT NAME: DTE CCR RRPP 2SA24				DATE: 10/14/24		
PROJECT NUMBER: 554953.0005 553971.0005				AUTHOR: AW-ER JJ		
WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	DEPTH TO BOTTOM (FEET)	DEPTH TO PRODUCT (FEET)	WATER ELEVATION
MW-17-01	0712		3.28	20.78		
MW-17-02	0707		7.40	27.48		
MW-17-03	0727		6.50	28.00		
MW-17-03P	0724		6.60	11.48		
MW-17-04	0753		4.00	24.64		
MW-17-04P	0754		4.80	8.20		
MW-17-05	0810		6.58	28.35		
MW-17-06	0653		7.30	28.15		
MW-17-07	0941		7.15	24.20		
MW-17-07P	0942		5.88	11.85		
MW-17-08	1001		5.90	27.40		
MW-17-08P	1012		6.36	13.75		
MW-17-09	0930		4.78	27.75		
MW-17-10	0946		6.70	25.51		
MW-17-11P	0702		7.73	8.30		
MW-17-12	0746		5.54	24.35		
MW-17-12P	0748		4.08	6.55		
MW-17-13	0930		4.75	23.20		
MW-17-13P	0935		5.15	8.55		
MW-17-14	0921		4.80	25.10		
MW-17-14P	0923		6.10	9.90		
MW-17-15	0831		5.30	23.90		
MW-17-15P	could not locate					
MW-17-16	0900		5.40	21.68		

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

SIGNED [Signature] 10/16/24
DATE

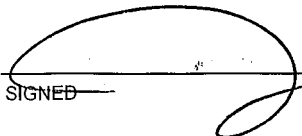
CHECKED [Signature] 10/23/24
DATE

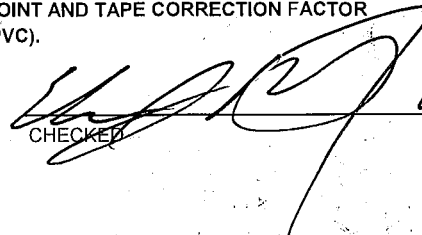


WATER LEVEL DATA

PROJECT NAME: DTE CCR RRPP 2SA24		DATE: 10/14/24				
PROJECT NUMBER: 554953.0005 553931.0005		AUTHOR: AW-ER JJ				
WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	DEPTH TO BOTTOM (FEET)	DEPTH TO PRODUCT (FEET)	WATER ELEVATION
MW-17-16P	0901		5.89	7.40		
MW-17-17	0844		5.18	21.90		
MW-17-17P	0848		5.50	7.20		
MW-17-18	0818		3.78	21.80		
MW-17-19	0804		3.25	27.55		
MW-17-19P	0805		3.60	7.20		
MW-17-20	0658		4.28	24.75		
MW-16-01	0902		8.71	Pump		
MW-16-01P	0904		6.00	10.15		
MW-16-02	0850		8.45	Pump		
MW-16-02P	0852		8.75	19.20		
MW-16-03	0830		8.68	Pump		
MW-16-03P	0838		8.55	11.25		
MW-16-04S	0823		7.40	Pump		
MW-16-04P	0826		1.00	100 plus		
MP-01	1020		1.50	DNM		
MP-02						
MP-03		Removed				
MP-04		Removed				
PT-TW-01	0906		4.55	25.05		
PT-TW-02	0909		7.98	24.88		
PT-TW-03R	0910		7.70	26.45		
PT-TW-04R	0907		8.35	27.32		

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

SIGNED  10/16/24
DATE

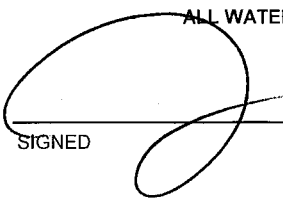
CHECKED  10/23/24
DATE

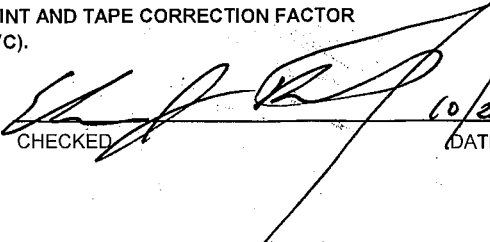


WATER LEVEL DATA

PROJECT NAME: DTE CCR RRPP 2SA24			DATE: 10/14/24			
PROJECT NUMBER: 554958.0005 555931.0005			AUTHOR: AWR-ER JJ			
WELL LOCATION	TIME	REFERENCE	DEPTH TO WATER (FEET)	DEPTH TO BOTTOM (FEET)	DEPTH TO PRODUCT (FEET)	WATER ELEVATION
MW-23-01	0733		3.25	23.35		
MW-23-02	0740		3.95	22.36		
MW-23-03	0817	7.96	8.06	27.20		
MW-23-04	0952		7.34	27.96		
MW-23-05	0949		7.90	20.00		

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

SIGNED  10/14/24 DATE

CHECKED  10/23/24 DATE



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24		PREPARED		CHECKED	
PROJECT NUMBER: 551953.0005 553931.0005		BY: JJ	DATE: 10/16/24	BY: ER	DATE: 10/23/24
SAMPLE ID: MW-17-09		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: 1056	DATE: 10/16/24	SAMPLE	TIME: 1131	DATE: 10/16/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER		PH: 7.25 SU		CONDUCTIVITY: 1095 umhos/cm	
		ORP: -170.5 mV		DO: 6.73 mg/L	
DEPTH TO WATER: 5.90 T/ PVC		TURBIDITY: 7.0 NTU			
DEPTH TO BOTTOM: 27.46 T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: 14.0 °C		OTHER:	
VOLUME REMOVED: 7 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: 1104		ODOR: NONE	
COLOR: Brownish		ODOR: NONE		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
TURBIDITY		FILTRATE COLOR: NA		FILTRATE ODOR: NA	
<input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input checked="" type="checkbox"/> VERY		QC SAMPLE: <input type="checkbox"/> MSMSD <input checked="" type="checkbox"/> DUP-#02			
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		COMMENTS:			

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1056	200	4.6	732	237	9.60	80	2.9	5.8	INITIAL
1101		7.33	1726	-143	3.26	34	14.0	6.18	10
1104		7.27	1300	-146	2.33	13	14.1	6.25	2
1111		7.26	1140	-170	2.00	9.0	14.1	6.25	3.0
1114		7.3	1104	-170	1.87	7.3	14.0	6.25	4
1121		7.25	1097	-170.5	1.75	7.0	14.0	6.25	5
1124		7.25	1096	-170.5	1.74	7.0	14.0	6.25	6
1131		7.25	1095	-170.5	1.73	7.0	14.0	6.25	7.0

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
2	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
4	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: Courier	DATE SHIPPED: 10/18/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE:	DATE SIGNED: 10/16/24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24		PREPARED		CHECKED	
PROJECT NUMBER: 554053.0005 553731.0005		BY: JJ	DATE: 10/16/24	BY: <i>gll</i>	DATE: 10/25/24
SAMPLE ID: MW-17-19		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: 1230	DATE: 10/16/24	SAMPLE	TIME: 1305	DATE: 10/16/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER		PH: 7.41 SU		CONDUCTIVITY: 2885 umhos/cm	
		ORP: -205 mV		DO: 1.70 mg/L	
DEPTH TO WATER: 325 T/ PVC		TURBIDITY: 5.5 NTU			
DEPTH TO BOTTOM NM 27.5 T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: 13.6 °C		OTHER:	
VOLUME REMOVED: 7 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: clear		ODOR: none	
COLOR: clear		ODOR: slight		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
TURBIDITY		FILTRATE COLOR: NA		FILTRATE ODOR: NA	
<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-			
DISPOSAL METHOD <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		COMMENTS:			

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1230	200	7.47	1943	-138	12.0	9.0	14.1	322	INITIAL
1235		7.34	2876	-173	3.63	11.0	14.0	325	1
1240		7.40	2899	-189	2.46	10.8	13.7	327	2
1245		7.46	2896	-200	2.6	7.0	13.7	327	3
1250		7.41	2894	-200	1.90	5.8	13.7	327	4
1255		7.41	2889	-205	1.70	5.5	13.6	327	5
1300		7.41	2883	-205	1.70	5.5	13.6	327	6
1305		7.41	2885	-205	1.70	5.5	13.6	327	7

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____												
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
1	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
2	1 L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
				<input type="checkbox"/> Y <input type="checkbox"/> N										<input type="checkbox"/> Y <input type="checkbox"/> N

SHIPPING METHOD: Courier	DATE SHIPPED: 10/16/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE: <i>[Signature]</i>	DATE SIGNED: 10/16/24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24		PREPARED		CHECKED	
PROJECT NUMBER: 551953.0005 553931.0005		BY: JJ	DATE: 10/14/24	BY: EK	DATE: 10/23/24
SAMPLE ID: MW-17-20		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING TIME: 1332		DATE: 10/14/24		SAMPLE TIME: 1407	
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER		PH: 6.93		SU CONDUCTIVITY: 5225 umhos/cm	
		ORP: -130 mV		DO: 1.49 mg/L	
DEPTH TO WATER: 4.28 T/ PVC		TURBIDITY: 6.0 NTU			
DEPTH TO BOTTOM: 24.71 T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: 13.7 °C		OTHER:	
VOLUME REMOVED: 7 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: clear		ODOR:	
COLOR: clear		ODOR: slight		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
TURBIDITY		FILTRATE COLOR: NA		FILTRATE ODOR: NA	
<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-			
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		COMMENTS:			

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1332	200	7.61	957	-210	1.40	12.5	14.5	4.05	INITIAL
1337		7.20	1326	-190	3.15	9.8	13.9	4.30	1
1342		6.97	3777	-146	2.0	9.8	13.7	4.30	2
1347		6.95	4427	-146	1.73	8.9	13.5	4.30	3
1352		6.95	4975	-144	1.60	6.0	13.7	4.30	4
1357		6.93	5200	-130	1.50	6.0	13.5	4.30	5
1402		6.93	5210	-130	1.49	6.0	13.6	4.30	6
1407		6.93	5225	-130	1.49	6.0	13.7	4.30	7

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: Courier	DATE SHIPPED: 10/18/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE:	DATE SIGNED: 10/23/24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551953.0005 <u>553981.0005</u>	BY: JJ	DATE: <u>10/15/24</u>
	BY: <u>GR</u>	DATE: <u>10/23/24</u>

SAMPLE ID: <u>MW-17-05</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>6:45</u>	DATE: <u>10/15/24</u>	SAMPLE	TIME: <u>07:15</u>	DATE: <u>10/15/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: <u>6.97</u> SU	CONDUCTIVITY: <u>3595</u> umhos/cm	ORP: <u>-178</u> mV	DO: <u>1.80</u> mg/L	
DEPTH TO WATER: <u>6.54</u> T/PVC	TURBIDITY: <u>9.0</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
DEPTH TO BOTTOM NM: <u>28.75</u> T/PVC	TEMPERATURE: <u>12.4</u> °C		OTHER: _____		
WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: <u>clear</u>		ODOR: <u>none</u>		
VOLUME REMOVED: <u>6</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FILTRATE COLOR: <u>NA</u>		
COLOR: <u>cloudy</u>	ODOR: <u>none</u>		FILTRATE ODOR: <u>NA</u>		
TURBIDITY <input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> VERY			QC SAMPLE: <input type="checkbox"/> MSMSD <input type="checkbox"/> DUP- _____		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
<u>6:45</u>	<u>2.0</u>	<u>6.00</u>	<u>1707</u>	<u>237</u>	<u>9.61</u>	<u>43</u>	<u>12.5</u>	<u>6.54</u>	INITIAL
<u>6:50</u>		<u>6.99</u>	<u>3260</u>	<u>-121</u>	<u>2.93</u>	<u>26.7</u>	<u>12.7</u>	<u>6.65</u>	<u>1</u>
<u>6:55</u>		<u>6.98</u>	<u>3259</u>	<u>-138</u>	<u>2.15</u>	<u>11.7</u>	<u>12.7</u>	<u>6.65</u>	<u>2</u>
<u>7:00</u>		<u>6.97</u>	<u>3419</u>	<u>-162</u>	<u>1.70</u>	<u>9.0</u>	<u>12.6</u>	<u>6.65</u>	<u>3</u>
<u>07:05</u>		<u>6.97</u>	<u>3585</u>	<u>-178</u>	<u>1.50</u>	<u>9.0</u>	<u>12.4</u>	<u>6.65</u>	<u>4</u>
<u>07:10</u>		<u>6.97</u>	<u>3568</u>	<u>-178</u>	<u>1.50</u>	<u>9.0</u>	<u>12.4</u>	<u>6.65</u>	<u>5</u>
<u>07:15</u>		<u>6.97</u>	<u>3595</u>	<u>-178</u>	<u>1.80</u>	<u>9.0</u>	<u>12.4</u>	<u>6.65</u>	<u>6</u>

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
<u>1</u>	<u>500mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>1</u>	<u>500mL</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>2</u>	<u>1 L</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>1</u>	<u>60 mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/18/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/16/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551953.0005 <u>553931-0005</u>	BY: JJ	DATE: <u>10/16/24</u> BY: <u>ER</u> DATE: <u>10/23/24</u>

SAMPLE ID: <u>MW-17-12</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0743</u>	DATE: <u>10/15/24</u>	SAMPLE	TIME: <u>0803</u>	DATE: <u>10/17/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: <u>7.25</u> SU	CONDUCTIVITY: <u>2654</u> umhos/cm	ORP: <u>-138</u> mV	DO: <u>1.58</u> mg/L	
DEPTH TO WATER: <u>5.56</u> T/ PVC	TURBIDITY: <u>8.0</u> NTU	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
DEPTH TO BOTTOM: <u>243</u> IT/ PVC	TEMPERATURE: <u>14.6</u> C	OTHER: _____			
WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: <u>clear</u>	ODOR: <u>none</u>			
VOLUME REMOVED: <u>8</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FILTRATE COLOR: <u>NA</u> FILTRATE ODOR: <u>NA</u>			
COLOR: <u>clear</u> ODOR: <u>none</u>	TURBIDITY <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY				
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____				
COMMENTS: _____					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
0743	200	7.44	1999	-135	15.0	9.5	13.0	9.55	INITIAL
0746		7.02	2768	-110.1	3.28	7.75	13.7	5.60	1
0753		7.01	2774	-107	2.81	4.8	12.9	5.60	2
0758		7.01	2770	-101	2.70	7.0	12.7	5.60	3
0803		7.02	2780	-105	2.89	10	12.7	5.60	4
0808		7.10	2751	-125	1.95	10	13.7	5.60	5
0813		7.25	2689	-138	1.58	8.0	13.8	5.60	6
0818		7.25	2657	-138	1.58	7.85	13.9	5.60	7
0823		7.25	2654	-138	1.58	8.0	14.0	5.60	8

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/18/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/18/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRRP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 554053.0005 55331.0005	BY: JJ	DATE: 10/15/24
	BY: ER	DATE: 10/23/24

SAMPLE ID: MW-17-13	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 0855	DATE: 10/15/24	SAMPLE	TIME: 0940	DATE: 10/15/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: 7.15	SU	CONDUCTIVITY: 2598	umhos/cm	
DEPTH TO WATER: 471 T/ PVC	ORP: -149.5	mV	DO: 1.37	mg/L	
DEPTH TO BOTTOM NM: 238 T/ PVC	TURBIDITY: 9.95	NTU	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	TEMPERATURE: 13.3	°C	OTHER:		
VOLUME REMOVED: 9 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: Clear		ODOR: NONE		
COLOR: Clear	ODOR: none		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY	FILTRATE COLOR: NA		FILTRATE ODOR: NA		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-				
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
0855	200	7.44	1925	-121.5	1.70	21	13.1	4.60	INITIAL
0900		6.99	2691	-143	2.86	9.5	13.6	4.75	1
0905		7.06	2801	-181	1.75	13.1	13.4	4.75	2
0910		7.08	2785	-184	1.60	15.2	13.4	4.75	3
0915		7.10	2765	-180	1.50	15.0	13.4	4.75	4
0920		7.12	2705	-165	1.43	14	13.3	4.75	5
0925		7.13	2682	-155	1.40	12	13.3	4.75	6
0930		7.15	2650	-150	1.37	10	13.3	4.75	7
0935		7.15	2599	-149.5	1.36	9.95	13.3	4.75	8
0940		7.15	2596	-149.5	1.37	9.95	13.3	4.75	9

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: Courier	DATE SHIPPED: 10/14/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE:	DATE SIGNED: 10/16/24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551953-0005 <u>553981-0005</u>	BY: JJ	DATE: <u>10/15/24</u>
	BY: <u>EL</u>	DATE: <u>10/23/24</u>

SAMPLE ID: <u>MW-17-14</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1005</u>	DATE: <u>10/15/24</u>	SAMPLE	TIME: <u>1045</u>	DATE: <u>10/15/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: <u>7.32</u> SU	CONDUCTIVITY: <u>2511</u> umhos/cm	ORP: <u>-170</u> mV	DO: <u>1.48</u> mg/L	
DEPTH TO WATER: <u>480</u> T/ PVC	TURBIDITY: <u>5.0</u> NTU	<input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
DEPTH TO BOTTOM NM <u>25.2</u> T/ PVC	TEMPERATURE: <u>14.0</u> °C	OTHER: _____			
WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: <u>clear</u>	ODOR: <u>none</u>			
VOLUME REMOVED: <u>8</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FILTRATE COLOR: <u>NA</u> FILTRATE ODOR: <u>NA</u>			
COLOR: <u>clear</u> ODOR: <u>none</u>	TURBIDITY <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____			
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER	COMMENTS:				

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1005	200	7.45	2529	-127.5	1.20	10.0	14.3	505	INITIAL
1010		7.31	2525	-148	2.60	6.5	14.3	505	1
1015		7.31	2514	-154	2.0	5.8	14.3	505	2
1020		7.32	2513	-162	1.70	5.5	14.3	505	3
1025		7.32	2513	-164	1.60	6.0	14.1	505	4
1030		7.32	2511	-165	1.50	5.0	14.1	505	5
1035		7.32	2511	-170	1.49	5.0	14.0	605	6
1040		7.32	2511	-170	1.48	5.0	13.9	505	7
1045		7.32	2511	-170	1.48	5.0	14.0	505	8

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
1	500mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	500mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
2	1L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/18/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/18/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 664059-0006 552931-0006	BY: JJ	DATE: 10/23/24

SAMPLE ID: MW-17-15	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1108	DATE: 10/15/24	SAMPLE	TIME: 1218	DATE: 10/15/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER			PH: 7.46 SU CONDUCTIVITY: 1771 umhos/cm		
DEPTH TO WATER: 5.30 T/ PVC			ORP: -201 mV DO: 1.30 mg/L		
DEPTH TO BOTTOM NM 23.90 T/ PVC			TURBIDITY: 10 NTU		
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
VOLUME REMOVED: 14 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			TEMPERATURE: 12.9 °C OTHER:		
COLOR: <u>Brown</u> ODOR: <u>None</u>			COLOR: <u>Clear</u> ODOR: <u>None</u>		
TURBIDITY: <input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input checked="" type="checkbox"/> VERY			FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			FILTRATE COLOR: NA FILTRATE ODOR: NA		
			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1108	200	7.67	1554	-171	1.30	300	13.5	5.41	INITIAL
1113		7.59	1286	-188	2.66	210	13.2	5.60	1
1118		7.54	1300	-200	1.81	145	13.1	5.60	2
1123		7.53	1342	-204	1.55	121	13.2	5.60	3
1128		7.50	1431	-193	1.71	75	13.1	5.60	4
1133		7.49	1565	-203	1.51	45	13.0	5.60	5
1138		7.48	1566	-206	1.45	36	13.1	5.60	6
1143		7.48	1608	-200	1.40	30	13.0	5.60	7
1148		7.47	1656	-203	1.36	25	13.0	5.60	8
1153		7.47	1667	-204	1.31	22	12.8	5.60	9

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/15/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/15/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 554053.0005 553931.0005	BY: JJ	DATE: <u>10/15/24</u>
	BY: <u>EN</u>	DATE: <u>10/23/24</u>

SAMPLE ID: <u>MW-16-045</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1239</u>	DATE: <u>10/15/24</u>	SAMPLE	TIME: <u>1304</u>	DATE: <u>10/15/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER			PH: <u>7.95</u> SU	CONDUCTIVITY: <u>1260</u> umhos/cm	
DEPTH TO WATER: <u>7.40</u> T/ PVC			ORP: <u>-226</u> mV	DO: <u>1.70</u> mg/L	
DEPTH TO BOTTOM NM T/ PVC			TURBIDITY: <u>6.5</u> NTU		
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			<input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
VOLUME REMOVED: <u>5</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			TEMPERATURE: <u>12.4</u> °C OTHER: _____		
COLOR: <u>Brown</u> ODOR: <u>none</u>			COLOR: <u>clear</u> ODOR: <u>none</u>		
TURBIDITY: <input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input checked="" type="checkbox"/> VERY			FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			FILTRATE COLOR: NA FILTRATE ODOR: NA		
			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____		
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1239	200	8.14	1440	-148	17.5	6.0	13.0	7.40	INITIAL
1244		8.00	1307	-182	4.0	13.5	12.5	7.50	1
1249		8.02	1326	-219	2.0	7.5	12.5	7.70	2
1254		7.95	1272	-226	1.70	6.5	12.4	7.50	3
1259		7.95	1260	-226	1.70	6.5	12.4	7.50	4
1304		7.95	1245	-226	1.70	6.5	12.4	7.50	5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1 L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/18/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/16/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24		PREPARED		CHECKED	
PROJECT NUMBER: 551055-0005 <u>55131-0005</u>		BY: JJ	DATE: <u>10/15/14</u>	BY: <u>ELC</u>	DATE: <u>10/23/14</u>
SAMPLE ID: <u>MW-17-16</u>		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: <u>1313</u>	DATE: <u>10/15/14</u>	SAMPLE	TIME: <u>1330</u>	DATE: <u>10/15/14</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER		PH: <u>7.15</u> SU		CONDUCTIVITY: <u>2365</u> umhos/cm	
		ORP: <u>-179.9</u> mV		DO: <u>1.60</u> mg/L	
DEPTH TO WATER: <u>3.76</u> T/ PVC		TURBIDITY: <u>10</u> NTU			
DEPTH TO BOTTOM: <u>21.80</u> PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: <u>15.2</u> °C		OTHER:	
VOLUME REMOVED: <u>5</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: <u>clear</u>		ODOR: <u>none</u>	
COLOR: <u>clear</u> ODOR: <u>none</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
TURBIDITY		FILTRATE COLOR: <u>NA</u>		FILTRATE ODOR: <u>NA</u>	
<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-			
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		COMMENTS:			

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1313	200	7.40	1900	-196	16.5	12.0	15.1	3.80	INITIAL
1318		7.17	1845	-184	2.80	9.3	15.3	5.85	1
1323		7.17	1945	-190	1.90	11.9	15.2	3.85	2
1326		7.15	2332	-180	1.60	10	15.2	3.85	3
1333		7.15	2355	-180	1.60	10	15.2	3.85	4
1336		7.15	2365	-179.9	1.60	10	15.1	3.85	5
									6

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
1	500mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	500mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
2	1L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/18/14</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/16/14</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRPP 2SA24		PREPARED		CHECKED	
PROJECT NUMBER: 551959.0005 553131.0005		BY: JJ	DATE: <u>10/16/24</u>	BY: ER	DATE: <u>10/23/24</u>
SAMPLE ID: MW-17-06		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: <u>0637</u>	DATE: <u>10/16/24</u>	SAMPLE	TIME: <u>0742</u>	DATE: <u>10/16/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER		PH: <u>6.90</u> SU	CONDUCTIVITY: <u>3791</u> umhos/cm		
		ORP: <u>-171</u> mV	DO: <u>1.54</u> mg/L		
DEPTH TO WATER: <u>7.30</u> T/ PVC		TURBIDITY: <u>9</u> NTU			
DEPTH TO BOTTOM NM <u>18.16</u> PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: <u>13.9</u> °C		OTHER:	
VOLUME REMOVED: <u>13</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: <u>Clear</u>		ODOR: <u>None</u>	
COLOR: <u>Brownish</u> ODOR: <u>None</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
TURBIDITY: <input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR: <u>NA</u>		FILTRATE ODOR: <u>NA</u>	
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MSMSD <input checked="" type="checkbox"/> DUP-# <u>01</u>		COMMENTS:	

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
<u>0637</u>	<u>200</u>	<u>4.00</u>	<u>2072</u>	<u>237</u>	<u>9.61</u>	<u>70</u>	<u>13.6</u>	<u>7.30</u>	INITIAL
<u>0642</u>		<u>6.79</u>	<u>4213</u>	<u>-110</u>	<u>2.49</u>	<u>55</u>	<u>14.2</u>	<u>7.30</u>	<u>1</u>
<u>0647</u>		<u>6.80</u>	<u>4139</u>	<u>-137</u>	<u>2.0</u>	<u>30</u>	<u>14.2</u>	<u>7.30</u>	<u>2</u>
<u>0652</u>		<u>6.85</u>	<u>3980</u>	<u>-156</u>	<u>1.76</u>	<u>21</u>	<u>14.1</u>	<u>7.30</u>	<u>3</u>
<u>0657</u>		<u>6.86</u>	<u>3960</u>	<u>-160</u>	<u>1.72</u>	<u>20</u>	<u>14.2</u>	<u>7.30</u>	<u>4</u>
<u>0702</u>		<u>6.87</u>	<u>3900</u>	<u>-165</u>	<u>1.65</u>	<u>16</u>	<u>14.1</u>	<u>7.30</u>	<u>5</u>
<u>0707</u>		<u>6.88</u>	<u>3850</u>	<u>-170</u>	<u>1.60</u>	<u>13</u>	<u>14.0</u>	<u>7.30</u>	<u>6</u>
<u>0712</u>		<u>6.88</u>	<u>3850</u>	<u>-170</u>	<u>1.60</u>	<u>13</u>	<u>14.1</u>	<u>7.30</u>	<u>7</u>
<u>0717</u>		<u>6.89</u>	<u>3838</u>	<u>-168</u>	<u>1.59</u>	<u>12</u>	<u>14.0</u>	<u>7.30</u>	<u>8</u>
<u>0722</u>		<u>6.84</u>	<u>3828</u>	<u>-168</u>	<u>1.57</u>	<u>11</u>	<u>13.8</u>	<u>7.30</u>	<u>9</u>

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
<u>1</u>	<u>500mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>4</u>	<u>500mL</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>5</u>	<u>1L</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>2</u>	<u>60 mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/16/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/16/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551955-0005 553931-0005	BY: JJ	DATE: 10/16/24

SAMPLE ID: MW-17-07	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 0826	DATE: 10/16/24	SAMPLE	TIME: 0901	DATE: 10/16/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: 7.00	SU	CONDUCTIVITY: 9580	umhos/cm	
DEPTH TO WATER: 7.15 T/ PVC	ORP: -128.5	mV	DO: 1.90	mg/L	
DEPTH TO BOTTOM: 24.20 T/ PVC	TURBIDITY: 10	NTU	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	TEMPERATURE: 12.8	°C	OTHER:		
VOLUME REMOVED: 3.5 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: Clear		ODOR: none		
COLOR: Brown	ODOR: none		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY: <input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input checked="" type="checkbox"/> VERY	FILTRATE COLOR: NA		FILTRATE ODOR: NA		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
0826	100	7.07	9275	-90	13.0	210	11.5	7.10	INITIAL
0831		6.95	9767	-84.7	3.90	53	12.7	7.55	5
0836		6.98	9769	-102	2.68	27	12.6	7.60	1
0841		7.01	9798	-112	2.50	19	12.5	7.40	1.5
0846		7.00	9618	-124	1.98	13	12.8	7.65	2
0851		7.00	9603	-128.5	1.91	10	12.8	7.75	2.5
0856		7.00	9587	-128.5	1.90	10	12.8	7.75	3
0901		7.00	9580	-128.5	1.90	10	12.8	7.75	3.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: Courier	DATE SHIPPED: 10/16/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE:	DATE SIGNED: 10/16/24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 554955-0005 <u>553931-0005</u>	BY: JJ	DATE: <u>10/28/24</u>
	BY: <u>EN</u>	DATE: <u>10/23/24</u>

SAMPLE ID: <u>MW-16-03</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0941</u>	DATE: <u>10/28/24</u>	SAMPLE	TIME: <u>1006</u>	DATE: <u>10/28/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: <u>7.80</u> SU		CONDUCTIVITY: <u>719</u> umhos/cm		
DEPTH TO WATER: <u>8.68</u> T/ PVC		ORP: <u>-275</u> mV		DO: <u>1.10</u> mg/L	
DEPTH TO BOTTOM NM T/ PVC		TURBIDITY: <u>5.0</u> NTU			
WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		TEMPERATURE: <u>12.9</u> °C			
VOLUME REMOVED: <u>5</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS		COLOR: <u>clear</u>		ODOR: <u>none</u>	
COLOR: <u>clear</u>		ODOR: <u>none</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR: <u>NA</u>		FILTRATE ODOR: <u>NA</u>	
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-			
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
<u>0941</u>	<u>200</u>	<u>8.14</u>	<u>1122</u>	<u>-161</u>	<u>17.5</u>	<u>11.7</u>	<u>13.1</u>	<u>8.90</u>	INITIAL
<u>0946</u>		<u>7.80</u>	<u>704</u>	<u>-205</u>	<u>2.26</u>	<u>5.3</u>	<u>13.0</u>	<u>8.95</u>	<u>1</u>
<u>0951</u>		<u>7.81</u>	<u>716</u>	<u>-263</u>	<u>1.40</u>	<u>5.0</u>	<u>13.0</u>	<u>8.95</u>	<u>2</u>
<u>0956</u>		<u>7.80</u>	<u>719</u>	<u>-275</u>	<u>1.10</u>	<u>5.0</u>	<u>12.9</u>	<u>8.95</u>	<u>3</u>
<u>1001</u>		<u>7.80</u>	<u>720</u>	<u>-275</u>	<u>1.10</u>	<u>5.0</u>	<u>12.9</u>	<u>8.95</u>	<u>4</u>
<u>1006</u>		<u>7.80</u>	<u>719</u>	<u>-275</u>	<u>1.10</u>	<u>5.0</u>	<u>12.9</u>	<u>8.95</u>	<u>5</u>

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
<u>1</u>	<u>500mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
<u>2</u>	<u>500mL</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
<u>2</u>	<u>1L</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
<u>1</u>	<u>60 mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/28/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/28/24</u>



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RRP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551953.0005 552131.0005	BY: JJ	DATE: 10/16/24
	BY: ER	DATE: 10/26/24

SAMPLE ID: MW-17-17	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1015	DATE: 10/16/24	SAMPLE	TIME: 1035	DATE: 10/16/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: 7.65	SU	CONDUCTIVITY: 750	umhos/cm	
	ORP: -234	mV	DO: 1.77	mg/L	
DEPTH TO WATER: 5.12 T/ PVC	TURBIDITY: 5.0		NTU		
DEPTH TO BOTTOM: 21.94 T/ PVC	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY				
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	TEMPERATURE: 13.2		°C		
VOLUME REMOVED: 4 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: clear		ODOR: none		
COLOR: clear	ODOR: none		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY		FILTRATE COLOR: NA		FILTRATE ODOR: NA	
<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-			
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1015	200	7.96	842	-203	16.0	8.0	13.5	531	INITIAL
1020		7.66	793	-228	2.76	5.0	13.1	585	1
1025		7.65	763	-234	1.78	5.0	13.2	585	2
1030		7.65	754	-234	1.76	5.0	13.2	585	3
1035		7.45	750	-234	1.77	5.0	13.2	585	4
									5
									6

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: Courier	DATE SHIPPED: 10/18/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE:	DATE SIGNED: 10/16/24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551953.0005 557931.0505	BY: JJ	DATE: 10/16/24

SAMPLE ID: MW- 16-02	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1145	DATE: 10/16/24	SAMPLE	TIME: 1210	DATE: 10/16/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER			PH: 7.55 SU CONDUCTIVITY: 1530 umhos/cm		
DEPTH TO WATER: 8.41 T/ PVC			ORP: -257 mV DO: 1.20 mg/L		
DEPTH TO BOTTOM NM T/ PVC			TURBIDITY: 6.0 NTU		
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
VOLUME REMOVED: 5 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS			TEMPERATURE: 13.4 °C OTHER:		
COLOR: clear ODOR: none			COLOR: clear ODOR: none		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			FILTRATE COLOR: NA FILTRATE ODOR: NA		
			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1145	200	7.89	1400	-167	1.60	15	14.8	8.78	INITIAL
1150		7.48	1513	-210	2.92	7.0	13.8	8.80	1
1155		7.53	1504	-233	1.80	6.0	13.5	8.80	2
1200		7.55	1529	-257	1.20	6.0	13.5	8.80	3
1205		7.55	1531	-257	1.20	6.0	13.4	8.80	4
1210		7.55	1533	-257	1.20	6.0	13.4	8.80	5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
3	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: Courier	DATE SHIPPED: 10/18/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE:	DATE SIGNED: 10/18/24

TRC WATER SAMPLE LOG

PROJECT NAME: DTE CCR RPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551955-0005 52931-0005	BY: JJ DATE: 10/16/24	BY: ER DATE: 10/23/24

SAMPLE ID: MW-17-10	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

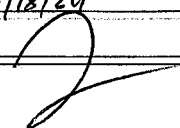
PURGING	TIME: 1220	DATE: 10/16/24	SAMPLE	TIME: 1240	DATE: 10/16/24
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: 7.88	SU	CONDUCTIVITY: 789	umhos/cm	
DEPTH TO WATER: 5.60 T/ PVC	ORP: -223	mV	DO: 1.89	mg/L	
DEPTH TO BOTTOM: 21.68 T/ PVC	TURBIDITY: 5.0	NTU			
WELL VOLUME: NM <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	TEMPERATURE: 14.2	°C	OTHER:		
VOLUME REMOVED: 4 <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: Clear		ODOR: none		
COLOR: Clear	ODOR: none		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY	FILTRATE COLOR: NA		FILTRATE ODOR: NA		
DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1220	200	8.04	659	-184	16.0	9.0	14.5	5.81	INITIAL
1225		7.88	814	-204	3.0	6.0	14.3	6.00	1
1230		7.87	803	-223	1.90	5.0	14.2	6.00	2
1235		7.88	792	-223	1.89	5.0	14.2	6.00	3
1240		7.88	789	-223	1.89	5.0	14.2	6.00	4
									5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: Courier	DATE SHIPPED: 10/18/24	AIRBILL NUMBER: NA
COC NUMBER: NA	SIGNATURE: 	DATE SIGNED: 10/16/24



WATER SAMPLE LOG

PROJECT NAME: DTE CCR RPP 2SA24	PREPARED	CHECKED
PROJECT NUMBER: 551953.0005 553931.0005	BY: JJ	DATE: <u>10/16/24</u>
	BY: <u>ER</u>	DATE: <u>10/23/24</u>

SAMPLE ID: <u>MW-16-01</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1305</u>	DATE: <u>10/16/24</u>	SAMPLE	TIME: <u>1325</u>	DATE: <u>10/16/24</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	PH: <u>10.60</u> SU	CONDUCTIVITY: <u>1192</u> umhos/cm	ORP: <u>-321</u> mV	DO: <u>1.39</u> mg/L	
DEPTH TO WATER: <u>8.71</u> T/ PVC	TURBIDITY: <u>6.0</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
DEPTH TO BOTTOM NM T/ PVC	WELL VOLUME: <u>NM</u> <input type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	TEMPERATURE: <u>14.1</u> °C	OTHER: _____		
VOLUME REMOVED: <u>4</u> <input checked="" type="checkbox"/> LITERS <input type="checkbox"/> GALLONS	COLOR: <u>clear</u>	ODOR: <u>none</u>	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
COLOR: <u>clear</u> ODOR: <u>slight</u>	FILTRATE COLOR: <u>NA</u>	FILTRATE ODOR: <u>NA</u>	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		DISPOSAL METHOD: <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input type="checkbox"/> OTHER			
COMMENTS: _____					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1305	200	6.51	1318	204	15.0	8.0	15.7	9.6	INITIAL
1310		10.16	1162	-303	1.94	9.5	14.3	9.75	1
1315		10.60	1186	-321	1.40	6.0	14.1	9.75	2
1320		10.60	1189	-321	1.40	6.0	14.1	9.75	3
1325		10.60	1192	-321	1.39	6.0	14.1	9.75	4
									5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 10% ORP: +/- NA D.O.: +/- NA TURB: +/- 10% or <= 5 TEMP.: +/- 0.5°C

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	500mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	500mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
2	1L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
1	60 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	
				<input type="checkbox"/> Y <input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N	

SHIPPING METHOD: <u>Courier</u>	DATE SHIPPED: <u>10/18/24</u>	AIRBILL NUMBER: <u>NA</u>
COC NUMBER: <u>NA</u>	SIGNATURE:	DATE SIGNED: <u>10/16/24</u>

eurolfins Cleveland
 80 S. Van Buren Avenue
 arberton, OH 44203
 Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record



Client Information
 Client Contact: **Kris Scieszka**
 Company: **RC Environmental Corporation**
 Address: **540 Eisenhower Place**
 City: **Min Arbor**
 State, Zip: **IL 46108-7080**
 Phone: **13-971-7080(Tel) 313-971-9022(Fax)**
 Email: **Scieszka@trccompanies.com**
 Project Name: **CR DTE River Rouge Power Plant**
 Location: **Michigan**

Sample: **Water Jassc**
 Lab PM: **Brooks, Kris M**
 E-Mail: **Kris.Brooks@et.eurolfins.com**
 State of Origin: _____
 Carrier Tracking No(s): _____
 COC No: **240-125168-41693.2**
 Page: _____ of _____
 Job #: _____

Due Date Requested: _____
 TAT Requested (days): _____
 Compliance Project: Yes No
 PO #: **244275**
 WO #: **214271**
 Project #: **605116 phase 1**
 Project #: **24016806**
 SOW#: _____

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other, B=Bottom, A=Air)	Field Filtered Sample (Yes/No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
MW-17-06	11/11/09	0742	G	Water	Yes	2540C_Calcd - TDS	2	
Deep #01	11/11/09		G	Water	Yes	9056A_28D - Chloride, Fluoride and Sulfate	2	
MW-17-07	11/11/09	0901	G	Water	Yes	6010D B, 6020B Ca	2	
MW-16-03	11/11/09	1050	G	Water	Yes	9315_Ra226 - Standard Target List	2	
MW-17-17	11/11/09	1035	G	Water	Yes	9320_Ra228 - Standard Target List	2	
MW-16-02	11/11/09	1210	G	Water	Yes	6020B - 11 Metals - App IV/Part 115	2	
MW-17-1C	11/11/09	1340	G	Water	Yes		2	
MW-16-01	11/11/09	1355	G	Water	Yes		2	

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

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

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: _____

Imply Kit Relinquished by: _____ Date: _____
 Relinquished by: **10/16/24** Date: **1/26/24** Company: **TRU**
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

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

Client Information
Client Contact: Chris Sleszka
Company: TRC Environmental Corporation
Address: 1540 Eisenhower Place
City: Ann Arbor
State, Zip: MI, 48108-7080
Phone: 313-971-7080(Tel) 313-971-9022(Fax)
Email: CSleszka@trccompanies.com
Project Name: CCR DTE River Rouge Power Plant
Site: Michigan

Lab Pkt: Brooks, Kris M
E-Mail: Kris.Brooks@et.eurofins.com

Carrier Tracking No(s):

COC No: 240-125168-41693.2
Page of 1
Page of 1
Job #:

Analysis Requested
Due Date Requested:
TAT Requested (days):
Compliance Project: Yes No
PO #: 244888-214877
WO #: 605116 phase 1
Project #: 24076806
SSON#:

Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Overhaul, BT-Haus, AAB)	Field Filtered Sample (Yes or No)	Analysis Requested	Carrier Tracking No(s)	State of Origin	Preservation Codes: N - None D - HNO3
MW-17-04	10/16/14	6740	G	Water		2540C_Calcd - TDS			
Dud #01	11/11		G	Water		9056A_28D - Chloride, Fluoride and Sulfate			
MW-17-03	11/11	0921	G	Water		6010D B, 6020B Ca			
MW-17-03	11/11	1035	G	Water		9315_Ra226 - Standard Target List			
MW-17-03	11/11	1240	G	Water		9320_Ra228 - Standard Target List			
MW-17-01	11/11	1335	G	Water		6020B - 11 Metals - App IV/Part 115			

Special Instructions/Note:

Total Number of containers

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (Specify)

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:

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No

Custody Seal No.: _____

Cooler Temperature(s) °C and Other Remarks:

Appendix B

Data Quality Reviews

**Laboratory Data Quality Review
Groundwater Monitoring Event April 2024
DTE Electric Company River Rouge Power Plant (DTE RRPP)**

Groundwater samples were collected by TRC for the April 2024 sampling event for the Bottom Ash Basin at the DTE RRPP. Samples were analyzed for anions, total dissolved solids, and total metals by Eurofins Cleveland, located in Barberton, Ohio. Samples were analyzed for radium by Eurofins St. Louis, located in Earth City, Missouri. The laboratory analytical results are reported in laboratory reports 240-202716-1 and 240-202716-2.

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

- MW-16-01
- MW-16-02
- MW-16-03
- MW-17-06
- MW-17-07
- MW-17-16
- MW-17-17

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Fluoride, Chloride, Sulfate)	SW846 9056A
Total Dissolved Solids (TDS)	SM 2540C
Total Metals	SW846 6010D/6020B/7470A
Radium (Ra-226, Ra-228, Combined Ra-226 & Ra-228)	SW846 9315/9320

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

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020) and the Department of Energy Evaluation of Radiochemical Data Usability (USDOE, 1997). 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. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures;
- Data for laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs), when performed. The LCS/LCSDs are used to assess the accuracy and precision 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;
- Percent recoveries for carriers, where applicable, for radiochemistry only. Carriers are used to assess the chemical yield for the preparation and/or instrument efficiency;
- 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;
- 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 and IV constituents and iron, nickel, vanadium, silver, zinc, and copper 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 blanks.
- LCS recoveries for all target analytes were within laboratory QC limits.
- MS/MSD analyses were performed on sample MW-17-16 for anions. All criteria were met.
- A laboratory duplicate analysis was performed on sample MW-16-01 for TDS; all criteria were met.
- The field duplicate pair samples were DUP-01/MW-16-01. The results between the parent and duplicate samples were within acceptance limits.
- Molybdenum and boron were reported at RLs lower than required in the QAPP. Molybdenum was detected in sample MW-17-06 (7.5 µg/L) below the QAPP RL of 10 µg/L.
- The RL for chromium (5 µg/L) was above the RL required in the QAPP (2 µg/L) for all samples in this data set.
- Carrier recoveries were within 40-110%.

**Laboratory Data Quality Review
Groundwater Monitoring Event October 2024
DTE Electric Company River Rouge Power Plant (DTE RRPP)**

Groundwater samples were collected by TRC for the October 2024 sampling event for the Bottom Ash Basin at the DTE RRPP. Samples were analyzed for anions, total dissolved solids, and total metals by Eurofins Cleveland, located in Barberton, Ohio. Samples were analyzed for radium by Eurofins St. Louis, located in Earth City, Missouri. The laboratory analytical results are reported in laboratory reports 240-213203-1, 240-213203-2, 240-213361-1, and 240-213362-1.

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

- MW-16-01
- MW-16-02
- MW-16-03
- MW-16-04S
- MW-17-05
- MW-17-06
- MW-17-07
- MW-17-08
- MW-17-12
- MW-17-13
- MW-17-14
- MW-17-15
- MW-17-16
- MW-17-17
- MW-17-18
- MW-17-19
- MW-17-20

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Fluoride, Chloride, Sulfate)	SW846 9056A
Total Dissolved Solids (TDS)	SM 2540C
Total Metals	SW846 6010D/6020B
Radium (Ra-226, Ra-228, Combined Ra-226 & Ra-228)	SW846 9315/9320

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

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020) and the Department of Energy Evaluation of Radiochemical Data Usability (USDOE, 1997). 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. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures;
- Data for laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs), when performed. The LCS/LCSDs are used to assess the accuracy and precision 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;
- Percent recoveries for carriers, where applicable, for radiochemistry only. Carriers are used to assess the chemical yield for the preparation and/or instrument efficiency;
- 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;
- 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 and IV constituents as well as iron, nickel, vanadium, silver, zinc, and copper 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 blanks.
- LCS recoveries for all target analytes were within laboratory QC limits.
- MS/MSD analyses were performed on samples MW-16-04S for all metals, and sample MW-16-03 for anions. All criteria were met with the following exception.
 - The percent recovery for calcium in the MSD performed on sample MW-16-04S was below the acceptance limits. However, the result for calcium in the parent sample was >4x the spike concentration; therefore, there is no impact on data usability due to this issue.

- Laboratory duplicate analyses were performed on samples MW-17-05 and MW-17-16 for TDS, and sample MW-16-04S for radium-226 and radium-228; all criteria were met.
- The field duplicate pair samples were DUP-01/MW-17-06 and DUP-02/MW-17-08. The results between the parent and duplicate samples were within acceptance limits with the following exception.
 - The results for arsenic in samples DUP-01 and MW-17-06 were <5x the RL and the absolute difference was greater than the RL. Therefore, the positive results for arsenic in all groundwater samples in this data set, where detected, should be considered estimated, as summarized in the attached table, Attachment A. There is no impact on the data usability for nondetect results for arsenic.
- Boron was reported with an RL (100 µg/L) lower than the QAPP-specified RL (200 µg/L). Boron was detected in sample MW-16-03 (130 µg/L) below the QAPP-specified RL.
- Molybdenum was reported with an RL (5.0 µg/L) lower than the QAPP-specified RL (10 µg/L). Molybdenum was detected in samples MW-17-19 (6.2 µg/L), MW-17-06 (8.0 µg/L), and DUP-01 (8.0 µg/L) below the QAPP-specified RL.
- Carrier recoveries were within 40-110%.

Attachment A

Summary of Data Non-Conformances for Groundwater Analytical Data
DTE Electric Company River Rouge Power Plant
River Rouge, Michigan

Samples	Collection Date	Analyte	Non-Conformance/Issue
MW-17-12	10/15/2024	Arsenic	Field duplicate variability (absolute difference greater than reporting limit); potential uncertainty exists for the listed results.
MW-17-15			
MW-17-06	10/16/2024		
DUP-01			
MW-17-07			
MW-17-16			
MW-16-01			

Appendix C

Appendix IV Assessment Monitoring Statistical Evaluation – April 2024

Technical Memorandum

Date: January 31, 2025

To: DTE Electric Company

From: Sarah Holmstrom, TRC
Kristin Lowery, TRC
Henry Schnaidt, TRC

Project No.: 553931.0005.0000

Subject: Appendix IV Assessment Monitoring Statistical Evaluation for April 2024 Groundwater Monitoring Event – DTE Electric Company, River Rouge Power Plant, Bottom Ash Basin Coal Combustion Residual Unit

Introduction

In accordance with §257.96(b) of the federal Coal Combustion Residual (CCR) rule¹, DTE Electric Company (DTE Electric) is continuing assessment monitoring for the River Rouge Power Plant (RRPP) Bottom Ash Basin (BAB) CCR unit. The first semiannual assessment monitoring event of 2024 for the Appendix III and Appendix IV constituents was conducted on April 10, 2024. In accordance with §257.95, the assessment monitoring data must be evaluated to determine whether or not Appendix IV constituents are detected at statistically significant levels above the groundwater protection standards (GWPSs). This memorandum presents the confidence limits derived for the Appendix IV parameters for the RRPP BAB CCR unit that will be used to compare to the established GWPSs.

Assessment Monitoring Statistical Evaluation

The three compliance wells utilized for the RRPP BAB CCR unit are MW-16-01, MW-16-02 and MW-16-03. In addition, MW-17-16 and MW-17-17 were added to the corrective action monitoring program in 2024. Following the first semiannual assessment monitoring sampling event for 2024, compliance well data for the RRPP BAB were evaluated in accordance with the Groundwater Statistical Evaluation Plan (Stats Plan) (TRC, October 2017; revised December 2017). For each detected constituent, the concentrations for each well were first compared directly to the GWPS within the dataset collected subsequent to the groundwater extraction system operation. Parameter-well combinations that included a direct exceedance of the GWPS were retained for further analysis. There is insufficient data available from downgradient monitoring wells MW-17-16 and MW-17-17 to complete a statistical evaluation (minimum of 4 data points required). Results from these two wells are compared directly to the GWPS until the minimum 4 data points are available to statistically evaluate the results.

¹ USEPA final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) published April 17, 2015, as amended.

Technical Memorandum

As a result, arsenic and lithium at MW-16-01 and lithium at MW-16-02 were retained for further evaluation².

Groundwater data were then evaluated utilizing ChemStat™ statistical software. ChemStat™ is a software tool that is commercially available for performing statistical evaluation consistent with procedures outlined in U.S. EPA's Statistical Analysis of Groundwater Monitoring Data at Resource Conservation and Recovery Act (RCRA) Facilities³ (Unified Guidance; UG). Within the ChemStat™ statistical program (per the UG), confidence limits were selected to perform the statistical comparison of compliance data to a fixed standard. Parametric and non-parametric confidence intervals were calculated for each of the applicable Appendix IV parameters using a 99 percent confidence level, i.e., a significance level (α) of 0.01. The following narrative describes the methods employed, the results obtained and the ChemStat™ output files are included as an attachment.

The ChemStat™ software was used to test compliance at the downgradient monitoring wells using the confidence interval method for the most recent eight sampling events. Eight independent sampling events provide the appropriate density of data as recommended per the UG and are collected recently enough to provide an indication of current conditions under the hydraulic influence of the groundwater extraction system.

The statistical data evaluation included the following steps:

- Review of data quality checklists for the assessment monitoring data sets for Appendix IV constituents;
- Evaluation of percentage of non-detects for each downgradient well-constituent pair;
- Graphical representation of the assessment monitoring data as time versus concentration (T v. C) by well/constituent pair;
- Outlier testing of individual data points that appear from the graphical representations as potential outliers;
- Evaluation of visual trends apparent in the graphical representations for statistical significance;
- Distribution of the data; and
- Calculation of the confidence intervals for each cumulative dataset.

The results of these evaluations are presented and discussed below.

Data Quality

Data from the first semiannual monitoring event for 2024 were evaluated for completeness, overall quality and usability, method-specified sample holding times, precision and accuracy, and potential sample contamination. The review was completed using the following quality control (QC) information which, at a minimum, included chain-of-custody forms, investigative sample results including blind field

² Arsenic and lithium at monitoring well MW-17-16 also indicated direct exceedances of the GWPSs. MW-17-16 was added to the monitoring program in 2024 and insufficient data is available to complete statistical analysis. MW-17-16 will be included in a statistical evaluation once a minimum of four data points are available.

³ USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Conservation and Recovery. EPA 530/R-09-007.

Technical Memorandum

duplicates, and as provided by the laboratory, method blanks, laboratory control spikes, laboratory duplicates. The data were found to be complete and usable for the purposes of the CCR monitoring program.

Percentage of Non-detects

The percentage of non-detect observations for constituents with one or more detection above a GWPS is included in Table 1. Non-detect data was handled in accordance with the Stats Plan for the purposes of calculating confidence intervals.

Time versus Concentration Graphs

The time (T) vs. concentration (C) graphs did not show any potential outliers. The T vs. C graphs showed potential trending for some Appendix IV well/constituent pairs. These were tested by the ChemStat™ software to assess whether the trends are statistically significant.

Outlier Testing

No potential outliers were observed on the T vs. C graphs; therefore, no outlier testing was performed.

Trend Analysis

Visual trends apparent in the T vs. C graphs were evaluated in ChemStat™ using the Mann-Kendall Trend Analysis to determine if a subset of data should be used in calculating the confidence interval. Trends were evaluated using a 95-percent (one-tailed) confidence level, i.e., a significance level (α) of 0.05. A statistically significant decreasing trend was identified for arsenic at MW-16-01 as a result of pilot scale remedial injections completed in the area in November 2022. A statistically significant increasing trend for lithium at MW-16-02 was identified.

Distribution of the Data Sets

ChemStat™ was utilized to evaluate each data set for normality. If the skewness coefficient was calculated to be between negative one and one, then the data were assumed to be approximately normally distributed. If the skewness coefficient was calculated as greater than one or less than negative one, the calculation was performed on the natural log (Ln) of the data. If it was determined that the Ln of the data still appeared to be skewed, then the Shapiro-Wilk test of normality (Shapiro-Wilk) was performed. The Shapiro-Wilk statistic was calculated on both non-transformed data and the Ln-transformed data. If the Shapiro-Wilk statistic indicated that normal distributional assumptions were not valid, then the parameter was considered a candidate for non-parametric statistical evaluation. The data distributions are summarized in Table 1.

Confidence Intervals

Variability is recognized in the data set due to changing groundwater quality in response to the operation of the groundwater extraction system and as a result of pilot study activities influencing select areas. Calculating a confidence interval around a trending data set incorporates not only variability present naturally in the underlying dataset but can exaggerate variability. Groundwater conditions are re-equilibrating following shutdown of the extraction system and pilot test activities at the BAB in late 2022 and 2023. Because hydrogeologic conditions are in the process of stabilizing, temporary trending and sporadic outlier data are not unexpected. Therefore, all data is used in the statistical evaluation.

Technical Memorandum

Table 1 presents the calculated confidence intervals for each well-constituent pair. For normal and lognormal distributions, confidence intervals are calculated for 99 percent confidence using parametric methods. For non-normal datasets, a nonparametric confidence interval is utilized, resulting in the highest and lowest values from the contributing dataset as the confidence limits.

The confidence intervals calculated through the above-described process will be compared to the GWPS to determine if an exceedance has occurred. An exceedance of the standard occurs when the lower 99 percent confidence level of the downgradient data exceeds the corresponding GWPS.

Attachments

Table 1 Summary of Descriptive Statistics and Confidence Interval Calculations

Attachment A ChemStat™ Outputs

Table 1
Summary of Descriptive Statistics and
Confidence Interval Calculations

Table 1
 Summary of Descriptive Statistics and Confidence Interval Calculations
 Assessment Monitoring Statistical Evaluation - April 2024
 DTE Electric Company – River Rouge Power Plant

Parameter ⁽¹⁾	Percent Non-Detect	Outliers?	Trend?	Skewness		Shapiro-Wilks Test (5% Critical Value)		Parametric / Non-Parametric	99% Confidence Interval ⁽²⁾
				Un-Transformed	Natural Log	Un-Transformed	Natural Log		
MW-16-01									
Arsenic	0%	No	Yes	-1 < 0.342936 < 1	--	--	--	Parametric	[-0.46, 160]
Lithium	0%	No	No	-1 < 0.717612 < 1	--	--	--	Parametric	[35, 65]
MW-16-02									
Lithium	0%	No	Yes	1 < 1.56675	1 < 1.05977	0.818 > 0.738621	0.818 < 0.861253	Parametric	[11, 33]
MW-17-16									
Arsenic	Insufficient data for statistical evaluation - n < 4								
Lithium	Insufficient data for statistical evaluation - n < 4								

Notes:

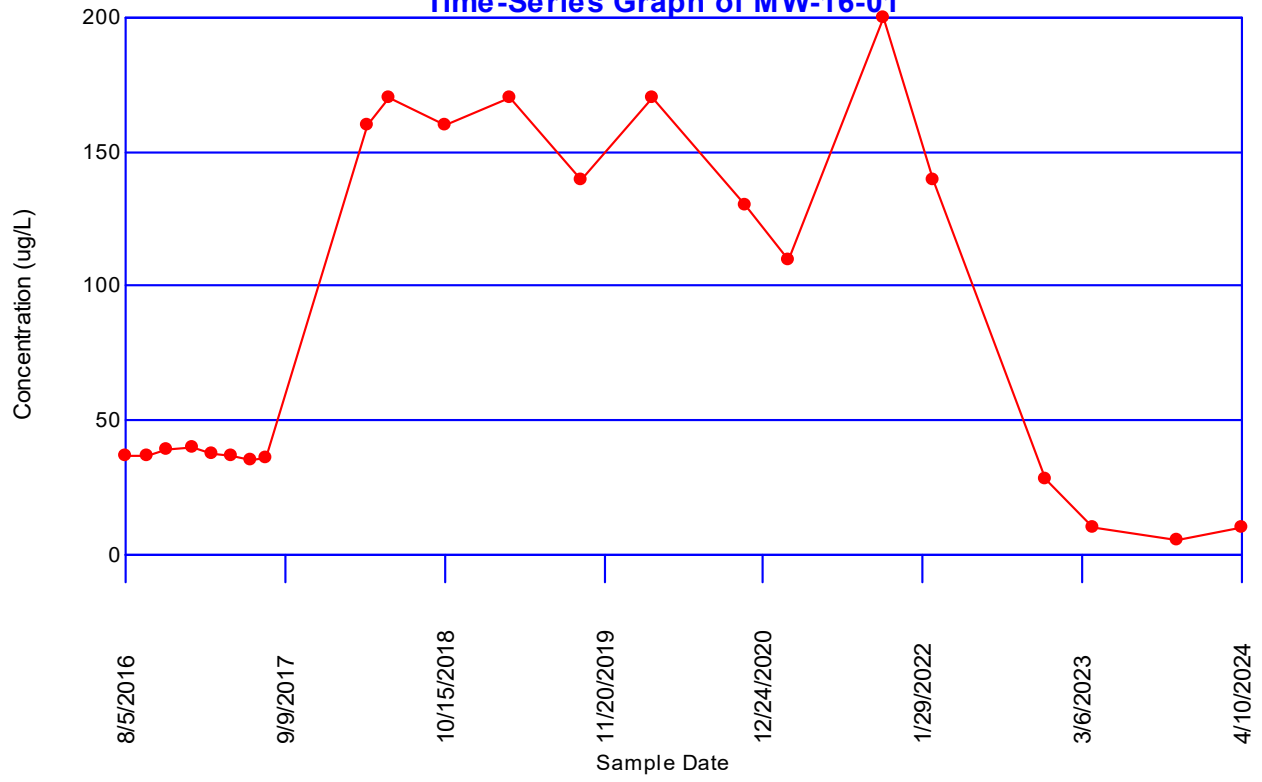


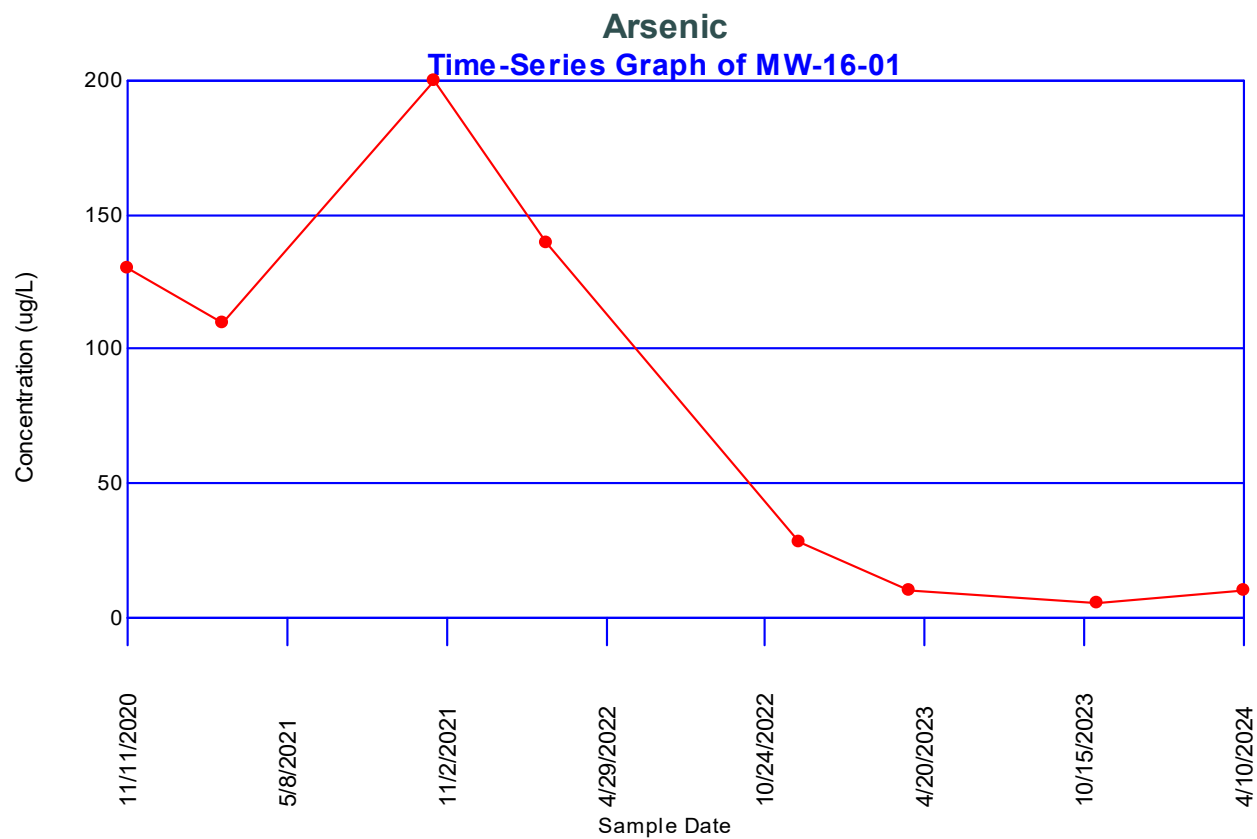
(1) Well-parameter combinations that have one or more direct exceedances of the Groundwater Protection Standard within the most recent eight sampling events.
 (2) The most recent eight data points are used to calculate the confidence interval to be representative of current conditions, except where noted.

Attachment A

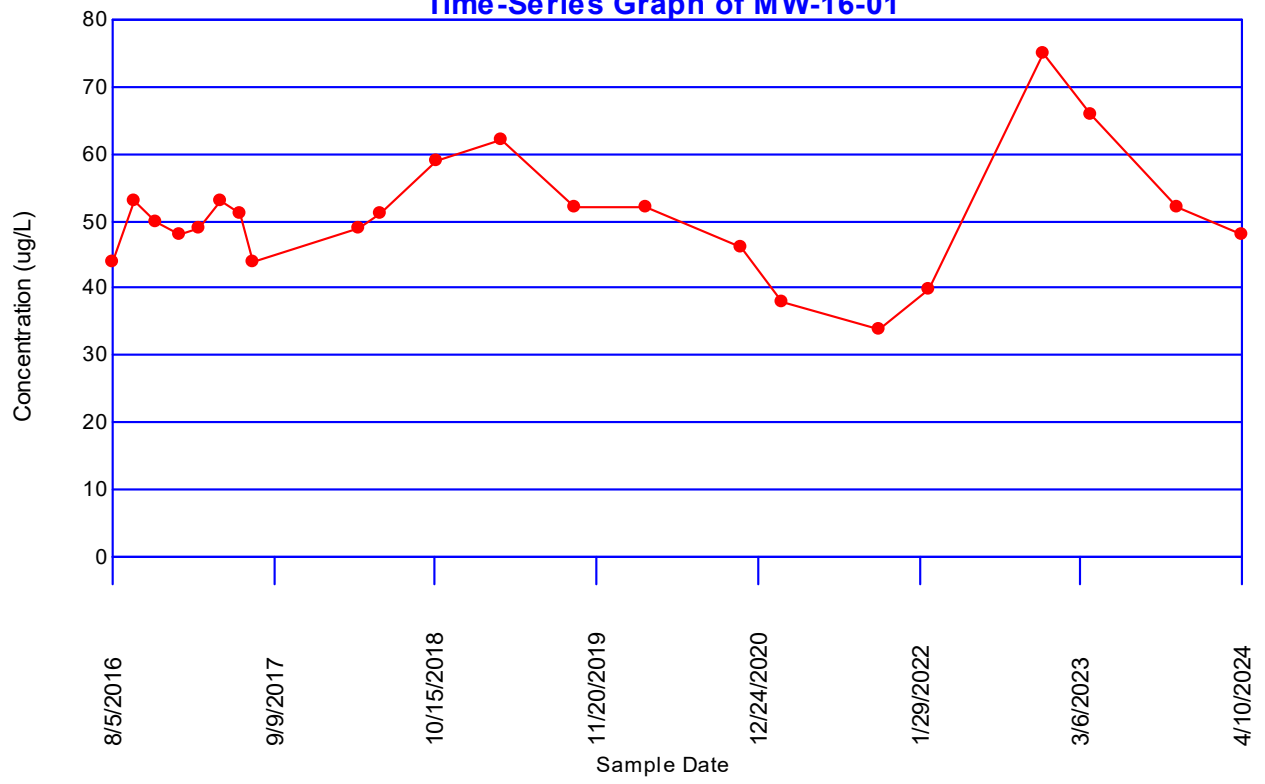
ChemStat™ Confidence Interval Outputs

Arsenic Time-Series Graph of MW-16-01

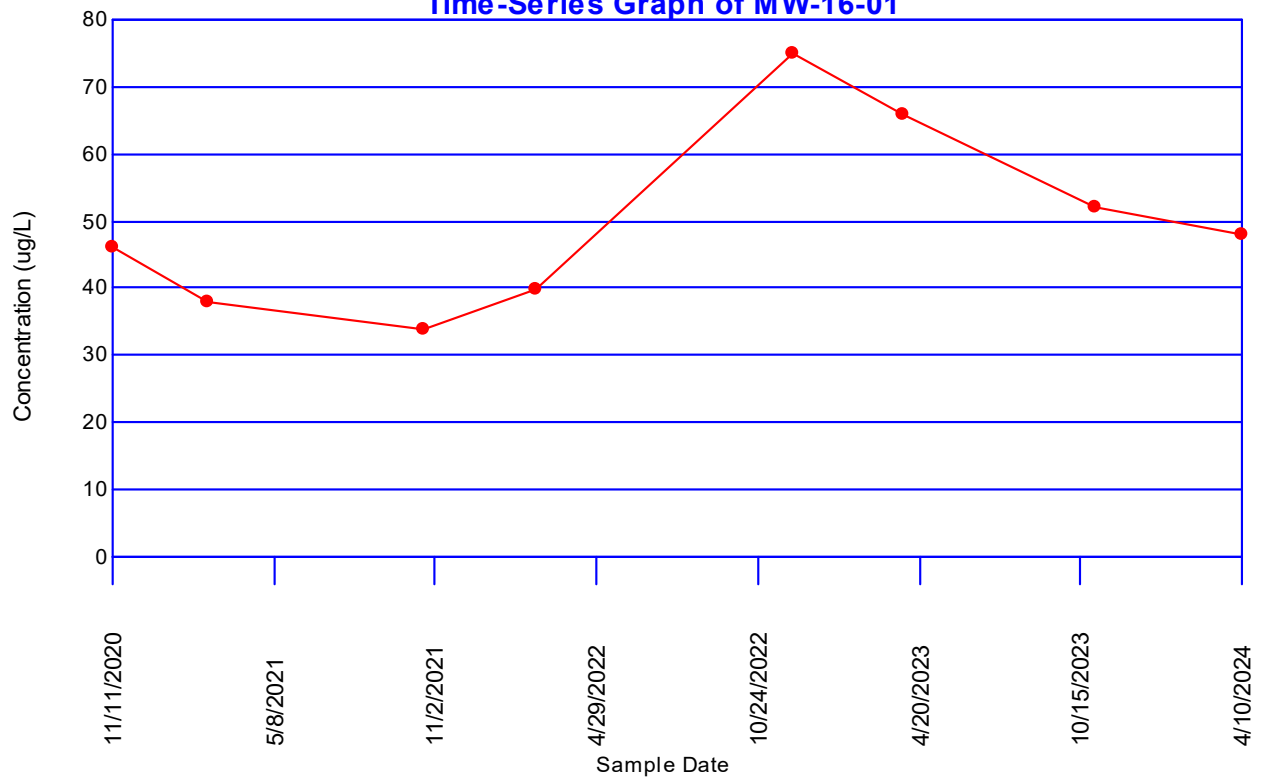




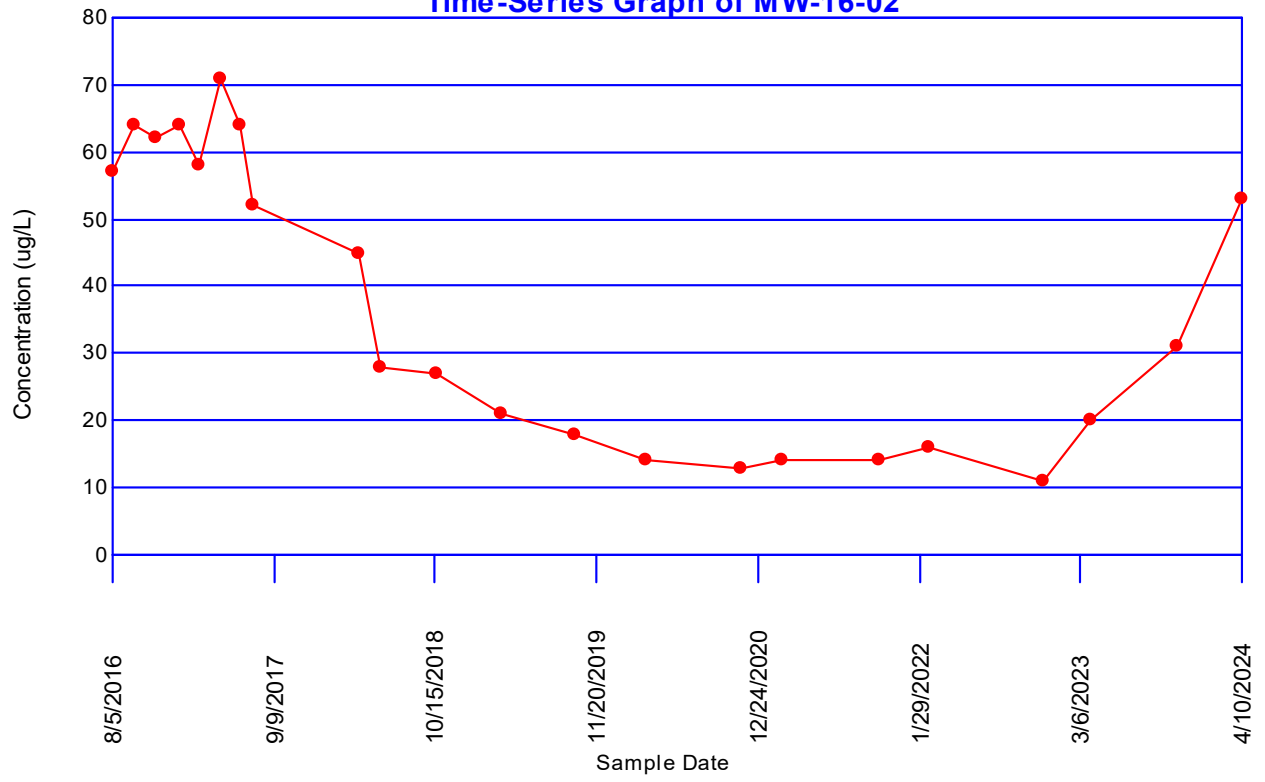
Lithium Time-Series Graph of MW-16-01



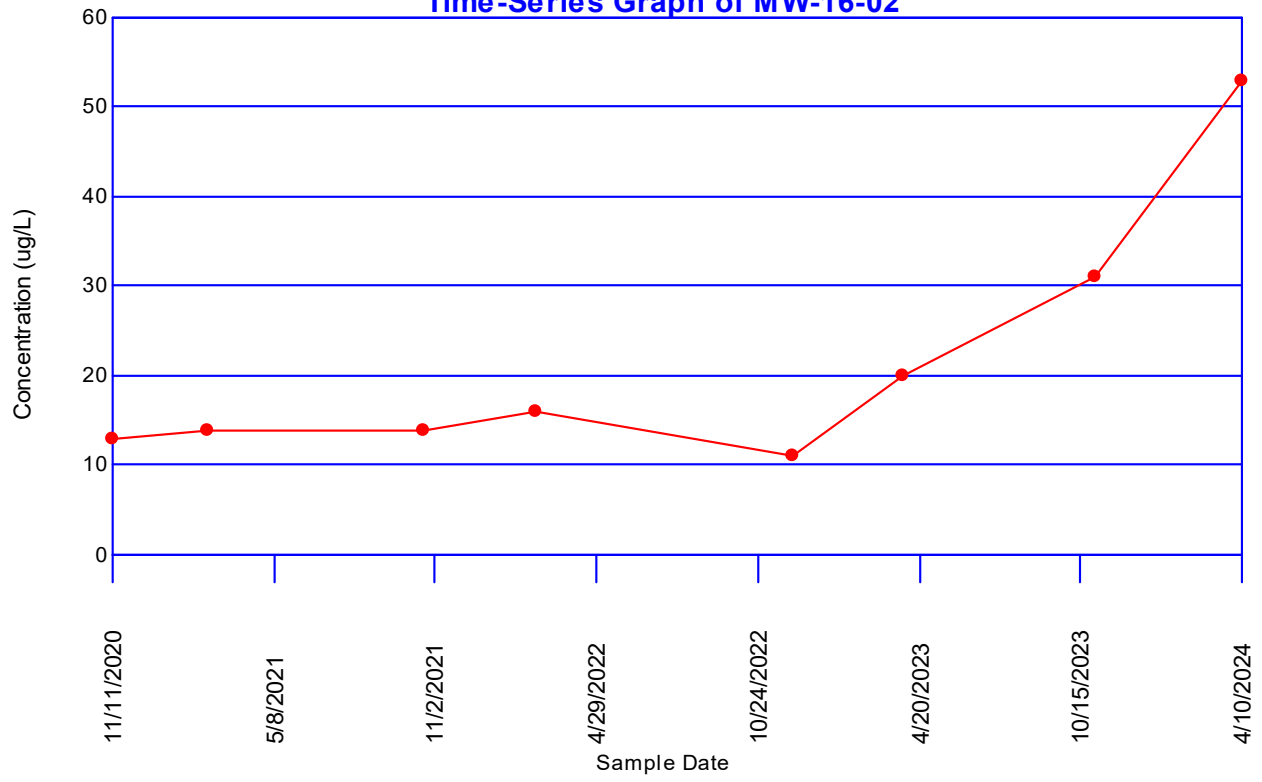
Lithium Time-Series Graph of MW-16-01



Lithium Time-Series Graph of MW-16-02



Lithium Time-Series Graph of MW-16-02



Concentrations (ug/L)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 26

Total Non-Detect: 15

Percent Non-Detects: 57.6923%

Total Background Measurements: 0

There are 0 background locations

Loc.	Meas.	ND	Date	Conc.	Original
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There are 5 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
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MW-16-01	8	0 (0%)	11/11/2020	130	130
			2/25/2021	110	110
			10/20/2021	200	200
			2/22/2022	140	140
			12/1/2022	28	28
			4/3/2023	10	10
			10/30/2023	5.2	5.2
			4/10/2024	10	10
			8/5/2016	37	37
			9/30/2016	37	37
			11/18/2016	39	39
			1/20/2017	40	40
			3/10/2017	38	38
			4/28/2017	37	37
			6/16/2017	35	35
			7/21/2017	36	36
			4/6/2018	160	160
			5/30/2018	170	170
10/16/2018	160	160			
3/29/2019	170	170			
9/26/2019	140	140			
3/20/2020	170	170			

MW-16-02	8	6 (75%)	11/11/2020	ND<5 U	ND<5 U
			2/25/2021	2.6	2.6
			10/20/2021	ND<5 U	ND<5 U
			2/22/2022	2.4	2.4
			12/1/2022	ND<5	ND<5
			4/3/2023	ND<5 U	ND<5 U
			10/30/2023	ND<5 U	ND<5 U
			4/10/2024	ND<5 U	ND<5 U
			8/5/2016	24	24
			9/30/2016	27	27
			11/18/2016	30	30
			1/20/2017	31	31
			3/10/2017	29	29
			4/28/2017	30	30
			6/16/2017	30	30
			7/21/2017	27	27
			4/6/2018	15	15
			5/30/2018	ND<5 U	ND<5 U

			10/16/2018	7.9	7.9
			3/29/2019	ND<5 U	ND<5 U
			9/26/2019	ND<5 U	ND<5 U
			3/20/2020	ND<5 U	ND<5 U
MW-16-03	8	8 (100%)	11/11/2020	ND<5 U	ND<5 U
			2/25/2021	ND<5	ND<5
			10/20/2021	ND<5 U	ND<5 U
			2/22/2022	ND<0.36 J	ND<0.36 J
			11/30/2022	ND<5	ND<5
			4/3/2023	ND<5 U	ND<5 U
			10/30/2023	ND<5 U	ND<5 U
			4/10/2024	ND<5 U	ND<5 U
			8/5/2016	91	91
			9/30/2016	40	40
			11/18/2016	21	21
			1/20/2017	13	13
			3/10/2017	12	12
			4/28/2017	12	12
			6/16/2017	12	12
			7/21/2017	12	12
			4/6/2018	ND<5 U	ND<5 U
			5/30/2018	ND<5 U	ND<5 U
			10/16/2018	ND<5 U	ND<5 U
			3/29/2019	ND<5 U	ND<5 U
			9/26/2019	ND<5 U	ND<5 U
			3/20/2020	ND<5 U	ND<5 U
MW-17-16	1	0 (0%)	4/10/2024	54	54
MW-17-17	1	1 (100%)	4/10/2024	ND<5 U	ND<5 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original
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Concentrations (ug/L)

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 26

Total Non-Detect: 3

Percent Non-Detects: 11.5385%

Total Background Measurements: 0

There are 0 background locations

Loc.	Meas.	ND	Date	Conc.	Original
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There are 5 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
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MW-16-01	8	0 (0%)	11/11/2020	46	46
			2/25/2021	38	38
			10/20/2021	34	34
			2/22/2022	40	40
			12/1/2022	75	75
			4/3/2023	66	66
			10/30/2023	52	52
			4/10/2024	48	48
			8/5/2016	44	44
			9/30/2016	53	53
			11/18/2016	50	50
			1/20/2017	48	48
			3/10/2017	49	49
			4/28/2017	53	53
			6/16/2017	51	51
			7/21/2017	44	44
			4/6/2018	49	49
			5/30/2018	51	51
			10/16/2018	59	59
3/29/2019	62	62			
9/26/2019	52	52			
3/20/2020	52	52			

MW-16-02	8	0 (0%)	11/11/2020	13	13
			2/25/2021	14	14
			10/20/2021	14	14
			2/22/2022	16	16
			12/1/2022	11	11
			4/3/2023	20	20
			10/30/2023	31	31
			4/10/2024	53	53
			8/5/2016	57	57
			9/30/2016	64	64
			11/18/2016	62	62
			1/20/2017	64	64
			3/10/2017	58	58
			4/28/2017	71	71
			6/16/2017	64	64
			7/21/2017	52	52
			4/6/2018	45	45
			5/30/2018	28	28

			10/16/2018	27	27
			3/29/2019	21	21
			9/26/2019	18	18
			3/20/2020	14	14
MW-16-03	8	3 (37.5%)	11/11/2020	ND<8 U	ND<8 U
			2/25/2021	4.8	4.8
			10/20/2021	ND<8 U	ND<8 U
			2/22/2022	7.9	7.9
			11/30/2022	ND<8	ND<8
			4/3/2023	8.8	8.8
			10/30/2023	8.8	8.8
			4/10/2024	11	11
			8/5/2016	29	29
			9/30/2016	44	44
			11/18/2016	44	44
			1/20/2017	49	49
			3/10/2017	45	45
			4/28/2017	51	51
			6/16/2017	49	49
			7/21/2017	41	41
			4/6/2018	15	15
			5/30/2018	11	11
			10/16/2018	ND<8 U	ND<8 U
			3/29/2019	ND<8 U	ND<8 U
			9/26/2019	ND<8 U	ND<8 U
			3/20/2020	ND<8 U	ND<8 U
MW-17-16	1	0 (0%)	4/10/2024	48	48
MW-17-17	1	0 (0%)	4/10/2024	12	12

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original
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Mann-Kendall Trend Analysis

Parameter: Arsenic

Location: MW-16-01

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
110	130	-20	0	1
200	130	70	1	1
140	130	10	2	1
28	130	-102	2	2
10	130	-120	2	3
5.2	130	-124.8	2	4
10	130	-120	2	5
200	110	90	3	5
140	110	30	4	5
28	110	-82	4	6
10	110	-100	4	7
5.2	110	-104.8	4	8
10	110	-100	4	9
140	200	-60	4	10
28	200	-172	4	11
10	200	-190	4	12
5.2	200	-194.8	4	13
10	200	-190	4	14
28	140	-112	4	15
10	140	-130	4	16
5.2	140	-134.8	4	17
10	140	-130	4	18
10	28	-18	4	19
5.2	28	-22.8	4	20
10	28	-18	4	21
5.2	10	-4.8	4	22
10	10	0	4	22
10	5.2	4.8	5	22

S Statistic = 5 - 22 = -17

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Failed to calculate probability for S = -17

Table out of range

Probability of obtaining $S \geq |17|$ is 0.0235

$S < 0$ and $0.0235 < 0.025$ indicating a downward trend

Mann-Kendall Trend Analysis

Parameter: Lithium

Location: MW-16-01

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
38	46	-8	0	1
34	46	-12	0	2
40	46	-6	0	3
75	46	29	1	3
66	46	20	2	3
52	46	6	3	3
48	46	2	4	3
34	38	-4	4	4
40	38	2	5	4
75	38	37	6	4
66	38	28	7	4
52	38	14	8	4
48	38	10	9	4
40	34	6	10	4
75	34	41	11	4
66	34	32	12	4
52	34	18	13	4
48	34	14	14	4
75	40	35	15	4
66	40	26	16	4
52	40	12	17	4
48	40	8	18	4
66	75	-9	18	5
52	75	-23	18	6
48	75	-27	18	7
52	66	-14	18	8
48	66	-18	18	9
48	52	-4	18	10

S Statistic = 18 - 10 = 8

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Probability of obtaining S >= |8| is 0.398

0.398 >= 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Lithium

Location: MW-16-02

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
14	13	1	1	0
14	13	1	2	0
16	13	3	3	0
11	13	-2	3	1
20	13	7	4	1
31	13	18	5	1
53	13	40	6	1
14	14	0	6	1
16	14	2	7	1
11	14	-3	7	2
20	14	6	8	2
31	14	17	9	2
53	14	39	10	2
16	14	2	11	2
11	14	-3	11	3
20	14	6	12	3
31	14	17	13	3
53	14	39	14	3
11	16	-5	14	4
20	16	4	15	4
31	16	15	16	4
53	16	37	17	4
20	11	9	18	4
31	11	20	19	4
53	11	42	20	4
31	20	11	21	4
53	20	33	22	4
53	31	22	23	4

S Statistic = 23 - 4 = 19

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Failed to calculate probability for S = 19

Table out of range

Probability of obtaining S >= |19| is 0.01155

S > 0 and 0.01155 < 0.025 indicating evidence of an upward trend

Skewness Coefficient

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-01	8	79.15	75.1125	0.342936
MW-16-02	8	4.375	1.15851	-1.16207
MW-16-03	8	4.42	1.64049	-2.26779
MW-17-16	1	54	Div 0	Div 0
MW-17-17	1	5	Div 0	Div 0

All Locations

Obs.	Mean	Std. Dev.	Skewness
26	29.3292	53.1129	2.06737

Skewness Coefficient

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-01	8	49.875	14.1667	0.717612
MW-16-02	8	21.5	14.1926	1.56675
MW-16-03	8	8.1625	1.70372	-0.453487
MW-17-16	1	48	Div 0	Div 0
MW-17-17	1	12	Div 0	Div 0

All Locations

Obs.	Mean	Std. Dev.	Skewness
26	26.7808	20.7527	0.740577

Skewness Coefficient

Parameter: Lithium

Natural Logarithm Transformation

Non-Detects Replaced with Detection Limit

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-01	8	3.87638	0.271325	0.411284
MW-16-02	8	2.92669	0.527922	1.05977
MW-16-03	8	2.07765	0.233194	-1.17092
MW-17-16	1	3.8712	Div 0	Div 0
MW-17-17	1	2.48491	Div 0	Div 0

All Locations

Obs.	Mean	Std. Dev.	Skewness
26	2.977	0.82099	0.0771262

Shapiro-Wilks Test of Normality

Parameter: Lithium

Location: MW-16-02

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	11	53	42	0.6052	25.4184
2	13	31	18	0.3164	5.6952
3	14	20	6	0.1743	1.0458
4	14	16	2	0.0561	0.1122
5	16	14	-2		
6	20	14	-6		
7	31	13	-18		
8	53	11	-42		

Sum of b values = 32.2716

Sample Standard Deviation = 14.1926

W Statistic = 0.738621

5% Critical value of 0.818 exceeds 0.738621

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.738621

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Lithium

Location: MW-16-02

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	2.3979	3.97029	1.5724	0.6052	0.951614
2	2.56495	3.43399	0.869038	0.3164	0.274964
3	2.63906	2.99573	0.356675	0.1743	0.0621684
4	2.63906	2.77259	0.133531	0.0561	0.00749111
5	2.77259	2.63906	-0.133531		
6	2.99573	2.63906	-0.356675		
7	3.43399	2.56495	-0.869038		
8	3.97029	2.3979	-1.5724		

Sum of b values = 1.29624

Sample Standard Deviation = 0.527922

W Statistic = 0.861253

5% Critical value of 0.818 is less than 0.861253

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.861253

Data is normally distributed at 99% level of significance

Confidence Interval

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Compliance Locations

Location MW-16-01

Mean 79.15
Std Dev 75.1125
Degrees of Freedom 7
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[-0.464422, 158.764]	79.15	FALSE
95%	1.89458	[28.837, 129.463]	79.15	FALSE

Location MW-16-02

Mean 4.375
Std Dev 1.15851
Degrees of Freedom 7
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[3.14706, 5.60294]	4.375	FALSE
95%	1.89458	[3.59899, 5.15101]	4.375	FALSE

Location MW-16-03

Mean 4.42
Std Dev 1.64049
Degrees of Freedom 7
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[2.68119, 6.15881]	4.42	FALSE
95%	1.89458	[3.32115, 5.51885]	4.42	FALSE

Location MW-17-16

Mean 54
Std Dev 0
Degrees of Freedom 0
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	31.821	[54, 54]	54	TRUE
95%	2.91999	[54, 54]	54	TRUE

Location **MW-17-17**

Mean 5

Std Dev 0

Degrees of Freedom 0

Comparison Level **32**

Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	31.821	[5, 5]	5	FALSE
95%	2.91999	[5, 5]	5	FALSE

Confidence Interval

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Compliance Locations

Location **MW-16-01**
Mean 49.875
Std Dev 14.1667
Degrees of Freedom 7
Comparison Level **40**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[34.8592, 64.8908]	49.875	FALSE
95%	1.89458	[40.3856, 59.3644]	49.875	TRUE

Location **MW-16-02**
Mean 21.5
Std Dev 14.1926
Degrees of Freedom 7
Comparison Level **40**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[6.45681, 36.5432]	21.5	FALSE
95%	1.89458	[11.9933, 31.0067]	21.5	FALSE

Location **MW-16-03**
Mean 8.1625
Std Dev 1.70372
Degrees of Freedom 7
Comparison Level **40**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[6.35666, 9.96834]	8.1625	FALSE
95%	1.89458	[7.02129, 9.30371]	8.1625	FALSE

Location **MW-17-16**
Mean 48
Std Dev 0
Degrees of Freedom 0
Comparison Level **40**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	31.821	[48, 48]	48	TRUE
95%	2.91999	[48, 48]	48	TRUE

Location **MW-17-17**

Mean 12

Std Dev 0

Degrees of Freedom 0

Comparison Level **40**

Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	31.821	[12, 12]	12	FALSE
95%	2.91999	[12, 12]	12	FALSE

Confidence Interval

Parameter: Lithium

Natural Logarithm Transformation

Non-Detects Replaced with Detection Limit

Compliance Locations

Location **MW-16-01**
Mean 3.87638
Std Dev 0.271325
Degrees of Freedom 7
Comparison Level **3.68888**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[3.5888, 4.16397]	3.87638	FALSE
95%	1.89458	[3.69464, 4.05812]	3.87638	TRUE

Location **MW-16-02**
Mean 2.92669
Std Dev 0.527922
Degrees of Freedom 7
Comparison Level **3.68888**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[2.36713, 3.48626]	2.92669	FALSE
95%	1.89458	[2.57307, 3.28032]	2.92669	FALSE

Location **MW-16-03**
Mean 2.07765
Std Dev 0.233194
Degrees of Freedom 7
Comparison Level **3.68888**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[1.83048, 2.32482]	2.07765	FALSE
95%	1.89458	[1.92145, 2.23385]	2.07765	FALSE

Location **MW-17-16**
Mean 3.8712
Std Dev 0
Degrees of Freedom 0
Comparison Level **3.68888**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	31.821	[3.8712, 3.8712]	3.8712	TRUE
95%	2.91999	[3.8712, 3.8712]	3.8712	TRUE

Location **MW-17-17**
Mean 2.48491
Std Dev 0
Degrees of Freedom 0
Comparison Level **3.68888**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	31.821	[2.48491, 2.48491]	2.48491	FALSE
95%	2.91999	[2.48491, 2.48491]	2.48491	FALSE

Appendix D
Appendix IV Assessment Monitoring Statistical
Evaluation – October 2024

Technical Memorandum

Date: January 31, 2025

To: DTE Electric Company

From: Sarah Holmstrom, TRC
Kristin Lowery, TRC
Henry Schnaidt, TRC

Project No.: 553931.0005.0000

Subject: Appendix IV Assessment Monitoring Statistical Evaluation for October 2024
Groundwater Monitoring Event – DTE Electric Company, River Rouge Power Plant,
Bottom Ash Basin Coal Combustion Residual Unit

Introduction

In accordance with §257.96(b) of the federal Coal Combustion Residual (CCR) rule¹, DTE Electric Company (DTE Electric) is continuing assessment monitoring for the River Rouge Power Plant (RRPP) Bottom Ash Basin (BAB) CCR unit. The second semiannual assessment monitoring event of 2024 for the Appendix III and Appendix IV constituents was conducted on October 14 through 16, 2024. In accordance with §257.95, the assessment monitoring data must be evaluated to determine whether or not Appendix IV constituents are detected at statistically significant levels above the groundwater protection standards (GWPSs). This memorandum presents the confidence limits derived for the Appendix IV parameters for the RRPP BAB CCR unit that will be used to compare to the established GWPSs.

Assessment Monitoring Statistical Evaluation

The three compliance wells utilized for the RRPP BAB CCR unit are MW-16-01, MW-16-02 and MW-16-03. In addition, MW-17-16 and MW-17-17 were added to the corrective action monitoring program in 2024. Additionally, monitoring wells MW-16-04S, MW-17-05, MW-17-14, MW-17-15, MW-17-18, and MW-17-20 are used to evaluate the nature and extent of releases of CCR constituents in groundwater as well as any site conditions that may affect the remedy selected. Following the semiannual assessment monitoring sampling event, compliance and nature and extent well data for the RRPP BAB were evaluated in accordance with the Groundwater Statistical Evaluation Plan (Stats Plan) (TRC, October 2017; revised December 2017). For each detected constituent, the concentrations for each well were first compared directly to the GWPS. Parameter-well combinations that included a direct exceedance of the GWPS within the past eight monitoring events, or within the available dataset

¹ USEPA final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) published April 17, 2015, as amended.

Technical Memorandum

if less than eight events have been completed, were retained for further analysis. There is insufficient data available from downgradient monitoring wells MW-17-16 and MW-17-17 to complete a statistical evaluation (minimum of 4 data points required). Results from these two wells are compared directly to the GWPS until the minimum 4 data points are available to statistically evaluate the results. As a result, the following parameter-well combinations were retained for further evaluation²:

- Arsenic and lithium at MW-16-01
- Lithium at MW-16-02
- Lithium at MW-17-05
- Lithium at MW-17-14
- Arsenic and lithium at MW-17-15

Groundwater data were then evaluated utilizing ChemStat™ statistical software. ChemStat™ is a software tool that is commercially available for performing statistical evaluation consistent with procedures outlined in U.S. EPA's Statistical Analysis of Groundwater Monitoring Data at Resource Conservation and Recovery Act (RCRA) Facilities³ (Unified Guidance; UG). Within the ChemStat™ statistical program (per the UG), confidence limits were selected to perform the statistical comparison of compliance data to a fixed standard. Parametric and non-parametric confidence intervals were calculated for each of the applicable Appendix IV parameters using a 99 percent confidence level, i.e., a significance level (α) of 0.01. The following narrative describes the methods employed, the results obtained and the ChemStat™ output files are included as an attachment.

The ChemStat™ software was used to test compliance at the downgradient monitoring wells using the confidence interval method for the most recent eight sampling events. Eight independent sampling events provide the appropriate density of data as recommended per the UG yet are collected recently enough to provide an indication of current conditions. Nature and extent sampling was initiated in 2018; therefore, seven sampling events of data are available for evaluation.

The statistical data evaluation included the following steps:

- Review of data quality checklists for the assessment monitoring data sets for Appendix IV constituents;
- Evaluation of percentage of non-detects for each downgradient well-constituent pair;
- Graphical representation of the assessment monitoring data as time versus concentration (T v. C) by well/constituent pair;
- Outlier testing of individual data points that appear from the graphical representations as potential outliers;
- Evaluation of visual trends apparent in the graphical representations for statistical significance;
- Distribution of the data; and

² Arsenic and lithium at monitoring well MW-17-16 also indicated direct exceedances of the GWPSs. MW-17-16 was added to the monitoring program in 2024 and insufficient data is available to complete statistical analysis. MW-17-16 will be included in a statistical evaluation once a minimum of four data points are available.

³ USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Conservation and Recovery. EPA 530/R-09-007.

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- Calculation of the confidence intervals for each cumulative dataset.

The results of these evaluations are presented and discussed below.

Data Quality

Data from the second semiannual monitoring event for 2024 were evaluated for completeness, overall quality and usability, method-specified sample holding times, precision and accuracy, and potential sample contamination. The review was completed using the following quality control (QC) information which, at a minimum, included chain-of-custody forms, investigative sample results including blind field duplicates, and as provided by the laboratory, method blanks, laboratory control spikes, laboratory duplicates. The data were found to be complete and usable for the purposes of the CCR monitoring program.

Percentage of Non-detects

The percentage of non-detect observations for constituents with one or more detection above a GWPS is included in Table 1. Non-detect data was handled in accordance with the Stats Plan for the purposes of calculating confidence intervals.

Time versus Concentration Graphs

The time (T) vs. concentration (C) graphs did not show any potential outliers. The T vs. C graphs showed potential trending for some Appendix IV well/constituent pairs. These were tested by the ChemStat™ software to assess whether the trends are statistically significant.

Outlier Testing

No potential outliers were observed on the T vs. C graphs; therefore, no outlier testing was performed.

Trend Analysis

Visual trends apparent in the T vs. C graphs were evaluated in ChemStat™ using the Mann-Kendall Trend Analysis to determine if a subset of data should be used in calculating the confidence interval. Trends were evaluated using a 95-percent (one-tailed) confidence level, i.e., a significance level (α) of 0.05. A statistically significant decreasing trend was identified for arsenic at MW-16-01 as a result of pilot scale remedial injections completed in the area in November 2022. A statistically significant increasing trend for lithium at MW-16-02 was identified.

Distribution of the Data Sets

ChemStat™ was utilized to evaluate each data set for normality. If the skewness coefficient was calculated to be between negative one and one, then the data were assumed to be approximately normally distributed. If the skewness coefficient was calculated as greater than one or less than negative one, the calculation was performed on the natural log (Ln) of the data. If it was determined that the Ln of the data still appeared to be skewed, then the Shapiro-Wilk test of normality (Shapiro-Wilk) was performed. The Shapiro-Wilk statistic was calculated on both non-transformed data and the Ln-transformed data. If the Shapiro-Wilk statistic indicated that normal distributional assumptions were not valid, then the parameter was considered a candidate for non-parametric statistical evaluation. The data distributions are summarized in Table 1.

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Confidence Intervals

Variability is recognized in the data set due to changing groundwater quality in response to the operation of the groundwater extraction system and as a result of pilot study activities influencing select areas. Calculating a confidence interval around a trending data set incorporates not only variability present naturally in the underlying dataset but can exaggerate variability. Groundwater conditions are re-equilibrating following shutdown of the extraction system and pilot test activities at the BAB in late 2022 and 2023. Because hydrogeologic conditions are in the process of stabilizing, temporary trending and sporadic outlier data are not unexpected. Therefore, all data is used in the statistical evaluation.

Table 1 presents the calculated confidence intervals for each well-constituent pair. For normal and lognormal distributions, confidence intervals are calculated for 99 percent confidence using parametric methods. For non-normal datasets, a nonparametric confidence interval is utilized, resulting in the highest and lowest values from the contributing dataset as the confidence limits.

The confidence intervals calculated through the above-described process will be compared to the GWPS to determine if an exceedance has occurred. An exceedance of the standard occurs when the lower 99 percent confidence level of the downgradient data exceeds the corresponding GWPS. No exceedances of the GWPS were identified based on the second semiannual assessment monitoring event.

Attachments

Table 1 Summary of Descriptive Statistics and Confidence Interval Calculations

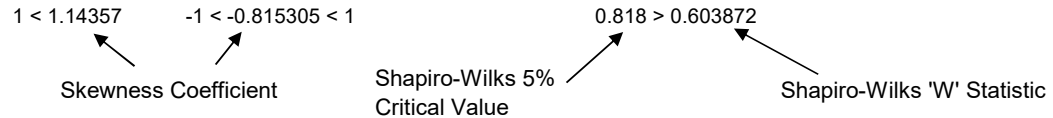
Attachment A ChemStat™ Outputs

Table 1
Summary of Descriptive Statistics and
Confidence Interval Calculations

Table 1
 Summary of Descriptive Statistics and Confidence Interval Calculations
 Assessment Monitoring Statistical Evaluation - October 2024
 DTE Electric Company – River Rouge Power Plant

Parameter ⁽¹⁾	Percent Non-Detect	Outliers?	Trend?	Skewness		Shapiro-Wilks Test (5% Critical Value)		Parametric / Non-Parametric	99% Confidence Interval ⁽²⁾
				Un-Transformed	Natural Log	Un-Transformed	Natural Log		
Compliance Monitoring Wells									
MW-16-01									
Arsenic	0%	No	Yes	-1 < 0.820634 < 1	--	--	--	Parametric	[-16, 140]
Lithium	0%	No	No	-1 < 0.751909 < 1	--	--	--	Parametric	[34, 65]
MW-16-02									
Lithium	0%	No	Yes	-1 < 0.835386 < 1	--	--	--	Parametric	[8.8, 42]
MW-17-16									
Arsenic	Insufficient data for statistical evaluation - n < 4								
Lithium	Insufficient data for statistical evaluation - n < 4								
Nature and Extent Monitoring Wells									
MW-17-05⁽³⁾									
Lithium	0%	No	No	-1 < 0.861315 < 1	--	--	--	Parametric	[3.8, 39]
MW-17-14⁽³⁾									
Lithium	14%	No	No	-1 < 0.925874 < 1	--	--	--	Parametric	[4.1, 35]
Radium 226/228	33%	No	No	1 < 1.21707	-1 < -0.34893 < 1	--	--	Parametric	[0.624, 4.62]
MW-17-15⁽³⁾									
Arsenic	0%	No	No	-1 < 0.10966 < 1	--	--	--	Parametric	[11, 30]
Lithium	0%	No	No	1 < 1.20038	-1 < 0.690338 < 1	--	--	Parametric	[27, 62]

Notes:

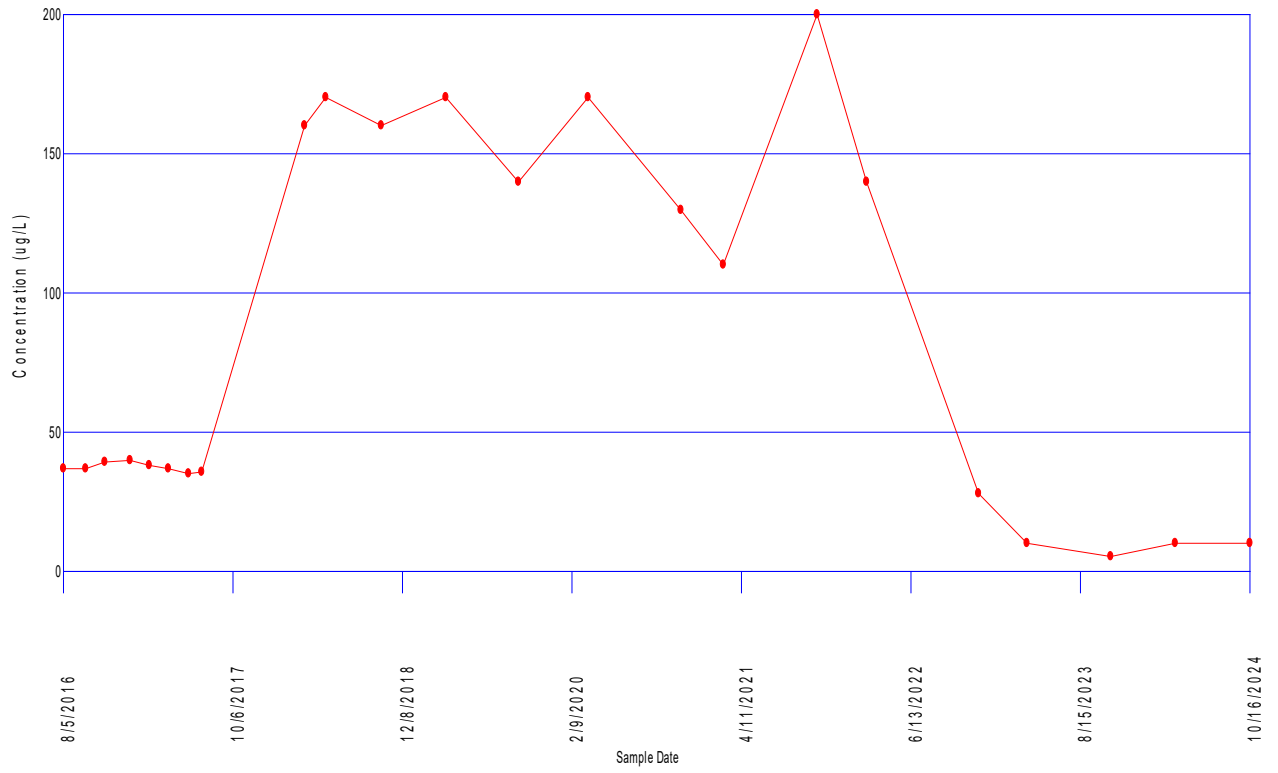


- (1) Well-parameter combinations that have one or more direct exceedances of the Groundwater Protection Standard within the most recent eight sampling events.
- (2) The most recent eight data points are used to calculate the confidence interval to be representative of current conditions, except where noted.
- (3) The most recent seven data points are used to screen for direct exceedances of the Groundwater Protection Standards and for calculation of the confidence intervals.

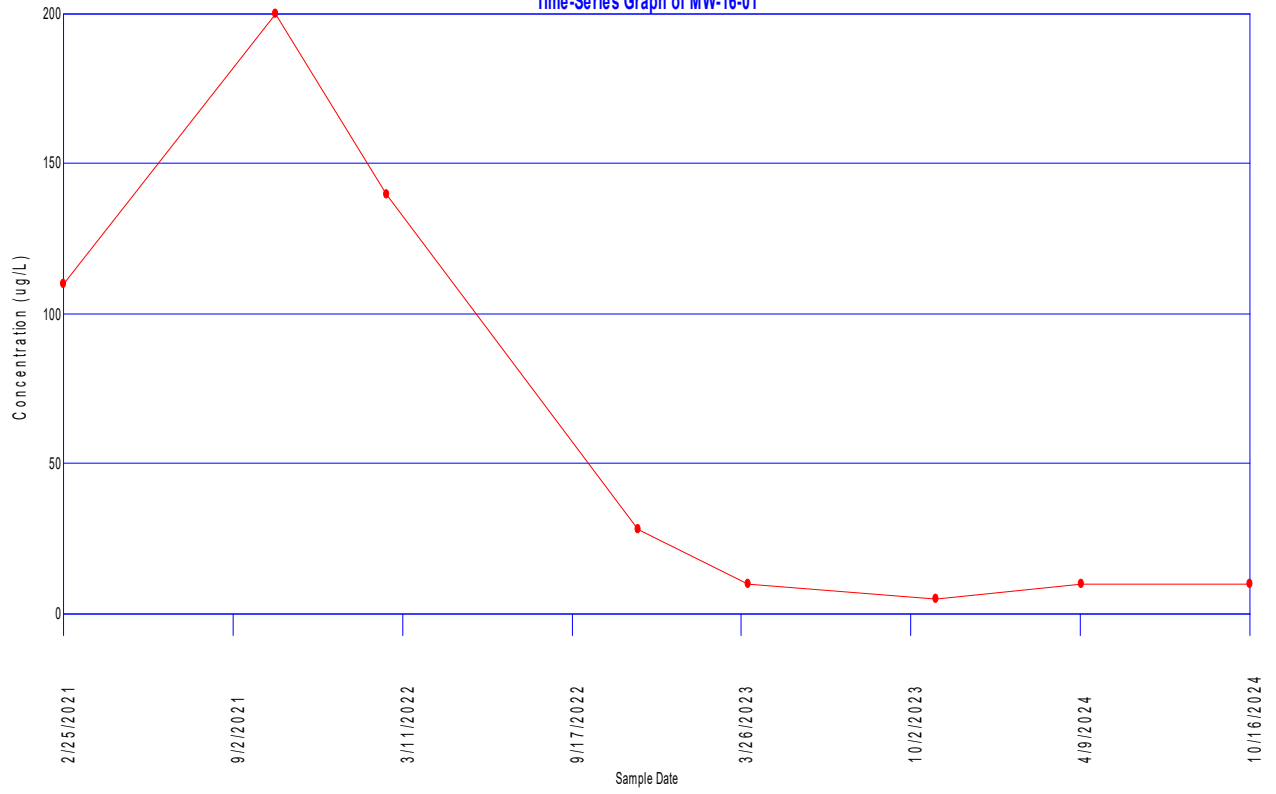
Attachment A

ChemStat™ Confidence Interval Outputs

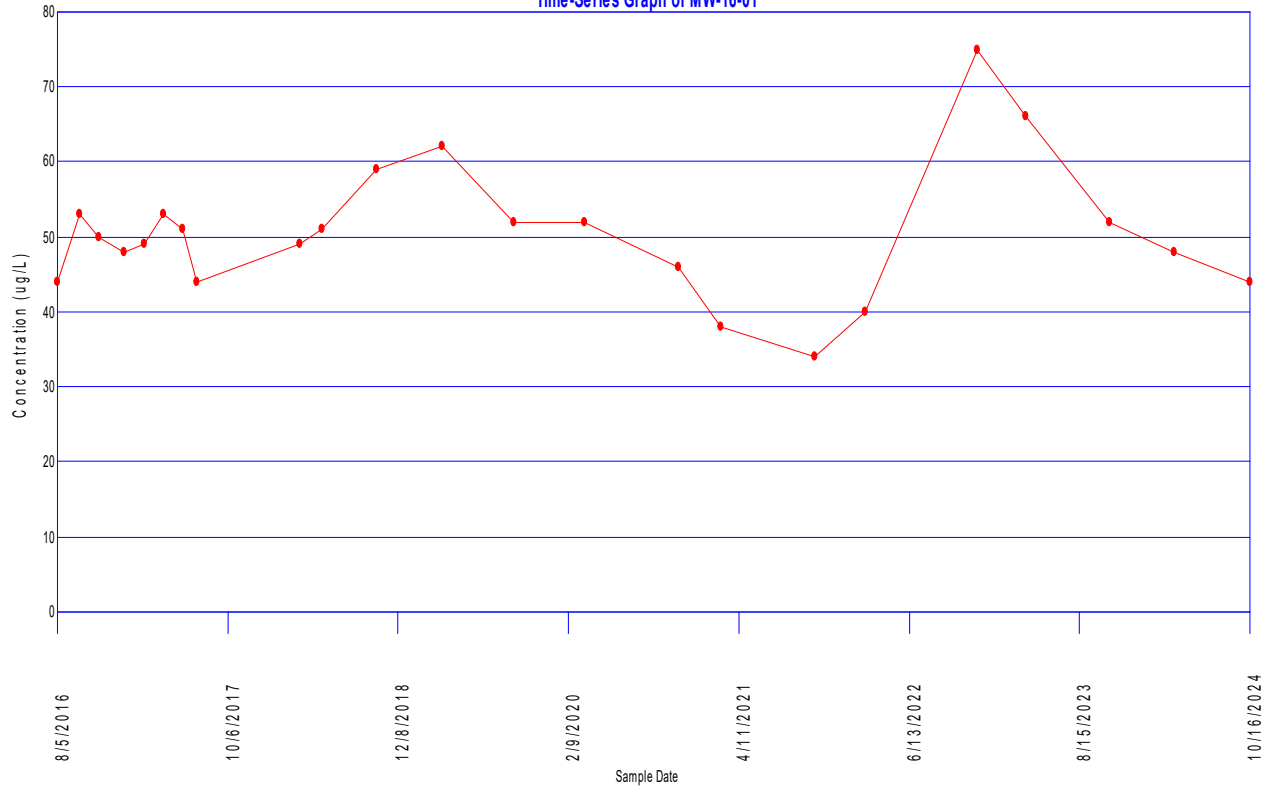
Arsenic
Time-Series Graph of MW-16-01



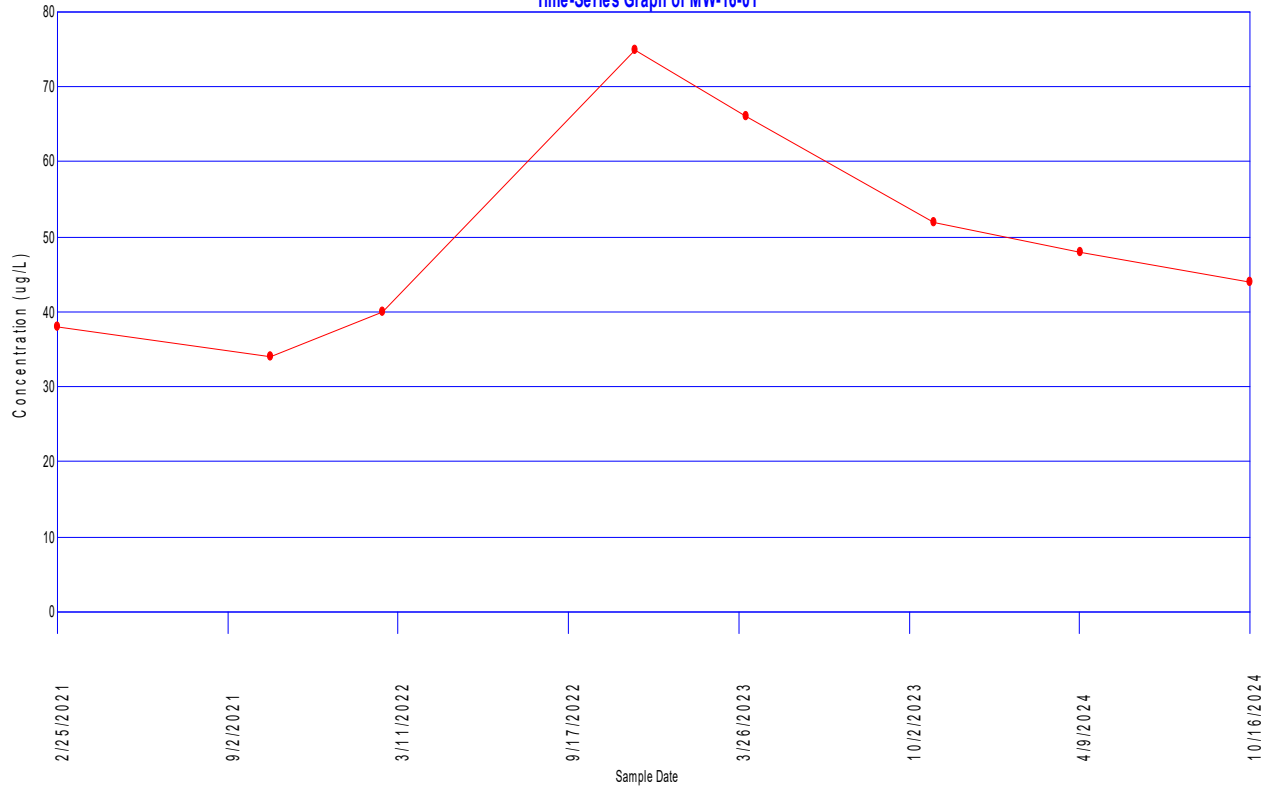
Arsenic
Time-Series Graph of MW-16-01



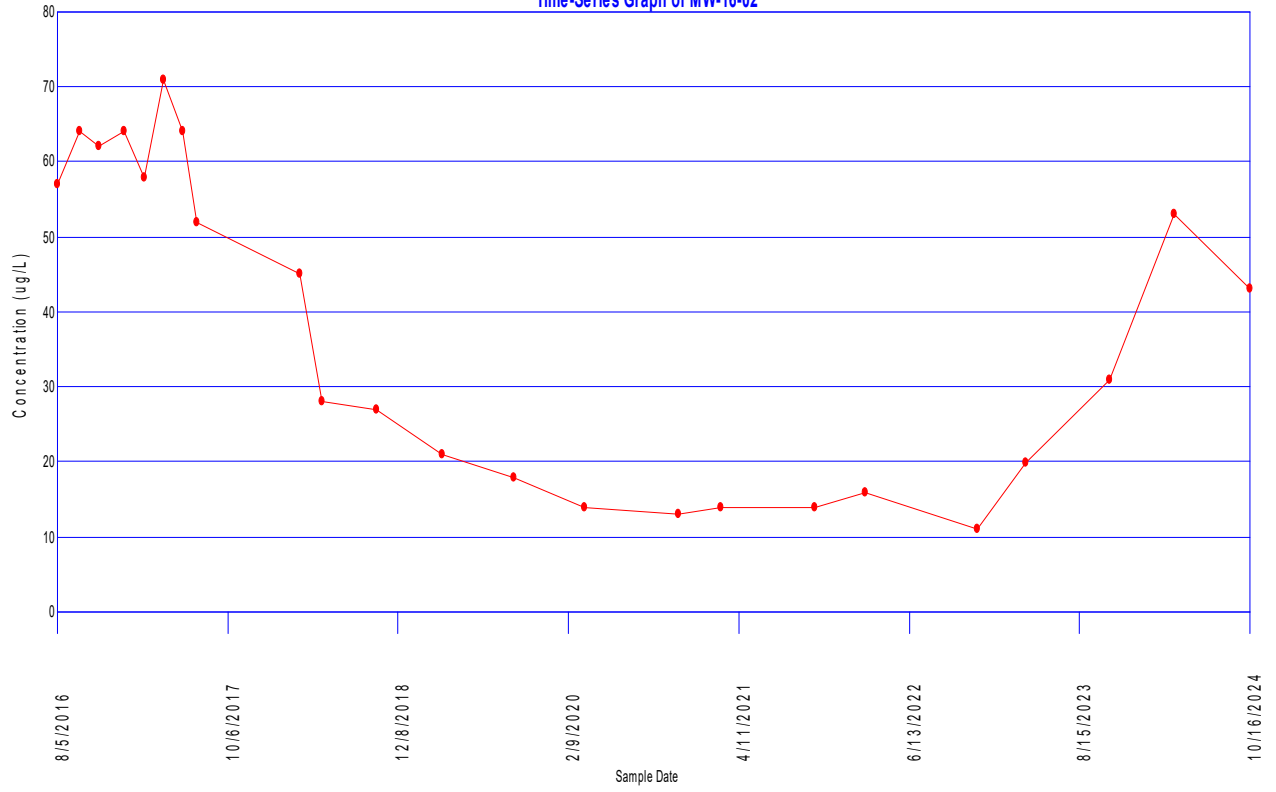
Lithium
Time-Series Graph of MW-16-01



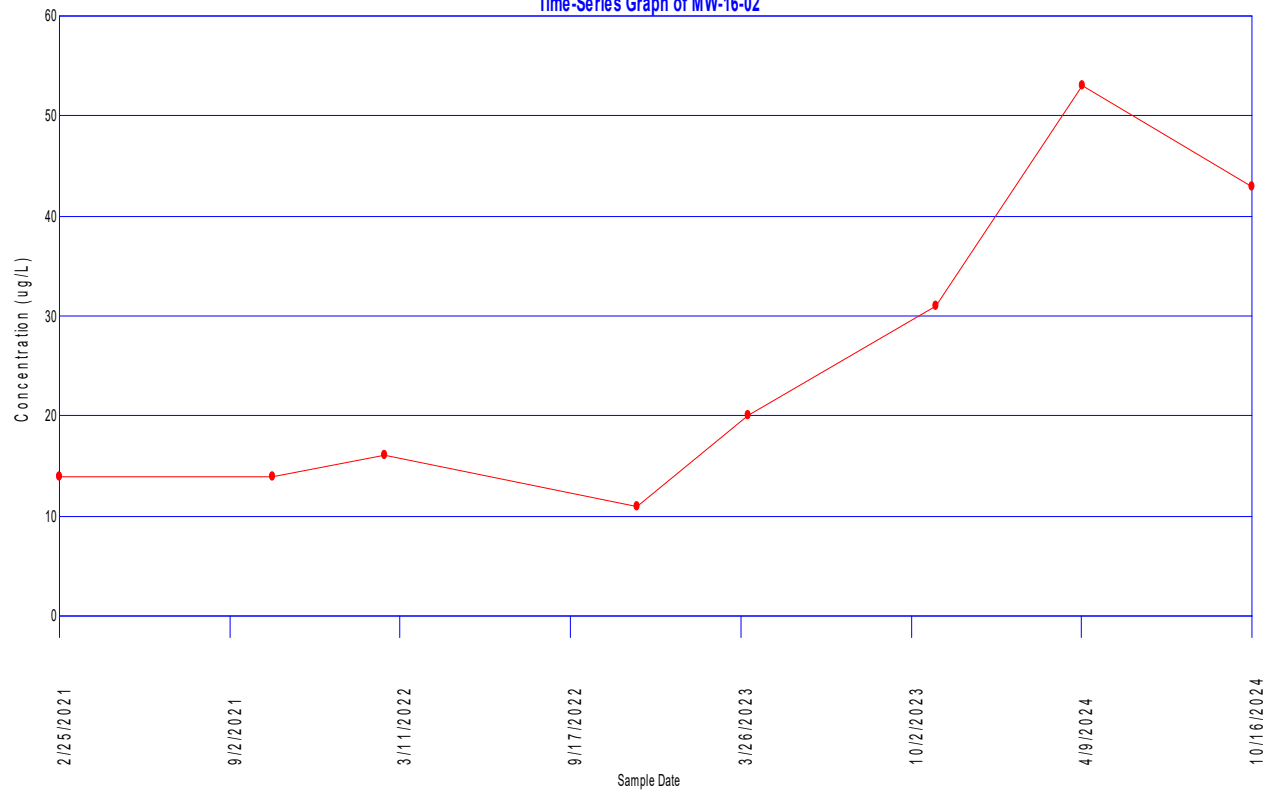
Lithium
Time-Series Graph of MW-16-01



Lithium
Time-Series Graph of MW-16-02



Lithium
Time-Series Graph of MW-16-02



Concentrations (ug/L)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 24

Total Non-Detect: 14

Percent Non-Detects: 58.3333%

Total Background Measurements: 0

There are 0 background locations

Loc.	Meas.	ND	Date	Conc.	Original
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There are 3 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
------	-------	----	------	-------	----------

MW-16-01	8	0 (0%)	2/25/2021	110	110
			10/20/2021	200	200
			2/22/2022	140	140
			12/1/2022	28	28
			4/3/2023	10	10
			10/30/2023	5.2	5.2
			4/10/2024	10	10
			10/16/2024	10	10
			8/5/2016	37	37
			9/30/2016	37	37
			11/18/2016	39	39
			1/20/2017	40	40
			3/10/2017	38	38
			4/28/2017	37	37
			6/16/2017	35	35
			7/21/2017	36	36
			4/6/2018	160	160
			5/30/2018	170	170
			10/16/2018	160	160
			3/29/2019	170	170
9/26/2019	140	140			
3/20/2020	170	170			
11/11/2020	130	130			
MW-16-02	8	6 (75%)	2/25/2021	2.6	2.6
			10/20/2021	ND<5 U	ND<5 U
			2/22/2022	2.4	2.4
			12/1/2022	ND<5	ND<5
			4/3/2023	ND<5 U	ND<5 U
			10/30/2023	ND<5 U	ND<5 U
			4/10/2024	ND<5 U	ND<5 U
			10/16/2024	ND<5 U	ND<5 U
			8/5/2016	24	24
			9/30/2016	27	27
			11/18/2016	30	30
			1/20/2017	31	31
			3/10/2017	29	29
			4/28/2017	30	30
			6/16/2017	30	30
			7/21/2017	27	27
			4/6/2018	15	15

			5/30/2018	ND<5 U	ND<5 U
			10/16/2018	7.9	7.9
			3/29/2019	ND<5 U	ND<5 U
			9/26/2019	ND<5 U	ND<5 U
			3/20/2020	ND<5 U	ND<5 U
			11/11/2020	ND<5 U	ND<5 U
MW-16-03	8	8 (100%)	2/25/2021	ND<5	ND<5
			10/20/2021	ND<5 U	ND<5 U
			2/22/2022	ND<0.36 J	ND<0.36 J
			11/30/2022	ND<5	ND<5
			4/3/2023	ND<5 U	ND<5 U
			10/30/2023	ND<5 U	ND<5 U
			4/10/2024	ND<5 U	ND<5 U
			10/16/2024	ND<5 U	ND<5 U
			8/5/2016	91	91
			9/30/2016	40	40
			11/18/2016	21	21
			1/20/2017	13	13
			3/10/2017	12	12
			4/28/2017	12	12
			6/16/2017	12	12
			7/21/2017	12	12
			4/6/2018	ND<5 U	ND<5 U
			5/30/2018	ND<5 U	ND<5 U
			10/16/2018	ND<5 U	ND<5 U
			3/29/2019	ND<5 U	ND<5 U
			9/26/2019	ND<5 U	ND<5 U
			3/20/2020	ND<5 U	ND<5 U
			11/11/2020	ND<5 U	ND<5 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original
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Concentrations (ug/L)

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 24

Total Non-Detect: 2

Percent Non-Detects: 8.33333%

Total Background Measurements: 0

There are 0 background locations

Loc.	Meas.	ND	Date	Conc.	Original
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There are 3 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
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MW-16-01	8	0 (0%)	2/25/2021	38	38
			10/20/2021	34	34
			2/22/2022	40	40
			12/1/2022	75	75
			4/3/2023	66	66
			10/30/2023	52	52
			4/10/2024	48	48
			10/16/2024	44	44
			8/5/2016	44	44
			9/30/2016	53	53
			11/18/2016	50	50
			1/20/2017	48	48
			3/10/2017	49	49
			4/28/2017	53	53
			6/16/2017	51	51
			7/21/2017	44	44
			4/6/2018	49	49
			5/30/2018	51	51
			10/16/2018	59	59
			3/29/2019	62	62
9/26/2019	52	52			
3/20/2020	52	52			
11/11/2020	46	46			

MW-16-02	8	0 (0%)	2/25/2021	14	14
			10/20/2021	14	14
			2/22/2022	16	16
			12/1/2022	11	11
			4/3/2023	20	20
			10/30/2023	31	31
			4/10/2024	53	53
			10/16/2024	43	43
			8/5/2016	57	57
			9/30/2016	64	64
			11/18/2016	62	62
			1/20/2017	64	64
			3/10/2017	58	58
			4/28/2017	71	71
			6/16/2017	64	64
			7/21/2017	52	52
			4/6/2018	45	45

5/30/2018	28	28
10/16/2018	27	27
3/29/2019	21	21
9/26/2019	18	18
3/20/2020	14	14
11/11/2020	13	13

MW-16-03	8	2 (25%)	2/25/2021	4.8	4.8
			10/20/2021	ND<8 U	ND<8 U
			2/22/2022	7.9	7.9
			11/30/2022	ND<8	ND<8
			4/3/2023	8.8	8.8
			10/30/2023	8.8	8.8
			4/10/2024	11	11
			10/16/2024	10	10
			8/5/2016	29	29
			9/30/2016	44	44
			11/18/2016	44	44
			1/20/2017	49	49
			3/10/2017	45	45
			4/28/2017	51	51
			6/16/2017	49	49
			7/21/2017	41	41
			4/6/2018	15	15
			5/30/2018	11	11
			10/16/2018	ND<8 U	ND<8 U
			3/29/2019	ND<8 U	ND<8 U
			9/26/2019	ND<8 U	ND<8 U
			3/20/2020	ND<8 U	ND<8 U
			11/11/2020	ND<8 U	ND<8 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original
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Mann-Kendall Trend Analysis

Parameter: Arsenic

Location: MW-16-01

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
200	110	90	1	0
140	110	30	2	0
28	110	-82	2	1
10	110	-100	2	2
5.2	110	-104.8	2	3
10	110	-100	2	4
10	110	-100	2	5
140	200	-60	2	6
28	200	-172	2	7
10	200	-190	2	8
5.2	200	-194.8	2	9
10	200	-190	2	10
10	200	-190	2	11
28	140	-112	2	12
10	140	-130	2	13
5.2	140	-134.8	2	14
10	140	-130	2	15
10	140	-130	2	16
10	28	-18	2	17
5.2	28	-22.8	2	18
10	28	-18	2	19
10	28	-18	2	20
5.2	10	-4.8	2	21
10	10	0	2	21
10	10	0	2	21
10	5.2	4.8	3	21
10	5.2	4.8	4	21
10	10	0	4	21

S Statistic = 4 - 21 = -17

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Failed to calculate probability for S = -17

Table out of range

Probability of obtaining $S \geq |17|$ is 0.0235

0.0235 < 0.025 and S < 0 indicating evidence of a decreasing trend

Mann-Kendall Trend Analysis

Parameter: Lithium

Location: MW-16-01

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
34	38	-4	0	1
40	38	2	1	1
75	38	37	2	1
66	38	28	3	1
52	38	14	4	1
48	38	10	5	1
44	38	6	6	1
40	34	6	7	1
75	34	41	8	1
66	34	32	9	1
52	34	18	10	1
48	34	14	11	1
44	34	10	12	1
75	40	35	13	1
66	40	26	14	1
52	40	12	15	1
48	40	8	16	1
44	40	4	17	1
66	75	-9	17	2
52	75	-23	17	3
48	75	-27	17	4
44	75	-31	17	5
52	66	-14	17	6
48	66	-18	17	7
44	66	-22	17	8
48	52	-4	17	9
44	52	-8	17	10
44	48	-4	17	11

S Statistic = 17 - 11 = 6

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Probability of obtaining S >= |6| is 0.548

0.548 >= 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Lithium

Location: MW-16-02

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
14	14	0	0	0
16	14	2	1	0
11	14	-3	1	1
20	14	6	2	1
31	14	17	3	1
53	14	39	4	1
43	14	29	5	1
16	14	2	6	1
11	14	-3	6	2
20	14	6	7	2
31	14	17	8	2
53	14	39	9	2
43	14	29	10	2
11	16	-5	10	3
20	16	4	11	3
31	16	15	12	3
53	16	37	13	3
43	16	27	14	3
20	11	9	15	3
31	11	20	16	3
53	11	42	17	3
43	11	32	18	3
31	20	11	19	3
53	20	33	20	3
43	20	23	21	3
53	31	22	22	3
43	31	12	23	3
43	53	-10	23	4

S Statistic = 23 - 4 = 19

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Failed to calculate probability for S = 19

Table out of range

Probability of obtaining $S \geq |19|$ is 0.01155

0.01155 < 0.025 and $S > 0$ indicating evidence of an increasing trend

Skewness Coefficient

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-01	8	64.15	75.4882	0.820634
MW-16-02	8	4.375	1.15851	-1.16207
MW-16-03	8	4.42	1.64049	-2.26779

All Locations

Obs.	Mean	Std. Dev.	Skewness
24	24.315	50.6306	2.5514

Skewness Coefficient

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-01	8	49.625	14.2622	0.751909
MW-16-02	8	25.25	15.5265	0.835386
MW-16-03	8	8.4125	1.81929	-0.658862

All Locations

Obs.	Mean	Std. Dev.	Skewness
24	27.7625	20.8558	0.683297

Confidence Interval

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Compliance Locations

Location MW-16-01

Mean 64.15
Std Dev 75.4882
Degrees of Freedom 7

Comparison Level 32

Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[-15.8626, 144.163]	64.15	FALSE
95%	1.89458	[13.5854, 114.715]	64.15	FALSE

Location MW-16-02

Mean 4.375
Std Dev 1.15851
Degrees of Freedom 7

Comparison Level 32

Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[3.14706, 5.60294]	4.375	FALSE
95%	1.89458	[3.59899, 5.15101]	4.375	FALSE

Location MW-16-03

Mean 4.42
Std Dev 1.64049
Degrees of Freedom 7

Comparison Level 32

Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[2.68119, 6.15881]	4.42	FALSE
95%	1.89458	[3.32115, 5.51885]	4.42	FALSE

Confidence Interval

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Compliance Locations

Location MW-16-01

Mean 49.625
Std Dev 14.2622
Degrees of Freedom 7
Comparison Level 40
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[34.508, 64.742]	49.625	FALSE
95%	1.89458	[40.0717, 59.1783]	49.625	TRUE

Location MW-16-02

Mean 25.25
Std Dev 15.5265
Degrees of Freedom 7
Comparison Level 40
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[8.79294, 41.7071]	25.25	FALSE
95%	1.89458	[14.8498, 35.6502]	25.25	FALSE

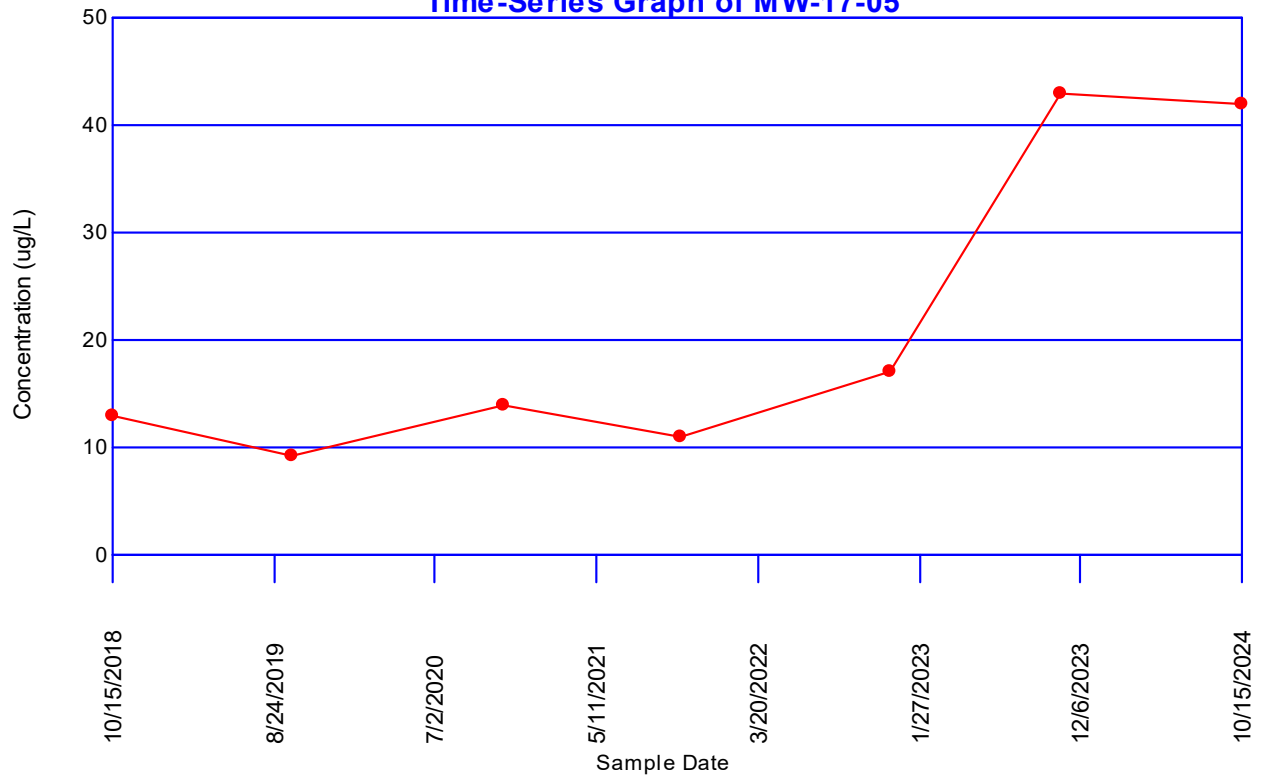
Location MW-16-03

Mean 8.4125
Std Dev 1.81929
Degrees of Freedom 7
Comparison Level 40
Untransformed Comp. Level 40

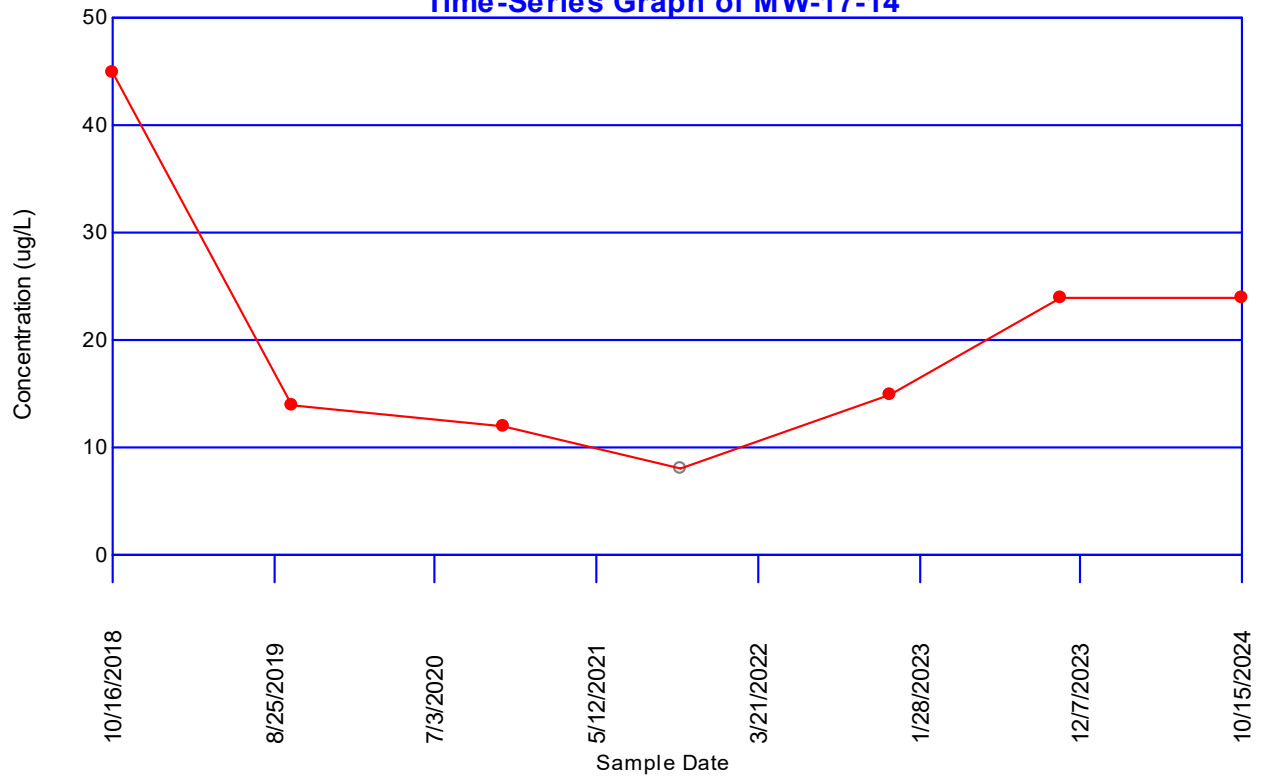
Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.99795	[6.48417, 10.3408]	8.4125	FALSE
95%	1.89458	[7.19388, 9.63112]	8.4125	FALSE

Lithium

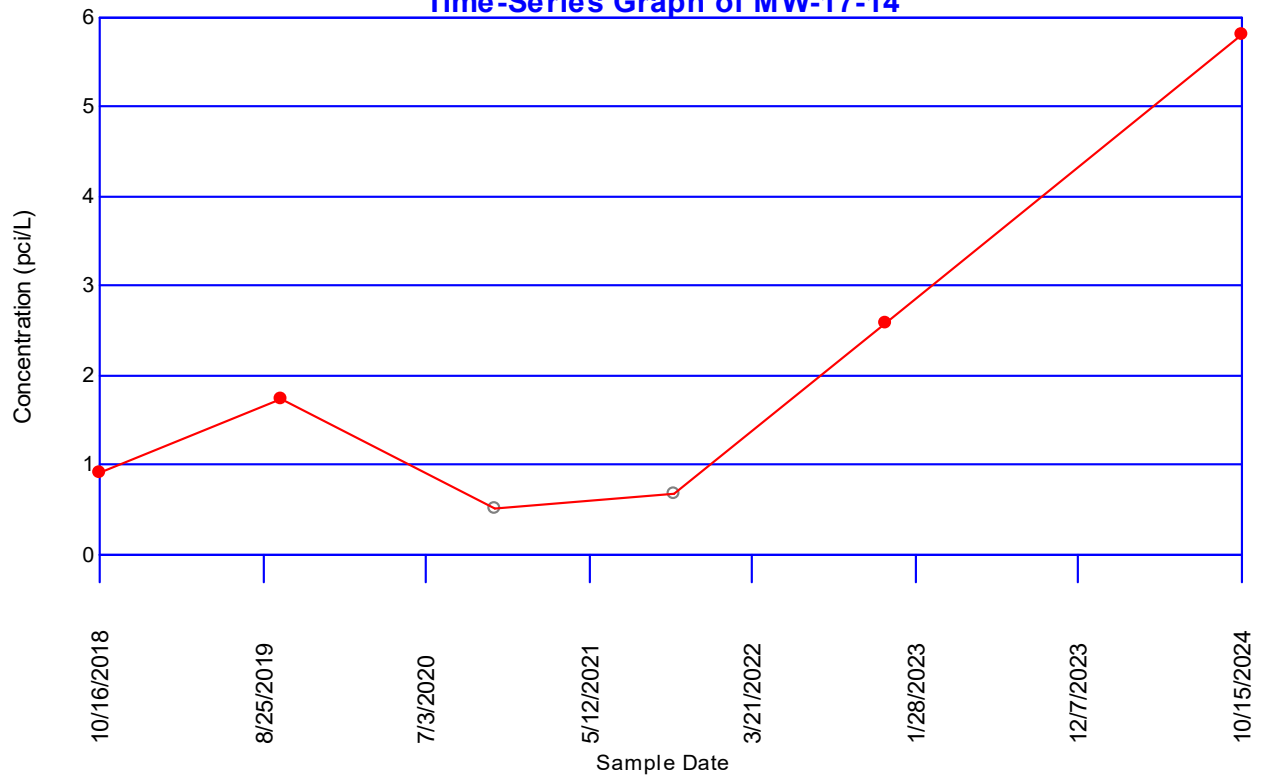
Time-Series Graph of MW-17-05



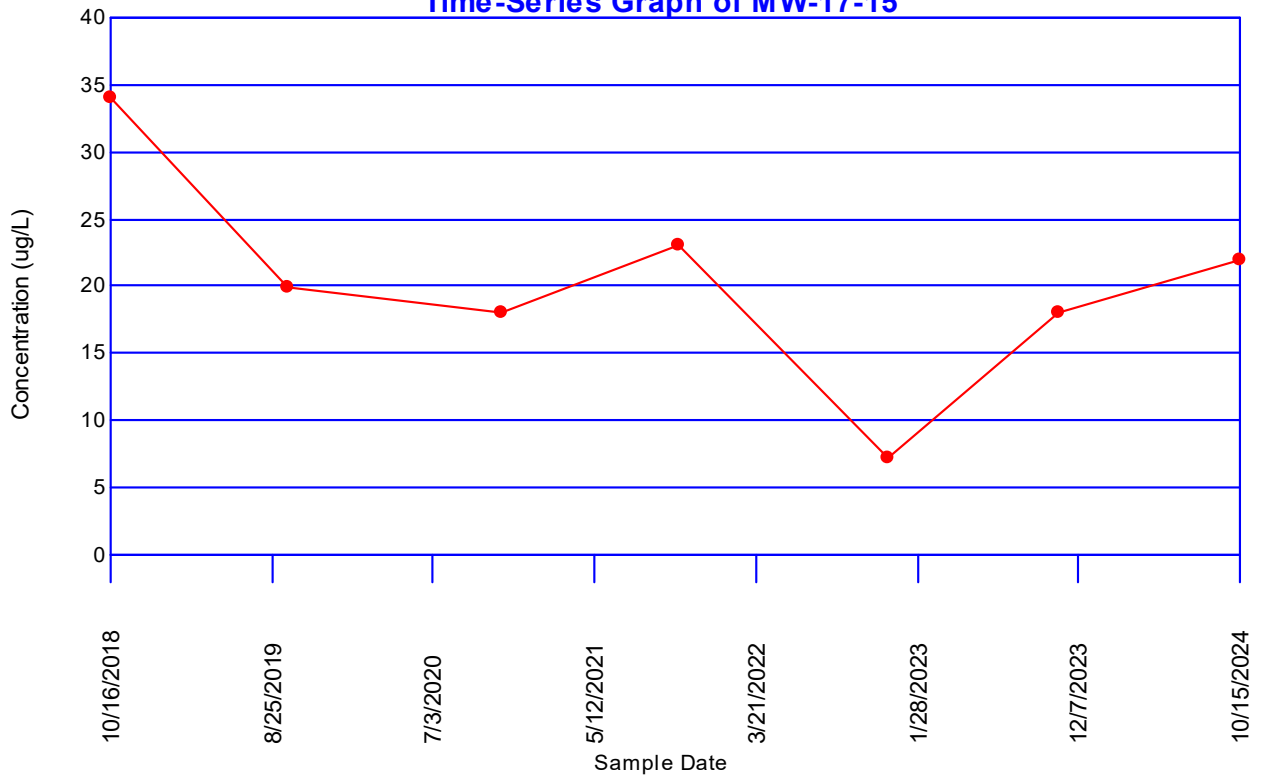
Lithium Time-Series Graph of MW-17-14



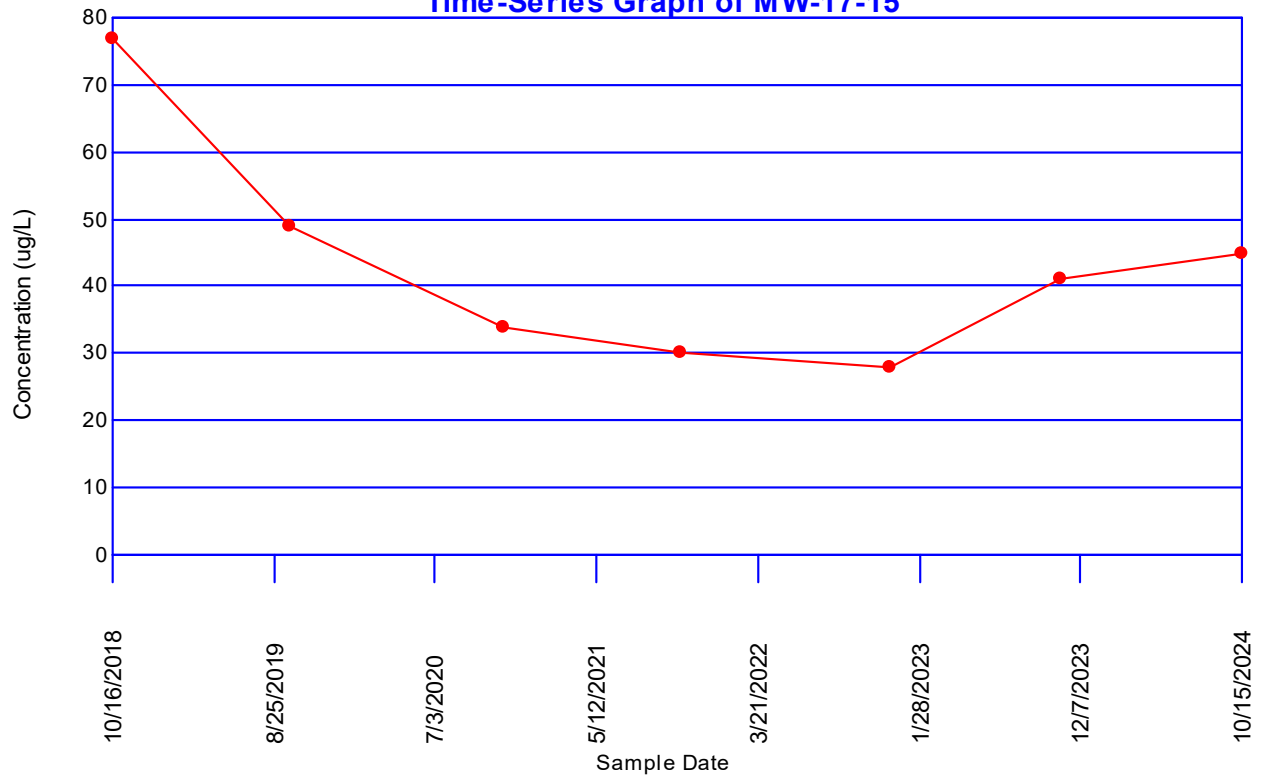
Radium-226/228
Time-Series Graph of MW-17-14



Arsenic Time-Series Graph of MW-17-15



Lithium Time-Series Graph of MW-17-15



Concentrations (ug/L)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Measurements: 52

Total Non-Detect: 45

Percent Non-Detects: 86.5385%

Total Background Measurements: 0

There are 0 background locations

Loc.	Meas.	ND	Date	Conc.	Original
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There are 6 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-16-04S	17	17 (100%)	8/5/2016	ND<2.5 U	ND<5 U
			9/30/2016	ND<2.5 U	ND<5 U
			11/18/2016	ND<2.5 U	ND<5 U
			1/20/2017	ND<2.5 U	ND<5 U
			3/10/2017	ND<2.5 U	ND<5 U
			4/28/2017	ND<2.5 U	ND<5 U
			6/16/2017	ND<2.5 U	ND<5 U
			7/21/2017	ND<2.5 U	ND<5 U
			4/6/2018	ND<2.5 U	ND<5 U
			5/30/2018	ND<2.5 U	ND<5 U
			10/16/2018	ND<2.5 U	ND<5 U
			9/26/2019	ND<2.5 U	ND<5 U
			11/12/2020	ND<2.5 U	ND<5 U
			10/21/2021	ND<2.5 U	ND<5 U
			12/1/2022	ND<2.5	ND<5
10/30/2023	ND<2.5 U	ND<5 U			
10/15/2024	ND<2.5 U	ND<5 U			
MW-17-05	7	7 (100%)	10/15/2018	ND<2.5 U	ND<5 U
			9/27/2019	ND<2.5 U	ND<5 U
			11/13/2020	ND<2.5 U	ND<5 U
			10/21/2021	ND<2.5 U	ND<5 U
			11/30/2022	ND<2.5	ND<5
			10/31/2023	ND<2.5 U	ND<5 U
10/15/2024	ND<2.5 U	ND<5 U			
MW-17-14	7	7 (100%)	10/16/2018	ND<2.5 U	ND<5 U
			9/27/2019	ND<2.5 U	ND<5 U
			11/12/2020	ND<2.5 U	ND<5 U
			10/21/2021	ND<2.5 U	ND<5 U
			12/1/2022	ND<2.5	ND<5
			10/31/2023	ND<2.5 U	ND<5 U
10/15/2024	ND<2.5 U	ND<5 U			
MW-17-15	7	0 (0%)	10/16/2018	34	34
			9/26/2019	20	20
			11/12/2020	18	18
			10/21/2021	23	23
			12/1/2022	7.2	7.2
			10/31/2023	18	18
10/15/2024	22	22			

MW-17-18	7	7 (100%)	10/15/2018	ND<2.5 U	ND<5 U
			9/27/2019	ND<2.5 U	ND<5 U
			11/11/2020	ND<2.5 U	ND<5 U
			10/21/2021	ND<2.5 U	ND<5 U
			11/30/2022	ND<2.5	ND<5
			10/31/2023	ND<2.5 U	ND<5 U
			10/15/2024	ND<2.5 U	ND<5 U

MW-17-20	7	7 (100%)	10/16/2018	ND<2.5 U	ND<5 U
			9/26/2019	ND<2.5 U	ND<5 U
			11/12/2020	ND<2.5 U	ND<5 U
			10/20/2021	ND<2.5 U	ND<5 U
			11/30/2022	ND<2.5	ND<5
			10/31/2023	ND<2.5 U	ND<5 U
			10/14/2024	ND<2.5 U	ND<5 U

There are 4 unused locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-17-08	3	3 (100%)	10/21/2021	ND<2.5 U	ND<5 U
			10/30/2023	ND<2.5 U	ND<5 U
			10/14/2024	ND<2.5 U	ND<5 U
MW-17-12	4	1 (25%)	9/27/2019	8.4	8.4
			10/21/2021	ND<2.5 U	ND<5 U
			10/31/2023	9.1	9.1
			10/15/2024	7.3	7.3
MW-17-13	5	5 (100%)	10/16/2018	ND<2.5 U	ND<5 U
			9/26/2019	ND<2.5 U	ND<5 U
			10/21/2021	ND<2.5 U	ND<5 U
			10/31/2023	ND<2.5 U	ND<5 U
			10/15/2024	ND<2.5 U	ND<5 U
MW-17-19	3	3 (100%)	10/21/2021	ND<2.5 U	ND<5 U
			10/31/2023	ND<2.5 U	ND<5 U
			10/14/2024	ND<2.5 U	ND<5 U

Concentrations (ug/L)

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Measurements: 52

Total Non-Detect: 1

Percent Non-Detects: 1.92308%

Total Background Measurements: 0

There are 0 background locations

Loc.	Meas.	ND	Date	Conc.	Original
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There are 6 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-16-04S	17	0 (0%)	8/5/2016	18	18
			9/30/2016	21	21
			11/18/2016	18	18
			1/20/2017	25	25
			3/10/2017	24	24
			4/28/2017	26	26
			6/16/2017	26	26
			7/21/2017	17	17
			4/6/2018	27	27
			5/30/2018	26	26
			10/16/2018	24	24
			9/26/2019	19	19
			11/12/2020	21	21
			10/21/2021	36	36
			12/1/2022	39	39
10/30/2023	37	37			
10/15/2024	21	21			
MW-17-05	7	0 (0%)	10/15/2018	13	13
			9/27/2019	9.2	9.2
			11/13/2020	14	14
			10/21/2021	11	11
			11/30/2022	17	17
			10/31/2023	43	43
			10/15/2024	42	42
MW-17-14	7	1 (14.2857%)	10/16/2018	45	45
			9/27/2019	14	14
			11/12/2020	12	12
			10/21/2021	ND<4 U	ND<8 U
			12/1/2022	15	15
			10/31/2023	24	24
			10/15/2024	24	24
MW-17-15	7	0 (0%)	10/16/2018	77	77
			9/26/2019	49	49
			11/12/2020	34	34
			10/21/2021	30	30
			12/1/2022	28	28
			10/31/2023	41	41
			10/15/2024	45	45

MW-17-18	7	0 (0%)	10/15/2018	22	22
			9/27/2019	17	17
			11/11/2020	20	20
			10/21/2021	20	20
			11/30/2022	19	19
			10/31/2023	19	19
			10/15/2024	17	17

MW-17-20	7	0 (0%)	10/16/2018	32	32
			9/26/2019	25	25
			11/12/2020	34	34
			10/20/2021	29	29
			11/30/2022	28	28
			10/31/2023	30	30
			10/14/2024	32	32

There are 4 unused locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-17-08	3	0 (0%)	10/21/2021	12	12
			10/30/2023	13	13
			10/14/2024	10	10
MW-17-12	4	0 (0%)	9/27/2019	12	12
			10/21/2021	13	13
			10/31/2023	13	13
			10/15/2024	11	11
MW-17-13	5	3 (60%)	10/16/2018	ND<4 U	ND<8 U
			9/26/2019	ND<4 U	ND<8 U
			10/21/2021	ND<4 U	ND<8 U
			10/31/2023	12	12
			10/15/2024	11	11
MW-17-19	3	0 (0%)	10/21/2021	46	46
			10/31/2023	45	45
			10/14/2024	41	41

Concentrations (pci/L)

Parameter: Radium-226/228

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Measurements: 36

Total Non-Detect: 4

Percent Non-Detects: 11.1111%

Total Background Measurements: 0

There are 0 background locations

Loc.	Meas.	ND	Date	Conc.	Original
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There are 6 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
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MW-16-04S	14	0 (0%)	8/5/2016	1.82	1.82
			9/30/2016	3.04	3.04
			11/18/2016	0.941	0.941
			1/20/2017	1.97	1.97
			3/10/2017	1.86	1.86
			4/28/2017	1.59	1.59
			6/16/2017	1.64	1.64
			7/21/2017	2.6	2.6
			4/6/2018	1.5	1.5
			5/30/2018	1.75	1.75
			10/16/2018	1.42	1.42
			9/26/2019	1.31	1.31
			10/21/2021	1.38	1.38
			10/15/2024	1.7	1.7
MW-17-05	4	2 (50%)	10/15/2018	ND<0.225 U	ND<0.45 U
			9/27/2019	ND<0.217 U	ND<0.434 U
			10/21/2021	1.41	1.41
			10/15/2024	2.88	2.88
MW-17-14	6	2 (33.3333%)	10/16/2018	0.906	0.906
			9/27/2019	1.75	1.75
			11/12/2020	ND<0.2635 U	ND<0.527 U
			10/21/2021	ND<0.347 U	ND<0.694 U
			12/1/2022	2.59	2.59
			10/15/2024	5.82	5.82
MW-17-15	4	0 (0%)	10/16/2018	1.98	1.98
			9/26/2019	1.1	1.1
			10/21/2021	2.97	2.97
			10/15/2024	1.3	1.3
MW-17-18	4	0 (0%)	10/15/2018	2.31	2.31
			9/27/2019	1.13	1.13
			10/21/2021	1.85	1.85
			10/15/2024	1.91	1.91
MW-17-20	4	0 (0%)	10/16/2018	2.27	2.27
			9/26/2019	0.908	0.908
			10/20/2021	2.38	2.38
			10/14/2024	2.72	2.72

There are 4 unused locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-17-08	2	0 (0%)	10/21/2021 10/14/2024	1.32 0.917	1.32 0.917
MW-17-12	2	0 (0%)	10/21/2021 10/15/2024	2.4 1.33	2.4 1.33
MW-17-13	2	0 (0%)	10/21/2021 10/15/2024	1.05 1.15	1.05 1.15
MW-17-19	2	0 (0%)	10/21/2021 10/14/2024	0.972 2.2	0.972 2.2

Mann-Kendall Trend Analysis

Parameter: Lithium

Location: MW-17-05

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
9.2	13	-3.8	0	1
14	13	1	1	1
11	13	-2	1	2
17	13	4	2	2
43	13	30	3	2
42	13	29	4	2
14	9.2	4.8	5	2
11	9.2	1.8	6	2
17	9.2	7.8	7	2
43	9.2	33.8	8	2
42	9.2	32.8	9	2
11	14	-3	9	3
17	14	3	10	3
43	14	29	11	3
42	14	28	12	3
17	11	6	13	3
43	11	32	14	3
42	11	31	15	3
43	17	26	16	3
42	17	25	17	3
42	43	-1	17	4

S Statistic = 17 - 4 = 13

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Probability of obtaining S >= |13| is 0.07

0.07 >= 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Lithium

Location: MW-17-14

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
14	45	-31	0	1
12	45	-33	0	2
ND<4 U	45	-41	0	3
15	45	-30	0	4
24	45	-21	0	5
24	45	-21	0	6
12	14	-2	0	7
ND<4 U	14	-10	0	8
15	14	1	1	8
24	14	10	2	8
24	14	10	3	8
ND<4 U	12	-8	3	9
15	12	3	4	9
24	12	12	5	9
24	12	12	6	9
15	ND<4 U	11	7	9
24	ND<4 U	20	8	9
24	ND<4 U	20	9	9
24	15	9	10	9
24	15	9	11	9
24	24	0	11	9

S Statistic = 11 - 9 = 2

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Failed to calculate probability for S = 2

Table out of range

Probability of obtaining $S \geq |2|$ is 0.443

0.443 > 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Radium-226/228

Location: MW-17-14

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
1.75	0.906	0.844	1	0
ND<0.2635 U	0.906	-0.6425	1	1
ND<0.347 U	0.906	-0.559	1	2
2.59	0.906	1.684	2	2
5.82	0.906	4.914	3	2
ND<0.2635 U	1.75	-1.4865	3	3
ND<0.347 U	1.75	-1.403	3	4
2.59	1.75	0.84	4	4
5.82	1.75	4.07	5	4
ND<0.347 U	ND<0.2635 U	0.0835	6	4
2.59	ND<0.2635 U	2.3265	7	4
5.82	ND<0.2635 U	5.5565	8	4
2.59	ND<0.347 U	2.243	9	4
5.82	ND<0.347 U	5.473	10	4
5.82	2.59	3.23	11	4

S Statistic = 11 - 4 = 7

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Probability of obtaining S >= |7| is 0.272

0.272 >= 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Arsenic

Location: MW-17-15

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
20	34	-14	0	1
18	34	-16	0	2
23	34	-11	0	3
7.2	34	-26.8	0	4
18	34	-16	0	5
22	34	-12	0	6
18	20	-2	0	7
23	20	3	1	7
7.2	20	-12.8	1	8
18	20	-2	1	9
22	20	2	2	9
23	18	5	3	9
7.2	18	-10.8	3	10
18	18	0	3	10
22	18	4	4	10
7.2	23	-15.8	4	11
18	23	-5	4	12
22	23	-1	4	13
18	7.2	10.8	5	13
22	7.2	14.8	6	13
22	18	4	7	13

S Statistic = 7 - 13 = -6

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Failed to calculate probability for S = -6

Table out of range

Probability of obtaining $S \geq |6|$ is 0.236

0.236 > 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Lithium

Location: MW-17-15

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
49	77	-28	0	1
34	77	-43	0	2
30	77	-47	0	3
28	77	-49	0	4
41	77	-36	0	5
45	77	-32	0	6
34	49	-15	0	7
30	49	-19	0	8
28	49	-21	0	9
41	49	-8	0	10
45	49	-4	0	11
30	34	-4	0	12
28	34	-6	0	13
41	34	7	1	13
45	34	11	2	13
28	30	-2	2	14
41	30	11	3	14
45	30	15	4	14
41	28	13	5	14
45	28	17	6	14
45	41	4	7	14

S Statistic = 7 - 14 = -7

Comparing at 1.0 - (0.05 / 2) = 97.5% confidence level (two-tailed)

Probability of obtaining S >= |-7| is 0.382

0.382 >= 0.025 indicating no evidence of a trend

Skewness Coefficient

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-04S	17	2.5	0	Div 0
MW-17-05	7	2.5	0	Div 0
MW-17-14	7	2.5	0	Div 0
MW-17-15	7	20.3143	7.95978	0.10966
MW-17-18	7	2.5	0	Div 0
MW-17-20	7	2.5	0	Div 0

All Locations

Obs.	Mean	Std. Dev.	Skewness
52	4.89808	6.71923	2.84138

Skewness Coefficient

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-04S	17	25	6.68954	0.905158
MW-17-05	7	21.3143	14.6774	0.861315
MW-17-14	7	19.7143	13.1493	0.925874
MW-17-15	7	43.4286	16.7019	1.20038
MW-17-18	7	19.1429	1.77281	0.158252
MW-17-20	7	30	3	-0.360041

All Locations

Obs.	Mean	Std. Dev.	Skewness
52	26.1577	12.3717	1.45355

Skewness Coefficient

Parameter: Lithium

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-04S	17	3.18795	0.251631	0.51292
MW-17-05	7	2.87903	0.624591	0.647235
MW-17-14	7	2.76873	0.755488	-0.589446
MW-17-15	7	3.71652	0.345359	0.690338
MW-17-18	7	2.94826	0.0925515	0.0180455
MW-17-20	7	3.39677	0.102477	-0.517298

All Locations

Obs.	Mean	Std. Dev.	Skewness
52	3.15693	0.487485	-0.715175

Skewness Coefficient

Parameter: Radium-226/228

Original Data (Not Transformed)

Aitchison's Adjustment

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-04S	14	1.7515	0.529771	1.09219
MW-17-05	4	1.0725	1.37616	0.803723
MW-17-14	6	1.84433	2.19337	1.21707
MW-17-15	4	1.8375	0.843737	0.576067
MW-17-18	4	1.8	0.491121	-0.541506
MW-17-20	4	2.0695	0.797672	-0.950758

All Locations

Obs.	Mean	Std. Dev.	Skewness
36	1.74181	1.07555	1.5449

Skewness Coefficient

Parameter: Radium-226/228

Natural Logarithm Transformation

Aitchison's Adjustment

Skewness > 1 indicates positively skewed data

Skewness < -1 indicates negatively skewed data

Compliance Locations

Location	Obs.	Mean	Std. Dev.	Skewness
MW-16-04S	14	0.521494	0.286561	0.219837
MW-17-05	4	0.350345	0.498667	-8.77335
MW-17-14	6	0.528976	0.728265	-0.34893
MW-17-15	4	0.532333	0.445718	0.314602
MW-17-18	4	0.555439	0.304997	-0.786079
MW-17-20	4	0.64775	0.502049	-1.07272

All Locations

Obs.	Mean	Std. Dev.	Skewness
36	0.522729	0.423688	-1.95713

Confidence Interval

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Compliance Locations

Location MW-16-04S

Mean 2.5
Std Dev 0
Degrees of Freedom 16
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.58349	[2.5, 2.5]	2.5	FALSE
95%	1.74588	[2.5, 2.5]	2.5	FALSE

Location MW-17-05

Mean 2.5
Std Dev 0
Degrees of Freedom 6
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[2.5, 2.5]	2.5	FALSE
95%	1.94318	[2.5, 2.5]	2.5	FALSE

Location MW-17-14

Mean 2.5
Std Dev 0
Degrees of Freedom 6
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[2.5, 2.5]	2.5	FALSE
95%	1.94318	[2.5, 2.5]	2.5	FALSE

Location MW-17-15

Mean 20.3143
Std Dev 7.95978
Degrees of Freedom 6
Comparison Level 32
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[10.8595, 29.769]	20.3143	FALSE
95%	1.94318	[14.4682, 26.1604]	20.3143	FALSE

Location **MW-17-18**

Mean 2.5
Std Dev 0
Degrees of Freedom 6
Comparison Level **32**
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[2.5, 2.5]	2.5	FALSE
95%	1.94318	[2.5, 2.5]	2.5	FALSE

Location **MW-17-20**

Mean 2.5
Std Dev 0
Degrees of Freedom 6
Comparison Level **32**
Untransformed Comp. Level 32

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[2.5, 2.5]	2.5	FALSE
95%	1.94318	[2.5, 2.5]	2.5	FALSE

Confidence Interval

Parameter: Lithium

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Compliance Locations

Location MW-16-04S

Mean 25
Std Dev 6.68954
Degrees of Freedom 16
Comparison Level 40
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.58349	[20.8084, 29.1916]	25	FALSE
95%	1.74588	[22.1674, 27.8326]	25	FALSE

Location MW-17-05

Mean 21.3143
Std Dev 14.6774
Degrees of Freedom 6
Comparison Level 40
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[3.88028, 38.7483]	21.3143	FALSE
95%	1.94318	[10.5345, 32.0941]	21.3143	FALSE

Location MW-17-14

Mean 19.7143
Std Dev 13.1493
Degrees of Freedom 6
Comparison Level 40
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[4.0953, 35.3333]	19.7143	FALSE
95%	1.94318	[10.0567, 29.3719]	19.7143	FALSE

Location MW-17-15

Mean 43.4286
Std Dev 16.7019
Degrees of Freedom 6
Comparison Level 40
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[23.5898, 63.2673]	43.4286	FALSE
95%	1.94318	[31.1618, 55.6953]	43.4286	FALSE

Location **MW-17-18**

Mean 19.1429
Std Dev 1.77281
Degrees of Freedom 6

Comparison Level **40**

Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[17.0371, 21.2486]	19.1429	FALSE
95%	1.94318	[17.8408, 20.4449]	19.1429	FALSE

Location **MW-17-20**

Mean 30
Std Dev 3
Degrees of Freedom 6

Comparison Level **40**

Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[26.4365, 33.5635]	30	FALSE
95%	1.94318	[27.7966, 32.2034]	30	FALSE

Confidence Interval

Parameter: Lithium

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Compliance Locations

Location **MW-16-04S**

Mean 3.18795
Std Dev 0.251631
Degrees of Freedom 16
Comparison Level 3.68888
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.58349	[3.03028, 3.34561]	3.18795	FALSE
95%	1.74588	[3.08139, 3.2945]	3.18795	FALSE

Location **MW-17-05**

Mean 2.87903
Std Dev 0.624591
Degrees of Freedom 6
Comparison Level 3.68888
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[2.13713, 3.62093]	2.87903	FALSE
95%	1.94318	[2.42029, 3.33776]	2.87903	FALSE

Location **MW-17-14**

Mean 2.76873
Std Dev 0.755488
Degrees of Freedom 6
Comparison Level 3.68888
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[1.87134, 3.66611]	2.76873	FALSE
95%	1.94318	[2.21385, 3.3236]	2.76873	FALSE

Location **MW-17-15**

Mean 3.71652
Std Dev 0.345359
Degrees of Freedom 6
Comparison Level 3.68888
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[3.30629, 4.12674]	3.71652	FALSE
95%	1.94318	[3.46287, 3.97017]	3.71652	FALSE

Location **MW-17-18**
Mean 2.94826
Std Dev 0.0925515
Degrees of Freedom 6
Comparison Level **3.68888**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[2.83832, 3.05819]	2.94826	FALSE
95%	1.94318	[2.88028, 3.01623]	2.94826	FALSE

Location **MW-17-20**
Mean 3.39677
Std Dev 0.102477
Degrees of Freedom 6
Comparison Level **3.68888**
Untransformed Comp. Level 40

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.14267	[3.27505, 3.5185]	3.39677	FALSE
95%	1.94318	[3.32151, 3.47204]	3.39677	FALSE

Confidence Interval

Parameter: Radium-226/228
Natural Logarithm Transformation
Aitchison's Adjustment

Compliance Locations

Location **MW-16-04S**

Mean 0.521494
Std Dev 0.286561
Degrees of Freedom 13
Comparison Level 1.60944
Untransformed Comp. Level 5

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	2.6503	[0.318516, 0.724471]	0.521494	FALSE
95%	1.77093	[0.385864, 0.657123]	0.521494	FALSE

Location **MW-17-05**

Mean 0.350345
Std Dev 0.498667
Degrees of Freedom 3
Comparison Level 1.60944
Untransformed Comp. Level 5

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	4.54071	[-0.781806, 1.4825]	0.350345	FALSE
95%	2.35336	[-0.236428, 0.937118]	0.350345	FALSE

Location **MW-17-14**

Mean 0.528976
Std Dev 0.728265
Degrees of Freedom 5
Comparison Level 1.60944
Untransformed Comp. Level 5

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	3.36493	[-0.471461, 1.52941]	0.528976	FALSE
95%	2.01505	[-0.070124, 1.12808]	0.528976	FALSE

Location **MW-17-15**

Mean 0.532333
Std Dev 0.445718
Degrees of Freedom 3
Comparison Level 1.60944
Untransformed Comp. Level 5

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	4.54071	[-0.479603, 1.54427]	0.532333	FALSE
95%	2.35336	[0.00786569, 1.0568]	0.532333	FALSE

Location **MW-17-18**

Mean 0.555439
Std Dev 0.304997
Degrees of Freedom 3

Comparison Level **1.60944**

Untransformed Comp. Level 5

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	4.54071	[-0.137012, 1.24789]	0.555439	FALSE
95%	2.35336	[0.196555, 0.914322]	0.555439	FALSE

Location **MW-17-20**

Mean 0.64775
Std Dev 0.502049
Degrees of Freedom 3

Comparison Level **1.60944**

Untransformed Comp. Level 5

Confidence	t-Stat	Interval	Mid-Point	Significant
99%	4.54071	[-0.492078, 1.78758]	0.64775	FALSE
95%	2.35336	[0.0569989, 1.2385]	0.64775	FALSE
