



BIG RIVERS ELECTRIC CORPORATION

**2025 Annual Groundwater Monitoring & Corrective
Action Report for the Federal Coal Combustion
Residuals Rule**

BIG RIVERS ELECTRIC CORPORATION SEBREE GENERATING
STATION GREEN LANDFILL

PROJECT NO. 188680
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List of Abbreviations

Abbreviation	Term/Phrase/Name
ACM	Assessment of Corrective Measures
BREC	Big Rivers Electric Corporation
CCR	coal combustion residuals
CCR Rule	40 Code of Federal Regulations (CFR) Part 257 and 261 of the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule
CFR	Code of Federal Regulations
Green Closed Former Surface Impoundment (closed former CCR unit)	Green Closed Former Surface Impoundment
Green Landfill (active CCR unit)	Green Station Landfill
GWPS	groundwater protection standard
HMP&L	Reid/Henderson Municipal Power and Light
KDWM	Kentucky Department for Environmental Protection, Division of Waste Management
LCL	lower confidence limit
Pace	Pace Analytical Services, LLC
Report	<i>2025 Annual Groundwater Monitoring and Corrective Action Report</i>
Station or Site	Sebree Generating Station located in Robards, Kentucky
SSI	statistically significant increase
SSL	statistically significant level
TDS	total dissolved solids
USEPA	United States Environmental Protection Agency



Executive Summary

This *2025 Annual Groundwater Monitoring and Corrective Action Report* (Report) summarizes groundwater monitoring and corrective action activities completed between January 1 and December 31, 2025, at the Big Rivers Electric Corporation (BREC) Sebree Generating Station (Station or Site) as required by 40 Code of Federal Regulations (CFR) §257.90(e) of the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule (CCR Rule). The Green Station Landfill (Green Landfill; active CCR unit; Webster County) is the only CCR unit subject to the CCR Rule.

The Green Station Former Surface Impoundment completed closure by removal activities in August 2024. BREC obtained the completion of closure certification with the Kentucky Department of Environmental Protection, Division of Waste Management (KDWM) on March 27, 2025. The Green Former Surface Impoundment has remained in semi-annual detection monitoring from 2016 through 2024 in accordance with 40 CFR §257.94. Assessment monitoring was never triggered from the Green Former Surface Impoundment. With the completion of closure certification obtained with the KDWM and the CCR unit having remained in detection monitoring, no groundwater sampling was conducted in 2025 and not included in this report.

The 2025 Annual Groundwater Monitoring and Corrective Action Report for the Reid/Henderson Municipal Power and Light Surface Impoundment (Henderson County) at the Station is provided as a separate submittal.

A Site figure presenting the location of the Green Landfill is presented as **Figure 1**. The program monitoring networks for the Green Landfill, including supporting monitoring wells, are presented as **Figure 2**.

Results of baseline groundwater monitoring performed in 2016 and 2017 indicated that the Green Landfill would require initiation of assessment monitoring under the CCR Rule, as the laboratory analytical results from these events indicated that most of the Appendix III constituents had statistically significant increases (SSIs) over background and included calcium, chloride, sulfate, and total dissolved solids at the Green Landfill.

On February 5, 2018, BREC posted on their publicly accessible CCR reporting website a formal notification that the Green Landfill would transition from baseline detection to assessment monitoring program (BREC, 2018a). At both the start and end of the 2024 annual reporting period, the Green Landfill was operating under the assessment monitoring program in 40 CFR §257.95.

Statistical evaluation of groundwater analytical data collected during assessment monitoring at the Green Landfill indicated that Appendix IV constituents were detected in downgradient monitoring wells at SSIs over background in 2018 through 2025 as summarized in the table below.



Appendix IV Constituents at an SSI	Green Landfill (2018-2025)
Arsenic	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April and September 2021 • April and December 2022 • June and November 2023 • April and November 2024 • May and November 2025
Barium	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April and September 2021 • April and December 2022 • June and November 2023 • April and November 2024 • May and November 2025
Cadmium	<ul style="list-style-type: none"> • April 2021
Cobalt	<ul style="list-style-type: none"> • September 2020 • April 2024
Chromium	<ul style="list-style-type: none"> • November 2025
Fluoride	<ul style="list-style-type: none"> • none
Lithium	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April and September 2021 • April and December 2022 • June and November 2023 • April and November 2024 • May and November 2025
Mercury	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April 2021 • December 2022 • June and November 2023 • April and November 2024
Molybdenum	<ul style="list-style-type: none"> • April and September 2021 • April 2022 • June and November 2023 • April and November 2024 • May 2025
Radium 226+228 (combined)	<ul style="list-style-type: none"> • April 2022 • November 2024



Appendix IV Constituents at an SSI	Green Landfill (2018-2025)
Selenium	<ul style="list-style-type: none"> • April 2020 • April 2021 • April 2022 • June 2023 • May 2025

Per CCR rule requirements, groundwater protection standards (GWPSs) for each Appendix IV constituent were developed and the data were tested for whether the concentrations represented statistically significant levels (SSLs) above their respective GWPSs. SSLs identified in annual reporting periods from 2018 through 2025 are as follows:

Appendix IV Constituent at an SSL above GWPS	Green Landfill	Reporting Period (2018-2025)
Arsenic	MW-2	2022, 2023, 2024, and 2025
Lithium	MW-3A, MW-4, MW-5, and MW-6	2018, 2019, 2020, 2021, 2022, 2023, 2024, and 2025

On December 6, 2018, and October 3, 2022, BREC posted on their publicly accessible CCR reporting website a formal notification that lithium (BREC, 2018b) and arsenic (BREC, 2022) had been detected at SSLs above the established GWPS for the Green Landfill. In June 2019, BREC finalized an *Assessment of Corrective Measures* (ACM) for the Green Landfill to identify applicable remedial technologies to address impacts in groundwater pursuant to Title 40 CFR §257.96 (AECOM, 2019b). Reports summarizing the results of the Green Landfill ACM were completed and placed in the BREC operating record on June 13, 2019. The ACM report was posted to BREC’s publicly accessible CCR reporting website on July 11, 2019. Semi-annual progress on the selection of remedy process for the Green Landfill was reported in December 2019 (AECOM, 2019c) and June 2020 (AECOM, 2020b).

A public meeting open to interested and affected parties was held on July 16, 2020, to discuss the results of the ACM for Green Landfill. No public input influencing the remedy for the CCR unit was received during the meeting. On November 18, 2020, BREC finalized a *Final Groundwater and Non-Groundwater Corrective Action Remedy Selection Report* (AECOM, 2020c), thereby selecting the remedy for groundwater and non-groundwater impacts at the CCR unit in accordance with 40 CFR §257.97.

Construction of source control measures to address groundwater impacts at Green Landfill were initiated in November 2020. These source control measures consisted of:

1. Design and construction of perimeter toe drain system and additional seepage controls to address leachate outbreaks;
2. Design, permitting, and construction of supplemental seepage controls at River Seep -07; and
3. Sediment removal from the South Sediment Basin.

Construction of these additional source control measures around the perimeter of the Green Landfill was completed in the fourth quarter of 2021. Each of these remedies is expected to benefit groundwater



corrective action as a whole and will be further evaluated in 2026 and beyond for alignment with the corrective action objectives through performance monitoring.

Other activities and conditions for the 2025 annual reporting period include:

- Semi-annual assessment groundwater monitoring events were performed at Green Landfill in April-May and November 2025;
- No groundwater monitoring program transitions (detection to assessment or vice versa) were triggered at the Green Landfill; and

Anticipated activities for the next 2026 annual reporting period include:

- Completion of two semi-annual assessment groundwater monitoring events at the Green Landfill;
- Characterization of groundwater for arsenic at the Green Landfill due to SSL over the GWPS; and
- Evaluation of current remedy at Green Landfill.

This Report for BREC was prepared to address the requirements of CFR 40 CFR 257.90(e) of the USEPA CCR Rule, which requires the contents listed below with the appropriate report section reference identified in **bold type** for the corresponding content:

1. A map, aerial image, or diagram showing the Green Landfill and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the active CCR unit (see **Figure 2**);
2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken (see **Section 2.2**);
3. In addition to the monitoring data obtained under Section 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient monitoring well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs (**no new wells were installed in 2025; see Section 2.1**);
4. A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at an SSI over background levels) (see **Section 3.3**); and
5. Other information required to be included in the annual report as specified in Section 257.90 through 257.98 (i.e., groundwater monitoring results and various demonstrations regarding alternative monitoring frequency, alternative sources, and extension of schedule for ACMs) (**no other information was developed or reported in 2025**).



1.0 Introduction

At the request of Big Rivers Electric Corporation (BREC), Burns & McDonnell prepared this *2025 Annual Groundwater Monitoring and Corrective Action Report* (Report) for the BREC Sebree Generating Station (Station or Site), located in Robards, Kentucky within both Henderson and Webster Counties, Kentucky. This Report was prepared in accordance with §257.90(e) of 40 Code of Federal Regulations (CFR) Part 257 and 261 of the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule (CCR Rule) to document the status of the groundwater monitoring and corrective action program at the active and former CCR units, summarize key actions completed, describe any problems encountered, discuss any actions to resolve the problems, and provide key activities for the upcoming year. The CCR Rule was established to regulate the disposal of CCR produced by electricity generating facilities (USEPA, 2015, 2018, 2020a, and 2020b).

This Report is the ninth annual report and summarizes activities performed in 2025 related to the CCR Rule groundwater monitoring program at the Green Station Landfill (Green Landfill; active CCR unit; Webster County).

Based upon the statistical evaluation of Appendix III constituents collected during the baseline period at the Green Closed Former Surface Impoundment (closed former CCR unit), BREC initiated semi-annual detection monitoring in 2018. The Green Closed Former Surface Impoundment completed closure by removal activities in August 2024. BREC obtained the completion of closure certification with the Kentucky Department of Environmental Protection, Division of Waste Management (KDWM) on March 27, 2025 (KDWM, 2025). The Green Closed Former Surface Impoundment has remained in semi-annual detection monitoring from 2016 through 2024 in accordance with 40 CFR §257.94. Assessment monitoring was never triggered from the Green Closed Former Surface Impoundment. With the completion of closure certification obtained with the KDWM and the CCR unit having remained in detection monitoring, no groundwater sampling was conducted in 2025 and not included in this Report.

The 2025 Annual Groundwater Monitoring and Corrective Action Report for the Reid/Henderson Municipal Power and Light (HMP&L) Surface Impoundment (Henderson County) at the Station is provided as a separate submittal.

As stated in the previous 2016-2018 *Annual Groundwater Monitoring and Corrective Action Reports* (AECOM, 2018 and 2019a), statistical results of the baseline groundwater data indicated that the Green Landfill would require initiation of assessment monitoring under the CCR Rule, as the laboratory analytical results from these events indicated that most of the Appendix III constituents had statistically significant increases (SSIs) over background.

On February 5, 2018, BREC posted on their publicly accessible CCR reporting website a formal notification that the Green Landfill would enter assessment monitoring program, fulfilling the requirement of 40 CFR §257.107(h)(4).

The following sections present a background summary of the Site, a discussion of field activities performed, a summary of laboratory results, statistical evaluation findings, and conclusions regarding groundwater conditions in the aquifer system subject to monitoring under the CCR Rule.



1.1 Site Description

BREC owns and operates the Station, which is a former coal-fired power generating facility located on the Green River approximately two miles northeast of Sebree, Kentucky. The Station is composed of the Green Station and HMP&L Station. The Station is bounded by Interstate 69 to the west and the Green River to the east (see **Figure 1**). Reid Unit 1 began commercial operation in 1966 and was retired on September 30, 2020. HMP&L Station 2, Units 1 and 2 began commercial operation in 1973 and 1974, respectively. Both HMP&L units were retired as of February 1, 2019. Green Station Units 1 (250 Megawatt) and 2 (242 Megawatt) began commercial operation as coal-fired units in 1979 and 1981, respectively. Both Green Station units were converted to natural gas-fired boilers in the second quarter of 2022. Three disposal CCR units at the Station are regulated under the CCR Rule: Green Landfill, Green Closed Former Surface Impoundment, and the HMP&L Surface Impoundment. This Report is for the Green Landfill and is discussed in more detail below.

1.1.1 Green Landfill

The Green Landfill is located directly south of the Station, situated south of the Green Closed Former Surface Impoundment. The Green Landfill is a Kentucky permitted landfill (Permit No. SW11700007) that previously received special wastes generated by burning coal (CCRs) from Green Station, and formerly Reid Station Unit 1, and HMP&L Station 2 Units 1 and 2. The landfill began receiving CCR wastes in 1980 and received CCR material generated from Green Closed Former Surface Impoundment closure activities, which began in 2022 and were completed in August 2024. The current Green Landfill footprint is approximately 170 acres.

As stated in the published CCR monitoring well network certification for this CCR unit (Associated Engineering Inc., 2016a), the original ground surface within the landfill footprint was irregular and the dominant features were small stream valleys draining towards the Green River, which is located just east of the landfill; and towards Groves Creek, which is located just south of the landfill. There was also historic oil and gas production at and in the immediate vicinity of the Green Landfill. A review of the records from the Kentucky Geological Survey showed that at or immediately adjacent to the Site, there were several dry oil/gas exploration holes, oil production wells, one gas production well, and one secondary recovery injection well. There were also former brine ponds at the Site. Most of these oil and gas wells were abandoned in accordance with applicable regulations by BREC in 1997 and 1998. The last existing oil well was decommissioned in 2019 by BREC.

1.2 Site Hydrogeology

The Station lies in the Western Kentucky Coalfields section of the Interior Low Plateaus physiographic province, characterized by rolling uplands underlain by coal-bearing bedrock of the Pennsylvanian Period. The geology underlying the Site vicinity consists of unconsolidated materials, including loess and alluvial deposits, underlain by Upper to Middle Pennsylvanian-age clastic and carbonate bedrock consisting primarily of sandstone and shale. The unconsolidated materials also include fill, silty and clayey residuum, and minor amounts of sandy, clayey channel fill alluvium. The bedrock is comprised of the Upper Pennsylvanian Shelburn Formation (formerly identified as the Lisman Formation [Fairer, 1973]) and the Middle Pennsylvanian Carbondale Formation. At the base of the Shelburn Formation is the Providence Limestone Member, consisting of limestone and interbedded shale, but this geologic unit is absent in much of the area due to erosional channeling. Due to its discontinuous character and the presence of interbedded shale, hydrologically significant karst features are not present in the Providence Limestone Member. The underlying Carbondale Formation consists of cyclic sequences of sandstones, shales, siltstones and coals. The Carbondale sediments were deposited in a fluvial-deltaic system. As a result of this depositional

environment, the sandstone/siltstone units of the Carbondale tend to be lenticular bodies rather than continuous sheet-like strata. Regionally, gradational and abrupt horizontal changes in lithology are often encountered. Fairer (1973) reports three coal beds within the Carbondale Formation consisting of (in descending order): No. 11, No. 10, and No. 9 coal beds. The, thin, No. 11 coal bed is locally present beneath the Providence Limestone Member of the overlying Lisman Formation. The No. 10 coal bed is discontinuous locally and not present throughout the area. The No. 10 coal bed is pyritic, averaging approximately 4 feet in thickness, and is located at the base of the Carbondale Formation.

The targeted stratigraphic interval of the monitoring well networks at the Station were identified as the Upper Sandstone Member (Sebree sandstone) of the Carbondale Formation. The United States Geological Survey Geologic Map of the Robards Quadrangle (Fairer, 1973) described the Sebree sandstone sequence as “Siltstone, sandstone, shale and coal: Siltstone, light- to medium-gray, micaceous, thin-bedded, locally calcareous. Sandstone, light- to medium-gray, grayish- and yellowish-brown, fine- to medium-grained, slightly micaceous, thin-bedded to massive; locally fills channels. Shale, dark gray to black, carbonaceous.” For purposes of compliance with the CCR Rule groundwater monitoring requirements; this sequence, and particularly the sandstone intervals, were considered to be the uppermost aquifer underlying the Station (Associated Engineering Inc., 2016a and 2016b).

1.3 Green Landfill CCR Program Monitoring Well System

1.3.1 Operating Permit Compliance Monitoring Wells

Prior to implementation of the CCR Rule, a groundwater monitoring well network was already present at the Green Landfill in compliance with the requirements of the facility’s operating permit. The existing monitoring wells are located along the perimeter of the permitted footprint for the Green Landfill and meet the CCR Rule requirements that a minimum of one (1) upgradient and three (3) downgradient monitoring wells must be located at the waste boundary of the (active) CCR unit, or as close as practicable (Associated Engineering Inc., 2016a).

Under the requirements stated in the operating permit, six (6) monitoring wells (MW-1, MW-2, MW-3A, MW-4, MW-5, and MW-6) were installed adjacent to the Green Landfill to determine the general direction of groundwater movement and to monitor groundwater at the CCR unit. Monitoring Well MW-1 is located northwest of the landfill and is considered upgradient and represents the background monitoring well. Monitoring Wells MW-2, MW 3A, MW-4, MW-5, and MW-6; located respectively, northeast, east, southeast, south, and southwest are considered downgradient. As-built specifics of each monitoring well installation are summarized in **Table 1**. The locations of the groundwater monitoring wells are shown on **Figure 2**. Each monitoring well has a dedicated bladder pump and tubing system installed for groundwater sampling purposes.

Details regarding the monitoring network are presented in the *Monitoring Well Completion Report* (FMSM Engineers, 1997).

No new CCR Rule compliance monitoring wells were installed in 2024 at the Green Landfill.

1.3.2 Characterization Monitoring Wells

As-built specifics of each characterization monitoring well installation are summarized in **Table 1** and their locations are shown on **Figure 2**. Each characterization monitoring well has a dedicated bladder pump and tubing system installed for groundwater sampling purposes.

These characterization monitoring wells, located at a downgradient position east of the CCR unit, were used to assist in the characterization of the existence, quality, quantity, areal extent, and depth of groundwater degradation, and the rate and direction of migration of CCR contaminants in the groundwater.

No new characterization monitoring wells were installed in 2024 at the Green Landfill.

1.4 Summary of Groundwater Monitoring Program

1.4.1 Green Landfill

Results of baseline groundwater monitoring performed in 2016 and 2017 indicated that the Green Landfill would require initiation of assessment monitoring under the CCR Rule, as the laboratory analytical results from these events indicated that most of the Appendix III constituents had SSIs over background that included: calcium, chloride, sulfate, and total dissolved solids (TDS).

On February 5, 2018, BREC posted on their publicly accessible CCR reporting website a formal notification that the Green Landfill would transition from detection to assessment monitoring program. Since 2018, the Green Landfill has been operating under the assessment monitoring program in 40 CFR §257.95. Statistical evaluation of previous groundwater analytical data collected during assessment monitoring at the Green Landfill from 2018 through 2024 indicated that Appendix IV constituents were detected in downgradient monitoring wells at SSIs over background as summarized in the table below.

Appendix IV Constituents at an SSI	Green Landfill (2018-2024)
Arsenic	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April and September 2021 • April and December 2022 • June and November 2023 • April and November 2024
Barium	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April and September 2021 • April and December 2022 • June and November 2023 • April and November 2024
Cadmium	<ul style="list-style-type: none"> • April 2021

Appendix IV Constituents at an SSI	Green Landfill (2018-2024)
Cobalt	<ul style="list-style-type: none"> • September 2020 • April 2024
Chromium	<ul style="list-style-type: none"> • none
Fluoride	<ul style="list-style-type: none"> • none
Lithium	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April and September 2021 • April and December 2022 • June and November 2023 • April and November 2024
Mercury	<ul style="list-style-type: none"> • June and July 2018 • April and October 2019 • April and September 2020 • April 2021 • December 2022 • June and November 2023 • April and November 2024
Molybdenum	<ul style="list-style-type: none"> • April and September 2021 • April 2022 • June and November 2023 • April and November 2024
Radium 226+228 (combined)	<ul style="list-style-type: none"> • April 2022 • November 2024
Selenium	<ul style="list-style-type: none"> • April 2020 • April 2021 • April 2022 • June 2023

Per CCR rule requirements, groundwater protection standards (GWPSs) for each Appendix IV constituent were developed and the data were tested for whether the concentrations represented statistically significant levels (SSLs) above their respective GWPSs. SSLs identified in previous annual reporting periods from 2018 through 2024 are as follows:

Appendix IV Constituent at an SSL above GWPS	Green Landfill	Reporting Period (2018-2024)
Arsenic	MW-2	2022, 2023, and 2024



Appendix IV Constituent at an SSL above GWPS	Green Landfill	Reporting Period (2018-2024)
Lithium	MW-3A, MW-4, MW-5, and MW-6	2018, 2019, 2020, 2021, 2022, 2023, and 2024

On December 6, 2018, and October 3, 2022, BREC posted on their publicly accessible CCR reporting website formal notification that lithium (BREC, 2018b) and arsenic (BREC, 2022) had been detected at SSLs above the established GWPS for the Green Landfill. In June 2019, BREC finalized an *Assessment of Corrective Measures* (ACM) for the Green Landfill to identify applicable remedial technologies to address impacts in groundwater pursuant to Title 40 CFR §257.96 (AECOM, 2019b). Reports summarizing the results of the Green Landfill ACM were completed and placed in the BREC operating record on June 13, 2019. The ACM report was posted to BREC’s publicly accessible CCR reporting website on July 11, 2019. Semi-annual progress on the selection of remedy process for the Green Landfill was reported in December 2019 (AECOM, 2019c) and June 2020 (AECOM, 2020b).

A public meeting open to interested and affected parties was held on July 16, 2020, to discuss the results of the ACM for Green Landfill. No public input influencing the remedy for the CCR unit was received during the meeting. On November 18, 2020, BREC finalized a *Final Groundwater and Non-Groundwater Corrective Action Remedy Selection Report* (AECOM, 2020c); thereby, selecting the remedy for groundwater and non-groundwater impacts at the CCR unit in accordance with 40 CFR §257.97.

Construction of source control measures to address groundwater impacts at the Green Landfill were initiated in November 2020. These source control measures consisted of:

1. Design and construction of a perimeter toe drain system and additional seepage controls to address leachate outbreaks;
2. Design, permitting, and construction of supplemental seepage controls at River Seep -07; and
3. Sediment removal from the South Sediment Basin.

Construction of these additional source control measures around the perimeter of the Green Landfill was completed in the fourth quarter of 2021. Each of these remedies is expected to benefit groundwater corrective action as a whole and will be further evaluated in 2025 and beyond for alignment with the corrective action objectives through performance monitoring.

2.0 Groundwater Monitoring Activities and Results

The following subsections describe the activities that were performed in 2025 for the Green Landfill CCR program groundwater monitoring well systems.

2.1 Groundwater Sampling Activities

In 2025, the following monitoring events were performed at the Station:

- Green Landfill: Two (2) assessment groundwater monitoring events and two (2) characterization groundwater monitoring events.

The dates of each semi-annual groundwater sampling event performed by BREC personnel and the monitoring wells included in the sampling events for the Green Landfill are summarized in the table below.

Green Landfill			
Event Type	Sampling Event	Dates	Monitoring Wells Sampled
Assessment	First Half 2025 (Event #25)	April 30-May 7, 2025	Background (Upgradient) MW-1 Downgradient MW-2, MW-3A, MW-4, MW-5, and MW-6
Characterization	First Half 2025 (Event #14)	May 6, 2025	Characterization (Downgradient) MW-104
Characterization	First Half 2025 (Event #5)	May 1 and 6, 2025	Characterization (Downgradient) MW-105, MW-106S, and MW-106D
Assessment	Second Half 2025 (Event #26)	November 18-20, 2025	Background (Upgradient) MW-1 Downgradient MW-2, MW-3A, MW-4, MW-5, and MW-6
Characterization	Second Half 2025 (Event #15)	November 20, 2025	Characterization (Downgradient) MW-104
Characterization	Second Half 2025 (Event #6)	November 20, 2025	Characterization (Downgradient) MW-105, MW-106S, and MW-106D

Following the November 2025 sampling event at the Green Landfill, there were a total of 26 compliance monitoring events, 15 characterization monitoring events for Monitoring Well MW-104, and six characterization monitoring events for Monitoring Wells MW-105, MW-106S, and MW-106D that have been performed since 2016. The previous monitoring events at the Green Landfill were reported on in the Annual Groundwater Monitoring and Corrective Action Reports in 2016-2017 (AECOM, 2018), 2018 (AECOM, 2019a), 2019 (AECOM, 2020a), 2020 (AECOM, 2021), 2021 (AECOM, 2022), 2022 (Burns & McDonnell, 2023), 2023 (Burns & McDonnell, 2024), and 2024 (Burns & McDonnell, 2025a).

Prior to groundwater sampling, the depth to groundwater was gauged at each of the monitoring wells by BREC personnel during the 2025 monitoring events. The measured depth to groundwater level data and the calculated groundwater elevations are summarized in **Table 2**.



Monitoring wells were sampled by BREC personnel following low flow purging and sampling techniques developed and incorporated into current operating permits which are maintained within the operating record at the Station. No filtration of samples was conducted in either the field or laboratory procedures. Monitoring well sampling forms for each of the groundwater monitoring events are included in **Appendix A**.

Groundwater samples collected during the 2025 sampling events were submitted to Pace Analytical Services, LLC (Pace) in Madisonville, Kentucky for laboratory analysis with radium 226 + 228 (combined) analysis performed by Pace in Greensburg, Pennsylvania. Laboratory analyses were performed in accordance with USEPA-approved methods. Groundwater samples collected at the Green Landfill during assessment and characterization monitoring events were analyzed for Appendix III and Appendix IV constituents, in accordance with 40 CFR §257.95(d)(1).

2.2 Monitoring Well Installation Activities

No new monitoring wells were installed in 2025.



3.0 Groundwater Monitoring Activities and Results

3.1 Groundwater Flow

Measured depth to groundwater level data collected by BREC personnel and the calculated groundwater elevations during the 2025 monitoring events are summarized in **Table 2**. The data were used to construct piezometric surface maps to illustrate groundwater flow conditions. These data and maps are representative of general conditions at the Green Landfill.

Overall, the predominate groundwater flow direction beneath the footprint of the Green Landfill is to the east and southeast towards the Green River and Groves Creek with a localized northeast flow component along the northern portion of the CCR unit (see **Figures 3 and 4**).

3.2 Sampling Results

3.2.1 Groundwater Sampling Results

During 2025, the following monitoring events were performed at the Station:

- Green Landfill: Two (2) assessment groundwater monitoring events and two (2) characterization groundwater monitoring events.

Groundwater analytical results from the assessment and characterization monitoring events are summarized in the tables included in **Appendix B**. Complete copies of the analytical laboratory reports for the active and former CCR units are included in **Appendix C**. Laboratory data were validated, and all data are considered viable for reporting as qualified with copies of the data validation reports provided in **Appendix D**.

3.3 Groundwater Statistical Evaluation

As part of previous assessment monitoring performed at the Green Landfill, background and downgradient monitoring wells for this CCR unit were sampled for Appendix IV constituents in 2018 through 2024. In accordance with 40 CFR §257.95, GWPSs were established for detected Appendix IV constituents. Previous assessment monitoring results indicated the presence of an SSL above a GWPS in the following Green Landfill monitoring wells:

- Lithium (Monitoring Wells MW-3A, MW-4, MW-5, and MW-6) and
- Arsenic (Monitoring Well MW-2).

In accordance with 40 CFR §257.93(f), 40 CFR §257.93(h), and 40 CFR §257.95(d)(2), Burns & McDonnell conducted statistical evaluations of the 2025 groundwater data for the Green Landfill to identify any 2025 SSIs over background concentrations and identify any 2025 SSLs over established GWPSs for detected Appendix IV constituents. Statistical methods were chosen in accordance with 40 CFR §257.93(f), while the rationale behind why each method was selected is outlined in the *Statistical Methods Certification Document* (Associated Engineers, Inc., 2016a and 2016b). Summaries of the 2025 statistical evaluation conducted on the Appendix III detection and Appendix IV assessment constituents for the Green Landfill are provided as **Appendix E** and discussed below.



3.3.1 Green Landfill Statistical Evaluation

The Green Landfill assessment monitoring data were evaluated using an inter-well statistical evaluation approach that statistically compared constituent concentrations at downgradient compliance monitoring wells to those present at an upgradient/background monitoring well. For the Green Landfill, Monitoring Well MW-1 is designated as the background monitoring well because it is located upgradient of the CCR unit; whereas, Monitoring Wells MW-2, MW-3A, MW-4, MW-5, and MW-6 are designated as compliance monitoring wells because they are located along the downgradient side of the CCR unit waste boundary.

As presented in **Appendix E**, the results of the statistical analysis indicate the following Appendix III constituents were observed as SSIs with concentrations above calculated background values in downgradient compliance monitoring wells.

2025 Appendix III SSIs – Green Landfill	
April-May 2025 Sampling Event	November 2025 Sampling Event
Calcium (MW-2, MW-3A, MW-4, MW-5, and MW-6)	Calcium (MW-2, MW-3A, MW-4, MW-5, and MW-6)
Chloride (MW-2, MW-3A, MW-4, MW-5, and MW-6)	Chloride (MW-2, MW-3A, MW-4, MW-5, and MW-6)
Sulfate (MW-2, MW-3A, MW-4, MW-5, and MW-6)	Sulfate (MW-2, MW-3A, MW-4, MW-5, and MW-6)
TDS (MW-2, MW-3A, MW-4, MW-5, and MW-6)	TDS (MW-2, MW-3A, MW-4, MW-5, and MW-6)

The remaining monitoring wells and Appendix III constituents of boron, fluoride, and pH did not have any verified SSIs over background. Based on these results, assessment monitoring is required to continue at the Green Landfill on a semi-annual basis. As presented in **Appendix E**, the statistical analysis results indicate the following Appendix IV constituents were observed as SSIs with concentrations above calculated background values in downgradient compliance monitoring wells.

2025 Appendix IV SSIs – Green Landfill	
April-May 2025 Sampling Event	November 2025 Sampling Event
Arsenic (MW-2)	Arsenic (MW-2)
Barium (MW-2)	Barium (MW-2)
Chromium (none)	Chromium (MW-6)
Lithium (MW-3A, MW-4, MW-5, and MW-6)	Lithium (MW-3A, MW-4, MW-5, and MW-6)
Molybdenum (MW-2 and MW-4)	Molybdenum (none)
Selenium (MW-4)	Selenium (none)

The previously identified April 2022 Appendix IV constituent SSI for radium 226 + 228 (combined) at Monitoring Well MW-5 did not recur in 2025.

These Appendix IV constituents with SSIs were further evaluated to determine whether they are present at SSLs over the GWPSs by calculating the lower confidence limit (LCL) at 95% confidence for each monitoring



well and constituent pair using all the baseline, detection, and assessment monitoring results collected to date. For a constituent to be present at an SSL over the GWPS, its LCL must be greater than the GWPS.

Appendix E provides a summary of the LCLs and GWPSs for arsenic, barium, chromium, lithium, molybdenum, and selenium for the monitoring wells identified above for the 2025 semi-annual events, respectively. As presented in **Appendix E**, the statistical analysis results indicated the following Appendix IV constituents were observed at SSLs over the GWPS.

2025 Appendix IV SSLs > GWPS – Green Landfill	
April-May 2025 Sampling Event	November 2025 Sampling Event
Arsenic (MW-2)	Arsenic (MW-2)
Lithium (MW-3A, MW-4, MW-5, and MW-6)	Lithium (MW-3A, MW-4, MW-5, and MW-6)

The LCLs for the remaining monitoring well and Appendix IV constituent pairs are less than the GWPSs; thus, are not considered SSLs. Based on these results, assessment monitoring will continue on a semi-annual basis at the Green Landfill.

The identified SSLs over the GWPS for lithium are consistent with previous statistical evaluations since 2018. On December 6, 2018, BREC posted a formal notification that lithium in Appendix IV had been detected at SSLs above the established GWPS as required by 40 CFR §257.95(g) and 40 CFR §257.107(h)(8). The identified SSLs over the GWPS for arsenic is consistent with the previous statistical evaluation in 2022 (the first SSL occurrence for arsenic). On October 3, 2022, BREC posted a formal notification that arsenic in Appendix IV has been detected at an SSL above the established GWPS as required by 40 CFR §257.95(g) and 40 CFR §257.107(h)(8).

3.4 Conclusion

Based upon the 2025 statistical evaluation of Appendix III and Appendix IV constituents collected during assessment monitoring at the Green Landfill, BREC is required to continue semi-annual assessment monitoring in 2026.



4.0 Certifications and Notifications to the Operating Record

The following certifications and notifications were made to the operating record and/or were posted to the BREC’s publicly accessible CCR website during the reporting period:

- *2024 Annual Groundwater Monitoring and Corrective Action Report* (Burns & McDonnell, 2025a);
- Document the 2025 groundwater concentrations of Appendices III and IV constituents in the facility operating record as required by 40 CFR §257.95(d)(1);
- Calculated 2025 GWPSs for the Green Landfill;
- *Re: “Statistical Evaluation of April-May 2025 Assessment Monitoring Groundwater Data”* (Burns & McDonnell, 2025b; **Appendix E**); and
- *Re: “Statistical Evaluation of November 2025 Assessment Monitoring Groundwater Data”* (Burns & McDonnell, 2026; **Appendix E**).



5.0 Key Activities Planned for 2026

Anticipated activities for the next 2026 annual reporting period include continued groundwater monitoring and groundwater characterization for the Green Landfill (Appendix IV constituents [arsenic and lithium] with SSLs above GWPSs).

5.1 Groundwater Monitoring

Continued semi-annual assessment monitoring of all operating permit monitoring wells and subsequent statistical evaluations for the Green Landfill are planned for 2026. The semi-annual assessment monitoring will include two (2) assessment groundwater monitoring events and two (2) characterization groundwater monitoring events.

5.2 Green Landfill Groundwater Characterization

The statistical evaluations of the 2025 groundwater data at the Green Landfill identified Appendix IV constituents arsenic (first occurrence in 2022) and lithium (first occurrence in 2018) at concentrations in downgradient monitoring wells at SSLs above the GWPSs (see **Section 3.3.1**). In accordance with 40 CFR §257.96(g)(1), characterization of the “nature and extent of the release and any relevant site conditions that may affect the remedy ultimately selected” with the caveat that the “characterization must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the CCR unit pursuant to 40 CFR §257.96”.

The Green Landfill was previously subject to corrective action to address the following impacts:

1. Lithium in groundwater at an SSL above the GWPS in four monitoring wells (MW-3A, MW-4, MW-5, and MW-6) at the CCR unit and
2. Address Notices of Violation received from KDWM regarding unpermitted discharges and seepage emanating from the CCR unit.

To address these impacts, a *Final Groundwater and Non-Groundwater Corrective Action Remedy Selection Report* (AECOM, 2020c) was completed documenting the 2019 and 2020 implementation of the corrective action remedy. Alternative #5 from the ACM was selected as the remedy to address both groundwater and non-groundwater impacts at the Green Landfill consisting of consisting of closure-in-place, other source controls, institutional controls, and groundwater monitoring. In 2019 and 2020, source controls were implemented consisting of the construction of a deep collection trench along the east side of the Green Landfill (referred to as the Deep Seep Collection Trench or Eastern Collection Trench) and the construction of a series of shallower collection trenches along the north side of the Green Landfill (referred to as the Northwest Seep Collection Trench). In 2020 and 2021, shallow collection trenches were constructed around the perimeter of the Green Landfill and residual CCR material was removed from the South Sediment Basin to comply with an Agreed Order signed by BREC and KDWM. These source control measures implemented to date are intended to capture non-groundwater releases from migrating beyond the functional perimeter of the unit and the property controlled by BREC.

The most recently observed groundwater impact of arsenic at an SSL above the GWPS was in Monitoring Well MW-2 following statistical analysis performed in association with the 2022 through 2025 groundwater monitoring events. Monitoring Well MW-2 is located on the northeastern, downgradient side of the waste



boundary of the CCR unit, and directly north of the Deep Seep Collection Trench (see **Figure 2**). At the time of the arsenic SSL above the GWPS, the closest monitoring well to Monitoring Well MW-2 was Monitoring Well MW-3A to the south, which was over 1,000 feet offset from Monitoring Well MW-2 and did not exhibit arsenic detections. Thus, the existing monitoring well network provided an insufficient delineation of the observed arsenic impact in groundwater downgradient of the CCR unit. In order to evaluate the nature and extent of arsenic impacts in groundwater at Monitoring Well MW-2, three additional characterization monitoring wells (MW-105, MW-106S, and MW-106D) were installed at the CCR unit in 2023.

The additional data collected and continued semi-annual groundwater monitoring from these newly installed characterization monitoring wells will be incorporated into the conceptual site model and used to evaluate the source and extent of arsenic impacts.



6.0 References

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Tables

Figures

Appendix A – Green Landfill Field Sampling Forms

Appendix B – Green Landfill Groundwater Analytical Summary Tables

**Appendix C – Green Landfill Groundwater Laboratory
Analytical Reports**

Appendix D – Green Landfill Groundwater Data Validation

Appendix E – Green Landfill Groundwater Statistical Evaluations



Tables

TABLE 1

SUMMARY OF MONITORING WELL SYSTEM CONSTRUCTION - GREEN LANDFILL

CCR GROUNDWATER MONITORING PROGRAM
 BIG RIVERS ELECTRIC CORPORATION - SEBREE STATION
 GREEN STATION LANDFILL
 WEBSTER COUNTY, KENTUCKY

Well No.	Program	Location*		Reference Elevation*		Casing Length (feet, TOIC)	Size / Type (ID / Material)	Filter Pack Interval		Screened Interval		Bottom of Boring (feet, GS)
		Lat	Long	TOIC (feet, NAV88)	GS (feet, NAVD88)			Top (feet, GS, NADV88)	Bottom (feet, GS, NADV88)	Top (feet, GS, NAVD88)	Bottom (feet, GS, NAVD88)	
MW-1 (8002-9625)	U / B	37.637800	-87.508100	423.23	420.2	45.5	4 inch / PVC	389.9	377.7	387.7	377.7	45
MW-2 (8002-9630)	D	37.636300	-87.500900	392.37	389.9	50.3	4 inch / PVC	354.1	342.1	352.1	342.1	49
MW-3A (8003-6430)	D	37.631900	-87.500900	386.48	380.7	41.3	4 inch / PVC	357.2	344.5	355.2	345.2	36.2
MW-4 (8002-9628)	D	37.628100	-87.501100	391.33	388.8	33.1	4 inch / PVC	370.2	358.2	368.2	358.2	33
MW-5 (8002-9627)	D	37.628318	-87.503480	390.18	387.7	27.5	4 inch / PVC	374.7	362.7	372.7	362.7	26
MW-6 (8002-9626)	D	37.628555	-87.507413	388.17	385.7	45.5	4 inch / PVC	354.9	342.7	352.7	342.7	45
Characterization Well												
MW-104 (8007-1139)	D / C	37.630519	-87.500959	395.13	392.47	60.84	2 inch / PVC	347.5	332.5	342.5	332.5	60
MW-105 (8008-0529)	D / C	37.636833	-87.500928	381.77	378.90	33.87	2 inch / PVC	359.9	346.9	358.1	348.1	32
MW-106S (8008-0527)	D / C	37.636178	-87.500928	387.26	384.75	41.51	2 inch / PVC	357.8	344.8	356.0	346.0	40
MW-106D (8008-0528)	D / C	37.636194	-87.500947	387.88	385.30	66.08	2 inch / PVC	333.8	321.3	332.0	322.0	64

* Reference elevation of Monitoring Wells MW-1 through MW-6 surveyed by Fuller, Mossbarger, Scott and May, Civil Engineers, Inc., Lexington, Kentucky, December 1996 and December 1999. Reference elevation of Monitoring Well MW-104 surveyed by Associated Engineers Inc., March 19, 2019. New characterization Monitoring Wells MW-105, MW-106S, and MW-106D surveyed by Associated Engineers, Inc. of Madisonville, KY on May 19, 2023. Survey coordinates were based on the Kentucky State Plane, Kentucky Southern Zone, North American Datum of 1927 (NAD27) datum.

C = characterization

D = downgradient

GS = ground surface

ID = internal diameter

Lat./Long. = latitude and longitude

NAVD88 = North American Vertical Datum of 1988

PVC = polyvinyl chloride

TOIC = top of internal casing

U / B = upgradient / background



TABLE 2

2025 GROUNDWATER ELEVATIONS - GREEN LANDFILL

BIG RIVERS ELECTRIC CORPORATION - SEBREE STATION
 GREEN STATION LANDFILL
 WEBSTER COUNTY, KENTUCKY

GROUNDWATER MONITORING WELL PROGRAM												
Reference Elevation TOIC*(ft, NADVD88)	MW-1		MW-2		MW-3A		MW-4		MW-5		MW-6	
	Upgradient/Background 422.56		Downgradient 391.82		Downgradient 386.27		Downgradient 391.11		Downgradient 389.81		Downgradient 388.10	
Date Measured	Depth to Water (ft, TOIC)	GW Elevation (ft, NAVD88)										
4/30/2025	17.91	404.65	12.94	378.88	10.71	375.56	14.66	376.45	12.79	377.02	12.81	375.29
11/18/2025	20.64	401.92	21.98	369.84	16.78	369.49	27.11	364.00	15.31	374.50	20.98	367.12

Reference Elevation TOIC*(ft, NADVD88)	MW-104		MW-105		MW-106S		MW-106D		MW-12**	
	Characterization 395.40		Characterization 381.77		Characterization 387.26		Characterization 387.88		Downgradient 395.54	
Date Measured	Depth to Water (ft, TOIC)	GW Elevation (ft, NAVD88)								
4/30/2025	15.33	380.07	2.67	379.10	11.55	375.71	11.69	376.19	30.70	364.84
11/18/2025	24.74	370.66	9.95	371.82	21.88	365.38	25.08	362.80	29.94	365.60

* Reference elevation of monitoring wells resurveyed on May 19, 2023 by Associated Engineers, Inc. of Madisonville, KY.

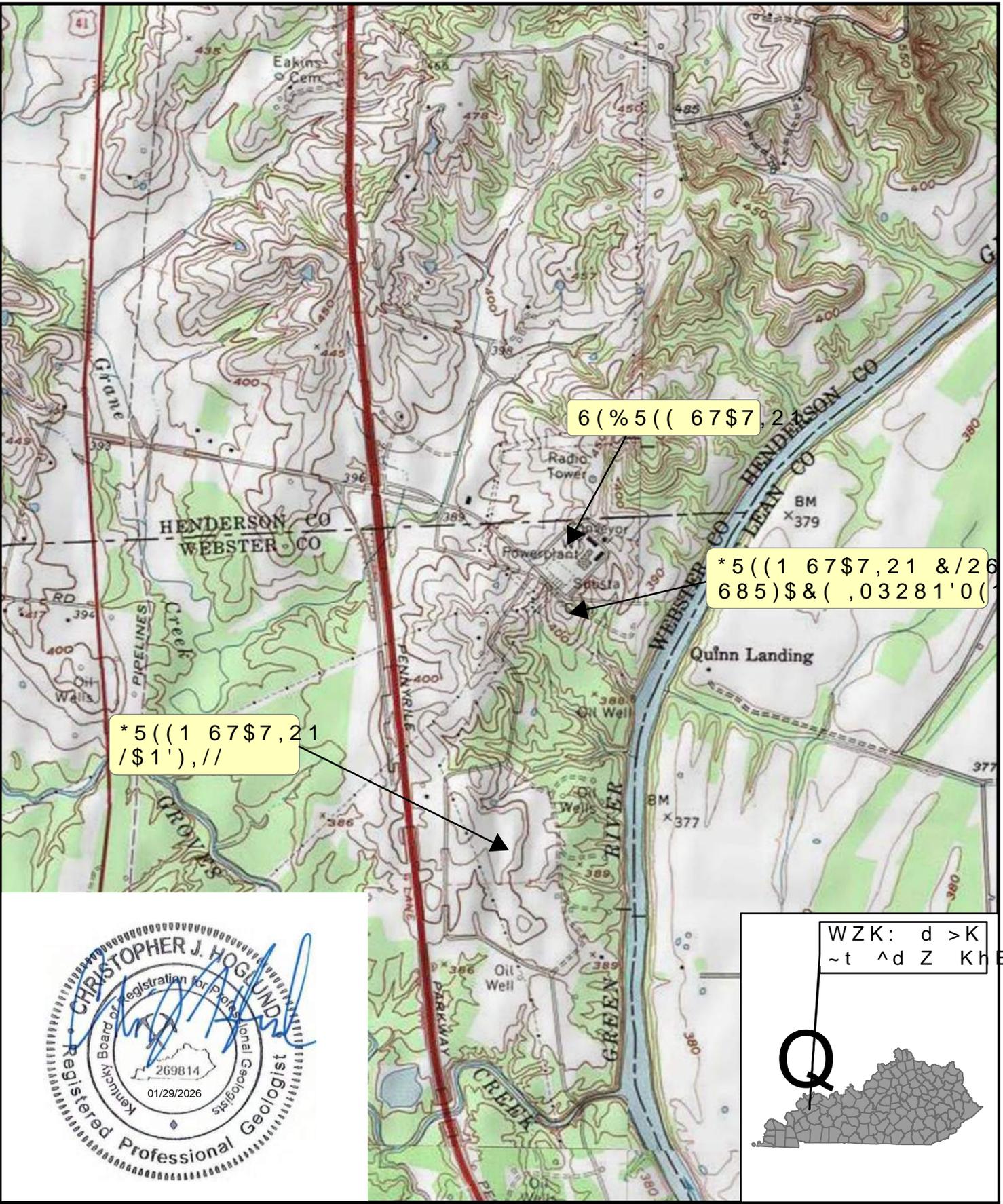
** Monitoring Well MW-12 is included in the Closed Former Green Surface Impoundment monitoring network and is gauged to support potentiometric surface mapping for the Green Landfill.

ft = feet
 GW = groundwater
 NAVD88 = North American Vertical Datum of 1988
 TOIC = top of internal casing



Figures

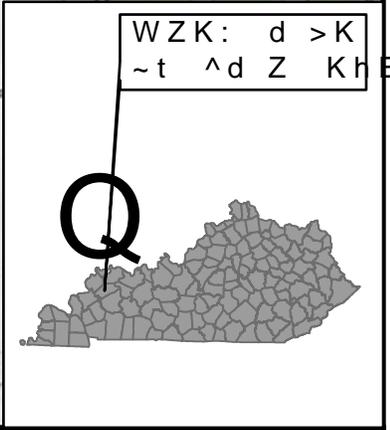
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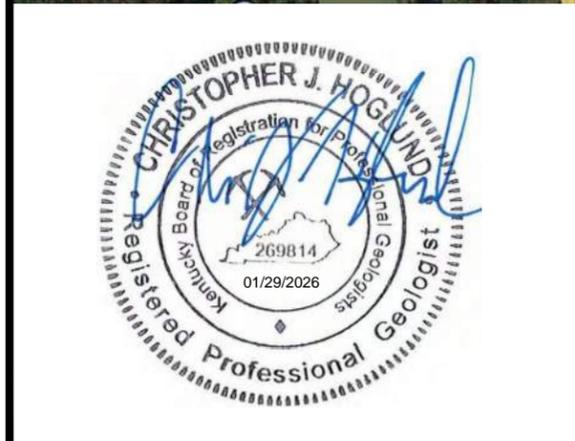
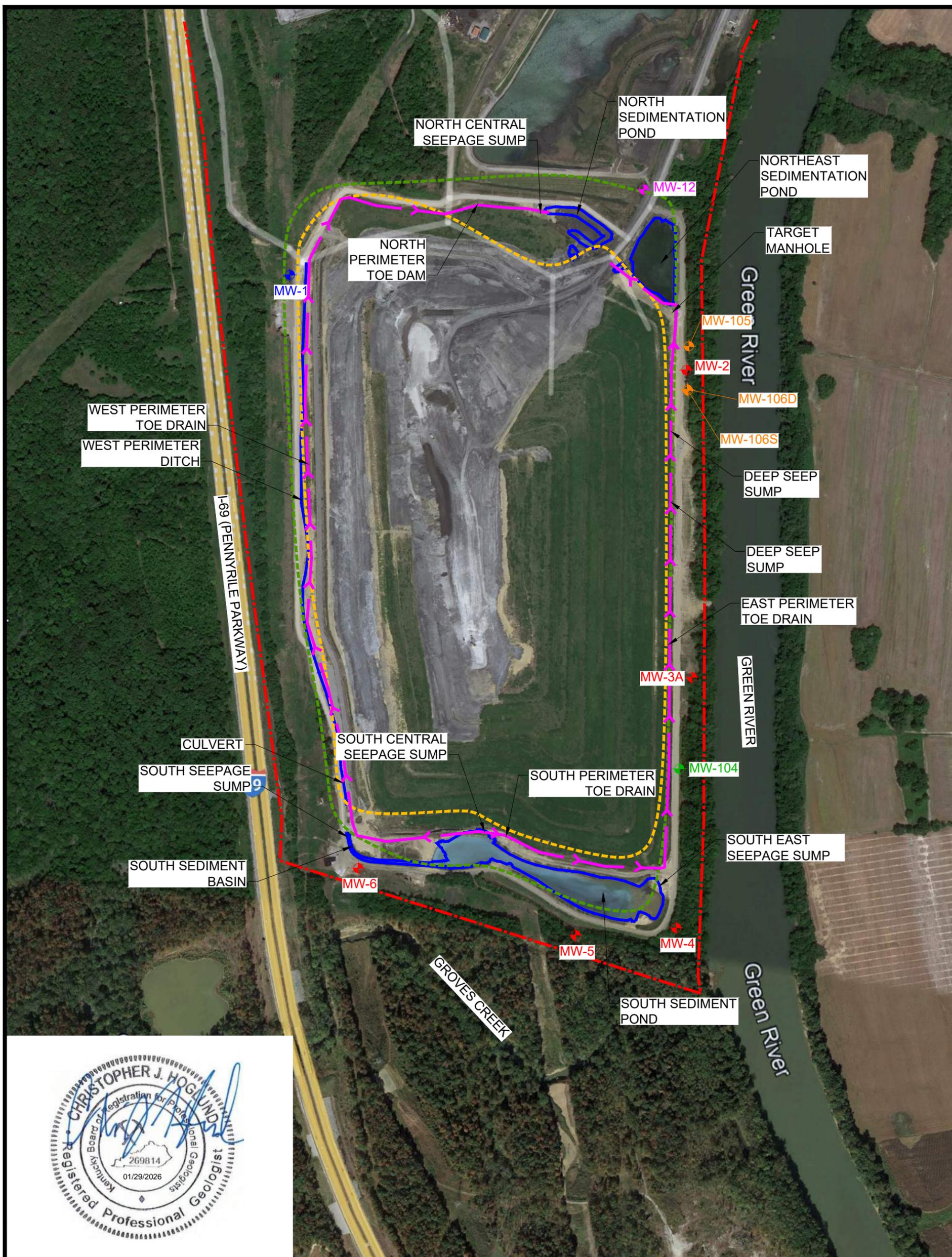


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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ROBARDS QUADRANGLE
DELAWARE QUADRANGLE
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LEGEND:

- [---] PROPERTY LINE
- [---] KAR PERMIT AREA
- [---] CCR FILL AREA
- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- CHARACTERIZATION WELL
- NEW CHARACTERIZATION WELL (INSTALLED APRIL 2023)
- CCR SURFACE IMPOUNDMENT MONITORING WELL (WATER LEVEL ONLY)
- TOE DRAIN PIPE
- WEST DITCH

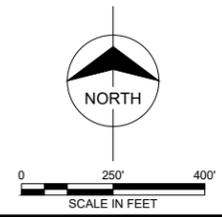
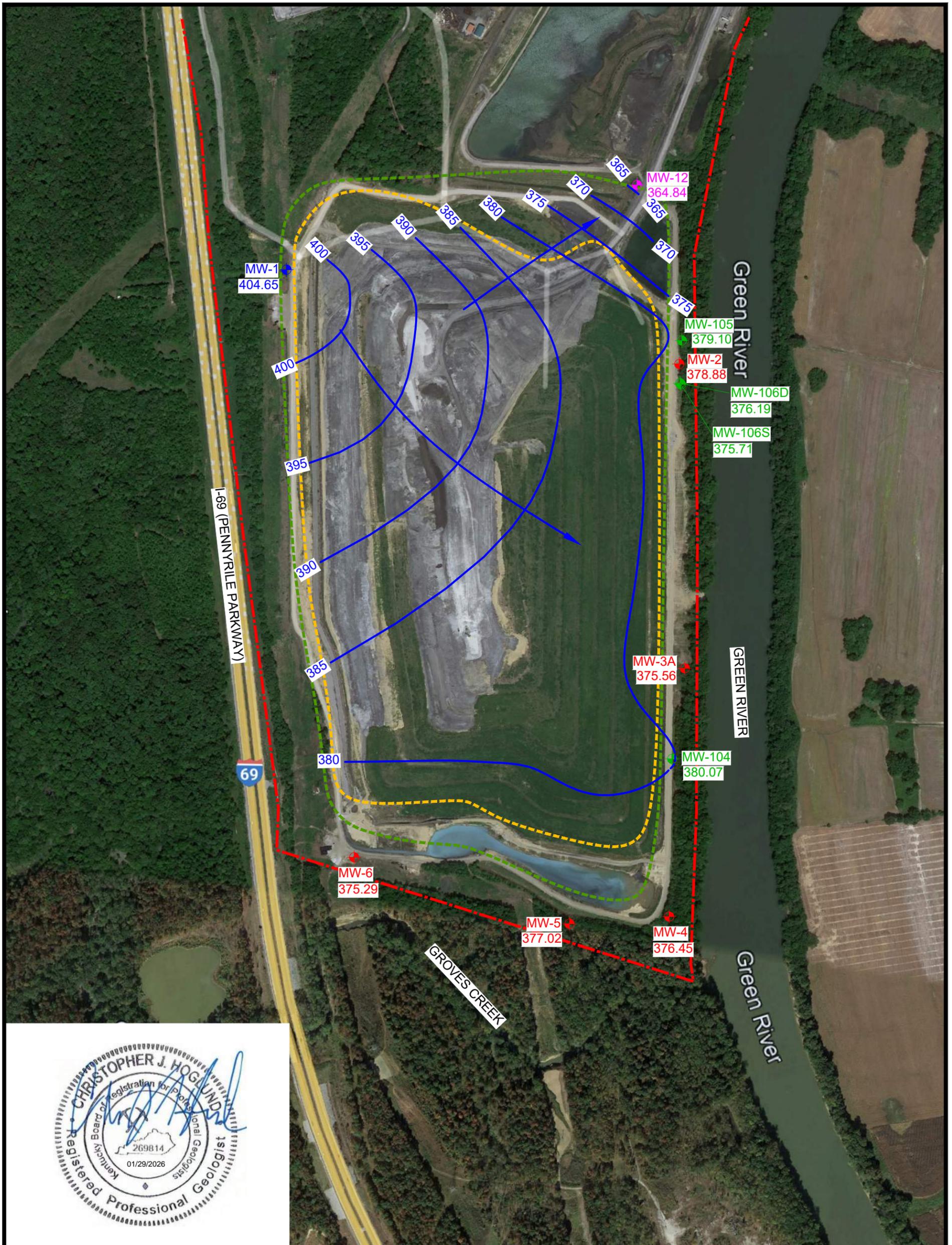


Figure 2
CCR GROUNDWATER MONITORING SYSTEM
GREEN LANDFILL,
WEBSTER COUNTY, KENTUCKY





LEGEND:

- - - PROPERTY LINE
- - - KAR PERMIT AREA
- - - CCR FILL AREA
- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- CHARACTERIZATION MONITORING WELL
- CLOSED FORMER GREEN SURFACE IMPOUNDMENT MONITORING WELL (WATER LEVEL ONLY)
- 380— GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- 375.29 GROUNDWATER ELEVATION
- ➔ FLOW DIRECTION

NOTE:

CHARACTERIZATION WELL MW-106D NOT USED IN CONTOURING.

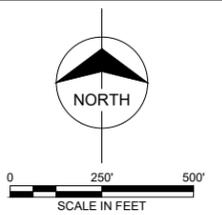
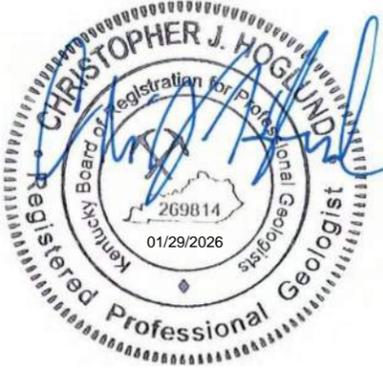
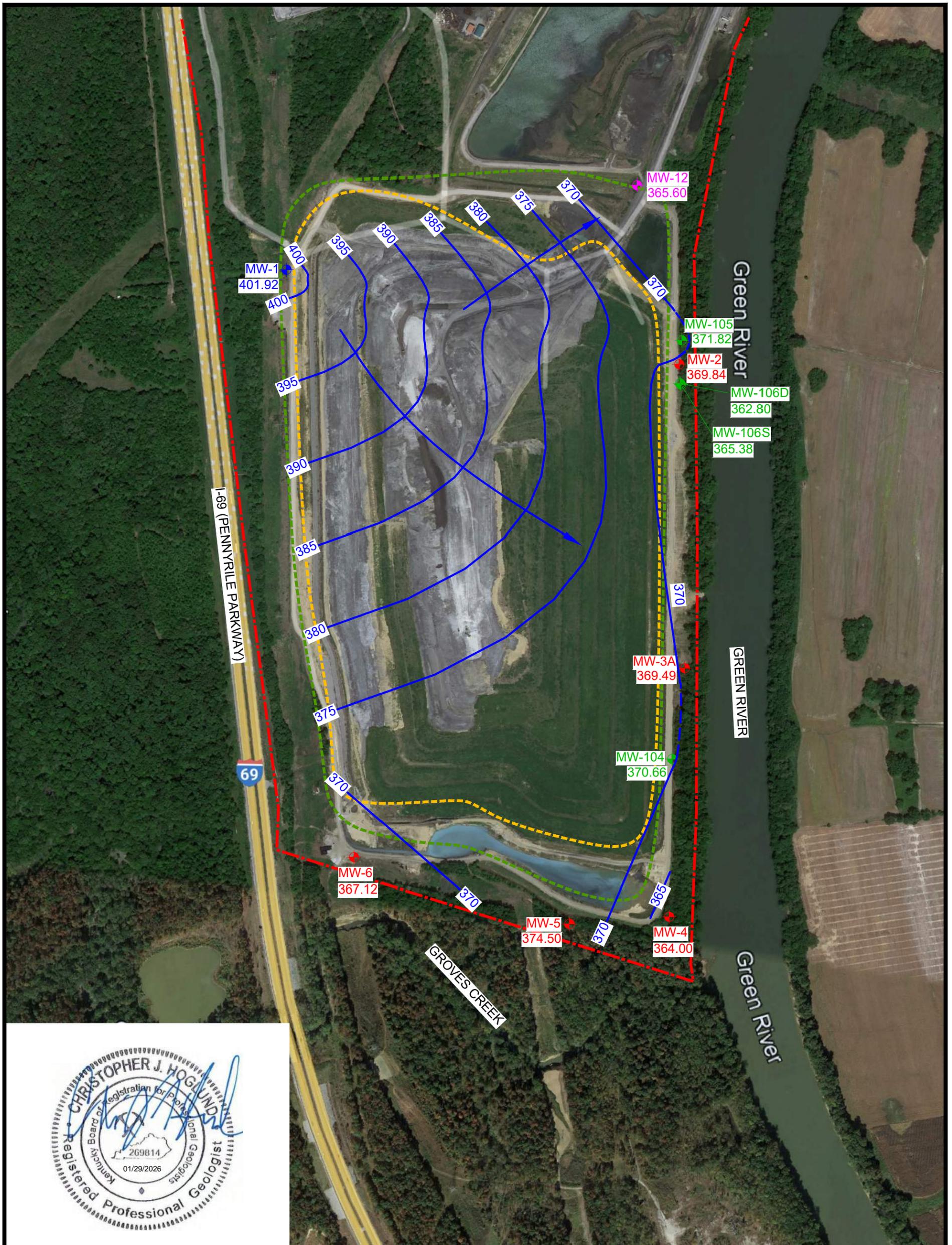


Figure 3
 POTENTIOMETRIC SURFACE MAP
 APRIL 30, 2025
 GREEN LANDFILL
 WEBSTER COUNTY, KENTUCKY



LEGEND:

- - - PROPERTY LINE
- - - KAR PERMIT AREA
- - - CCR FILL AREA
- DOWNGRAIDENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- CHARACTERIZATION MONITORING WELL
- CCR SURFACE IMPOUNDMENT MONITORING WELL (WATER LEVEL ONLY)
- 370— GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- 367.12 GROUNDWATER ELEVATION
- FLOW DIRECTION

NOTE:

CHARACTERIZATION WELL MW-106D NOT USED IN CONTOURING.

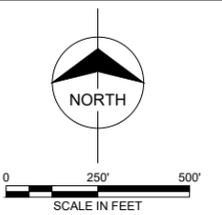


Figure 4
 POTENTIOMETRIC SURFACE MAP
 NOVEMBER 18, 2025
 GREEN LANDFILL
 WEBSTER COUNTY, KENTUCKY

Appendix A – Green Landfill Field Sampling Forms

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-1	Total Depth (ft.) 45.53	Initial Depth to Water (ft.) 17.91	Height of Water Column (ft.)	Date: 5/7/25	Time: 1308				
Site Location: Webster Co, KY	AKGWA# 8002-9625	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 423.23	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	pH (SU)	eH/ORP (mV)	Sp. Cond. (mS)	Turbidity (NTU)	DO Mg/L
1308	0	18.42	200	0	18.36	7.50	-150	1.02	1.08	3.80
1313	5	19.10	↓	2.0	18.20	7.51	-153	1.01	0.08	2.17
1318	10	19.60	↓	2.0	18.17	7.49	-154	1.01	0.82	1.56
1323	15	20.18	↓	3.0	18.23	7.54	-158	1.01	0.93	1.11
1328	20	20.20	↓	4.0	18.40	7.67	-159	1.01	2.29	0.98
1333	25	20.66	↓	5.0	18.16	7.70	-161	1.00	2.48	0.72
1338	30	20.77	↓	6.0	18.22	7.70	-153	0.990	3.13	0.75
1343	35	21.10	↓	7.0	18.17	7.25	-125	0.971	1.75	1.07
1348	40	21.28	↓	8.0	18.30	7.80	-112	0.969	1.64	1.00
1353	45	21.47	↓	9.0	18.73	7.84	-91	0.961	1.29	0.98
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- .10 (SU)	+/- 10 mV	+/- 3%	+/- 10% unless <5 NTU consider stable	+/- 10% <0.5mg/l stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Casing PVC <input checked="" type="checkbox"/>	Field Blank Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Time:		Duplicated Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Time:		
Ch	Ch	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No With:		Semi-Annual <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Time	Depth to Water	Color	Odor	Temp. (°C)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)	
1408	22.10	Clear	none	18.70	0.956	1.01	7.85	-5.3	2.36	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-1	Total Depth (ft.) 45.53	Initial Depth to Water (ft.) 17.91	Height of Water Column (ft.)	Date: 5/7/25	Time: 1:30				
Site Location: Webster Co, KY	AKGWA# 8002-9625	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 423.23	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	pH (SU)	eH/ORP (mV)	Sp. Cond. (mS)	Turbidity (NTU)	DO Mg/L
1358	50	21.67	200	10.0	18.89	7.83	-25	0.957	1.15	1.0
1403	55	21.90	↓	11.0	18.91	7.84	-62	0.957	2.66	0.49
1408	60	22.10	↓	12.0	18.70	7.85	-53	0.956	2.36	1.0
For three (3) consecutive Readings		Required Purge	Actual Purge	+/- 3% (°C)	+/- .10 (SU)	+/- 10 mV	+/- 3%	+/- 10% unless <5 NTU consider stable	+/- 10% <0.5mg/l stable	
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Casing PVC <input checked="" type="checkbox"/>	Field Blank Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicated Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
ch	ch	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Semi-Annual <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU	
1408	22.10	Clear	none	18.70	0.956	1.0	7.85	-53	2.36	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-2	Total Depth (ft.) 50.27	Initial Depth to Water (ft.) 12.44	Height of Water Column (ft.)	Date: 5/2/25	Time: 0835
Site Location: Webster Co, KY	AKGWA# 8002-9630	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 392.37	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
0835	✓	14.38	220	✓	17.44	1.82	4.60	6.84	-85	10.5
0840	5	14.90	↓		17.24	1.40	2.00	6.74	-89	6.35
0845	10	15.09		17.22	1.40	1.55	6.72	-88	6.01	
0850	15	15.78		17.25	1.40	1.20	6.65	-84	5.65	
0855	20	16.14		17.24	1.40	1.00	6.71	-87	5.51	
0900	25	16.47		17.36	1.89	0.87	6.73	-88	6.44	
0905	30	16.86		17.39	1.88	0.76	6.73	-88	9.07	
0910	35	17.33		17.40	1.88	0.70	6.73	-88	11.00	
0915	40	17.73		17.43	1.86	0.68	6.73	-86	12.6	

For three (3) consecutive Readings	Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
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Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input checked="" type="checkbox"/> Field Blank Collected Time: 0915	<input checked="" type="checkbox"/> Duplicated Collected Time: 0945
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No With: <input checked="" type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)
0915	17.73	Clear	None	17.43	1.86	0.68	6.73	-86	12.6

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-3A	Total Depth (ft.) 41.30	Initial Depth to Water (ft.) 10.71	Height of Water Column (ft.)	Date: 5/6/05	Time: 1135
Site Location: Webster Co, KY	AKGWA# 8003-6430	Casing Diameter 4" <input type="checkbox"/> 2" <input type="checkbox"/> Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 386.48	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)	
1107	0	12.48	200	0	15.60	7.29	2.91	6.98	512	0.02	
1112	5	12.75	↓	2.0	15.79	7.27	3.16	6.93	529	0.27	
1117	10	12.95		2.0	15.78	7.26	1.83	6.92	538	1.30	
1122	15	13.05		3.0	15.82	7.26	1.51	6.89	543	1.40	
1127	20	13.12		4.0	15.94	7.25	1.31	6.91	545	1.46	
1132	25	13.13		5.0	15.96	7.26	1.21	6.81	546	2.24	
1137	30	13.15		6.0	16.07	7.27	1.09	6.89	542	0.02	
1142	35	13.15		7.0	16.08	7.26	1.04	6.88	543	0.22	
1147	40	13.17		8.0	16.10	7.26	0.98	6.90	539	1.12	
For three (3) consecutive Readings				Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable

Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected	<input type="checkbox"/> Duplicated Collected
				Casing PVC <input checked="" type="checkbox"/>	Time:	Time:
Ch	Ch	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Semi-Annual <input checked="" type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU
1147	13.17	Clear	none	16.10	7.26	0.98	6.90	539	1.12

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-4	Total Depth (ft.) 33.13	Initial Depth to Water (ft.) 14.66	Height of Water Column (ft.)	Date: 5/7/25	Time: 1010
Site Location: Webster Co, KY	AKGWA# 8002-9628	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 391.33	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1010	0	19.00	200	0	16.13	6.62	6.30	6.97	64	0.95
1015	5	19.00		1.0	16.09	6.78	3.75	6.96	27	0.02
1020	10	19.00		2.0	15.98	6.64	3.55	7.02	44	0.02
1025	15	19.05		3.0	15.99	6.57	3.48	7.05	68	0.02
1030	20	19.13		4.0	15.99	6.55	3.55	7.05	94	0.02
1035	25	19.34		5.0	15.98	6.54	3.64	7.05	110	0.02
1040	30	19.51		6.0	16.03	6.52	3.64	7.07	123	0.15
1045	35	19.59		7.0	16.10	6.52	3.61	7.03	136	0.20
1050	40	19.70		8.0	16.13	6.52	3.62	7.01	142	0.02
1055	45	20.01		9.0	16.16	6.49	3.75	7.01	146	0.02
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable

Well Condition Ch	Pad Condition Ch	Lock Functioning <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Bladder Pump <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing SS <input type="checkbox"/> Casing PVC <input checked="" type="checkbox"/>	<input type="checkbox"/> Field Blank Collected Time:	<input type="checkbox"/> Duplicated Collected Time:
		Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No With:	<input checked="" type="checkbox"/> Semi-Annual		

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU
1055	20.01	Clear	none	16.16	6.49	3.75	7.01	146	0.02

MS/MSD
Green Landfill

Groundwater Field Log

Site Name: Green LF	Well No. MW-5	Total Depth (ft.) 27.48	Initial Depth to Water (ft.) 12.79	Height of Water Column (ft.)	Date: 4/30/25	Time: 1513
Site Location: Webster Co, KY	AKGWA# 8002-9627	Casing Diameter <input type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 390.18	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1413	0	14.41	2cc	0	18.04	5.89	5.56	6.74	189	2.09
1518	5	15.14	↓		16.26	5.74	3.71	6.65	195	0.31
1523	10	15.79		16.23	5.70	3.15	6.68	196	0.02	
1526	15	16.50		16.05	5.69	2.97	6.70	196	0.02	
1532	20	17.00		16.03	5.68	2.88	6.72	198	0.02	
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable

Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected Time:	<input type="checkbox"/> Duplicated Collected Time:
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Semi-Annual <input checked="" type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)
1532	17.00	Clear	None	16.03	5.68	2.88	6.72	198	0.02

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-6	Total Depth (ft.) 45.47	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 4/30/15	Time: 1815
Site Location: Webster Co, KY	AKGWA# 8002-9626	Casing Diameter <input type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 388.17	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1815	0	13.00			18.09	4.75	6.31	6.91	44	14.00
1820	5	13.05			19.79	4.49	3.59	6.67	5	5.56
1825	10	13.10			18.92	5.05	2.38	6.60	38	1.65
1830	15	13.12			18.41	3.03	2.28	6.59	66	0.02
1835	20	13.12			18.75	5.02	2.11	6.65	91	1.01
1840	25	13.13			18.76	5.01	2.10	6.60	118	0.29
1845	30	13.11			18.73	5.00	2.03	6.60	125	2.00
1850	35	13.13			18.71	4.99	2.04	6.64	127	0.90

For three (3) consecutive Readings	Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
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Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected Time:	<input type="checkbox"/> Duplicated Collected Time:
Ch	Ch	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Semi-Annual <input checked="" type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU
1850	13.13	Clear	none	18.71	4.99	2.04	6.64	127	0.90

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. 104 MW-1	Total Depth (ft.) 60.84 45.53	Initial Depth to Water (ft.) 15.33	Height of Water Column (ft.)	Date: 5/6/25	Time: 1509				
Site Location: Webster Co, KY	AKGWA# 8002-9625	Casing Diameter <input type="checkbox"/> 4" <input checked="" type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 423.23	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (°F)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	pH (SU)	eH/ORP (mV)	Sp. Cond. (mS)	Turbidity (NTU)	DO Mg/L
1509	0	19.15	200	0	18.68	6.74	61	8.37	9.84	4.64
1514	5	20.10		2.0	18.67	6.78	47	8.42	5.67	2.01
1519	10	20.80		2.0	18.43	6.71	37	8.47	2.58	1.21
1524	15	21.30		3.0	18.45	6.70	23	8.45	0.02	0.95
1529	20	21.65		4.0	18.50	6.69	19	8.44	1.09	0.78
1534	25	22.00		5.0	18.57	6.69	18	8.44	0.02	0.70
1539	30	22.35		6.0	18.50	6.68	15	8.42	0.02	0.63
1544	35	22.55		7.0	18.45	6.67	12	8.45	0.02	0.61
1549	40	22.70			18.45	6.68	12	8.47	0.23	0.67
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- .10 (SU)	+/- 10 mV	+/- 3%	+/- 10% unless <5 NTU consider stable	+/- 10% <0.5mg/l stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Casing PVC <input checked="" type="checkbox"/>	Field Blank Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicated Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample With: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Semi-Annual <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Sample Time	Depth to Water	Color	Odor	Temp. (°C)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)	
1549	22.70	Clear	none	18.45	8.47	0.67	6.68	12	0.23	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. 105 MW-3A	Total Depth (ft.) 33.87 41.30	Initial Depth to Water (ft.) 2.67	Height of Water Column (ft.)	Date: 5/6/05	Time: 1336
Site Location: Webster Co, KY	AKGWA# 8003-6430	Casing Diameter □4" <input checked="" type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 386.48	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain
 Sleet/Freezing Rain
 Snow
 Fog
 Clear
 Partly Cloudy
 Windy
Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1336	0	6.46	200	0	17.37	2.82	2.95	6.77	-70	101
1341	5	7.09		1.0	17.45	2.77	1.74	6.75	-83	62.7
1346	10	8.12		2.0	16.83	2.74	1.00	6.73	-91	34.1
1351	15	9.46		3.0	16.61	2.72	0.74	6.72	-93	29.8
1356	20	10.74		4.0	16.60	2.72	0.63	6.71	-95	26.6
1401	25	11.47		5.0	17.30	2.70	0.58	6.71	-97	23.7
1406	30	12.00		6.0	17.35	2.70	0.53	6.71	-98	21.0
1411	35	12.60		7.0	17.42	2.70	0.51	6.71	-100	21.7

For three (3) consecutive Readings	Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
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Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected	<input type="checkbox"/> Duplicated Collected
Ch	Ch	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Time:	Time:
				Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Semi-Annual <input checked="" type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU
1411	12.60	Clear	none	17.42	2.70	0.51	6.71	-100	21.7

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-1065	Total Depth (ft.) 41.51	Initial Depth to Water (ft.) 11.55	Height of Water Column (ft.)	Date: 5/2/05	Time: 1834				
Site Location: Webster Co, KY	AKGWA# 8008-0527	Casing Diameter □ 4" <input checked="" type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 387.26	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1834	0	14.55	20	0	17.87	1.90	1.63	6.87	-47	130
1839	5	15.20			17.70	1.92	1.33	6.40	-51	95.1
1844	10	15.40			17.62	1.91	1.28	6.89	-57	83.1
1849	15	15.70			17.60	1.85	1.32	6.91	-72	68.1
1854	20	15.90			17.65	1.77	1.33	6.92	-83	63.8
1859	25	16.14			17.60	1.65	1.35	6.91	-93	48.1
1904	30	16.14			17.55	1.57	1.33	6.45	-102	43.1
1909	35	16.22			17.55	1.50	1.28	6.96	-108	40.5
1914	40	16.37			17.47	1.47	1.26	6.97	-110	34.2
1919	45	16.45			17.43	1.46	1.23	6.96	-111	30.7
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected Time:		<input type="checkbox"/> Duplicated Collected Time:			
Ch	ch	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Semi-Annual <input checked="" type="checkbox"/>		
Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-106D	Total Depth (ft.) 66.08	Initial Depth to Water (ft.) 11.69	Height of Water Column (ft.)	Date: 5/21/25	Time: 1814
Site Location: Webster Co, KY	AKGWA# 8008-0528	Casing Diameter <input type="checkbox"/> 4" <input checked="" type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 387.88	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1744	0	15.90	2cc	0	18.45	1.20	1.91	6.58	-82	14.7
1749	5	17.20		1.0	18.30	1.30	1.11	6.48	-53	25.4
1754	10	18.65		2.0	18.21	1.32	0.80	6.46	-37	18.4
1759	15	20.10		3.0	18.16	1.32	0.74	6.45	-30	11.3
1804	20	21.40		4.0	18.30	1.32	0.69	6.45	-26	7.95
1809	25	22.80		5.0	18.34	1.32	0.67	6.45	-30	7.51
1814	30	23.90		6.0	18.20	1.33	0.62	6.45	-32	7.43
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable

Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected Time:	<input type="checkbox"/> Duplicated Collected Time:
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No With: <input checked="" type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)
1814	23.90	Clear	none	18.20	1.33	0.62	6.45	-32	7.43



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Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-1	Total Depth (ft.) 45.53	Initial Depth to Water (ft.) 20.64	Height of Water Column (ft.)	Date: 11/18	Time: 1410				
Site Location: Webster Co, KY	AKGWA# 8002-9625	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 423.23	Groundwater Elevation (ft.)	Well Vol. (Gal.) J	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	pH (SU)	eH/ORP (mV)	Sp. Cond. (mS)	Turbidity (NTU)	DO Mg/L
1410	0	21.22	220	0	16.91	7.42	-100	0.937	13.2	5.92
1415	5	21.63			16.68	7.33	-140	0.944	2.54	2.81
1420	10	22.06			16.61	7.32	-143	0.944	0.80	1.89
1425	15	22.45			16.60	7.31	-143	0.944	1.27	1.44
1430	20	22.81			16.62	7.31	-144	0.943	1.16	1.26
1435	25	23.15			16.69	7.31	-144	0.943	1.52	1.13
1440	30	23.46			16.71	7.32	-143	0.943	1.48	1.01
1445	35	23.80			16.79	7.32	-143	0.942	1.03	0.92
1450	40	24.04			16.84	7.30	-141	0.942	2.04	0.90
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- .10 (SU)	+/- 10 mV	+/- 3%	+/- 10% unless <5 NTU consider stable	+/- 10% <0.5mg/l stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Casing PVC <input checked="" type="checkbox"/>	Field Blank Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Duplicated Collected <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample With: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Semi-Annual <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Sample Time	Depth to Water	Color	Odor	Temp. (°C)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)	
1450	24.04	Clear	None	16.84	0.942	0.90	7.30	-141	2.04	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-2	Total Depth (ft.) 50.27	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/20	Time: 1220
Site Location: Webster Co, KY	AKGWA# 8002-9630	Casing Diameter 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 392.37	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1220	0	22.40	200	0	16.87	1.70	8.01	6.77	-27	8.65
1225	5	23.49	↓	2.0	16.67	1.84	7.00	6.63	+63	3.8
1230	10	24.06		2.0	16.69	1.85	7.00	6.62	-66	1.27
1235	15	24.86		3.0	16.71	1.84	6.65	6.64	-70	3.4
1240	20	25.66		4.0	16.68	1.81	6.56	6.64	-72	2.9

For three (3) consecutive Readings	Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
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Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected Time:	<input type="checkbox"/> Duplicated Collected Time:
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No With:	<input checked="" type="checkbox"/>
				Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Semi-Annual

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU
1240	25.66	Clear	None	16.68	1.81	6.56	6.64	-72	2.9

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-3A	Total Depth (ft.) 41.30	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/19	Time: 1005				
Site Location: Webster Co, KY	AKGWA# 8003-6430	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 386.48	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1005	0	15.99	220	0	15.51	6.98	2.94	6.48	64	132
1010	5	16.23	↓		15.88	6.90	1.96	6.64	12	144
1015	10	16.33		15.99	6.89	1.70	6.64	4	144	
1020	15	16.41		16.00	6.88	1.54	6.64	0	158	
1025	20	16.46		16.03	6.87	1.44	6.65	-3	164	
1030	25	16.51		16.10	6.87	1.38	6.63	-3	165	
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Casing PVC <input checked="" type="checkbox"/>		<input type="checkbox"/> Field Blank Collected Time:		<input type="checkbox"/> Duplicated Collected Time:	
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No With:		Semi-Annual <input checked="" type="checkbox"/>		
Sample Time	Depth to Water	Color	Odor	Temp. (°C)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)	
1030	16.51	Clear	None	16.10	6.87	1.38	6.63	-3	165	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-4	Total Depth (ft.) 33.13	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/19	Time: 1435
Site Location: Webster Co, KY	AKGWA# 8002-9628	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 391.33	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1455	0	27.94	220		15.99	5.97	3.65	6.90	46	2.56
1500	5	27.70			16.05	5.48	2.88	6.70	36	2.66
1505	10	27.91			16.00	5.40	4.02	6.63	70	3.22
1510	15	28.10			16.05	5.39	5.14	6.56	98	3.67
1515	20	28.21			16.09	5.46	5.07	6.54	115	3.78
1520	25	28.30			16.10	5.42	4.90	6.50	114	2.78
1525	30	28.38			16.09	5.43	4.62	6.49	117	2.49

For three (3) consecutive Readings	Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
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Well Condition OK	Pad Condition OK	Lock Functioning <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Bladder Pump <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing SS <input type="checkbox"/> Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Field Blank Collected Time:	Split Sample With: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicated Collected Time: <input checked="" type="checkbox"/>
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Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)
1525	28.38	Clear	None	16.09	5.43	4.62	6.49	117	2.49

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-5	Total Depth (ft.) 27.48	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/19	Time: 1233
Site Location: Webster Co, KY	AKGWA# 8002-9627	Casing Diameter <input type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 390.18	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1233	0	15.53	200	0	15.34	3.60	5.72	6.95	125	12.1 4.98
1238	5	16.12		1.0	15.71	5.30	1.74	6.60	51	21.7
1243	10	16.46		2.0	15.70	5.34	1.39	6.59	57	20.5
1248	15	17.11		3.0	15.73	5.28	0.98	6.58	73	18.1
1253	20	17.57		4.0	15.76	5.19	0.88	6.58	85	16.1
1258	25	18.00		5.0	15.81	5.09	0.46	6.56	100	12.1
1303	30	18.09		6.0	15.80	5.04	1.13	6.56	114	7.75
1308	35	18.05		7.0	15.82	5.00	1.36	6.58	125	6.92
1313	40	18.05		8.0	15.84	4.97	1.52	6.59	136	5.82
1318	45	18.07		9.0	16.03	4.92	1.11	6.58	147	4.99
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable

Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected Time:	<input type="checkbox"/> Duplicated Collected Time:
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input type="checkbox"/>	Split Sample <input type="checkbox"/> Yes <input type="checkbox"/> No With:	Semi-Annual <input type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-5	Total Depth (ft.) 27.48	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/19	Time: 1233
Site Location: Webster Co, KY	AKGWA# 8002-9627	Casing Diameter □ 4" 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 390.18	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain
 Sleet/Freezing Rain
 Snow
 Fog
 Clear
 Partly Cloudy
 Windy
 Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1303	50	18.07	200	10.0	16.09	4.86	2.09	6.61	155	4.84
1308	55	18.39	↓	N.C	16.14	4.81	2.37	6.60	163	3.59
1333	60	18.68	↓	12.0	16.20	4.75	2.69	6.61	173	3.44

For three (3) consecutive Readings	Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
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Well Condition OK	Pad Condition OK	Lock Functioning <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Bladder Pump <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing SS <input type="checkbox"/> Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Field Blank Collected Time:	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No With:	Duplicated Collected Time: Semi-Annual <input checked="" type="checkbox"/>
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Sample Time	Depth to Water	Color	Odor	Temp. (°C)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU
1333	18.68	Clear	None	16.20	4.75	2.69	6.61	173	3.44

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-6	Total Depth (ft.) 45.47	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/20	Time: 1710
Site Location: Webster Co, KY	AKGWA# 8002-9626	Casing Diameter <input checked="" type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 388.17	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1710	0	14.50	200	0	16.88	4.60	7.14	6.80	112	2.12
1715	5	15.9	↓		16.90	4.71	5.86	6.60	62	0.02
1720	10	21.14		16.86	4.68	6.57	6.60	84	0.14	
1725	15	21.19		16.84	4.69	6.53	6.61	108	0.53	
1730	20	21.24		16.82	4.63	6.57	6.63	122	1.57	
1735	25	21.35		16.82	4.67	6.64	6.62	150	2.07	
1740	30	21.48		16.83	4.65	6.60	6.65	159	2.2	
1745	35	21.80		16.80	4.69	6.12	6.62	165	2.07	
1750	40	21.91		16.80	4.70	6.21	6.69	167	2.19	

For three (3) consecutive Readings	Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
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Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input checked="" type="checkbox"/> Field Blank Collected	<input type="checkbox"/> Duplicated
				Casing PVC <input checked="" type="checkbox"/>	Time: 1820	Collected Time:
OK	OK	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	Filtered:	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Semi-Annual
		<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	With:	<input checked="" type="checkbox"/>

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU
1750	21.91	Clear	none	16.80	4.70	6.21	6.69	167	2.19

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-104	Total Depth (ft.) 60.84	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/20	Time: 1446				
Site Location: Webster Co, KY	AKGWA# 8007-1139	Casing Diameter <input type="checkbox"/> 4" <input checked="" type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 395.4	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1446	0	25.95	200	0	16.64	7.99	2.76	6.66	58	3.78
1451	5	26.78	↓		16.67	8.07	1.87	6.55	60	4.27
1456	10	28.96			16.67	8.08	1.34	6.56	62	3.84
1501	15	28.88			16.59	8.07	1.15	6.55	56	3.44
1506	20	29.30			16.60	8.05	1.06	6.56	39	1.78
1511	25	30.00			16.59	8.04	0.96	6.58	25	2.62
1516	30	30.26			16.62	8.03	0.91	6.56	23	4.86
1521	35	30.55			16.64	8.03	0.86	6.56	21	1.83
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Field Blank Collected Time:		Duplicated Collected Time:			
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Semi-Annual <input checked="" type="checkbox"/>			
Sample Time	Depth to Water	Color	Odor	Temp. (°C)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)	
1521	30.55	Clear	none	16.64	8.03	0.86	6.56	21	1.83	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-105	Total Depth (ft.) 33.87	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/20	Time: 0907				
Site Location: Webster Co, KY	AKGWA# 8008-0529	Casing Diameter <input type="checkbox"/> 4" <input checked="" type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 381.77	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
0907	0	11.14	200	0	15.58	2.55	4.60	6.62	-56	42.5
0918	5	13.02	↓	1.0	16.28	2.57	2.53	6.51	-89	20.4
0917	10	15.33		2.0	16.37	2.57	2.07	6.50	-94	5.41
0922	15	16.98		3.0	16.51	2.57	1.67	6.51	-88	6.20
0927	20	18.44		4.0	16.60	2.56	1.55	6.51	-78	6.80
0932	25	20.96		5.0	16.65	2.55	1.45	6.48	-73	6.89
0937	30	22.66		6.0	16.58	2.54	1.56	6.50	-69	6.20
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Field Blank Collected Time:		Duplicated Collected Time:			
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample With: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Semi-Annual			
Sample Time	Depth to Water	Color	Odor	Temp. (°C)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU	
0937	22.66	Clear	None	16.58	2.54	1.56	6.50	-69	6.20	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-106D	Total Depth (ft.) 66.08	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date: 11/20	Time: 1010				
Site Location: Webster Co, KY	AKGWA# 8008-0528	Casing Diameter <input type="checkbox"/> 4" <input checked="" type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 387.88	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #				
<input type="checkbox"/> Rain <input type="checkbox"/> Sleet/Freezing Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Windy Temp. _____ (F°)										
Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1010	0	26.52	200	0	15.99	1.26	8.40	6.81	-80	8.07
1015	5	28.49	✓	1.0	16.02	1.25	7.12	6.82	-69	8.49
1020	10	29.91		2.0	15.99	1.24	7.11	6.79	-59	3.90
1025	15	31.62		3.0	15.85	1.25	7.10	6.79	-52	3.12
1030	20	33.25		4.0	15.44	1.25	7.13	6.77	-49	3.86
1035	25			5.0						
For three (3) consecutive Readings			Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV	+/- 10% unless <5 NTU consider stable
Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	Field Blank Collected Time:		Duplicated Collected Time:		Semi-Annual	
OK	OK	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input checked="" type="checkbox"/>	Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	With:	<input checked="" type="checkbox"/>		
Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)	
1030	33.25	Clear	None	15.94	1.25	7.13	6.77	-49	3.86	

Groundwater Field Log

Green Landfill

Site Name: Green LF	Well No. MW-106S	Total Depth (ft.) 41.51	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date:	Time:
Site Location: Webster Co, KY	AKGWA# 8008-0527	Casing Diameter <input type="checkbox"/> 4" <input type="checkbox"/> 2" Conversion fact. 4"-0.67 2"-0.16	Measuring Point (ft.) 387.26	Groundwater Elevation (ft.)	Well Vol. (Gal.)	PO #

Rain Sleet/Freezing Rain Snow Fog Clear Partly Cloudy Windy Temp. _____ (F°)

Time	ET (min)	Depth to Water (ft.)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond. (mS)	DO Mg/L	pH (SU)	eH/ORP (mV)	Turbidity (NTU)
1054	0	23.02	220	0	16.03	1.78	4.03	6.77	-47	57.7
1059	5	23.76	↓		15.83	2.09	6.52	6.74	-72	47.5
1104	10	24.11		15.82	2.11	6.15	6.75	-77	33.5	
1104	15	24.60		15.91	2.05	6.00	6.76	-80	26.2	
1114	20	24.75		15.87	1.98	5.78	6.76	-83	17.5	
1114	25	24.98		15.85	1.88	5.61	6.75	-86	12.9	
1124	30	25.07		15.80	1.76	5.55	6.78	-92	12.0	
1129	35	25.44		15.82	1.65	5.62	6.79	-96	9.59	
1134	40	25.44		15.88	1.55	5.34	6.80	-101	10.2	
1134	45	25.44		15.82	1.48	5.18	6.81	-104	10.1	
For three (3) consecutive Readings				Required Purge	Actual Purge	+/- 3% (°C)	+/- 3%	+/- 10% <0.5mg/l stable	+/- .10 (SU)	+/- 10 mV

Well Condition	Pad Condition	Lock Functioning	Bladder Pump	Casing SS <input type="checkbox"/>	<input type="checkbox"/> Field Blank Collected	Time:	<input type="checkbox"/> Duplicated Collected Time:
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Casing PVC <input type="checkbox"/>	Time:		
				Filtered: <input type="checkbox"/> Yes <input type="checkbox"/> No	Split Sample <input type="checkbox"/> Yes <input type="checkbox"/> No	With:	<input type="checkbox"/> Semi-Annual

Sample Time	Depth to Water	Color	Odor	Temp. (C°)	Sp. Cond. (mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity NTU)

Appendix B – Green Landfill Groundwater Analytical Summary Tables

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-1

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																
			3/26/2016	5/23/2016	8/18/2016	10/26/2016	2/1/2017	5/2/2017	8/7/2017	9/5/2017	10/5/2017	6/4/2018	7/10/2018	9/28/2018	4/22/2019				
			Baseline Events									Detection	Assessment	Re-Sampling	Assessment Monitoring				
Boron	--	mg/L	1.67	1.49	2.25	1.70	1.71 J	1.68	1.85 B	1.79	1.92	NA	1.41	1.94 B	1.73 B				
Calcium	--	mg/L	29.1	31.8 B	33.0	30.9	20.8	28.1	27.1	29.9 B	26.4	NA	26.5	28.5 B	32.1				
Chloride	--	mg/L	9.03 JB	0.501 JB	6.60 B	6.02 B	5.56 B F1	5.30 B	5.12 B F1	5.71 B	4.07 F1 B	NA	6.34 B	6.17 B	6.41 B, F1				
Fluoride	4.0	mg/L	ND J	ND JB	ND J	ND JB	ND J F1	ND JB	ND J F1	ND J	ND J F1	NA	ND J	ND JB	0.521 J				
pH (Field Measurement)	--	s.u.	7.39	7.24	7.57	7.19	7.63	7.54	7.45	7.48	7.63	NA	7.08	8.43	7.87				
Sulfate	--	mg/L	25.2	22.8 JB	22.9	20.7 B	28.4	24.0 B	25.3 B	23.4	24.9 JB	NA	23.5	22.5 B	35.1 B F1				
Total Dissolved Solids	--	mg/L	598	588	585	585	605	630	614	627	636	NA	585	616	568 B				
APPENDIX IV CONSTITUENTS																			
Antimony	0.006	mg/L	ND	ND J	ND B	ND	ND	ND JB	0.00297 B	ND JB		ND JB	ND J	NA	0.000254 JB				
Arsenic	0.01	mg/L	ND J	ND J	ND J	ND J	ND J	ND J	ND J F1	ND JB		ND JB	ND J	ND JB	0.00167 JB				
Barium	2.0	mg/L	ND J	ND J	ND J	ND J	ND J	ND J	ND J F1	ND J		ND JB	ND J	ND J	0.0862 J				
Beryllium	0.004	mg/L	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	NA	0.000533 J				
Cadmium	0.005	mg/L	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	NA	0.000299 J				
Chromium	0.1	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND J		ND JB	ND	NA	0.00354 B				
Cobalt	0.006	mg/L	ND J	ND J	ND J	ND J	ND J	ND J	ND J	ND J		ND JB	ND J	NA	0.000571 J				
Fluoride	4.0	mg/L	ND J	ND J	ND J	ND JB	ND J F1	ND JB	ND J F1	ND J		ND J	ND J	ND JB	0.521 J				
Lead	0.010	mg/L	ND J	ND J	ND J	ND	ND	ND	ND	ND J		ND	ND J	NA	0.000279 J				
Lithium	0.04	mg/L	0.0293 J	0.0317 J	0.0326 J	0.0286 J	0.0342 J	0.0396 J	0.0314 J	0.0315 J		0.0319 J	0.0298 J	0.0279 J	0.0295 J				
Mercury	0.002	mg/L	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND				
Molybdenum	0.1	mg/L	ND	ND J	ND J	ND J	ND J	ND J	ND J	ND		ND J	ND J	NA	0.00105 J				
Radium 226	5.0	pCi/L	1.05	1.02	0.676	1.02	0.694	0.666	0.491	0.601		1.92	0.882	0.905	0.689				
Radium 228																			
Selenium	0.05	mg/L	ND	ND	ND	ND	ND	ND	ND J	ND		ND	ND	NA	0.00105 J				
Thallium	0.002	mg/L	ND	ND J	ND	ND J	ND	ND	ND J	ND		ND	ND	NA	0.000498 J				

B = Compound was found in the blank and sample.
 F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) Recovery is outside acceptance limits.
 GWPS = groundwater protection standard
 J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
 mg/L = milligrams per liter
 NA = not analyzed
 ND = Not detected at or above method detection limit.
 pCi/L = picocuries per liter
 s.u. = standard units
 U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-1

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																					
			9/30/2019		4/6/2020		9/22/2020		4/22/2021		9/23/2021		4/20/2022		12/9/2022		6/22/2023		11/7/2023		4/17/2024		11/21/2024	
			Assessment Events																					
Boron	--	mg/L	1.68	D2,M4	1.69	D1,M3	1.66	D2,M4	1.45	D1,M4	1.68	D1,M1,M4	1.71	D1,M2	1.82	D2,M1	1.92	D1,M1,M2	1.65	D1	1.84	D1	1.71	D1
Calcium	--	mg/L	29.1	D2	27.7	D1,M3	26.4	D2	31.6	D1,M1	26.4	D1,M1	31	D1,M2	31.2	D2,M2	28.6	D1,M1,M2	25.2	D1	29	D1	29.9	D1
Chloride	--	mg/L	7.5		6.5		6.6		6.4		6.2		13.9		5.7		5.7		5.7		6.2	M1, Y5, J+	5.8	
Fluoride	4.0	mg/L	0.6		0.5		0.6		0.5		0.6		0.5		0.6		0.5		0.6		0.7	M1, Y5, J+	0.5	
pH (Field Measurement)	--	s.u.	7.79	H3	7.22		6.88		6.90		7.28		6.67		7.62		8.51		7.94		7.32	J	8.07	
Sulfate	--	mg/L	19		21		24		42	D	33	D	48		30		31		30		29	M1, J+	37	
Total Dissolved Solids	--	mg/L	444	H1	488		388		582		584		672		602		520		684		548		568	
APPENDIX IV CONSTITUENTS																								
Antimony	0.006	mg/L	ND	M1 V1 U	<0.005		<0.005		<0.005	U	<0.005	M2, U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U
Arsenic	0.01	mg/L	0.0005	V1 J	0.0019		<0.0010		0.0005	J	<0.0010	M1, M2, U	0.0004	J	0.0008	J	0.0005	J	0.0016		0.0025		0.0011	
Barium	2.0	mg/L	0.091	D2	0.087		0.077		0.081		0.078	M2	0.077		0.085		0.071		0.079		0.085		0.086	
Beryllium	0.004	mg/L	ND	D2 U	<0.0020		<0.0020		<0.0020	U	<0.0020	M2, U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.0020	U
Cadmium	0.005	mg/L	ND	VI U	<0.0010		<0.0010		0.0001	J	<0.0010	M2, U	<0.001	U	<0.001	U	<0.001	U	<0.001	U	<0.001	U	<0.0010	U
Chromium	0.1	mg/L	ND	U	0.0011	J	<0.0020		<0.0020	U	<0.0020	M2, U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.0020	U
Cobalt	0.006	mg/L	ND	U	<0.004		<0.004		<0.004	U	<0.004	M2, U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U
Fluoride	4.0	mg/L	0.6		0.5		0.6		0.5		0.6		0.5		0.6		0.5		0.6		0.7	M1, Y5	0.5	
Lead	0.010	mg/L	ND	V1 U	<0.002		<0.002		<0.002	U	<0.002	M2, U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U
Lithium	0.04	mg/L	ND	D2 M3 U	0.03		<0.20	M1	0.03		0.03	M1, M2	0.03		0.03		0.03		0.03		0.03		0.03	
Mercury	0.002	mg/L	ND	V1 U	<0.0005		<0.0005		<0.0005	U	<0.0005	M1, M2, U	0.0002	J	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U
Molybdenum	0.1	mg/L	ND	U	<0.01		<0.01		<0.01	U	<0.01	M1, M2, U	0.002	J	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U
Radium 226	5.0	pCi/L	0.782		0.808		0.564		0.412		1.53		2.36	J	1.46	J	0.805	J	0.176	J	0.831	J	1.74	
Radium 228			0.733																					
Selenium	0.05	mg/L	ND	U	<0.003		<0.003		<0.003	U	<0.003	M2, U	<0.003	M1, U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Thallium	0.002	mg/L	0.0001	V1 J	0.0001	J	0.0001	J	<0.0020	U	<0.0020	M1, M2, U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	0.0001	J	<0.0020	U

B = Compound was found in the blank and sample.

D1 = Sample required dilution due to high concentration of target analyte.

D2 = Sample required dilution due to matrix interference.

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) Recovery is outside acceptance limits.

GWPS = groundwater protection standard

H1 = Sample analysis performed pasts holding time.

H3 = Sample received and analyzed past holding time.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

M1 = Matrix spike recovery was high; the method control sample recovery was acceptable.

M2 = Matrix spike recovery was low; the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.

M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable.

mg/L = milligrams per liter

NA = not analyzed

ND = Not detected at or above method detection limit.

pCi/L = picocuries per liter

s.u. = standard units

U = Target analyte was analyzed for, but was below detection limit.

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-1

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE															
			5/7/2025		11/18/2025													
Assessment Events																		
Boron	--	mg/L	1.61	D1	1.81	D1												
Calcium	--	mg/L	35.2	D1	29.3	D1												
Chloride	--	mg/L	5.8		5.7													
Fluoride	4.0	mg/L	0.5		0.6													
pH (Field Measurement)	--	s.u.	7.99	H3, J	7.3													
Sulfate	--	mg/L	35		26													
Total Dissolved Solids	--	mg/L	582		562													
APPENDIX IV CONSTITUENTS																		
Antimony	0.006	mg/L	<0.005	U	<0.0020	U												
Arsenic	0.01	mg/L	0.0005	J	0.0039													
Barium	2.0	mg/L	0.072		0.097													
Beryllium	0.004	mg/L	<0.0020	U	<0.0010	U												
Cadmium	0.005	mg/L	<0.0010	U	<0.00010	U												
Chromium	0.1	mg/L	<0.0020	U	<0.00060	U												
Cobalt	0.006	mg/L	<0.004	U	<0.0040	U												
Fluoride	4.0	mg/L	0.5		0.6													
Lead	0.010	mg/L	<0.002	U	<0.00050	U												
Lithium	0.04	mg/L	0.03		0.03													
Mercury	0.002	mg/L	0.0002	JU	<0.00020	U												
Molybdenum	0.1	mg/L	<0.01	U	<0.0020	U												
Radium 226	5.0	pCi/L	0.759	J	0.77	J												
Radium 228																		
Selenium	0.05	mg/L	<0.003	U	<0.0010	U												
Thallium	0.002	mg/L	<0.0020	U	<0.00010	U												

D1 = Sample required dilution due to high concentration of target analyte.
 GWPS = groundwater protection standard
 H3 = Sample received and analyzed past holding time.
 J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
 JU = Result estimated trace concentration and was qualified as non-detect.
 mg/L = milligrams per liter
 pCi/L = picocuries per liter
 s.u. = standard units
 U = Target analyte was analyzed for, but was below detection limit.

**GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-2**

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE													
			3/26/2016	5/23/2016	8/18/2016	11/14/2016	2/1/2017	5/2/2017	8/8/2017	9/7/2017	10/6/2017	6/5/2018	7/11/2018	9/28/2018		
			Baseline Events									Detection		Assessment		Re-Sampling
Boron	--	mg/L	ND J	ND J	ND J	ND J	ND JB	ND J	0.113 JB	ND JB	ND J	NA	ND J	0.0630 JB		
Calcium	--	mg/L	119	116 B	140	140 B	126	152	154	121	150	NA	155	165 B		
Chloride	--	mg/L	126 B	125 B	129 B	133	142 B	129 B	145 B	136 B	129 B	NA	154 B	159 B		
Fluoride	4.0	mg/L	ND J	ND	ND J	ND JB F1	ND J	ND JB	ND JB	ND JB F1	ND J	NA	ND J	ND JB		
pH (Field Measurement)	--	s.u.	6.81	6.59	6.7	6.78	7.12	7.04	6.77	6.69	6.86	6.64	6.4	7.02		
Sulfate	--	mg/L	80.0	84.5 J	85.5 J	90.1	89.8	83.2	92.0 JB	90.8	88.6 JB	NA	107.0	108 B		
Total Dissolved Solids	--	mg/L	764	780	830	880	862	918	913	818	970	NA	884	937		
APPENDIX IV CONSTITUENTS																
Antimony	0.006	mg/L	ND	ND J	ND JB	ND JB	ND	ND JB	ND B	ND JB	NA	ND JB	ND J	NA		
Arsenic	0.01	mg/L	0.00703 J	0.00633	0.0110	0.0159	0.0462	0.00755	0.0381	0.00527	NA	0.0327 B	0.0119	0.0211 B		
Barium	2.0	mg/L	ND J	ND J	0.280	0.319	0.347	0.332	0.308	ND J	NA	0.369	0.323	0.367		
Beryllium	0.004	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA		
Cadmium	0.005	mg/L	ND J	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA		
Chromium	0.1	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND JB	ND	NA		
Cobalt	0.006	mg/L	ND J	ND J	ND J	ND J	ND J	ND J	ND JB	ND J	NA	ND JB	ND J	NA		
Fluoride	4.0	mg/L	ND J	ND	ND J	ND JB F1	ND J	ND JB	ND JB	ND JB F1	NA	ND J	ND J	ND JB		
Lead	0.010	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND J	NA		
Lithium	0.04	mg/L	ND J	ND	ND	ND	ND J	ND J	ND JB	ND	NA	ND	ND	ND		
Mercury	0.002	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND		
Molybdenum	0.1	mg/L	ND J	ND J	ND J	ND J	ND J	ND J	ND JB	ND JB	NA	ND J	ND J	NA		
Radium 226	5.0	pCi/L	0.533	ND	0.46	ND	0.856	0.73	0.968	0.537	NA	1.18	0.733	0.803		
Radium 228																
Selenium	0.05	mg/L	ND	ND	ND	ND JB	ND	ND	ND JB	ND	NA	ND	ND	NA		
Thallium	0.002	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA		

B = Compound was found in the blank and sample.
F1 = MS and/or MSD Recovery is outside acceptance limits.
GWPS = groundwater protection standard
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
mg/L = milligrams per liter
NA = not analyzed
ND = Not detected at or above method detection limit.
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-2

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE															
			4/23/2019	10/1/2019	4/7/2020	9/22/2020	4/22/2021	9/23/2021	4/20/2022	12/10/2022	6/24/2023	11/7/2023	4/16/2024	11/13/2024				
			Assessment Monitoring															
Boron	--	mg/L	0.101 JB	ND D2 U	<0.10	<0.10	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<1.0 D2, U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U, M2		
Calcium	--	mg/L	156	166 D1	145 D1	157 D1	179 D1	193 D1	190 D1	216 D1	192 D1	179 D1	199 D1	215 D1, M2				
Chloride	--	mg/L	144	108 D	120 D	231 D	264 D	301 D	159 D	233 D	218	185 D	455 D, M2, J-	194 D				
Fluoride	4.0	mg/L	0.193 J	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2				
pH (Field Measurement)	--	s.u.	7.15	7.39 H3	6.92	6.22	6.69	6.27	6.37	6.92	7.54	7.23	6.44 J	2.09				
Sulfate	--	mg/L	105	79.0 D	85 D	117 D	199 D	205 D	128 D	150	156	159	390 D, M2, J-	174				
Total Dissolved Solids	--	mg/L	918 B	930 H1	806	914	1040	1070	1130	1230	1610	1060	1050	1250 H1				
APPENDIX IV CONSTITUENTS																		
Antimony	0.006	mg/L	0.0000670 JB	ND V1 U	<0.005	<0.005	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U		
Arsenic	0.01	mg/L	0.00738 B	0.0129 D2	0.0033	0.0095	0.0259	0.025	0.0331 J	0.0501	0.0323	0.0283	0.0099	0.0298 M2				
Barium	2.0	mg/L	0.362	0.380 D2	0.238	0.336	0.363	0.329	0.348 J	0.351	0.340	0.270	0.276	0.261 M2				
Beryllium	0.004	mg/L	0.000281 J	ND D2 U	<0.0020	<0.0020	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U		
Cadmium	0.005	mg/L	ND	ND V1 U	<0.0010	<0.0010	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U		
Chromium	0.1	mg/L	0.00122 JB	ND D2 U	<0.0020	<0.0020	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U		
Cobalt	0.006	mg/L	0.00382 J	ND D2 U	<0.004	<0.004	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	0.005	<0.004 U				
Fluoride	4.0	mg/L	0.193 J	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2				
Lead	0.010	mg/L	ND	ND V1 U	<0.002	<0.002	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U		
Lithium	0.04	mg/L	ND	ND D2 VI U	0.007 J	0.006 V1, J	0.006 J	0.006 J	0.006 J	0.006 J	0.006 J	0.005 J	0.005 J	0.005 J	0.005 J	0.005 J		
Mercury	0.002	mg/L	ND	ND V1 U	<0.0005	<0.0005	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	0.0003 J			
Molybdenum	0.1	mg/L	0.00210 J	0.003 J	0.002 J	0.002 J	0.003 J	0.002 J	0.003 J	0.003 J	0.003 J	0.005 J	0.003 J	0.003 J	0.004 J			
Radium 226	5.0	pCi/L	0.391	0.136	0.529	0.493	1.26	0.591	1.27 J	1.59 J	1.50 J	0.00 J	1.28 J	1.29				
Radium 228				0.834														
Selenium	0.05	mg/L	ND	ND U	<0.003	<0.003	<0.003 U	<0.003 U	<0.003 U	<0.003 U	<0.003 U	<0.003 U	<0.003 U	<0.003 U	<0.003 U	<0.003 U		
Thallium	0.002	mg/L	0.0000800 J	ND V1 U	<0.0020	<0.0020	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U		

B = Compound was found in the blank and sample.
D1 = Sample required dilution due to high concentration of target analyte.
D2 = Sample required dilution due to matrix interference.
GWPS = groundwater protection standard
H1 = Sample analysis performed pasts holding time.
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
mg/L = milligrams per liter
NA = not analyzed
ND = Not detected at or above method detection limit.
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.
V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-2

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																	
			5/2/2025		11/20/2025															
			Assessment Monitoring																	
Boron	--	mg/L	<0.10	M2, U	<0.10	U														
Calcium	--	mg/L	200	D1, M3	187	D1														
Chloride	--	mg/L	175	D	192															
Fluoride	4.0	mg/L	0.2		0.3															
pH (Field Measurement)	--	s.u.	7.45	J	6.64															
Sulfate	--	mg/L	167		175															
Total Dissolved Solids	--	mg/L	1040		1150															
APPENDIX IV CONSTITUENTS																				
Antimony	0.006	mg/L	<0.005	U	<0.0020	U														
Arsenic	0.01	mg/L	0.0323	J	0.0098															
Barium	2.0	mg/L	0.251	J	0.194															
Beryllium	0.004	mg/L	<0.0020	U	<0.0010	U														
Cadmium	0.005	mg/L	<0.0010	U	<0.00010	U														
Chromium	0.1	mg/L	<0.0020	U	<0.00060	U														
Cobalt	0.006	mg/L	<0.004	U	<0.0040	U														
Fluoride	4.0	mg/L	0.2		0.3															
Lead	0.010	mg/L	<0.002	U	<0.00050	U														
Lithium	0.04	mg/L	0.005	J	0.005	J														
Mercury	0.002	mg/L	<0.0005	U	<0.00020	U														
Molybdenum	0.1	mg/L	0.004	J	0.002	J														
Radium 226	5.0	pCi/L	1.17	J	0.571	J														
Radium 228																				
Selenium	0.05	mg/L	<0.003	U	<0.0010	U														
Thallium	0.002	mg/L	<0.0020	U	<0.00010	U														

D = Results reported from dilution.
D1 = Sample required dilution due to high concentration of target analyte.
GWPS = groundwater protection standard
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
M2 = Matrix spike recovery was low; the method control sample recovery was acceptable.
M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
mg/L = milligrams per liter
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.

**GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-3A**

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																									
			3/26/2016	5/23/2016	8/18/2016	11/14/2016	2/1/2017	5/2/2017	8/8/2017	9/6/2017	10/6/2017	6/5/2018	7/11/2018	9/28/2018	4/23/2019	Baseline Events			Detection	Assessment	Re-Sampling	Assessment Monitoring						
Boron	--	mg/L	0.145		0.135	J	0.279	J	0.213	J	0.235	JB	0.232	J	0.304	JB	0.376	J	0.313		NA		0.177	J	0.257	JB	0.259	JB
Calcium	--	mg/L	431		322	B	362		365	B	327		420		421		438	B	408		NA		469		447	B	411	
Chloride	--	mg/L	2630	HB	3070		2150	B	2150	B	2220	B	2120	B	1790	B	2270	B	1870	B	NA		2180	B	2040	B	1850	
Fluoride	4.0	mg/L	ND	J	ND	J	ND	J	ND	JB	ND	J	ND	JB	ND		3.16		ND	J	NA		ND	J	ND	JB	0.387	J
pH (Field Measurement)	--	s.u.	6.92		6.86		6.95		6.75		7.17		7.11		6.81		6.9		6.95		6.84		6.55		7.98		7.23	
Sulfate	--	mg/L	1330		1330		1190		1660		1080		1030	B	942		1130		1030	B	NA		1010		1130	B	1080	
Total Dissolved Solids	--	mg/L	4440		5010		4170		4450		4270		5170		5010		5020		5300		NA		4540		4940		4250	B
APPENDIX IV CONSTITUENTS																												
Antimony	0.006	mg/L	ND		ND	J	ND	JB	ND	JB	ND		ND	JB	ND	JB	ND	JB	NA		ND	JB	ND		NA		0.000102	JB
Arsenic	0.01	mg/L	ND		ND	J	ND	J	ND	J	ND	J	ND	J	ND	J	ND	JB	NA		ND	JB	ND	J	ND	JB	0.000575	JB
Barium	2.0	mg/L	ND	J	ND	J	ND	J	ND	J	ND	J	ND	J	ND	J	ND	J	NA		ND	J	ND	J	ND	J	0.0474	J
Beryllium	0.004	mg/L	ND		ND		ND		ND		ND		ND		ND		ND		NA		ND		ND		NA		0.000199	J
Cadmium	0.005	mg/L	ND	J	ND	J	ND		ND		ND	J	ND	J	ND		ND		NA		ND	J	ND	J	NA		0.000164	J
Chromium	0.1	mg/L	ND		ND	J	ND		ND		ND		ND		ND		ND	J	NA		ND	JB	ND		NA		0.00168	JB
Cobalt	0.006	mg/L	ND		ND	J	ND	J	ND	J	ND	J	ND	J	ND	J	ND	J	NA		ND	JB	ND	J	NA		0.000243	J
Fluoride	4.0	mg/L	ND	J	ND	J	ND	J	ND	JB	ND	J	ND	JB	ND		3.16		NA		ND	J	ND	J	ND	JB	0.387	J
Lead	0.010	mg/L	ND	J	ND		ND		ND		ND		ND		ND	J	ND	J	NA		ND		ND	J	NA		0.000137	J
Lithium	0.04	mg/L	0.669		0.516		0.648		0.677		0.689		0.746		0.767		0.762		NA		0.699		0.79		0.766		0.678	
Mercury	0.002	mg/L	ND		ND		ND		ND		ND		ND		ND		ND		NA		ND		ND		ND		ND	
Molybdenum	0.1	mg/L	ND		ND	J	ND		ND		ND		ND		ND		ND		NA		ND		ND		NA		ND	
Radium 226	5.0	pCi/L	1.38		0.386		0.472		1.15		1.15		0.923		1.53		1.03		NA		1.18		1.43		1.21		0.641	
Radium 228																												
Selenium	0.05	mg/L	ND		ND		ND	J	ND	JB	ND		ND		ND		ND		NA		ND	J	ND		NA		0.00103	J
Thallium	0.002	mg/L	ND		ND	J	ND		ND		ND		ND		ND		ND	J	NA		ND		ND		NA		0.000860	J

B = Compound was found in the blank and sample.
 GWPS = groundwater protection standard
 J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
 mg/L = milligrams per liter
 NA = not analyzed
 ND = Not detected at or above method detection limit.
 pCi/L = picocuries per liter
 s.u. = standard units
 U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-3A

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																					
			10/1/2019		4/7/2020		9/22/2020		4/22/2021		9/23/2021		4/20/2022		12/10/2022		6/24/2023		11/8/2023		4/17/2024		11/19/2024	
			Assessment Monitoring																					
Boron	--	mg/L	ND	D2 U	0.26		0.28		0.25		0.37		0.28		<1.0	D2, U	0.30		0.31		0.35		0.36	
Calcium	--	mg/L	490	D1	425	D1	423	D1	438	D1	483	D1	428	D1	553	D1	531	D1	475	D1	514	D1	478	D1
Chloride	--	mg/L	4570	D	3220	D	1200	D	3460	D	1780	D	1820	D	2530	D	1820	D	1190	D,J	1980	D1	1930	D
Fluoride	4.0	mg/L	0.4		0.5		0.4		0.4		<0.20	U	0.4		0.4		0.5		0.4		0.5		0.3	
pH (Field Measurement)	--	s.u.	7.33	H3	6.86		6.61		7.26		6.77		6.68		6.99		7.82		7.37		6.72	J	7.1	
Sulfate	--	mg/L	1680	D	1840	D	1830	D	2110	D	2380	D	752	D	1720	D	1140	D,M2	2530	D,J	3200	D	1280	D
Total Dissolved Solids	--	mg/L	6900	H1	5860		5680		5940		6490		5220		5350		5090		3630	J	5080	J	4500	
APPENDIX IV CONSTITUENTS																								
Antimony	0.006	mg/L	ND	V1 U	<0.005		<0.005		<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U
Arsenic	0.01	mg/L	ND	D2 U	<0.0010		<0.0010		<0.0010	U	<0.0010	U	<0.001	U	<0.001	U	<0.001	U	<0.001	U	<0.001	U	<0.0010	U
Barium	2.0	mg/L	0.051	D2 U	0.042		0.043		0.042		0.045		0.038		0.04		0.035		0.038		0.042		0.04	
Beryllium	0.004	mg/L	ND	D2 U	<0.0020		<0.0020		<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U
Cadmium	0.005	mg/L	ND	V1 U	0.0001	J	<0.0010		0.0002	J	<0.0010	U	0.0001	J	<0.0010	U	<0.0010	U	<0.0010	U	0.0001	J	<0.0010	U
Chromium	0.1	mg/L	ND	D2 U	<0.0020		0.0006	J	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U
Cobalt	0.006	mg/L	0.008		<0.004		0.004		<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U
Fluoride	4.0	mg/L	0.4		0.5		0.4		0.4		<0.20	U	0.4		0.4		0.5		0.4		0.5		0.3	
Lead	0.010	mg/L	ND	V1 U	<0.002		<0.002		<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U
Lithium	0.04	mg/L	0.79	D1	0.68		0.80	D2	0.75		0.76		0.65		0.61		0.64		0.71		0.75		0.69	
Mercury	0.002	mg/L	ND	V1 U	<0.0005		<0.0005		<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U
Molybdenum	0.1	mg/L	ND	D2 U	<0.01		<0.01		<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U
Radium 226	5.0	pCi/L	0.139		1.06		1.51		1.25		1.46		1.46	J	2.3	J	1.43	J	2.45	J	1	J	2.7	
Radium 228			0.734																					
Selenium	0.05	mg/L	ND	D2 U	<0.003		<0.003		<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	D2,U	<0.003	U
Thallium	0.002	mg/L	ND	V1 U	<0.0020		<0.0020		<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U

B = Compound was found in the blank and sample.
D1 = Sample required dilution due to high concentration of target analyte.
D2 = Sample required dilution due to matrix interference.
GWPS = groundwater protection standard
H1 = Sample analysis performed pasts holding time.
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
mg/L = milligrams per liter
NA = not analyzed
ND = Not detected at or above method detection limit.
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.
V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-3A

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																	
			5/6/2025	11/20/2025																
			Assessment Monitoring																	
Boron	--	mg/L	0.33		0.42															
Calcium	--	mg/L	480	D1	515	D1														
Chloride	--	mg/L	1830	D	1820	D														
Fluoride	4.0	mg/L	0.4		0.4															
pH (Field Measurement)	--	s.u.	7.46	H3	6.63															
Sulfate	--	mg/L	1200	D	1260	D														
Total Dissolved Solids	--	mg/L	4450		4440															
APPENDIX IV CONSTITUENTS																				
Antimony	0.006	mg/L	<0.005	U	<0.0020	U														
Arsenic	0.01	mg/L	<0.0010	U	<0.00040	U														
Barium	2.0	mg/L	0.037		0.036															
Beryllium	0.004	mg/L	<0.0020	U	<0.0010	U														
Cadmium	0.005	mg/L	0.0001	J	<0.00010	U														
Chromium	0.1	mg/L	<0.0020	U	<0.00060	U														
Cobalt	0.006	mg/L	<0.004	U	<0.0040	U														
Fluoride	4.0	mg/L	0.4		0.4															
Lead	0.010	mg/L	<0.002	U	<0.00050	U														
Lithium	0.04	mg/L	0.60		0.73	J-														
Mercury	0.002	mg/L	<0.0005	U	<0.00020	U														
Molybdenum	0.1	mg/L	<0.01	U	<0.0020	U														
Radium 226	5.0	pCi/L	1.11	J	0.829	J														
Radium 228																				
Selenium	0.05	mg/L	<0.003	U	<0.0010	U														
Thallium	0.002	mg/L	<0.0020	U	<0.00010	U														

D = Results reported from dilution.
D1 = Sample required dilution due to high concentration of target analyte.
GWPS = groundwater protection standard
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
J- = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value, potential low bias.
mg/L = milligrams per liter
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.

**GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-4**

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE													
			3/29/2016	5/23/2016	8/18/2016	10/26/2016	2/1/2017	5/2/2017	8/8/2017	9/7/2017	10/6/2017	6/5/2018	7/11/2018	9/28/2018	4/22/2019	
			Baseline Events									Detection	Assessment	Re-Sampling	Assessment Monitoring	
Boron	--	mg/L	0.602	0.498 J	1.58	1.7	1.54 B	2.09	2.51 B	2.87 B	1.36	NA	0.751 J	1.33 B	1.25 B	
Calcium	--	mg/L	660	386 B	464	558	591	774	743	739	828	NA	822	722 B	730	
Chloride	--	mg/L	1450 B	939 B	952 B	1000 B	1420 B	1320 B	1360 B	1880 B	1730 B	NA	1430 B	1310 B	1510	
Fluoride	4.0	mg/L	ND J	ND	ND J	ND JB	ND J	1.06 B	ND	ND JB	ND J	NA	ND J	ND JB	0.102 J	
pH (Field Measurement)	--	s.u.	6.36	6.83	7.08	6.61	7.28	7.1	6.84	6.64	6.93	6.86	6.58	8.06	7.26	
Sulfate	--	mg/L	1830	1640	1420	1420 B	1620	1430 B	1600 B	2020	1590 B	NA	1460	1400 B	1440	
Total Dissolved Solids	--	mg/L	3700	4250	3440	3250	4420	4550	4890	4700 H	6220	NA	4880	5170	4840 B	
APPENDIX IV CONSTITUENTS																
Antimony	0.006	mg/L	ND	ND J	ND JB	ND	ND	ND JB	ND JB	ND JB	NA	ND JB	ND	NA	0.000360 JB	
Arsenic	0.01	mg/L	ND	ND J	ND J	ND	ND J	ND J	ND J	ND JB	NA	ND JB	ND J	ND JB	0.000445 JB	
Barium	2.0	mg/L	ND J	ND J	ND J	ND JB	ND J	ND J	ND J	ND JB	NA	ND J	ND J	ND J	0.0308 JB	
Beryllium	0.004	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	
Cadmium	0.005	mg/L	ND J	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	
Chromium	0.1	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND JB	ND	NA	0.00110 JB	
Cobalt	0.006	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND JB	ND J	NA	0.000415 J	
Fluoride	4.0	mg/L	ND	ND	ND J	ND JB	ND J	ND B	ND	ND JB	NA	ND J	ND J	ND JB	0.102 J	
Lead	0.010	mg/L	ND J	ND J	ND	ND	ND	ND	ND	ND	NA	ND	ND J	NA	ND	
Lithium	0.04	mg/L	1.39	0.838	1.13	1.25	1.35	1.59	1.77	1.66	NA	1.81	1.91	1.81	1.73	
Mercury	0.002	mg/L	0.00027	0.000224	ND J	0.000248	0.000302	0.000717	0.000825	0.000485	NA	0.000824	0.000832	0.000680	0.000825	
Molybdenum	0.1	mg/L	ND J	ND J	ND	ND	ND J	ND	ND	ND	NA	ND	ND	NA	ND	
Radium 226	5.0	pCi/L	1.26	0.592	ND	0.536	1.22	1.43	1.94	1.19	NA	1.62	2	1.51	1.66	
Radium 228																
Selenium	0.05	mg/L	ND J	ND J	ND J	ND	ND J	ND	ND	ND J	NA	ND J	ND	NA	0.00211 J	
Thallium	0.002	mg/L	ND	ND	ND	ND J	ND	ND	ND	ND	NA	ND	ND	NA	0.0000410 J	

B = Compound was found in the blank and sample.

GWPS = groundwater protection standard

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

mg/L = milligrams per liter

NA = not analyzed

ND = Not detected at or above method detection limit.

pCi/L = picocuries per liter

s.u. = standard units

U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-4

APPENDIX III CONSTITUENTS	2025 GWPS	Units	Assessment Monitoring																					
			10/1/2019		4/7/2020		9/22/2020		4/22/2021		9/23/2021		4/20/2022		12/10/2022		6/24/2023		11/7/2023		4/16/2024		11/14/2024	
Boron	--	mg/L	1.75	D2	0.83		1.70	D2	1.38	D1	1.43	D1	0.87		1.26	D2	1.20	D1	0.31		1.08	D1	0.87	M1, M2
Calcium	--	mg/L	690	D1	464	D1	823	D1	764	D1	841	D1	534	D1	871	D1	725	D1	702	D1	744	D1	676	D1, M3
Chloride	--	mg/L	1910	D	1560	D	2030	D	2470	D	1910	D	704	D	2270	D	1130	D	1090	D	1440	D1	1270	D
Fluoride	4.0	mg/L	0.2		0.2		0.2		0.2		<0.20	U	0.2		0.2		0.2		0.2		0.2		<4.0	U
pH (Field Measurement)	--	s.u.	7.36	H3	6.70		6.64		7.12		6.52		6.68		7.05		7.69		7.16		6.52	J	7.29	
Sulfate	--	mg/L	2490	D	4000	D	2080	D	2330	D	1780	D	1230	D	2500	D	1650	D	1890		3850	D	1590	D
Total Dissolved Solids	--	mg/L	4820	H1	5120		4470		5040		5610		5740		3850		4660	J	4080		5220		3930	
APPENDIX IV CONSTITUENTS																								
Antimony	0.006	mg/L	ND	V1 U	<0.005		<0.005		<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U
Arsenic	0.01	mg/L	ND	D2 U	<0.0010		<0.0010		<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U
Barium	2.0	mg/L	0.029	D2 J	0.022		0.031		0.029		0.030		0.022		0.025		0.023		0.02		0.04		0.024	
Beryllium	0.004	mg/L	ND	D2 U	<0.0020		<0.0040	D2	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U, M2
Cadmium	0.005	mg/L	ND	V1 U	<0.0010		<0.0010		<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U
Chromium	0.1	mg/L	ND	D2 U	0.0008	J	<0.0020		<0.0020	U	<0.0020	U	0.0008	J	0.0006	J	0.0018	J	0.0008	J	<0.0020	U	0.0010	V1, J
Cobalt	0.006	mg/L	ND	U	<0.004		<0.004		<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U, V1
Fluoride	4.0	mg/L	0.2		0.2		0.2		0.2		<0.20	U	0.2		0.2		0.2		0.2		0.2		<4.0	U
Lead	0.010	mg/L	ND	V1 U	<0.002		<0.002		<0.0020	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U
Lithium	0.04	mg/L	ND	D2 V	0.82		1.73	D2	1.44		1.44	D2	0.79		1.1	D1	1.20	D1	0.99	D1	1.17	D1	1.06	C6, D1, M3
Mercury	0.002	mg/L	0.0004	V1 J	0.0003	J	0.0003	J	0.0004	J	0.0002	J	0.0002	J	0.0007		0.0004	J	0.0004	J	0.0003	J	0.0002	M2, J
Molybdenum	0.1	mg/L	ND	D2 U	0.002	J	<0.01		<0.01	U	<0.01	U	0.002	J	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U, V1
Radium 226	5.0	pCi/L	0.451		1.26		0.877		0.982		0.551		2.55	J	1.6	J	2.09	J	1.32	J	0.48	J	2.05	J
Radium 228			0.804																					
Selenium	0.05	mg/L	ND	U	0.023		<0.003		0.003		<0.003	U	0.028		0.002	J	0.003		0.001	J	<0.003	U	<0.003	U
Thallium	0.002	mg/L	ND	V1 U	<0.0020		<0.0020		<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U

B = Compound was found in the blank and sample.
D1 = Sample required dilution due to high concentration of target analyte.
D2 = Sample required dilution due to matrix interference.
GWPS = groundwater protection standard
H1 = Sample analysis performed pasts holding time.
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
mg/L = milligrams per liter
NA = not analyzed
ND = Not detected at or above method detection limit.
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.
V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-4

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																			
			5/7/2025		11/19/2025																	
			Assessment Monitoring																			
Boron	--	mg/L	0.48		1.11	D1																
Calcium	--	mg/L	382	D1	664	D1																
Chloride	--	mg/L	320	D	1030	D																
Fluoride	4.0	mg/L	0.3		0.2																	
pH (Field Measurement)	--	s.u.	7.64	H3	6.49																	
Sulfate	--	mg/L	3160	D	1590	D																
Total Dissolved Solids	--	mg/L	5680		3480																	
APPENDIX IV ONSTITUENTS																						
Antimony	0.006	mg/L	<0.005	U	<0.0020	U																
Arsenic	0.01	mg/L	<0.0010	U	<0.00040	U																
Barium	2.0	mg/L	0.015		0.018																	
Beryllium	0.004	mg/L	<0.0020	U	<0.0010	V1, U																
Cadmium	0.005	mg/L	<0.0010	U	<0.00010	U																
Chromium	0.1	mg/L	<0.0020	U	<0.00060	U																
Cobalt	0.006	mg/L	<0.004	U	<0.0040	U																
Fluoride	4.0	mg/L	0.3		0.2																	
Lead	0.010	mg/L	<0.002	U	<0.00050	U																
Lithium	0.04	mg/L	0.47		0.99	D1																
Mercury	0.002	mg/L	<0.0005	U	<0.00020	U																
Molybdenum	0.1	mg/L	0.003	J	<0.0020	U																
Radium 226	5.0	pCi/L	1.42	J	1.17	J																
Radium 228																						
Selenium	0.05	mg/L	0.019		0.002	J																
Thallium	0.002	mg/L	<0.0020	U	<0.00010	U																

D = Results reported from dilution.
D1 = Sample required dilution due to high concentration of target analyte.
GWPS = groundwater protection standard
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
mg/L = milligrams per liter
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.
V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

**GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-5**

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE														
			3/29/2016	5/23/2016	8/18/2016	10/26/2016	2/1/2017	5/2/2017	8/7/2017	9/7/2017	10/6/2017	6/5/2018	7/11/2018	9/28/2018	4/22/2019		
			Baseline Events									Detection	Assessment	Re-Sampling	Assessment Monitoring		
Boron	--	mg/L	0.217	0.0896 J	0.216 J	0.214 J	0.222 JB	0.241 J	0.257 JB	0.276 B	0.262	NA	0.207 J	0.263 JB	0.271 JB		
Calcium	--	mg/L	452	189 B	374	399	335	464	423	407 B	383	NA	469	441 B	446		
Chloride	--	mg/L	1630 B	521	688 B	755 B	734 B	722 B	945 B	779 B	608 B	NA	941 B	1140 B	931		
Fluoride	4.0	mg/L	ND J	ND	ND J	ND	ND J	ND JB	ND	3.69	ND J	NA	ND J	ND JB	0.128 J		
pH (Field Measurement)	--	s.u.	6.76	6.74	6.99	6.61	7.14	7.44	6.87	7.13	7.06	6.88	6.40	7.99	7.15		
Sulfate	--	mg/L	1760 HB	876	1780	1740 B	1880	1760 B	2060 B	1920	1600 B	NA	1800	1890 B	1800		
Total Dissolved Solids	--	mg/L	4210	1660	3470	3610	3680	4250	4130	4120	4390	NA	4100	4540	4360 B		
APPENDIX IV CONSTITUENTS																	
Antimony	0.006	mg/L	ND	ND J	ND JB	ND	ND	ND JB	ND JB	ND JB	NA	ND JB	ND	NA	0.0000700 JB		
Arsenic	0.01	mg/L	ND	ND J	ND JB	ND J	ND J	ND J	ND J	ND JB	NA	ND JB	ND J	ND JB	0.000424 JB		
Barium	2.0	mg/L	ND J	ND J	ND J	ND J	ND J	ND J	ND J	ND J	NA	ND J	ND J	ND J	0.0167 J		
Beryllium	0.004	mg/L	ND	ND	ND J	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND		
Cadmium	0.005	mg/L	ND J	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND		
Chromium	0.1	mg/L	ND	ND J	ND	ND	ND J	ND J	ND	ND J	NA	0.00363 B	ND	NA	0.00159 JB		
Cobalt	0.006	mg/L	ND	ND J	ND J	ND J	ND	ND J	ND	ND J	NA	ND JB	ND J	NA	0.000288 J		
Fluoride	4.0	mg/L	ND J	ND	ND J	ND	ND J	ND	ND	3.69	NA	ND J	ND J	ND JB	0.128 J		
Lead	0.010	mg/L	ND J	ND J	ND	ND	ND	ND	ND	ND	NA	ND J	ND J	NA	0.0000860 J		
Lithium	0.04	mg/L	0.521	0.136	0.305	0.325	0.368	0.415	0.405	0.353	NA	0.459	0.481	0.425	0.434		
Mercury	0.002	mg/L	ND	ND	ND	ND	ND	ND	0.0035	ND	NA	ND	ND	ND	ND		
Molybdenum	0.1	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND		
Radium 226	5.0	pCi/L	1.16	0.736	0.959	0.957	0.765	0.888	1.54	0.773	NA	0.862	1.42	1.37	0.945		
Radium 228																	
Selenium	0.05	mg/L	ND	ND	ND	ND	ND J	ND J	ND	ND	NA	ND J	ND	NA	0.000624 J		
Thallium	0.002	mg/L	ND	ND	ND J	ND J	ND	ND J	ND	ND J	NA	ND J	ND	NA	0.0000890 J		

B = Compound was found in the blank and sample.
 GWPS = groundwater protection standard
 J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
 mg/L = milligrams per liter
 NA = not analyzed
 ND = Not detected at or above method detection limit.
 pCi/L = picocuries per liter
 s.u. = standard units
 U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-5

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																					
			9/30/2019		4/7/2020		9/22/2020		4/22/2021		9/23/2021		4/20/2022		12/9/2022		6/24/2023		11/7/2023		4/16/2024		11/14/2024	
			Assessment Monitoring																					
Boron	--	mg/L	ND	D2 U	0.25		0.24		0.24		0.23		0.26		<1.0	D2, V1	0.24		0.21		<1.0	D2,U	0.23	
Calcium	--	mg/L	476	D1	464	D1	495	D1	498	D1	453	D1	500	D1	561	D1	485	D1	439	D1	529	D1	484	D1
Chloride	--	mg/L	1500	D	1860	D	1800	D	2080	D	2250	D	850	D	1930	D	1020	D	992	D	2260	D	1080	D
Fluoride	4.0	mg/L	0.2		0.2		0.2		0.2		<0.2	U	<0.2	U	0.2		0.3		0.2		0.3		<0.2	U
pH (Field Measurement)	--	s.u.	7.41	H3	6.77		6.52		6.92		6.67		6.59		6.94		7.71		7.25		6.45	J	6.34	
Sulfate	--	mg/L	2990	D	3720	D	973	D	3440	D	1000	D	877	D	3080	D	1900	D	2390	D	<1	U	1810	D
Total Dissolved Solids	--	mg/L	5320	H1	4960		5170		5000		5630		4900		4630	H2,J-	4220	H2,J	4650		3920		4040	
APPENDIX IV CONSTITUENTS																								
Antimony	0.006	mg/L	ND	V1 U	<0.005		<0.005		<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U
Arsenic	0.01	mg/L	ND	D2 U	<0.0010		<0.0010		<0.0010	U	<0.0010	U	<0.001	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U
Barium	2.0	mg/L	0.016	D2 J	0.014		0.014		0.014		0.013		0.013		0.012		0.012		0.011		0.013		0.015	
Beryllium	0.004	mg/L	ND	D2 U	<0.0020		<0.0040	D2	<0.0020	U	<0.0020	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.0020	U
Cadmium	0.005	mg/L	ND	V1 U	<0.0010		<0.0010		0.0006	J	<0.0010	U	<0.001	U	<0.001	U	<0.001	U	<0.001	U	<0.001	U	<0.0010	U
Chromium	0.1	mg/L	0.0033		<0.0020		0.0008	J	<0.0020	U	<0.0020	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	0.0007	J	0.0008	V1, J
Cobalt	0.006	mg/L	ND	U	<0.004		<0.004		<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U, V1
Fluoride	4.0	mg/L	0.2		0.2		0.2		0.2		<0.2	U	<0.2	U	0.2		0.3		0.2		0.3		<0.2	U
Lead	0.010	mg/L	ND	V1 U	<0.002		<0.002		<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U
Lithium	0.04	mg/L	0.40	D1	0.38		0.42	D2	0.39		0.35		0.39		0.33		0.33		0.36		0.38		0.36	
Mercury	0.002	mg/L	ND	V1 U	<0.0005		<0.0005		<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	0.0002	J	<0.0005	U	<0.0005	U
Molybdenum	0.1	mg/L	ND	D2 U	<0.01		<0.01		<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U, V1
Radium 226	5.0	pCi/L	0.368		1.48		1.68		1.24		1.02		2.67	J	1.37	J	1.69	J	1.12	J	1.6	J	1.21	J
Radium 228			0.730																					
Selenium	0.05	mg/L	ND	U	<0.003		<0.003		<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Thallium	0.002	mg/L	ND	V1 U	<0.0020		<0.0020		<0.0020	U	<0.0020	U	<0.002	U	<0.002	U	0.0001	J	<0.002	U	<0.002	U	<0.0020	U

D1 = Sample required dilution due to high concentration of target analyte.
D2 = Sample required dilution due to matrix interference.
GWPS = groundwater protection standard
H1 = Sample analysis performed pasts holding time.
H3 = Sample received and analyzed past holding time.
J- = Qualifid as estimated biased low during data review.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
mg/L = milligrams per liter
NA = not analyzed
ND = Not detected at or above method detection limit.
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.
V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-5

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE															
			4/30/2025		11/19/2025													
			Assessment Monitoring															
Boron	--	mg/L	0.29		0.29													
Calcium	--	mg/L	502	D1	449	D1, M3												
Chloride	--	mg/L	1030	D	706	D												
Fluoride	4.0	mg/L	<0.2	U	0.2													
pH (Field Measurement)	--	s.u.	7.39	H3	6.61													
Sulfate	--	mg/L	1530	D	981	D												
Total Dissolved Solids	--	mg/L	4030		3410													
APPENDIX IV CONSTITUENTS																		
Antimony	0.006	mg/L	<0.005	U	<0.0020	U												
Arsenic	0.01	mg/L	<0.0010	U	<0.00040	U												
Barium	2.0	mg/L	0.015		0.014													
Beryllium	0.004	mg/L	<0.0020	U	<0.0010	V1, U												
Cadmium	0.005	mg/L	0.0001	J	<0.00010	U												
Chromium	0.1	mg/L	0.0007	J	<0.00060	U												
Cobalt	0.006	mg/L	<0.004	U	<0.0040	U												
Fluoride	4.0	mg/L	<0.2	U	0.2													
Lead	0.010	mg/L	<0.002	U	<0.00050	U												
Lithium	0.04	mg/L	0.43		0.36	M2												
Mercury	0.002	mg/L	0.0002	J	<0.00020	U												
Molybdenum	0.1	mg/L	<0.01	U	<0.0020	U												
Radium 226	5.0	pCi/L	2.05	J	1.11	J												
Radium 228																		
Selenium	0.05	mg/L	<0.003	U	<0.0010	U												
Thallium	0.002	mg/L	0.0001	J	<0.00010	U												

D = Results reported from dilution.
D1 = Sample required dilution due to high concentration of target analyte.
GWPS = groundwater protection standard
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
M2 = Matrix spike recovery was low; the method control sample recovery was acceptable.
M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
mg/L = milligrams per liter
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.
V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

**GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-6**

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE													
			3/29/2016	5/23/2016	8/18/2016	10/26/2016	2/1/2017	5/2/2017	8/7/2017	9/5/2017	10/5/2017	6/4/2018	7/10/2018	9/28/2018	4/22/2019	
			Baseline Events										Detection	Assessment	Re-Sampling	Assessment Monitoring
Boron	--	mg/L	0.156	0.137 J	0.193 J	0.168 J	0.173 B	0.179 J	0.167 JB	0.199 J	0.178	NA	0.155 J	0.196 JB	0.194 JB	
Calcium	--	mg/L	467	374 B	373	400	320	415	365	382 B	376	NA	386	356 B	421	
Chloride	--	mg/L	167 B	149 B	136 JB	150 B	125 B	129 B	128 B	123 B	138 B	NA	147 B	142 B	142	
Fluoride	4.0	mg/L	ND J	ND J	ND J	ND JB	ND J	ND JB	ND	ND J	ND J	NA	ND J	ND JB	0.409 J	
pH (Field Measurement)	--	s.u.	6.66	6.65	6.96	6.6	6.92	6.97	6.76	6.95	6.86	NA	6.50	7.94	6.86	
Sulfate	--	mg/L	2250 HB	3340	2550	2610 B	2700	2600 B	2820 B	2490	2700 B	NA	2120	2420	2200	
Total Dissolved Solids	--	mg/L	4060	4280	4350	4470	4720	4700	4830	4890	4910	NA	4500	4820	4780 B	
APPENDIX IV CONSTITUENTS																
Antimony	0.006	mg/L	ND	ND J	ND JB	ND	ND	ND JB	ND JB	ND JB	NA	ND JB	ND	NA	0.0000920 JB	
Arsenic	0.01	mg/L	ND	ND J	ND J	ND J	ND J	ND J	ND J	ND JB	NA	ND JB	ND J	ND JB	0.000722 JB	
Barium	2.0	mg/L	ND J	ND J	ND J	ND J	ND J	ND J	ND J	ND J	NA	ND J	ND J	ND J	0.0128 J	
Beryllium	0.004	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	
Cadmium	0.005	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	
Chromium	0.1	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND J	NA	ND JB	ND	NA	0.00196 JB	
Cobalt	0.006	mg/L	ND	ND J	ND J	ND J	ND J	ND J	ND J	ND J	NA	ND JB	ND J	NA	0.000276 J	
Fluoride	4.0	mg/L	ND J	ND J	ND J	ND JB	ND J	ND JB	ND	ND J	NA	ND J	ND J	ND JB	0.409 J	
Lead	0.010	mg/L	ND J	ND J	ND	ND	ND	ND	ND	ND	NA	ND	ND J	NA	ND	
Lithium	0.04	mg/L	0.0475 J	0.0527	0.0555	0.0524	0.0607	0.0724	0.0589	0.0554	NA	0.0650	0.0592	0.0558	0.0633	
Mercury	0.002	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	
Molybdenum	0.1	mg/L	ND J	ND J	ND J	ND B	ND J	ND J	ND J	ND J	NA	ND J	ND J	NA	0.000972 J	
Radium 226	5.0	pCi/L	0.741	0.386	ND	0.751	ND	ND	0.462	ND	NA	0.392	0.532	ND U	0.450	
Radium 228																
Selenium	0.05	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND J	ND	NA	0.00110 J	
Thallium	0.002	mg/L	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	0.0000610 J	

B = Compound was found in the blank and sample.

GWPS = groundwater protection standard

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

mg/L = milligrams per liter

NA = not analyzed

ND = Not detected at or above method detection limit.

pCi/L = picocuries per liter

s.u. = standard units

U = Target analyte was analyzed for, but was below detection limit

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-6

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																					
			9/30/2019	4/6/2020	9/22/2020	4/22/2021	9/23/2021	4/20/2022	12/9/2022	6/24/2023	11/8/2023	4/17/2024	11/21/2024											
			Assessment Monitoring																					
Boron	--	mg/L	ND	D2 U	0.19		0.19		0.18		0.18		0.2		<1.0	D2, V1, U	0.19		0.15	M2	0.2		1.73	D1, M2
Calcium	--	mg/L	431	D1	458	D1	417	D1	376	D1	417	D1	451	D1	474	D1	408	D1	375	D1, M3	440	D1	417	D1, M3
Chloride	--	mg/L	230	D	181	D	286	D	276	D	130	D, M2	148	D	204	D	144	D	192	D, M3	319	D	5.8	
Fluoride	4.0	mg/L	0.5		0.4		0.5		0.4		<0.20	M2, U	0.3		0.5		0.5		0.5	J-	0.5		0.5	
pH (Field Measurement)	--	s.u.	7.15	H3	6.36		6.32		6.72		6.87		6.75		6.88		7.64		7.42		6.48	J	7.16	
Sulfate	--	mg/L	3830	D	4650	D	2380	D, H2	3460	D	1620	D, M2	1570	D	3030	D, J	2360	D	8480	D, M3	2710	D1	2710	D
Total Dissolved Solids	--	mg/L	4830	H1	4610		4740		5050		5080		4860		4560	H2, J-	4760	H2, J	4030		4180		4520	
APPENDIX IV CONSTITUENTS																								
Antimony	0.006	mg/L	ND	V1 U	<0.005		<0.005		<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U, D2
Arsenic	0.01	mg/L	ND	V1 U	<0.0010		<0.0010		<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	0.001	
Barium	2.0	mg/L	0.010	D2 J	0.011		0.011		0.014		0.009		0.011		0.01		0.011		0.009		0.017		0.083	
Beryllium	0.004	mg/L	ND	D2 U	<0.0020		<0.0020	V1	<0.0020	U	<0.0020	U	<0.0020	V1, U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U, M2
Cadmium	0.005	mg/L	ND	V1 U	0.0001	J	<0.0010		<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	0.0002	J
Chromium	0.1	mg/L	ND	U	<0.0020		0.0006	J	0.0006	J	0.0006	J	<0.0020	U	<0.0020	U	0.0008	J	<0.0020	U	<0.0020	U	0.115	M7
Cobalt	0.006	mg/L	ND	U	<0.004		<0.004		<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U, D2
Fluoride	4.0	mg/L	0.5		0.4		0.5		0.4		<0.20	M2, U	0.3		0.5		0.5		0.5	J-	0.5		0.5	
Lead	0.010	mg/L	ND	V1 U	<0.002		<0.002		<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.0005	U	<0.002	U	<0.002	U, M2
Lithium	0.04	mg/L	0.05	D2 V1 J	0.05		0.05	D2, J	0.05		0.04		0.05		0.04		0.04		0.04		0.04		0.05	0.05
Mercury	0.002	mg/L	ND	V1 U	<0.0005		<0.0005		<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0002	U	<0.0005	U
Molybdenum	0.1	mg/L	ND	D2 U	<0.01		<0.01		<0.01	U	<0.01	U	<0.01	U	<0.01	U	0.002	J	<0.002	U	<0.01	U	0.12	M2
Radium 226	5.0	pCi/L	0.548		0.744		0.380		0.674		0.109		0.404	J	1.29	J	1.40	J	0.22	J	0.35	J	0.52	
Radium 228			0.698																					
Selenium	0.05	mg/L	ND	U	<0.003		<0.003		<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Thallium	0.002	mg/L	ND	V1 U	<0.0020		<0.0020		<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U	<0.0020	U

D1 = Sample required dilution due to high concentration of target analyte.

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

D2 = Sample required dilution due to matrix interference.

GWPS = groundwater protection standard

H1 = Sample analysis performed pasts holding time.

H2 = Initial analysis within holding time. Reanalysis was past holding time.

H3 = Sample received and analyzed past holding time.

J- = Qualifid as estimated biased low during data review.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

M2 = Matrix spike recovery was low; the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.

mg/L = milligrams per liter

NA = not analyzed

ND = Not detected at or above method detection limit.

pCi/L = picocuries per liter

s.u. = standard units

U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY (continued)
MW-6

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																	
			4/30/2025	11/20/2025																
Assessment Monitoring																				
Boron	--	mg/L	0.21	M2	0.21															
Calcium	--	mg/L	452	D1, M3	345	D1														
Chloride	--	mg/L	174	D	208	D														
Fluoride	4.0	mg/L	0.4		0.5															
pH (Field Measurement)	--	s.u.	7.31	H3	6.69															
Sulfate	--	mg/L	2380	D	2140	D														
Total Dissolved Solids	--	mg/L	4890		4510															
APPENDIX IV CONSTITUENTS																				
Antimony	0.006	mg/L	<0.005	U	<0.0020	U														
Arsenic	0.01	mg/L	<0.0010	U	<0.00040	U														
Barium	2.0	mg/L	0.017		0.014															
Beryllium	0.004	mg/L	<0.0020	U	<0.0010	V1,U														
Cadmium	0.005	mg/L	0.0001	J	<0.00010	U														
Chromium	0.1	mg/L	<0.0020	U	0.0048															
Cobalt	0.006	mg/L	<0.004	U	<0.0040	U														
Fluoride	4.0	mg/L	0.4		0.5															
Lead	0.010	mg/L	<0.002	U	<0.00050	U														
Lithium	0.04	mg/L	0.06		0.04															
Mercury	0.002	mg/L	<0.0005	U	<0.00020	U														
Molybdenum	0.1	mg/L	<0.01	U	<0.0020	U														
Radium 226	5.0	pCi/L	0.615	J	0.81	J														
Radium 228																				
Selenium	0.05	mg/L	<0.003	U	<0.0010	U														
Thallium	0.002	mg/L	<0.0020	U	<0.00010	U														

D = Results reported from dilution.
D1 = Sample required dilution due to high concentration of target analyte.
GWPS = groundwater protection standard
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
M2 = Matrix spike recovery was low; the method control sample recovery was acceptable.
M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
mg/L = milligrams per liter
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.
V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-104

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																									
			3/29/2019	4/10/2019	10/25/2019	4/17/2020	10/1/2020	5/26/2021	9/23/2021	4/22/2022	12/10/2022	6/24/2023	11/7/2023	4/17/2024	11/14/2024													
			Characterization																									
Boron	--	mg/L	0.1880	JB	0.2710	JB	ND	D2, U	0.21		0.23	D2	0.26	M4	0.25		0.25		0.26	D1	0.26		0.24		0.29	M2	0.27	
Calcium	--	mg/L	465	B	502		505	D1	527	D1	491	D1	459	D1,M1,M2	466	D1	486	D	536	D1	477	D1	496	D1	504	D1,M3	517	D1
Chloride	--	mg/L	1430		1430	B	1610	D	2630	D	2220	D	1650	D	1430	M2	3080	D	3450	D, M2	3000	D	2490	D, M3	1930	D1	1780	D
Fluoride	4.0	mg/L	ND		0.3230	JB	0.4		0.3		0.3		0.4		0.4	M2, Y2	0.4		0.4	M2,J	<0.2	U	0.30	J-	0.42	M2,Y5	0.30	
pH (Field Measurement)	--	s.u.	6.88		6.99		6.86		6.58		6.91		7.55		6.22		5.98		6.91		7.77		7.33		6.46	J	7.27	J
Sulfate	--	mg/L	2870		2880	B	2440	D	4710	D	2730	D	1970	D	1900	D, M1	1100	D	4480	D, M2	4010		4190	D, M3	1110	D, J+	2300	D
Total Dissolved Solids	--	mg/L	6990		6690		7330		6320		6270		7330		7230		6500		5810		7990		5770		7570		6860	
APPENDIX IV CONSTITUENTS																												
Antimony	0.006	mg/L	0.0001	JB	0.0001	JB	ND	U	<0.005		<0.005		<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U	<0.005	U
Arsenic	0.01	mg/L	0.0022	J	0.0021	J	0.0039		0.0013		0.0013		0.0008	J	0.0010		0.0015		0.001		0.0011		0.0010		0.0012		0.0013	
Barium	2.0	mg/L	0.0243	J	0.0216	JB	0.030		0.018		0.018		0.016		0.017		0.017		0.016		0.016		0.016		0.018		0.016	
Beryllium	0.004	mg/L	ND		ND		ND	U	<0.0020		<0.0020	D2	<0.0020	U	<0.0020	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	M2,UJ	<0.0020	U
Cadmium	0.005	mg/L	ND		ND		0.0004	J	<0.0010		<0.0010		0.0001	J	0.0006	J	0.0004	J	0.0015		0.0003	J	0.0004	J	0.0002	J	0.0002	J
Chromium	0.1	mg/L	0.0047	B	0.0036		0.0066		0.0020		0.0013	J	0.0012	J	<0.0020	U	0.001	J	0.0007	J	<0.0020	U	0.0006	J	<0.0020	U	<0.0020	U, V1
Cobalt	0.006	mg/L	0.0059	B	0.0052		0.011		0.005		0.005		<0.004	U	<0.004	U	0.005		0.004		0.004		0.004		0.004		0.005	
Fluoride	4.0	mg/L	ND		0.3230	JB	0.4		0.3		0.3		0.4		0.4	M2, Y2	0.4		0.4	M2,J	<0.2	U	0.3	J-	0.4	M2,Y5, J-	0.3	
Lead	0.010	mg/L	0.0011	J	0.0002	J	0.003		<0.002		<0.002		<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U
Lithium	0.04	mg/L	0.0281	J	0.0286	J	0.02		0.02		0.02	D2	0.02	M1	0.03		0.03		0.03		0.04		0.05		0.06	M3, J-	0.05	
Mercury	0.002	mg/L	ND		ND	^	ND	U	<0.0005		<0.0005		<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U
Molybdenum	0.1	mg/L	0.0015	J	0.0010	J	0.005	J	0.003	J	<0.01	D2	0.002	J	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U	<0.01	U
Radium 226	5.0	pCi/L	0.7760		0.3190	U	0.126		0.655		0.422		0.385		1.36		0.71	J	1.29		0.797	J	0.710	J	0.965	J	1.220	J
Radium 228							1.52																					
Selenium	0.05	mg/L	ND		ND		ND	U	<0.003		<0.003	D2	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Thallium	0.002	mg/L	ND		ND		ND	U	<0.0020		<0.0020		0.0001	J	<0.0020	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U	<0.002	U

B = Compound was found in the blank and sample. V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample.
D1 = Sample required dilution due to high concentration of target analyte.
D2 = Sample required dilution due to matrix interference.
GWPS = groundwater protection standard
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
M1 = Matrix spike recovery was high; the method control sample recovery was acceptable.
M2 = Matrix spike recovery was low; the method control sample recovery was acceptable.
M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable.
mg/L = milligrams per liter
ND = Not detected at or above method detection limit.
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-104

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE															
			5/6/2025	11/20/2025														
			Assessment Monitoring															
Boron	--	mg/L	0.30		0.31													
Calcium	--	mg/L	518	D1	533	D1												
Chloride	--	mg/L	1550	D, M6	1750	D												
Fluoride	4.0	mg/L	0.3		0.4													
pH (Field Measurement)	--	s.u.	7.34	H3	7.38	H3												
Sulfate	--	mg/L	2260	D, M6	2290	D												
Total Dissolved Solids	--	mg/L	5720		5530													
APPENDIX IV CONSTITUENTS																		
Antimony	0.006	mg/L	<0.005	U	<0.005	U												
Arsenic	0.01	mg/L	0.0012		0.0016													
Barium	2.0	mg/L	0.016		0.017													
Beryllium	0.004	mg/L	<0.0020	U	<0.0020	U												
Cadmium	0.005	mg/L	<0.0010	U	0.0003	J												
Chromium	0.1	mg/L	<0.0020	U	0.0006	J												
Cobalt	0.006	mg/L	0.004		0.005													
Fluoride	4.0	mg/L	0.3		0.4													
Lead	0.010	mg/L	<0.002	U	<0.002	U												
Lithium	0.04	mg/L	0.06		0.05													
Mercury	0.002	mg/L	<0.0005	U	<0.0005	U												
Molybdenum	0.1	mg/L	<0.01	U	<0.01	U												
Radium 226	5.0	pCi/L	0.538	J	1.37	J												
Radium 228																		
Selenium	0.05	mg/L	<0.003	U	<0.003	U												
Thallium	0.002	mg/L	<0.0020	U	<0.0020	U												

D = Results reported from dilution.
D1 = Sample required dilution due to high concentration of target analyte.
GWPS = groundwater protection standard
H3 = Sample received and analyzed past holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
M6 = Matrix spike recovery was high; the method control sample recovery was acceptable.
mg/L = milligrams per liter
pCi/L = picocuries per liter
s.u. = standard units
U = Target analyte was analyzed for, but was below detection limit.

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-105

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																
			6/24/2023	4/16/2024	4/10/2019	11/21/2024	5/6/2025	11/20/2025											
			Characterization																
Boron	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Calcium	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Chloride	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Fluoride	4.0	mg/L	NA	NA	NA	NA	NA	NA	NA										
pH (Field Measurement)	--	s.u.	6.56	6.42	6.22	6.96	NA	NA	NA										
Sulfate	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Total Dissolved Solids	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
APPENDIX IV CONSTITUENTS																			
Antimony	0.006	mg/L	NA	NA	NA	NA	NA	NA	NA										
Arsenic	0.01	mg/L	0.0153	0.0137	0.0103	0.0071	0.0125	0.0074	NA										
Barium	2.0	mg/L	NA	NA	NA	NA	NA	NA	NA										
Beryllium	0.004	mg/L	NA	NA	NA	NA	NA	NA	NA										
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA										
Chromium	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA										
Cobalt	0.006	mg/L	NA	NA	NA	NA	NA	NA	NA										
Fluoride	4.0	mg/L	NA	NA	NA	NA	NA	NA	NA										
Lead	0.010	mg/L	NA	NA	NA	NA	NA	NA	NA										
Lithium	0.04	mg/L	NA	NA	NA	NA	NA	NA	NA										
Mercury	0.002	mg/L	NA	NA	NA	NA	NA	NA	NA										
Molybdenum	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA										
Radium 226	5.0	pCi/L	NA	NA	NA	NA	NA	NA	NA										
Radium 228																			
Selenium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA										
Thallium	0.002	mg/L	NA	NA	NA	NA	NA	NA	NA										

GWPS = groundwater protection standard
mg/L = milligrams per liter
NA = not analyzed
pCi/L = picocuries per liter
s.u. = standard units

GREEN LANDFILL - GROUNDWATR ANALYTICAL SUMMARY
MW-106S

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																	
			6/24/2023	4/16/2024	4/10/2019	11/15/2024	5/1/2025	11/20/2025												
			Characterization																	
Boron	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Calcium	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Chloride	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Fluoride	4.0	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
pH (Field Measurement)	--	s.u.	6.77	6.71	6.69	7.55	NA	NA	NA	NA										
Sulfate	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Total Dissolved Solids	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
APPENDIX IV CONSTITUENTS																				
Antimony	0.006	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Arsenic	0.01	mg/L	0.0607	0.0824	0.0832	0.0940	0.0987	0.114												
Barium	2.0	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Beryllium	0.004	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Chromium	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Cobalt	0.006	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Fluoride	4.0	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Lead	0.010	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Lithium	0.04	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Mercury	0.002	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Molybdenum	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Radium 226	5.0	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA										
Radium 228																				
Selenium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										
Thallium	0.002	mg/L	NA	NA	NA	NA	NA	NA	NA	NA										

GWPS = groundwater protection standard
mg/L = milligrams per liter
NA = not analyzed
pCi/L = picocuries per liter
s.u. = standard units

GREEN LANDFILL - GROUNDWATER ANALYTICAL SUMMARY
MW-106D

APPENDIX III CONSTITUENTS	2025 GWPS	Units	DATE																
			6/24/2023	4/16/2024	4/10/2019	11/15/2024	5/1/2025	11/20/2025											
			Characterization																
Boron	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Calcium	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Chloride	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Fluoride	4.0	mg/L	NA	NA	NA	NA	NA	NA	NA										
pH (Field Measurement)	--	s.u.	7.26	7.21	7.07	8.08	NA	NA											
Sulfate	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
Total Dissolved Solids	--	mg/L	NA	NA	NA	NA	NA	NA	NA										
APPENDIX IV CONSTITUENTS																			
Antimony	0.006	mg/L	NA	NA	NA	NA	NA												
Arsenic	0.01	mg/L	< 0.10 U	0.0037	0.0012	0.0017	0.0009	0.0021											
Barium	2.0	mg/L	NA	NA	NA	NA	NA	NA											
Beryllium	0.004	mg/L	NA	NA	NA	NA	NA	NA											
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA											
Chromium	0.1	mg/L	NA	NA	NA	NA	NA	NA											
Cobalt	0.006	mg/L	NA	NA	NA	NA	NA	NA											
Fluoride	4.0	mg/L	NA	NA	NA	NA	NA	NA											
Lead	0.010	mg/L	NA	NA	NA	NA	NA	NA											
Lithium	0.04	mg/L	NA	NA	NA	NA	NA	NA											
Mercury	0.002	mg/L	NA	NA	NA	NA	NA	NA											
Molybdenum	0.1	mg/L	NA	NA	NA	NA	NA	NA											
Radium 226	5.0	pCi/L	NA	NA	NA	NA	NA	NA											
Radium 228																			
Selenium	0.05	mg/L	NA	NA	NA	NA	NA	NA											
Thallium	0.002	mg/L	NA	NA	NA	NA	NA	NA											

GWPS = groundwater protection standard
mg/L = milligrams per liter
NA = not analyzed
pCi/L = picocuries per liter
s.u. = standard units

**Appendix C – Green Landfill Groundwater Laboratory
Analytical Reports**



Certificate of Analysis 5045711

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 06/13/2025 14:06

Project Name: Green Landfill Semiannual Groundwater	Workorder: 5045711
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Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 05/01/2025 11:33.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville - 825 Industrial Road, Madisonville, KY 42431

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5045711-01	MW1/	Groundwater	05/07/2025 14:08	05/08/2025 16:25	Hunter Mizell
5045711-02	MW2/	Groundwater	05/02/2025 09:15	05/02/2025 15:56	Hunter Mizell
5045711-03	MW3A/	Groundwater	05/06/2025 11:47	05/08/2025 16:25	Hunter Mizell
5045711-04	MW4/	Groundwater	05/07/2025 10:55	05/01/2025 11:33	Hunter Mizell
5045711-05	MW5/	Groundwater	04/30/2025 15:32	05/01/2025 11:33	Hunter Mizell
5045711-06	MW6/	Groundwater	04/30/2025 18:50	05/01/2025 11:33	Hunter Mizell
5045711-07	DUPLICATE/	Groundwater	05/02/2025 09:45	05/02/2025 15:56	Client
5045711-08	FIELD BLANK/	Water	05/02/2025 09:15	05/02/2025 15:56	Client

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
5045711-01	Field Conductance	956
	Field pH	7.85
5045711-02	Field Conductance	1860
	Field pH	6.73
5045711-03	Field Conductance	7260
	Field pH	6.96
5045711-04	Field Conductance	6490
	Field pH	7.9
5045711-05	Field Conductance	5680
	Field pH	6.78
5045711-06	Field Conductance	4990
	Field pH	6.64



ANALYTICAL RESULTS

Lab Sample ID: **5045711-01**
 Description: **MW1**

Sample Collection Date Time: 05/07/2025 14:08
 Sample Received Date Time: 05/08/2025 16:25

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Arsenic	0.0005	J	mg/L	0.0010	0.0004	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Barium	0.072		mg/L	0.004	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Boron	1.61	D1	mg/L	1.00	1.00	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:24	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Calcium	35.2	D1	mg/L	5.00	2.50	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:24	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Iron	0.110		mg/L	0.100	0.050	SW846 6010 B	05/09/2025 08:23	05/09/2025 16:34	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Lithium	0.03		mg/L	0.02	0.005	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Mercury	0.0002	J	mg/L	0.0005	0.0002	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH
Sodium	184	D1	mg/L	26.0	10.0	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:27	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 15:48	DMH

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	10	J	mg/L	13	8	HACH 8000	05/09/2025 09:20	05/09/2025 16:07	HMF
Specific Conductance (Lab)	1030		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/09/2025 13:57	05/09/2025 15:37	AED
pH (Lab)	7.99	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/09/2025 13:53	05/09/2025 14:06	AED
Total Dissolved Solids	582		mg/L	50	50	2540 C-2015	05/12/2025 11:28	05/12/2025 11:28	HAG
Total Organic Carbon	1.0		mg/L	0.5	0.2	5310 C-2014	05/13/2025 03:07	05/13/2025 03:07	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00	-				EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	5.8		mg/L	0.5	0.4	SW846 9056	05/09/2025 14:32	05/09/2025 14:32	CDD
Fluoride	0.5		mg/L	0.2	0.2	SW846 9056	05/09/2025 14:32	05/09/2025 14:32	CDD
Sulfate	35		mg/L	1	0.5	SW846 9056	05/09/2025 14:32	05/09/2025 14:32	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5045711-02**
 Description: **MW2**

Sample Collection Date Time: 05/02/2025 09:15
 Sample Received Date Time: 05/02/2025 15:56

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/05/2025 07:40	05/08/2025 18:39	HJS
Arsenic	0.0323		mg/L	0.0010	0.0004	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Barium	0.251		mg/L	0.004	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Boron	ND	M2, U	mg/L	0.10	0.10	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:41	AIS
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Calcium	200	D1, M3	mg/L	50.0	25.0	SW846 6010 B	05/05/2025 07:40	05/06/2025 10:31	AIS
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Iron	13.5	D1	mg/L	1.00	0.500	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:50	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Lithium	0.005	J	mg/L	0.02	0.005	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Molybdenum	0.004	J	mg/L	0.01	0.002	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS
Sodium	66.6	D1, M2	mg/L	2.60	1.00	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:50	AIS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/05/2025 07:40	05/05/2025 17:58	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	24		mg/L	13	8	HACH 8000	05/07/2025 10:03	05/07/2025 10:03	AKJ
Specific Conductance (Lab)	1800		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/06/2025 14:21	05/06/2025 14:36	AED
pH (Lab)	7.45	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/06/2025 13:28	05/06/2025 13:35	AED
Total Dissolved Solids	1040		mg/L	100	100	2540 C-2015	05/07/2025 18:42	05/07/2025 18:42	HAG
Total Organic Carbon	1.7		mg/L	0.5	0.2	5310 C-2014	05/09/2025 03:53	05/09/2025 03:53	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00	-				EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	175	D	mg/L	10.0	7.2	SW846 9056	05/05/2025 19:16	05/05/2025 19:16	CDD
Fluoride	0.2		mg/L	0.2	0.2	SW846 9056	05/05/2025 18:55	05/05/2025 18:55	CDD
Sulfate	167		mg/L	1	0.5	SW846 9056	05/05/2025 18:55	05/05/2025 18:55	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5045711-03**
 Description: **MW3A**

Sample Collection Date Time: 05/06/2025 11:47
 Sample Received Date Time: 05/08/2025 16:25

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Barium	0.037		mg/L	0.004	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Boron	0.33		mg/L	0.10	0.10	SW846 6010 B	05/09/2025 08:23	05/12/2025 17:31	MRWD
Cadmium	0.0001	J	mg/L	0.0010	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Calcium	480	D1	mg/L	50.0	25.0	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:30	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Iron	ND	u	mg/L	0.100	0.050	SW846 6010 B	05/09/2025 08:23	05/09/2025 16:53	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Lithium	0.60		mg/L	0.02	0.005	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH
Sodium	309	D1	mg/L	26.0	10.0	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:30	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:04	DMH

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	114		mg/L	13	8	HACH 8000	05/09/2025 09:20	05/09/2025 16:07	HMF
Specific Conductance (Lab)	8090		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/09/2025 13:57	05/09/2025 15:37	AED
pH (Lab)	7.46	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/09/2025 13:53	05/09/2025 14:06	AED
Total Dissolved Solids	4450		mg/L	250	250	2540 C-2015	05/12/2025 11:28	05/12/2025 11:28	HAG
Total Organic Carbon	0.4	J	mg/L	0.5	0.2	5310 C-2014	05/13/2025 03:28	05/13/2025 03:28	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	1830	D	mg/L	10.0	7.2	SW846 9056	05/09/2025 15:36	05/09/2025 15:36	CDD
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	05/09/2025 15:15	05/09/2025 15:15	CDD
Sulfate	1200	D	mg/L	20	10	SW846 9056	05/09/2025 15:36	05/09/2025 15:36	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5045711-04**
 Description: **MW4**

Sample Collection Date Time: 05/07/2025 10:55
 Sample Received Date Time: 05/01/2025 11:33

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Barium	0.015		mg/L	0.004	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Boron	0.48		mg/L	0.10	0.10	SW846 6010 B	05/09/2025 08:23	05/12/2025 17:34	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Calcium	382	D1	mg/L	50.0	25.0	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:33	MRWD
Chromium	0.0011	J	mg/L	0.0020	0.0006	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Iron	ND	u	mg/L	0.100	0.050	SW846 6010 B	05/09/2025 08:23	05/09/2025 16:56	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Lithium	0.47		mg/L	0.02	0.005	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Molybdenum	0.003	J	mg/L	0.01	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Selenium	0.019		mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH
Sodium	614	D1	mg/L	26.0	10.0	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:33	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:09	DMH

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	30		mg/L	13	8	HACH 8000	05/09/2025 09:20	05/09/2025 16:07	HMF
Specific Conductance (Lab)	7150		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/09/2025 13:57	05/09/2025 15:37	AED
pH (Lab)	7.64	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/09/2025 13:53	05/09/2025 14:06	AED
Total Dissolved Solids	5680		mg/L	250	250	2540 C-2015	05/12/2025 11:28	05/12/2025 11:28	HAG
Total Organic Carbon	1.8		mg/L	0.5	0.2	5310 C-2014	05/13/2025 03:50	05/13/2025 03:50	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	320	D	mg/L	10.0	7.2	SW846 9056	05/09/2025 16:19	05/09/2025 16:19	CDD
Fluoride	0.3		mg/L	0.2	0.2	SW846 9056	05/09/2025 15:58	05/09/2025 15:58	CDD
Sulfate	3160	D	mg/L	20	10	SW846 9056	05/09/2025 16:19	05/09/2025 16:19	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5045711-05**
 Description: **MW5**

Sample Collection Date Time: 04/30/2025 15:32
 Sample Received Date Time: 05/01/2025 11:33

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/02/2025 10:38	05/06/2025 15:06	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Barium	0.015		mg/L	0.004	0.001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Boron	0.29		mg/L	0.10	0.10	SW846 6010 B	05/02/2025 10:38	05/05/2025 16:25	AIS
Cadmium	0.0001	J	mg/L	0.0010	0.0001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Calcium	502	D1	mg/L	50.0	25.0	SW846 6010 B	05/02/2025 10:38	05/06/2025 12:30	AIS
Chromium	0.0007	J	mg/L	0.0020	0.0006	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Copper	ND	B, u	mg/L	0.003	0.001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Iron	ND	v1, u	mg/L	0.100	0.050	SW846 6010 B	05/02/2025 10:38	05/05/2025 16:25	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Lithium	0.43		mg/L	0.02	0.005	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Mercury	0.0002	J	mg/L	0.0005	0.0002	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS
Sodium	182	D1	mg/L	26.0	10.0	SW846 6010 B	05/02/2025 10:38	05/06/2025 12:30	AIS
Thallium	0.0001	J	mg/L	0.0020	0.0001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:06	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	60		mg/L	13	8	HACH 8000	05/07/2025 10:03	05/07/2025 10:03	AKJ
Specific Conductance (Lab)	5750		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/06/2025 14:21	05/06/2025 14:36	AED
pH (Lab)	7.39	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/06/2025 13:27	05/06/2025 13:35	AED
Total Dissolved Solids	4030		mg/L	25	25	2540 C-2015	05/07/2025 18:42	05/07/2025 18:42	HAG
Total Organic Carbon	0.5		mg/L	0.5	0.2	5310 C-2014	05/09/2025 04:14	05/09/2025 04:14	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	1030	D	mg/L	10.0	7.2	SW846 9056	05/02/2025 16:00	05/02/2025 16:00	CDD
Fluoride	ND	u	mg/L	0.2	0.2	SW846 9056	05/02/2025 15:39	05/02/2025 15:39	CDD
Sulfate	1530	D	mg/L	20	10	SW846 9056	05/02/2025 16:00	05/02/2025 16:00	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5045711-06**
 Description: **MW6**

Sample Collection Date Time: 04/30/2025 18:50
 Sample Received Date Time: 05/01/2025 11:33

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/02/2025 10:38	05/06/2025 15:08	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Barium	0.017		mg/L	0.004	0.001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Boron	0.21	M2	mg/L	0.10	0.10	SW846 6010 B	05/02/2025 10:38	05/05/2025 16:28	AIS
Cadmium	0.0001	J	mg/L	0.0010	0.0001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Calcium	452	M3, D1	mg/L	50.0	25.0	SW846 6010 B	05/02/2025 10:38	05/06/2025 12:34	AIS
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Copper	ND	B, u	mg/L	0.003	0.001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Iron	ND	v1, u	mg/L	0.100	0.050	SW846 6010 B	05/02/2025 10:38	05/05/2025 16:28	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Lithium	0.06		mg/L	0.02	0.005	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS
Sodium	372	D1, M3	mg/L	26.0	10.0	SW846 6010 B	05/02/2025 10:38	05/06/2025 12:34	AIS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/02/2025 10:38	05/05/2025 17:10	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	39		mg/L	13	8	HACH 8000	05/07/2025 10:03	05/07/2025 10:03	AKJ
Specific Conductance (Lab)	5110		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/06/2025 14:21	05/06/2025 14:36	AED
pH (Lab)	7.31	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/06/2025 13:27	05/06/2025 13:35	AED
Total Dissolved Solids	4890		mg/L	250	250	2540 C-2015	05/02/2025 17:04	05/02/2025 17:04	HAG
Total Organic Carbon	2.7		mg/L	0.5	0.2	5310 C-2014	05/09/2025 04:31	05/09/2025 04:31	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00	-				EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	174	D	mg/L	10.0	7.2	SW846 9056	05/02/2025 16:43	05/02/2025 16:43	CDD
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	05/02/2025 16:21	05/02/2025 16:21	CDD
Sulfate	2380	D	mg/L	20	10	SW846 9056	05/02/2025 16:43	05/02/2025 16:43	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5045711-07**
 Description: **DUPLICATE**

Sample Collection Date Time: 05/02/2025 09:45
 Sample Received Date Time: 05/02/2025 15:56

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/05/2025 07:40	05/06/2025 15:34	HJS
Arsenic	0.0094		mg/L	0.0010	0.0004	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Barium	0.177		mg/L	0.004	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Boron	ND	u	mg/L	0.10	0.10	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:44	AIS
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Calcium	178	D1	mg/L	50.0	25.0	SW846 6010 B	05/05/2025 07:40	05/06/2025 10:35	AIS
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Iron	1.81		mg/L	0.100	0.050	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:44	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Lithium	0.007	J	mg/L	0.02	0.005	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Molybdenum	0.003	J	mg/L	0.01	0.002	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS
Sodium	69.6	D1	mg/L	2.60	1.00	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:53	AIS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:05	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	ND	u	mg/L	13	8	HACH 8000	05/07/2025 10:03	05/07/2025 10:03	AKJ
Specific Conductance (Lab)	1750		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/06/2025 14:21	05/06/2025 14:36	AED
pH (Lab)	7.67	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/06/2025 13:28	05/06/2025 13:35	AED
Total Dissolved Solids	1230		mg/L	100	100	2540 C-2015	05/07/2025 18:42	05/07/2025 18:42	HAG
Total Organic Carbon	1.6		mg/L	0.5	0.2	5310 C-2014	05/09/2025 04:49	05/09/2025 04:49	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	173	D	mg/L	10.0	7.2	SW846 9056	05/05/2025 20:42	05/05/2025 20:42	CDD
Fluoride	0.2		mg/L	0.2	0.2	SW846 9056	05/05/2025 20:21	05/05/2025 20:21	CDD
Sulfate	161		mg/L	1	0.5	SW846 9056	05/05/2025 20:21	05/05/2025 20:21	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5045711-08**
 Description: **FIELD BLANK**

Sample Collection Date Time: 05/02/2025 09:15
 Sample Received Date Time: 05/02/2025 15:56

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/05/2025 07:40	05/06/2025 15:36	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Barium	ND	u	mg/L	0.004	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Boron	ND	u	mg/L	0.10	0.10	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:47	AIS
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Calcium	ND	v1, u	mg/L	0.50	0.25	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:47	AIS
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Copper	0.002	J	mg/L	0.003	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Iron	ND	u	mg/L	0.100	0.050	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:47	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Lithium	ND	u	mg/L	0.02	0.005	SW846-6020 A	05/05/2025 07:40	05/07/2025 13:59	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS
Sodium	ND	u	mg/L	0.26	0.10	SW846 6010 B	05/05/2025 07:40	05/05/2025 17:47	AIS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:34	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	25		mg/L	13	8	HACH 8000	05/07/2025 10:03	05/07/2025 10:03	AKJ
Specific Conductance (Lab)	1		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/06/2025 14:21	05/06/2025 14:36	AED
pH (Lab)	6.58	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/06/2025 13:28	05/06/2025 13:35	AED
Total Dissolved Solids	ND	G1, u	mg/L	50	50	2540 C-2015	05/07/2025 18:42	05/07/2025 18:42	HAG
Total Organic Carbon	0.2	J	mg/L	0.5	0.2	5310 C-2014	05/09/2025 05:02	05/09/2025 05:02	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 13:30	06/13/2025 13:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	ND	u	mg/L	0.5	0.4	SW846 9056	05/05/2025 21:04	05/05/2025 21:04	CDD
Fluoride	ND	u	mg/L	0.2	0.2	SW846 9056	05/05/2025 21:04	05/05/2025 21:04	CDD
Sulfate	ND	u	mg/L	1	0.5	SW846 9056	05/05/2025 21:04	05/05/2025 21:04	CDD



Notes for work order 5045711

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.

Qualifiers

- B Target analyte detected in method blank at or above the method reporting limit.
- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- D2 Sample required dilution due to matrix interference.
- E Concentration exceeds calibration range
- G1 Residue yield was less than the method required 2.5mg.
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- M1 Matrix spike recovery was high; the method control sample recovery was acceptable.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- M3 The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
- M6 Matrix spike recovery was high.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).
- V1 CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0207 - EPA 200.2

Blank (BEE0207-BLK1)

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 16:51

Molybdenum	ND	0.01	mg/L							U
Mercury	ND	0.0005	mg/L							U
Antimony	ND	0.005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Copper	0.010	0.003	mg/L							B
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U

Blank (BEE0207-BLK2)

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 16:06

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U
Iron	ND	0.100	mg/L							U
Sodium	ND	0.26	mg/L							U

LCS (BEE0207-BS1)

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 16:55

Molybdenum	0.06	0.01	mg/L	0.0625		98.5	85-115			
Mercury	0.0025	0.0005	mg/L	0.00250		99.3	85-115			
Antimony	0.064	0.005	mg/L	0.0625		102	85-115			
Arsenic	0.0613	0.0010	mg/L	0.0625		98.0	85-115			
Barium	0.062	0.004	mg/L	0.0625		99.8	85-115			
Beryllium	0.0617	0.0020	mg/L	0.0625		98.8	85-115			
Cadmium	0.0620	0.0010	mg/L	0.0625		99.1	85-115			
Chromium	0.0621	0.0020	mg/L	0.0625		99.3	85-115			
Cobalt	0.061	0.004	mg/L	0.0625		98.2	85-115			
Copper	0.062	0.003	mg/L	0.0625		99.1	85-115			B
Lead	0.059	0.002	mg/L	0.0625		94.9	85-115			
Lithium	0.06	0.02	mg/L	0.0625		96.7	85-115			
Selenium	0.062	0.003	mg/L	0.0625		99.0	85-115			
Thallium	0.0597	0.0020	mg/L	0.0625		95.6	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0207 - EPA 200.2

LCS (BEE0207-BS2)

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 16:09

Boron	0.13	0.10	mg/L	0.125		103	85-115			
Calcium	6.58	0.50	mg/L	6.25		105	85-115			
Iron	6.40	0.100	mg/L	6.25		102	85-115			
Sodium	6.27	0.26	mg/L	6.25		100	85-115			

Matrix Spike (BEE0207-MS1)

Source: 5045711-06

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 17:17

Antimony	0.070	0.005	mg/L	0.0625	ND	112	80-120			
Molybdenum	0.07	0.01	mg/L	0.0625	ND	109	80-120			
Mercury	0.0029	0.0005	mg/L	0.00250	ND	115	80-120			
Arsenic	0.0682	0.0010	mg/L	0.0625	ND	109	80-120			
Barium	0.080	0.004	mg/L	0.0625	0.017	100	80-120			
Beryllium	0.0583	0.0020	mg/L	0.0625	ND	93.3	80-120			
Cadmium	0.0622	0.0010	mg/L	0.0625	0.0001	99.3	80-120			
Chromium	0.0670	0.0020	mg/L	0.0625	ND	107	80-120			
Cobalt	0.064	0.004	mg/L	0.0625	ND	102	80-120			
Copper	0.062	0.003	mg/L	0.0625	ND	99.1	80-120			B
Lead	0.060	0.002	mg/L	0.0625	ND	96.5	80-120			
Lithium	0.11	0.02	mg/L	0.0625	0.06	87.8	80-120			
Selenium	0.066	0.003	mg/L	0.0625	ND	106	80-120			
Thallium	0.0610	0.0020	mg/L	0.0625	ND	97.5	80-120			

Matrix Spike (BEE0207-MS2)

Source: 5045711-06

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 16:43

Boron	ND	1.00	mg/L	0.125	ND		80-120			D2, M2, U
Calcium	485	5.00	mg/L	6.25	452	523	80-120			D2, M3
Iron	6.88	1.00	mg/L	6.25	ND	110	80-120			D2
Sodium	449	2.60	mg/L	6.25	372	NR	80-120			D2, M3

Matrix Spike Dup (BEE0207-MSD1)

Source: 5045711-06

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 17:21

Antimony	0.069	0.005	mg/L	0.0625	ND	111	80-120	1.04	20	
Molybdenum	0.07	0.01	mg/L	0.0625	ND	107	80-120	1.77	20	
Mercury	0.0026	0.0005	mg/L	0.00250	ND	102	80-120	11.6	20	
Arsenic	0.0676	0.0010	mg/L	0.0625	ND	108	80-120	0.947	20	
Barium	0.078	0.004	mg/L	0.0625	0.017	97.6	80-120	2.02	20	
Beryllium	0.0579	0.0020	mg/L	0.0625	ND	92.6	80-120	0.693	20	
Cadmium	0.0621	0.0010	mg/L	0.0625	0.0001	99.1	80-120	0.186	20	
Chromium	0.0665	0.0020	mg/L	0.0625	ND	106	80-120	0.830	20	
Cobalt	0.063	0.004	mg/L	0.0625	ND	101	80-120	1.19	20	
Copper	0.062	0.003	mg/L	0.0625	ND	98.4	80-120	0.686	20	B
Lead	0.060	0.002	mg/L	0.0625	ND	96.2	80-120	0.357	20	
Lithium	0.11	0.02	mg/L	0.0625	0.06	85.1	80-120	1.48	20	
Selenium	0.065	0.003	mg/L	0.0625	ND	105	80-120	0.980	20	
Thallium	0.0611	0.0020	mg/L	0.0625	ND	97.7	80-120	0.188	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0207 - EPA 200.2

Matrix Spike Dup (BEE0207-MSD2) Source: 5045711-06

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 16:47

Boron	ND	1.00	mg/L	0.125	ND		80-120		20	D2, M2, U
Calcium	467	5.00	mg/L	6.25	452	228	80-120	3.87	20	D2, M3
Iron	6.82	1.00	mg/L	6.25	ND	109	80-120	0.881	20	D2
Sodium	427	2.60	mg/L	6.25	372	880	80-120	4.89	20	D2, M3

Post Spike (BEE0207-PS1) Source: 5045711-06

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 17:43

Molybdenum	62.7		ug/L	62.5	1.43	98.1	75-125			
Mercury	2.42		ug/L	2.50	0.0264	95.8	75-125			
Antimony	62.7		ug/L	62.5	0.201	100	75-125			
Arsenic	62.6		ug/L	62.5	0.289	99.8	75-125			
Barium	73.7		ug/L	62.5	17.4	90.1	75-125			
Beryllium	51.6		ug/L	62.5	0.0232	82.5	75-125			
Cadmium	57.1		ug/L	62.5	0.133	91.1	75-125			
Chromium	61.5		ug/L	62.5	0.448	97.6	75-125			
Cobalt	58.9		ug/L	62.5	0.258	93.9	75-125			
Copper	62.1		ug/L	62.5	0.523	98.5	75-125			B
Lead	55.3		ug/L	62.5	0.027	88.5	75-115			
Lithium	106		ug/L	62.5	58.7	76.0	75-125			
Selenium	60.2		ug/L	62.5	0.148	96.1	75-125			
Thallium	56.4		ug/L	62.5	0.0600	90.2	75-125			

Post Spike (BEE0207-PS2) Source: 5045711-06

Prepared: 5/2/2025 10:38, Analyzed: 5/5/2025 16:50

Boron	356		ug/L	125	206	120	75-125			D2
Calcium	490000		ug/L	6250	452000	605	75-125			D2, M3
Iron	6380		ug/L	6250	35.3	101	75-125			D2
Sodium	454000		ug/L	6250	372000	NR	75-125			D2, M3



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0301 - EPA 200.2

Blank (BEE0301-BLK1)

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 17:50

Molybdenum	ND	0.01	mg/L							U
Antimony	ND	0.005	mg/L							U
Mercury	ND	0.0005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Copper	0.002	0.003	mg/L							J
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U

Blank (BEE0301-BLK2)

Prepared: 5/5/2025 7:40, Analyzed: 5/9/2025 10:06

Antimony	ND	0.005	mg/L							U
Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U
Iron	ND	0.100	mg/L							U
Sodium	ND	0.26	mg/L							U

LCS (BEE0301-BS1)

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 17:54

Antimony	0.067	0.005	mg/L	0.0625		108	85-115			
Molybdenum	0.07	0.01	mg/L	0.0625		106	85-115			
Mercury	0.0025	0.0005	mg/L	0.00250		101	85-115			
Arsenic	0.0648	0.0010	mg/L	0.0625		104	85-115			
Barium	0.065	0.004	mg/L	0.0625		104	85-115			
Beryllium	0.0628	0.0020	mg/L	0.0625		101	85-115			
Cadmium	0.0646	0.0010	mg/L	0.0625		103	85-115			
Chromium	0.0651	0.0020	mg/L	0.0625		104	85-115			
Cobalt	0.065	0.004	mg/L	0.0625		104	85-115			
Copper	0.066	0.003	mg/L	0.0625		106	85-115			
Lead	0.063	0.002	mg/L	0.0625		101	85-115			
Lithium	0.06	0.02	mg/L	0.0625		104	85-115			
Selenium	0.064	0.003	mg/L	0.0625		102	85-115			
Thallium	0.0639	0.0020	mg/L	0.0625		102	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0301 - EPA 200.2

LCS (BEE0301-BS2)

Prepared: 5/5/2025 7:40, Analyzed: 5/9/2025 10:06

Antimony	ND	0.005	mg/L	0.0625			85-115			U
Boron	0.14	0.10	mg/L	0.125		110	85-115			
Calcium	6.76	0.50	mg/L	6.25		108	85-115			
Iron	6.60	0.100	mg/L	6.25		106	85-115			
Sodium	6.49	0.26	mg/L	6.25		104	85-115			

Matrix Spike (BEE0301-MS1)

Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 18:56

Molybdenum	0.07	0.10	mg/L	0.0625	ND	106	80-120			D2, J
Mercury	0.0027	0.0050	mg/L	0.00250	ND	107	80-120			D2, J
Antimony	0.067	0.050	mg/L	0.0625	ND	107	80-120			D2
Arsenic	0.0939	0.0100	mg/L	0.0625	0.0323	98.5	80-120			D2
Barium	0.316	0.040	mg/L	0.0625	0.251	104	80-120			D2
Beryllium	0.0565	0.0200	mg/L	0.0625	ND	90.4	80-120			D2
Cadmium	0.0625	0.0100	mg/L	0.0625	ND	100	80-120			D2
Chromium	0.0617	0.0200	mg/L	0.0625	ND	98.7	80-120			D2
Cobalt	0.063	0.040	mg/L	0.0625	ND	101	80-120			D2
Copper	0.062	0.030	mg/L	0.0625	ND	99.8	80-120			D2
Lead	0.060	0.020	mg/L	0.0625	ND	96.1	80-120			D2
Lithium	0.06	0.20	mg/L	0.0625	ND	95.2	80-120			D2, J
Selenium	0.062	0.030	mg/L	0.0625	ND	99.5	80-120			D2
Thallium	0.0644	0.0200	mg/L	0.0625	ND	103	80-120			D2

Matrix Spike (BEE0301-MS2)

Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 17:22

Boron	ND	1.00	mg/L	0.125	ND		80-120			D2, M2, U
Antimony	ND	0.005	mg/L	0.0625	ND		80-120			U
Calcium	204	5.00	mg/L	6.25	200	71.5	80-120			D2, M3
Iron	19.6	1.00	mg/L	6.25	13.5	98.1	80-120			D2
Sodium	71.0	2.60	mg/L	6.25	66.6	69.6	80-120			D2, M2



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0301 - EPA 200.2

Matrix Spike Dup (BEE0301-MSD1) Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 19:00

Molybdenum	0.07	0.10	mg/L	0.0625	ND	109	80-120	2.49	20	D2, J
Antimony	0.067	0.050	mg/L	0.0625	ND	108	80-120	0.597	20	D2
Mercury	0.0026	0.0050	mg/L	0.00250	ND	106	80-120	1.46	20	D2, J
Arsenic	0.0924	0.0100	mg/L	0.0625	0.0323	96.2	80-120	1.54	20	D2
Barium	0.313	0.040	mg/L	0.0625	0.251	101	80-120	0.671	20	D2
Beryllium	0.0567	0.0200	mg/L	0.0625	ND	90.8	80-120	0.477	20	D2
Cadmium	0.0629	0.0100	mg/L	0.0625	ND	101	80-120	0.625	20	D2
Chromium	0.0619	0.0200	mg/L	0.0625	ND	99.0	80-120	0.276	20	D2
Cobalt	0.064	0.040	mg/L	0.0625	ND	103	80-120	2.21	20	D2
Copper	0.063	0.030	mg/L	0.0625	ND	100	80-120	0.317	20	D2
Lead	0.061	0.020	mg/L	0.0625	ND	96.9	80-120	0.833	20	D2
Lithium	0.06	0.20	mg/L	0.0625	ND	96.3	80-120	1.08	20	D2, J
Selenium	0.064	0.030	mg/L	0.0625	ND	102	80-120	2.28	20	D2
Thallium	0.0618	0.0200	mg/L	0.0625	ND	98.9	80-120	4.09	20	D2

Matrix Spike Dup (BEE0301-MSD2) Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 17:25

Boron	ND	1.00	mg/L	0.125	ND		80-120		20	D2, M2, U
Antimony	ND	0.005	mg/L	0.0625	ND		80-120		20	U
Calcium	199	5.00	mg/L	6.25	200	NR	80-120	2.72	20	D2, M3
Iron	19.3	1.00	mg/L	6.25	13.5	92.2	80-120	1.88	20	D2
Sodium	69.2	2.60	mg/L	6.25	66.6	40.5	80-120	2.59	20	D2, M2

Post Spike (BEE0301-PS1) Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 19:04

Molybdenum	67.0		ug/L	62.5	3.58	101	75-125			D2
Antimony	66.0		ug/L	62.5	0.137	105	75-125			D2
Mercury	2.83		ug/L	2.50	0.107	109	75-125			D2
Arsenic	95.3		ug/L	62.5	32.3	101	75-125			D2
Barium	322		ug/L	62.5	251	114	75-125			D2
Beryllium	57.6		ug/L	62.5	0.0215	92.2	75-125			D2
Cadmium	62.4		ug/L	62.5	0.0187	99.9	75-125			D2
Chromium	62.3		ug/L	62.5	0.186	99.3	75-125			D2
Cobalt	63.4		ug/L	62.5	1.64	98.8	75-125			D2
Copper	62.8		ug/L	62.5	0.280	100	75-125			D2
Lead	60.8		ug/L	62.5	0.014	97.3	75-115			D2
Lithium	60.3		ug/L	62.5	5.34	88.0	75-125			D2
Selenium	63.0		ug/L	62.5	0.098	101	75-125			D2
Thallium	62.1		ug/L	62.5	0.0765	99.2	75-125			D2



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0301 - EPA 200.2

Post Spike (BEE0301-PS2)

Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 17:28

Boron	161		ug/L	125	48.7	89.8	75-125			D2
Antimony	0.00		ug/L	62.5	0.137	NR	75-125			U
Calcium	211000		ug/L	6250	200000	176	75-125			D2, M3
Iron	20100		ug/L	6250	13500	105	75-125			D2
Sodium	73100		ug/L	6250	66600	104	75-125			D2

Batch BEE0967 - EPA 200.2

Blank (BEE0967-BLK1)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 15:43

Mercury	0.0003	0.0005	mg/L							J
Molybdenum	ND	0.01	mg/L							U
Antimony	ND	0.005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Copper	ND	0.003	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	0.0001	0.0020	mg/L							J

Blank (BEE0967-BLK2)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:24

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U
Iron	ND	0.100	mg/L							U
Sodium	ND	0.26	mg/L							U



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0967 - EPA 200.2

LCS (BEE0967-BS1)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 15:46

Molybdenum	0.06	0.01	mg/L	0.0625		101	85-115			
Mercury	0.0028	0.0005	mg/L	0.00250		111	85-115			
Antimony	0.066	0.005	mg/L	0.0625		106	85-115			
Arsenic	0.0613	0.0010	mg/L	0.0625		98.1	85-115			
Barium	0.060	0.004	mg/L	0.0625		96.7	85-115			
Beryllium	0.0656	0.0020	mg/L	0.0625		105	85-115			
Cadmium	0.0620	0.0010	mg/L	0.0625		99.2	85-115			
Chromium	0.0629	0.0020	mg/L	0.0625		101	85-115			
Cobalt	0.062	0.004	mg/L	0.0625		99.2	85-115			
Copper	0.062	0.003	mg/L	0.0625		98.6	85-115			
Lead	0.064	0.002	mg/L	0.0625		102	85-115			
Lithium	0.06	0.02	mg/L	0.0625		102	85-115			
Selenium	0.062	0.003	mg/L	0.0625		98.9	85-115			
Thallium	0.0639	0.0020	mg/L	0.0625		102	85-115			

LCS (BEE0967-BS2)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:27

Boron	0.12	0.10	mg/L	0.125		98.8	85-115			
Calcium	6.63	0.50	mg/L	6.25		106	85-115			
Iron	6.44	0.100	mg/L	6.25		103	85-115			
Sodium	6.24	0.26	mg/L	6.25		99.9	85-115			

Matrix Spike (BEE0967-MS1)

Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:37

Mercury	0.0026	0.0005	mg/L	0.00250	ND	105	80-120			
Molybdenum	0.06	0.01	mg/L	0.0625	ND	104	80-120			
Antimony	0.069	0.005	mg/L	0.0625	ND	111	80-120			
Arsenic	0.0764	0.0010	mg/L	0.0625	0.0125	102	80-120			
Barium	0.243	0.004	mg/L	0.0625	0.181	100	80-120			
Beryllium	0.0628	0.0020	mg/L	0.0625	ND	101	80-120			
Cadmium	0.0609	0.0010	mg/L	0.0625	ND	97.5	80-120			
Chromium	0.0643	0.0020	mg/L	0.0625	0.0006	102	80-120			
Cobalt	0.062	0.004	mg/L	0.0625	ND	99.4	80-120			
Copper	0.065	0.003	mg/L	0.0625	0.007	93.7	80-120			
Lead	0.064	0.002	mg/L	0.0625	0.002	98.9	80-120			
Lithium	0.07	0.02	mg/L	0.0625	0.005	108	80-120			
Selenium	0.059	0.003	mg/L	0.0625	ND	93.6	80-120			
Thallium	0.0629	0.0020	mg/L	0.0625	ND	101	80-120			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BEE0967 - EPA 200.2

Matrix Spike (BEE0967-MS2) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 17:40

Boron	ND	1.00	mg/L	0.125	ND		80-120				D2, M2, U
Calcium	270	5.00	mg/L	6.25	258	193	80-120				D2, M3
Iron	32.8	1.00	mg/L	6.25	24.3	136	80-120				D2, M1
Sodium	110	2.60	mg/L	6.25	104	95.3	80-120				D2, M3

Matrix Spike Dup (BEE0967-MSD1) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:40

Antimony	0.068	0.005	mg/L	0.0625	ND	109	80-120	2.04	20		
Mercury	0.0026	0.0005	mg/L	0.00250	ND	104	80-120	1.27	20		
Molybdenum	0.06	0.01	mg/L	0.0625	ND	101	80-120	2.95	20		
Arsenic	0.0727	0.0010	mg/L	0.0625	0.0125	96.4	80-120	4.96	20		
Barium	0.241	0.004	mg/L	0.0625	0.181	95.9	80-120	1.13	20		
Beryllium	0.0620	0.0020	mg/L	0.0625	ND	99.2	80-120	1.35	20		
Cadmium	0.0592	0.0010	mg/L	0.0625	ND	94.7	80-120	2.90	20		
Chromium	0.0620	0.0020	mg/L	0.0625	0.0006	98.2	80-120	3.66	20		
Cobalt	0.059	0.004	mg/L	0.0625	ND	95.1	80-120	4.47	20		
Copper	0.063	0.003	mg/L	0.0625	0.007	89.7	80-120	3.89	20		
Lead	0.062	0.002	mg/L	0.0625	0.002	95.8	80-120	3.12	20		
Lithium	0.07	0.02	mg/L	0.0625	0.005	108	80-120	0.644	20		
Selenium	0.056	0.003	mg/L	0.0625	ND	90.2	80-120	3.72	20		
Thallium	0.0613	0.0020	mg/L	0.0625	ND	98.1	80-120	2.51	20		

Matrix Spike Dup (BEE0967-MSD2) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 17:43

Boron	ND	1.00	mg/L	0.125	ND		80-120		20		D2, M2, U
Calcium	269	5.00	mg/L	6.25	258	176	80-120	0.384	20		D2, M3
Iron	32.5	1.00	mg/L	6.25	24.3	131	80-120	0.968	20		D2, M1
Sodium	109	2.60	mg/L	6.25	104	86.5	80-120	0.504	20		D2, M3

Post Spike (BEE0967-PS1) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:42

Mercury	2.56		ug/L	2.50	0.100	98.3	75-125				
Molybdenum	62.9		ug/L	62.5	1.48	98.2	75-125				
Antimony	65.4		ug/L	62.5	0.143	104	75-125				
Arsenic	73.6		ug/L	62.5	12.5	97.8	75-125				
Barium	247		ug/L	62.5	181	106	75-125				
Beryllium	61.8		ug/L	62.5	0.0180	98.8	75-125				
Cadmium	58.2		ug/L	62.5	0.0140	93.0	75-125				
Chromium	61.3		ug/L	62.5	0.619	97.1	75-125				
Cobalt	59.5		ug/L	62.5	0.967	93.6	75-125				
Copper	62.8		ug/L	62.5	6.63	89.9	75-125				
Lead	61.1		ug/L	62.5	2.12	94.4	75-115				
Lithium	67.3		ug/L	62.5	4.83	99.9	75-125				
Selenium	56.6		ug/L	62.5	0.053	90.5	75-125				
Thallium	60.1		ug/L	62.5	0.0140	96.2	75-125				



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit	Notes
Batch BEE0967 - EPA 200.2										
Post Spike (BEE0967-PS2) Source: 5053687-01										
Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 17:46										
Boron	178		ug/L	125	19.9	127	75-125			D2, M1
Calcium	275000		ug/L	6250	258000	270	75-125			D2, M3
Iron	32800		ug/L	6250	24300	135	75-125			D2, M1
Sodium	111000		ug/L	6250	104000	120	75-125			D2, M3



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEE0141 - Default Prep Micro										
LCS (BEE0141-BS1)										
Prepared: 5/6/2025 13:27, Analyzed: 5/6/2025 13:35										
pH (Lab)	4.94		Std. Units	5.00		98.8	98.8-101.2			
LCS (BEE0141-BS2)										
Prepared: 5/6/2025 13:27, Analyzed: 5/6/2025 13:35										
pH (Lab)	5.01		Std. Units	5.00		100	98.8-101.2			
Duplicate (BEE0141-DUP1) Source: 5045711-05										
Prepared: 5/6/2025 13:27, Analyzed: 5/6/2025 13:35										
pH (Lab)	7.41	0.10	Std. Units		7.39			0.270	10	H3
Duplicate (BEE0141-DUP2) Source: 5045711-06										
Prepared: 5/6/2025 13:27, Analyzed: 5/6/2025 13:35										
pH (Lab)	7.28	0.10	Std. Units		7.31			0.411	10	H3
Batch BEE0142 - Default Prep Micro										
Blank (BEE0142-BLK1)										
Prepared: 5/6/2025 14:21, Analyzed: 5/6/2025 14:36										
Specific Conductance (Lab)	ND		1 uS/cm @ 25.0 °C							U
LCS (BEE0142-BS1)										
Prepared: 5/6/2025 14:21, Analyzed: 5/6/2025 14:36										
Specific Conductance (Lab)	1400		uS/cm @ 25.0 °C	1410		99.4	90-110			
Duplicate (BEE0142-DUP1) Source: 5045711-05										
Prepared: 5/6/2025 14:21, Analyzed: 5/6/2025 14:36										
Specific Conductance (Lab)	5770	1	uS/cm @ 25.0 °C		5750			0.347	0.938	
Duplicate (BEE0142-DUP2) Source: 5052869-01										
Prepared: 5/6/2025 14:21, Analyzed: 5/6/2025 14:36										
Specific Conductance (Lab)	1	1	uS/cm @ 25.0 °C		1			4.61	0.938	
Batch BEE0216 - Default Prep Wet Chem										
Blank (BEE0216-BLK1)										
Prepared: 5/2/2025 17:04, Analyzed: 5/2/2025 17:04										
Total Dissolved Solids	ND	25	mg/L							U



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0216 - Default Prep Wet Chem

LCS (BEE0216-BS1)

Prepared: 5/2/2025 17:04, Analyzed: 5/2/2025 17:04

Total Dissolved Solids	87		mg/L	90.0		96.7	80-120			
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Duplicate (BEE0216-DUP1) Source: 5045708-01

Prepared: 5/2/2025 17:04, Analyzed: 5/2/2025 17:04

Total Dissolved Solids	1990	250	mg/L		2070			3.94	10	
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Duplicate (BEE0216-DUP2) Source: 5046156-01

Prepared: 5/2/2025 17:04, Analyzed: 5/2/2025 17:04

Total Dissolved Solids	146	25	mg/L		149			2.03	10	
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Batch BEE0275 - Default Prep Micro

LCS (BEE0275-BS1)

Prepared: 5/6/2025 13:28, Analyzed: 5/6/2025 13:35

pH (Lab)	5.02		Std. Units	5.00		100	98.8-101.2			
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Duplicate (BEE0275-DUP1) Source: 5053197-01

Prepared: 5/6/2025 13:28, Analyzed: 5/6/2025 13:35

pH (Lab)	7.04	0.10	Std. Units		6.97			0.999	10	H3
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Batch BEE0486 - Default Prep Wet Chem

Blank (BEE0486-BLK1)

Prepared: 5/7/2025 10:03, Analyzed: 5/7/2025 10:03

Chemical Oxygen Demand	ND	13	mg/L							U
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LCS (BEE0486-BS1)

Prepared: 5/7/2025 10:03, Analyzed: 5/7/2025 10:03

Chemical Oxygen Demand	129	13	mg/L	125		103	90-110			
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Duplicate (BEE0486-DUP1) Source: 5045711-05

Prepared: 5/7/2025 10:03, Analyzed: 5/7/2025 10:03

Chemical Oxygen Demand	65	13	mg/L		60			8.00	25	
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Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEE0486 - Default Prep Wet Chem										
Matrix Spike (BEE0486-MS1)		Source: 5045711-05								
Prepared: 5/7/2025 10:03, Analyzed: 5/7/2025 10:03										
Chemical Oxygen Demand	290	13	mg/L	250	60	92.0	90-110			
Matrix Spike Dup (BEE0486-MSD1)		Source: 5045711-05								
Prepared: 5/7/2025 10:03, Analyzed: 5/7/2025 10:03										
Chemical Oxygen Demand	294	13	mg/L	250	60	93.6	90-110	1.37	10	
Batch BEE0580 - Default Prep Micro										
LCS (BEE0580-BS1)										
Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06										
pH (Lab)	4.95		Std. Units	5.00		99.0	98.8-101.2			
LCS (BEE0580-BS2)										
Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06										
pH (Lab)	4.99		Std. Units	5.00		99.8	98.8-101.2			
Duplicate (BEE0580-DUP1)		Source: 5045714-01								
Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06										
pH (Lab)	7.34	0.10	Std. Units		7.34			0.00	10	H3
Duplicate (BEE0580-DUP2)		Source: 5053789-02								
Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06										
pH (Lab)	6.13	0.10	Std. Units		6.14			0.163	10	H3
Batch BEE0700 - Default Prep Wet Chem										
Blank (BEE0700-BLK1)										
Prepared: 5/7/2025 18:42, Analyzed: 5/7/2025 18:42										
Total Dissolved Solids	ND	25	mg/L							U
LCS (BEE0700-BS1)										
Prepared: 5/7/2025 18:42, Analyzed: 5/7/2025 18:42										
Total Dissolved Solids	88		mg/L	90.0		97.8	80-120			



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0700 - Default Prep Wet Chem

Duplicate (BEE0700-DUP1) Source: 5045711-05RE1

Prepared: 5/7/2025 18:42, Analyzed: 5/7/2025 18:42

Total Dissolved Solids	4100	833	mg/L		4030			1.64	10	
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Duplicate (BEE0700-DUP2) Source: 5053536-04

Prepared: 5/7/2025 18:42, Analyzed: 5/7/2025 18:42

Total Dissolved Solids	186	25	mg/L		178			4.40	10	
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Batch BEE0760 - Default Prep Micro

Blank (BEE0760-BLK1)

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	ND	1	uS/cm @ 25.0 °C							U
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LCS (BEE0760-BS1)

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	1470		uS/cm @ 25.0 °C	1410		104	90-110			
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Duplicate (BEE0760-DUP1) Source: 5045714-01

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	9470	1	uS/cm @ 25.0 °C		9440			0.317	0.938	
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Duplicate (BEE0760-DUP2) Source: 5053753-01

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	1	1	uS/cm @ 25.0 °C		1				0.938	
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Batch BEE0833 - Default Prep Wet Chem

Blank (BEE0833-BLK1)

Prepared: 5/9/2025 2:39, Analyzed: 5/9/2025 2:39

Total Organic Carbon	ND	0.5	mg/L							U
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LCS (BEE0833-BS1)

Prepared: 5/9/2025 2:54, Analyzed: 5/9/2025 2:54

Total Organic Carbon	4.87	0.5	mg/L	5.00		97.5	80-120			
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Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEE0833 - Default Prep Wet Chem										
Duplicate (BEE0833-DUP1)		Source: 5045711-05								
Prepared: 5/9/2025 6:39, Analyzed: 5/9/2025 6:39										
Total Organic Carbon	0.41	0.5	mg/L		0.48			14.6	25	J
Duplicate (BEE0833-DUP2)		Source: 5051408-01								
Prepared: 5/9/2025 10:14, Analyzed: 5/9/2025 10:14										
Total Organic Carbon	3.08	0.5	mg/L		3.05			0.816	25	
Matrix Spike (BEE0833-MS1)		Source: 5045711-05								
Prepared: 5/9/2025 7:02, Analyzed: 5/9/2025 7:02										
Total Organic Carbon	2.85	0.5	mg/L	2.50	0.48	94.9	80-120			
Matrix Spike (BEE0833-MS2)		Source: 5051408-02								
Prepared: 5/9/2025 10:28, Analyzed: 5/9/2025 10:28										
Total Organic Carbon	7.09	0.5	mg/L	5.00	1.71	108	80-120			
Batch BEE1004 - Default Prep Wet Chem										
Blank (BEE1004-BLK1)										
Prepared: 5/9/2025 9:20, Analyzed: 5/9/2025 16:07										
Chemical Oxygen Demand	ND	13	mg/L							U
LCS (BEE1004-BS1)										
Prepared: 5/9/2025 9:20, Analyzed: 5/9/2025 16:07										
Chemical Oxygen Demand	132	13	mg/L	125		106	90-110			
Duplicate (BEE1004-DUP1)		Source: 5012522-01								
Prepared: 5/9/2025 9:20, Analyzed: 5/9/2025 16:07										
Chemical Oxygen Demand	49	13	mg/L		41			17.8	25	
Matrix Spike (BEE1004-MS1)		Source: 5012522-01								
Prepared: 5/9/2025 9:20, Analyzed: 5/9/2025 16:07										
Chemical Oxygen Demand	285	13	mg/L	250	41	97.6	90-110			
Matrix Spike Dup (BEE1004-MSD1)		Source: 5012522-01								
Prepared: 5/9/2025 9:20, Analyzed: 5/9/2025 16:07										
Chemical Oxygen Demand	302	13	mg/L	250	41	104	90-110	5.79	10	



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE1135 - Default Prep Wet Chem

Blank (BEE1135-BLK1)

Prepared: 5/13/2025 2:02, Analyzed: 5/13/2025 2:02

Total Organic Carbon	ND	0.5	mg/L							U
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LCS (BEE1135-BS1)

Prepared: 5/13/2025 2:24, Analyzed: 5/13/2025 2:24

Total Organic Carbon	5.02	0.5	mg/L	5.00		100	80-120			
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Duplicate (BEE1135-DUP1) Source: 5050465-01

Prepared: 5/13/2025 7:44, Analyzed: 5/13/2025 7:44

Total Organic Carbon	3.04	0.5	mg/L		3.10			2.00	25	
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Duplicate (BEE1135-DUP2) Source: 5051128-01

Prepared: 5/13/2025 13:05, Analyzed: 5/13/2025 13:05

Total Organic Carbon	3.59	0.5	mg/L		3.61			0.478	25	
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Matrix Spike (BEE1135-MS1) Source: 5050465-02

Prepared: 5/13/2025 8:06, Analyzed: 5/13/2025 8:06

Total Organic Carbon	3.96	0.5	mg/L	2.50	1.51	97.8	80-120			
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Matrix Spike (BEE1135-MS2) Source: 5051128-02

Prepared: 5/13/2025 13:26, Analyzed: 5/13/2025 13:26

Total Organic Carbon	6.56	0.5	mg/L	5.00	1.79	95.4	80-120			
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Batch BEE1141 - Default Prep Wet Chem

Blank (BEE1141-BLK1)

Prepared: 5/12/2025 11:28, Analyzed: 5/12/2025 11:28

Total Dissolved Solids	ND	25	mg/L							U
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LCS (BEE1141-BS1)

Prepared: 5/12/2025 11:28, Analyzed: 5/12/2025 11:28

Total Dissolved Solids	88		mg/L	90.0		97.8	80-120			
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Duplicate (BEE1141-DUP1) Source: 5044883-01

Prepared: 5/12/2025 11:28, Analyzed: 5/12/2025 11:28

Total Dissolved Solids	296	50	mg/L		294			0.678	10	
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Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEE1141 - Default Prep Wet Chem										
Duplicate (BEE1141-DUP2)		Source: 5053841-01								
Prepared: 5/12/2025 11:28, Analyzed: 5/12/2025 11:28										
Total Dissolved Solids	298	50	mg/L		290			2.72	10	H3



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
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Batch BEE0262 - Default Prep IC

Blank (BEE0262-BLK1)

Prepared: 5/2/2025 20:17, Analyzed: 5/2/2025 20:17

Fluoride	ND	0.2	mg/L							U
Chloride	ND	0.5	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEE0262-BS1)

Prepared: 5/2/2025 19:56, Analyzed: 5/2/2025 19:56

Fluoride	5.0		mg/L	5.00		99.3	90-110			
Chloride	12.2		mg/L	12.5		97.3	90-110			
Sulfate	24		mg/L	25.0		96.3	90-110			

Matrix Spike (BEE0262-MS1)

Source: 5045711-05

Prepared: 5/2/2025 19:13, Analyzed: 5/2/2025 19:13

Chloride	1210		mg/L	250	923	114	75-125			D
Fluoride	99.1		mg/L	100	0.1	99.0	75-125			D
Sulfate	1950		mg/L	500	1380	114	75-125			D

Matrix Spike Dup (BEE0262-MSD1)

Source: 5045711-05

Prepared: 5/2/2025 19:35, Analyzed: 5/2/2025 19:35

Fluoride	100		mg/L	100	0.1	100	75-125	1.16	15	D
Chloride	1190		mg/L	250	923	108	75-125	1.37	15	D
Sulfate	1920		mg/L	500	1380	108	75-125	1.58	15	D

Batch BEE0437 - Default Prep IC

Blank (BEE0437-BLK1)

Prepared: 5/6/2025 4:13, Analyzed: 5/6/2025 4:13

Fluoride	ND	0.2	mg/L							U
Chloride	ND	0.5	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEE0437-BS1)

Prepared: 5/6/2025 3:52, Analyzed: 5/6/2025 3:52

Fluoride	5.0		mg/L	5.00		99.5	90-110			
Chloride	12.2		mg/L	12.5		97.7	90-110			
Sulfate	24		mg/L	25.0		96.5	90-110			



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0437 - Default Prep IC

Matrix Spike (BEE0437-MS1) Source: 5043743-01

Prepared: 5/6/2025 2:26, Analyzed: 5/6/2025 2:26

Fluoride	100		mg/L	50.0	0.7	199	75-125			D, M1
Chloride	1030		mg/L	125	738	233	75-125			D, M1
Sulfate	671		mg/L	250	158	205	75-125			D, M1

Matrix Spike (BEE0437-MS2) Source: 5052745-01

Prepared: 5/6/2025 3:09, Analyzed: 5/6/2025 3:09

Chloride	655		mg/L	250	509	58.2	75-125			D, M2
Fluoride	50.2		mg/L	100	0.6	49.6	75-125			D, M2
Sulfate	523		mg/L	500	258	52.9	75-125			D, M2

Matrix Spike Dup (BEE0437-MSD1) Source: 5043743-01

Prepared: 5/6/2025 2:48, Analyzed: 5/6/2025 2:48

Chloride	1020		mg/L	125	738	229	75-125	0.504	15	D, M1
Fluoride	99.9		mg/L	50.0	0.7	198	75-125	0.0600	15	D, M1
Sulfate	669		mg/L	250	158	204	75-125	0.370	15	D, M1

Matrix Spike Dup (BEE0437-MSD2) Source: 5052745-01

Prepared: 5/6/2025 3:30, Analyzed: 5/6/2025 3:30

Chloride	646		mg/L	250	509	54.8	75-125	1.32	15	D, M2
Fluoride	50.2		mg/L	100	0.6	49.6	75-125	0.0398	15	D, M2
Sulfate	518		mg/L	500	258	52.0	75-125	0.910	15	D, M2

Batch BEE1033 - Default Prep IC

Blank (BEE1033-BLK1)

Prepared: 5/10/2025 2:20, Analyzed: 5/10/2025 2:20

Chloride	ND	0.5	mg/L							U
Fluoride	ND	0.2	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEE1033-BS1)

Prepared: 5/10/2025 1:59, Analyzed: 5/10/2025 1:59

Fluoride	5.0		mg/L	5.00		99.4	90-110			
Chloride	12.1		mg/L	12.5		97.2	90-110			
Sulfate	24		mg/L	25.0		95.9	90-110			



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE1033 - Default Prep IC

Matrix Spike (BEE1033-MS1) Source: 5052290-01

Prepared: 5/10/2025 0:33, Analyzed: 5/10/2025 0:33

Fluoride	5.8		mg/L	5.00	0.7	103	75-125			
Chloride	31.0		mg/L	12.5	18.2	102	75-125			
Sulfate	45		mg/L	25.0	19	101	75-125			

Matrix Spike (BEE1033-MS2) Source: 5045714-01

Prepared: 5/10/2025 1:16, Analyzed: 5/10/2025 1:16

Fluoride	103		mg/L	100	0.3	102	75-125			D
Chloride	1730		mg/L	250	1400	133	75-125			D, M6
Sulfate	2680		mg/L	500	2030	130	75-125			D, M6

Matrix Spike Dup (BEE1033-MSD1) Source: 5052290-01

Prepared: 5/10/2025 0:54, Analyzed: 5/10/2025 0:54

Fluoride	5.8		mg/L	5.00	0.7	103	75-125	0.103	15	
Chloride	31.0		mg/L	12.5	18.2	102	75-125	0.0258	15	
Sulfate	45		mg/L	25.0	19	102	75-125	0.126	15	

Matrix Spike Dup (BEE1033-MSD2) Source: 5045714-01

Prepared: 5/10/2025 1:37, Analyzed: 5/10/2025 1:37

Fluoride	104		mg/L	100	0.3	104	75-125	1.33	15	D
Chloride	1730		mg/L	250	1400	134	75-125	0.154	15	D, M6
Sulfate	2670		mg/L	500	2030	127	75-125	0.560	15	D, M6

Certified Analyses included in this Report

Analyte	Certifications
2510 B-2011 in Water	
Specific Conductance (Lab)	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 FL Drinking Water Mdv (E871159)
2540 C-2015 in Water	
Total Dissolved Solids	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
5310 C-2014 in Water	
Total Organic Carbon	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) ADEM Drinking Water Mdv (41880) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
HACH 8000 in Water	
Chemical Oxygen Demand	KY Wastewater Mdv (00030) VA NELAC MDV (460210) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431
SM 4500-H+ B-2011 in Water	
pH (Lab)	KY Drinking Water Mdv (00030) TN Drinking Water (02819)
SW846 6010 B in Water	
Calcium	VA NELAC MDV (460210)



Sample Acceptance Checklist for Work Order 5045711

Shipped By: Client

Temperature: 3.40° Celcius

Condition

Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>



June 12, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5045711
Pace Project No.: 30780109

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa A. Wilson
theresa.wilson@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 5045711
 Pace Project No.: 30780109

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: 5045711
Pace Project No.: 30780109

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30780109001	5045711-01 MW1	Water	05/07/25 14:08	05/14/25 10:00
30780109002	5045711-02 MW 2	Water	05/02/25 09:15	05/14/25 10:00
30780109003	5045711-03 MW3A	Water	05/06/25 11:47	05/14/25 10:00
30780109004	5045711-04 MW 4	Water	05/07/25 10:55	05/14/25 10:00
30780109005	5045711-05 MW5	Water	04/30/25 15:32	05/14/25 10:00
30780109006	5045711-05 MW5 MS	Water	04/30/25 15:32	05/14/25 10:00
30780109007	5045711-05 MW5 MSD	Water	04/30/25 15:32	05/14/25 10:00
30780109008	5045711-06 MW6	Water	04/30/25 18:50	05/14/25 10:00
30780109009	5045711-07 Duplicate	Water	05/02/25 09:45	05/14/25 10:00
30780109010	5045711-08 Field Blank	Water	05/02/25 09:15	05/14/25 10:00

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SAMPLE ANALYTE COUNT

Project: 5045711
 Pace Project No.: 30780109

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30780109001	5045711-01 MW1	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30780109002	5045711-02 MW 2	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30780109003	5045711-03 MW3A	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30780109004	5045711-04 MW 4	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30780109005	5045711-05 MW5	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30780109006	5045711-05 MW5 MS	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
30780109007	5045711-05 MW5 MSD	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
30780109008	5045711-06 MW6	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30780109009	5045711-07 Duplicate	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30780109010	5045711-08 Field Blank	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5045711
 Pace Project No.: 30780109

Sample: 5045711-01 MW1 Lab ID: 30780109001 Collected: 05/07/25 14:08 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0475 ± 0.652 (1.21) C:NA T:96%	pCi/L	06/06/25 14:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.711 ± 0.420 (0.763) C:71% T:87%	pCi/L	06/04/25 17:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.759 ± 1.07 (1.97)	pCi/L	06/12/25 10:16	7440-14-4	

Sample: 5045711-02 MW 2 Lab ID: 30780109002 Collected: 05/02/25 09:15 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.675 ± 0.515 (0.732) C:NA T:91%	pCi/L	06/06/25 14:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.493 ± 0.402 (0.797) C:72% T:86%	pCi/L	06/04/25 17:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.17 ± 0.917 (1.53)	pCi/L	06/12/25 10:16	7440-14-4	

Sample: 5045711-03 MW3A Lab ID: 30780109003 Collected: 05/06/25 11:47 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.875 ± 0.686 (1.49) C:NA T:90%	pCi/L	06/06/25 14:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.11 ± 0.480 (0.774) C:75% T:87%	pCi/L	06/04/25 17:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.11 ± 1.17 (2.26)	pCi/L	06/12/25 10:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5045711
 Pace Project No.: 30780109

Sample: 5045711-04 MW 4 Lab ID: 30780109004 Collected: 05/07/25 10:55 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.326 ± 0.640 (1.12) C:NA T:92%	pCi/L	06/06/25 14:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.09 ± 0.569 (1.04) C:78% T:87%	pCi/L	06/04/25 17:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.42 ± 1.21 (2.16)	pCi/L	06/12/25 10:16	7440-14-4	

Sample: 5045711-05 MW5 Lab ID: 30780109005 Collected: 04/30/25 15:32 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.510 ± 0.568 (0.929) C:NA T:94%	pCi/L	06/06/25 14:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.54 ± 0.610 (0.995) C:76% T:89%	pCi/L	06/04/25 17:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.05 ± 1.18 (1.92)	pCi/L	06/12/25 10:16	7440-14-4	

Sample: 5045711-05 MW5 MS Lab ID: 30780109006 Collected: 04/30/25 15:32 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	62.71 %REC ± NA (NA) C:NA T:NA	pCi/L	06/06/25 15:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	57.34 %REC ± NA (NA) C:NA T:NA	pCi/L	06/04/25 17:02	15262-20-1	2c

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5045711
 Pace Project No.: 30780109

Sample: 5045711-05 MW5 MSD Lab ID: 30780109007 Collected: 04/30/25 15:32 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	97.80 %REC 43.73RPD ± NA (NA) C:NA T:NA	pCi/L	06/06/25 15:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	56.61 %REC 1.28RPD ± NA (NA) C:NA T:NA	pCi/L	06/04/25 17:02	15262-20-1	1c

Sample: 5045711-06 MW6 Lab ID: 30780109008 Collected: 04/30/25 18:50 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.154 ± 0.676 (1.23) C:NA T:95%	pCi/L	06/06/25 14:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.461 ± 0.446 (0.909) C:68% T:78%	pCi/L	06/04/25 17:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.615 ± 1.12 (2.14)	pCi/L	06/12/25 10:16	7440-14-4	

Sample: 5045711-07 Duplicate Lab ID: 30780109009 Collected: 05/02/25 09:45 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.0619 ± 0.717 (1.39) C:NA T:95%	pCi/L	06/06/25 14:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.177 ± 0.357 (0.789) C:74% T:82%	pCi/L	06/04/25 17:03	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.177 ± 1.07 (2.18)	pCi/L	06/12/25 10:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5045711
 Pace Project No.: 30780109

Sample: 5045711-08 Field Blank **Lab ID: 30780109010** Collected: 05/02/25 09:15 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	0.000 ± 0.594 (1.13) C:NA T:98%	pCi/L	06/06/25 14:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	0.438 ± 0.370 (0.743) C:79% T:90%	pCi/L	06/04/25 17:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.438 ± 0.964 (1.87)	pCi/L	06/12/25 10:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5045711
 Pace Project No.: 30780109

QC Batch:	747621	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30780109001, 30780109002, 30780109003, 30780109004, 30780109005, 30780109006, 30780109007, 30780109008, 30780109009, 30780109010

METHOD BLANK: 3641291 Matrix: Water

Associated Lab Samples: 30780109001, 30780109002, 30780109003, 30780109004, 30780109005, 30780109006, 30780109007, 30780109008, 30780109009, 30780109010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.591 ± 0.384 (0.716) C:76% T:86%	pCi/L	06/04/25 17:02	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5045711
 Pace Project No.: 30780109

QC Batch:	747620	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30780109001, 30780109002, 30780109003, 30780109004, 30780109005, 30780109006, 30780109007, 30780109008, 30780109009, 30780109010

METHOD BLANK: 3641287 Matrix: Water

Associated Lab Samples: 30780109001, 30780109002, 30780109003, 30780109004, 30780109005, 30780109006, 30780109007, 30780109008, 30780109009, 30780109010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.622 ± 0.323 (0.112) C:NA T:94%	pCi/L	06/06/25 14:03	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5045711
 Pace Project No.: 30780109

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
 ND - Not Detected at or above adjusted reporting limit.
 TNTC - Too Numerous To Count
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
 MDL - Adjusted Method Detection Limit.
 PQL - Practical Quantitation Limit.
 RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
 S - Surrogate
 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
 Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
 LCS(D) - Laboratory Control Sample (Duplicate)
 MS(D) - Matrix Spike (Duplicate)
 DUP - Sample Duplicate
 RPD - Relative Percent Difference
 NC - Not Calculable.
 SG - Silica Gel - Clean-Up
 U - Indicates the compound was analyzed for, but not detected.
 N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
 Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
 Act - Activity
 Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.
 Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.
 (MDC) - Minimum Detectable Concentration
 Trac - Tracer Recovery (%)
 Carr - Carrier Recovery (%)
 Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
 TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- 1c Matrix spike duplicate recovery is low and outside of the default acceptance criteria for MS recovery. Results reported based on acceptable RPD for the RQS set.
- 2c Matrix spike recovery is low and outside of the default acceptance criteria for MS recovery. Results reported based on acceptable RPD for the RQS set.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5045711
 Pace Project No.: 30780109

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30780109001	5045711-01 MW1	EPA 903.1	747620		
30780109002	5045711-02 MW 2	EPA 903.1	747620		
30780109003	5045711-03 MW3A	EPA 903.1	747620		
30780109004	5045711-04 MW 4	EPA 903.1	747620		
30780109005	5045711-05 MW5	EPA 903.1	747620		
30780109006	5045711-05 MW5 MS	EPA 903.1	747620		
30780109007	5045711-05 MW5 MSD	EPA 903.1	747620		
30780109008	5045711-06 MW6	EPA 903.1	747620		
30780109009	5045711-07 Duplicate	EPA 903.1	747620		
30780109010	5045711-08 Field Blank	EPA 903.1	747620		
30780109001	5045711-01 MW1	EPA 904.0	747621		
30780109002	5045711-02 MW 2	EPA 904.0	747621		
30780109003	5045711-03 MW3A	EPA 904.0	747621		
30780109004	5045711-04 MW 4	EPA 904.0	747621		
30780109005	5045711-05 MW5	EPA 904.0	747621		
30780109006	5045711-05 MW5 MS	EPA 904.0	747621		
30780109007	5045711-05 MW5 MSD	EPA 904.0	747621		
30780109008	5045711-06 MW6	EPA 904.0	747621		
30780109009	5045711-07 Duplicate	EPA 904.0	747621		
30780109010	5045711-08 Field Blank	EPA 904.0	747621		
30780109001	5045711-01 MW1	Total Radium Calculation	751628		
30780109002	5045711-02 MW 2	Total Radium Calculation	751628		
30780109003	5045711-03 MW3A	Total Radium Calculation	751628		
30780109004	5045711-04 MW 4	Total Radium Calculation	751628		
30780109005	5045711-05 MW5	Total Radium Calculation	751628		
30780109008	5045711-06 MW6	Total Radium Calculation	751628		
30780109009	5045711-07 Duplicate	Total Radium Calculation	751628		
30780109010	5045711-08 Field Blank	Total Radium Calculation	751628		

REPORT OF LABORATORY ANALYSIS

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WO#: 30780109

SUBCONTRACT ORDER
Pace Analytical Services, LLC Kentucky
5045711



SENDING LABORATORY:

Pace Analytical Services, LLC Kentucky
PO BOX 907
Madisonville, KY 42431
Phone: (270) 821-7375
Fax: 844-270-7904
Project Manager: Rob Whittington

RECEIVING LABORATORY:

Pace Analytical Services LLC Greensburg PA
1638 Rosey Town Rd Suite 2,3,4
Greensburg, PA 15601
Phone : (724) 850-5615
Fax:

Received by Pace Greensburg
Therm ID 14 Corr Factor +/- 0.0
Receipt Temp 13.2, 14.2, 15.4
Corrected Temp 13.2, 14.2, 15.4
Correct Preservation

Analysis Expires Laboratory ID Comments

Sample ID: 5045711-01	Water	Sampled: 05/07/2025 14:08	Specific Method	TEMP 10.2	
Radium 226 (sub)	Ground	11/03/2025 14:08	EPA 903.1		001
Radium Total (sub)		11/03/2025 14:08	EPA 904.0 Radium Sum C		mwl
Radium 228 (sub)		11/03/2025 14:08	EPA 904.0 Radium Sum C		

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5045711-02	Water	Sampled: 05/02/2025 09:15	Specific Method	TEMP 4.8	
Radium Total (sub)	Ground	10/29/2025 09:15	EPA 904.0 Radium Sum C		002
Radium 228 (sub)		10/29/2025 09:15	EPA 904.0 Radium Sum C		mwa
Radium 226 (sub)		10/29/2025 09:15	EPA 903.1		

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5045711-03	Water	Sampled: 05/06/2025 11:47	Specific Method	TEMP 10.2	
Radium 226 (sub)	Ground	11/02/2025 11:47	EPA 903.1		003
Radium 228 (sub)		11/02/2025 11:47	EPA 904.0 Radium Sum C		mw3A
Radium Total (sub)		11/02/2025 11:47	EPA 904.0 Radium Sum C		

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Released By [Signature] Date 5/10/25 Received By [Signature] Date 5/14/25 1000

Released By _____ Date _____ Received By _____ Date _____

WO#: 30780109

SUBCONTRACT ORDER
Pace Analytical Services, LLC Kentucky
5045711

PM: TAW Due Date: 06/05/25
CLIENT: PACE_44_MVKY

Analysis Expires Laboratory ID Comments

Sample ID: 5045711-04 Water Sampled:05/07/2025 10:55 Specific Method TEMP 10.2
Radium 228 (sub) Ground 11/03/2025 10:55 EPA 904.0 Radium Sum C mwy 004
Radium Total (sub) 11/03/2025 10:55 EPA 904.0 Radium Sum C
Radium 226 (sub) 11/03/2025 10:55 EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5045711-05 Water Sampled:04/30/2025 15:32 Specific Method
Radium 226 (sub) Ground 10/27/2025 15:32 EPA 903.1 mws 005
Radium 228 (sub) 10/27/2025 15:32 EPA 904.0 Radium Sum C MS/MSD 006
Radium Total (sub) 10/27/2025 15:32 EPA 904.0 Radium Sum C 007

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5045711-06 Water Sampled:04/30/2025 18:50 Specific Method
Radium 226 (sub) Ground 10/27/2025 18:50 EPA 903.1 mwb 008
Radium Total (sub) 10/27/2025 18:50 EPA 904.0 Radium Sum C
Radium 228 (sub) 10/27/2025 18:50 EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5045711-07 Water Sampled:05/02/2025 09:45 Specific Method TEMP 4.8
Radium 226 (sub) Ground 10/29/2025 09:45 EPA 903.1 Duplicate
Radium 228 (sub) 10/29/2025 09:45 EPA 904.0 Radium Sum C
Radium Total (sub) 10/29/2025 09:45 EPA 904.0 Radium Sum C 009

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Released By [Signature] Date 5-12-25 Received By [Signature] Date 5/14/25 1000

Released By _____ Date _____ Received By _____ Date _____

SUBCONTRACT ORDER
Pace Analytical Services, LLC Kentucky
5045711

Analysis	Expires	Laboratory ID	Comments
Sample ID: 5045711-08	Water	Sampled:05/02/2025 09:15	Specific Method TEMP 4.8 010
Radium Total (sub)	Ground	10/29/2025 09:15	EPA 904.0 Radium Sum C Field Blank
Radium 226 (sub)		10/29/2025 09:15	EPA 903.1
Radium 228 (sub)		10/29/2025 09:15	EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

WO# : 30780109
PM: TAW Due Date: 06/05/25
CLIENT: PACE_44_MVKY

Released By [Signature] Date 5-12-25 Received By [Signature] Date 5/14/25 1000

Released By _____ Date _____ Received By _____ Date _____

DC#_Title: ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt-
Greensburg
Effective Date: 01/04/2024

WO#: 30780109

PM: TAW Due Date: 06/05/25
CLIENT: PACE_44_MVKY

Client Name: Pace MVKY Proj

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking Number: 1Z 067 Y57 0120327815, 1Z 067 Y57 0103615992 Initial/Date

Examined By: MS 5/16/25
Labeled By: MS 5/16/25
Temped By: JML 5/14/25

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No
Thermometer Used: 24 Type of Ice: Wet Blue None
Cooler Temperature: Observed Temp 13.2 °C Correction Factor: 0.0 °C Final Temp: 13.2 °C
Temp should be above freezing to 6°C *SEE NOTES

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				10043241	—
Chain of Custody Present	✓			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	✓			2.	
Chain of Custody Relinquished	✓			3.	
Sampler Name & Signature on COC:		✓		4.	
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>		✓		5.	<u>No dates and times on bottles</u>
Samples Arrived within Hold Time:	✓			6.	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:		✓		8.	
Sufficient Volume:	✓			9.	
Correct Containers Used: -Pace Containers Used	✓			10.	
Containers Intact:	✓			11.	
Orthophosphate field filtered:			✓	12.	
Hex Cr Aqueous samples field filtered:			✓	13.	
Organic Samples checked for dichlorination			✓	14.	
Filtered volume received for dissolved tests:			✓	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	✓			16.	
All containers meet method preservation requirements:	✓			Initial when completed <u>MS</u>	Date/Time of Preservation
8260C/D: Headspace in VOA Vials (> 6mm)			✓	Lot# of added Preservative	
624.1: Headspace in VOA Vials (0mm)			✓	17.	
Radon: Headspace in RAD Vials (0mm)			✓	18.	
Trip Blank Present:			✓	19.	Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed <u>PS</u>	Date: <u>5/14/25</u> Survey Meter SN: <u>25014380</u>
Comments: <u>Cooler #2 : therm: 24 (0.0 correction factor) temp: 15.4</u> <u>Cooler #3 : therm: 24 (0.0 correction factor) temp: 14.2</u>					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.
Qualtrax ID: 55680

Client _____
 Site 5045711

Page _____ of _____

Profile/EZ Login Number 11851
 Notes _____

Sample Line Item	Matrix	Amber Glass					Plastic					Vials					Other												
		AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	GCUB	GJN	12GN	AG1U	BG1U	BP2N	
001	WT																												
002	WT																												
003	WT																												
004	WT																												
005	WT																												
006	WT																												
007	WT																												
008	WT																												
009	WT																												
010	WT																												

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100ml amber glass unpreserved
AG5T	100ml amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass NA Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250ml amber glass H2SO4
AG3U	250ml amber glass unpreserved

Plastic/Misc.	
GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	500ml plastic H2SO4
BP1N	500ml plastic H2SO4
BP1U	500ml plastic H2SO4
BP3S	500ml plastic unpreserved
BP3U	500ml plastic unpreserved
BP3B	250ml plastic NAOH
BP2S	500ml plastic H2SO4
BP2U	500ml plastic unpreserved

MO# : 30780109

PM: TRW Due Date: 06/05/25
 CLIENT: PACE_44_MVKY

EZ1	5g Encore
VOAK	Kit Volatile Solid
OC	Swab
OL	Non-Aq Liquid
WP	Wipe

Qualtrax ID: 55678

Pace Analytical Services, LLC

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LL1
Date: 5/27/2025
Batch ID: 85317
Matrix: WT

Method Blank Assessment	
MB Sample ID	3641287
MB concentration:	0.622
MB 2 Sigma CSU:	0.323
MB MDC:	0.112
MB Numerical Performance Indicator:	3.78
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	
LCSID (Y or N)?	N
LCS85317	LCS085317
Count Date:	6/6/2025
Spike I.D.:	24-046
Spike Concentration (pCi/mL):	31.830
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.650
Target Conc. (pCi/L, g, F):	4.894
Uncertainty (Calculated):	0.230
Result (pCi/L, g, F):	4.078
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.948
Numerical Performance Indicator:	-1.64
Percent Recovery:	83.32%
Status vs Numerical Indicator:	Pass
Status vs Recovery:	N/A
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	73%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample end/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		4/30/2025	
Sample I.D.:		30780109005	
Sample MS I.D.:		30780109006	
Sample MSD I.D.:		30780109007	
Spike I.D.:		24-046	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		31.832	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.692	
MS Aliquot (L, g, F):		9.780	
MS Target Conc. (pCi/L, g, F):		0.653	
MSD Aliquot (L, g, F):		9.755	
MSD Target Conc. (pCi/L, g, F):		0.459	
MS Spike Uncertainty (calculated):		0.458	
MSD Spike Uncertainty (calculated):		0.510	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.568	
Sample Matrix Spike Result:		6.630	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		1.384	
Sample Matrix Spike Duplicate Result:		10.050	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		1.800	
MS Numerical Performance Indicator:		-4.359	
MSD Numerical Performance Indicator:		-0.217	
MS Percent Recovery:		62.71%	
MSD Percent Recovery:		97.80%	
MS Status vs Numerical Indicator:		Fail****	
MSD Status vs Numerical Indicator:		Pass	
MS Status vs Recovery:		N/A	
MSD Status vs Recovery:		N/A	
MS/MSD Upper % Recovery Limits:		136%	
MS/MSD Lower % Recovery Limits:		71%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30780109005
Sample MS I.D.:	30780109006
Sample MSD I.D.:	30780109007
Sample Matrix Spike Result:	6.630
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.384
Sample Matrix Spike Duplicate Result:	10.050
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.800
Duplicate Numerical Performance Indicator:	-2.952
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	43.73%
MS/MSD Duplicate Status vs Numerical Indicator:	Warning
MS/MSD Duplicate Status vs RPD:	N/A
% RPD Limit:	32%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

~~The batch must be reprepared due to an unacceptable blank result~~

MS results < RL, OK

MS Recovery low -

results reported based

on acceptable NI < 3

Open
6/9/25

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JJS1
Date: 5/28/2025
Worklist: 85318
Matrix: WT

Method Blank Assessment	
MB Sample ID	3641291
MB concentration:	0.591
MB 2 Sigma CSU:	0.364
MB MDC:	0.716
MB Numerical Performance Indicator:	3.02
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD85318	LCSD85318
Count Date:	6/4/2025
Spike I.D.:	23-043
Decay Corrected Spike Concentration (pCi/mL):	32.359
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.821
Target Conc. (pCi/L, g, F):	3.942
Uncertainty (Calculated):	0.193
Result (pCi/L, g, F):	3.476
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.864
Numerical Performance Indicator:	-1.03
Percent Recovery:	88.18%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

~~If the lowest activity sample in the batch is greater than 10 times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.~~

Quelst25

****If all other QC criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias for this sample only and may not be applicable to any other samples in this analytical batch.

6-6-25
SSS

MSB activity < MDC, Pass

MS/MSD recovery navigated, reported based on acceptable RPD

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 4/30/2025
Sample I.D.:	30780109005
Sample MS I.D.:	30780109006
Sample MSD I.D.:	30780109007
Spike I.D.:	23-043
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	32.736
Spike Volume Used in MS (mL):	0.20
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.802
MS Target Conc. (pCi/L, g, F):	8.165
MSD Aliquot (L, g, F):	0.802
MSD Target Conc. (pCi/L, g, F):	8.160
MS Spike Uncertainty (calculated):	0.400
MSD Spike Uncertainty (calculated):	0.400
Sample Result:	1.542
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.610
Sample Matrix Spike Result:	6.224
Sample Matrix Spike Duplicate Result:	1.351
Sample Matrix Spike Duplicate Result:	6.161
MS Numerical Performance Indicator:	1.342
MS Numerical Performance Indicator:	-4.447
MSD Numerical Performance Indicator:	-4.544
MS Percent Recovery:	57.34%
MSD Percent Recovery:	56.61%
MS Status vs Numerical Indicator:	Fail****
MSD Status vs Numerical Indicator:	Fail****
MS Status vs Recovery:	MS Low****
MSD Status vs Recovery:	MSD Low****
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30780109005
Sample MS I.D.:	30780109006
Sample MSD I.D.:	30780109007
Sample Matrix Spike Result:	6.224
Sample Matrix Spike Duplicate Result:	1.351
Sample Matrix Spike Duplicate Result:	6.161
Sample Matrix Spike Duplicate Result:	1.342
Duplicate Numerical Performance Indicator:	0.064
Duplicate Numerical Performance Indicator:	1.28%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Pace Analytical Services LLC Kentucky
 825 Industrial Road
 P.O. Box 907
 Madisonville, KY 42431

Chain of Custody

Scheduled for: **05/01/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State:

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-01 A	05/07/25	1408	Plastic 500mL pH<2 w/HNO3	1	MW1	g / c	Mercury Tot 6020 Boron Tot 6010B Calcium Tot 6010B Beryllium Tot 6020 Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Cadmium Tot 6020 Copper Tot 6020 Iron Tot 6010B Antimony Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Lead Tot 6020
Preservation Check: pH: <u>✓</u>							
5045711-01 B	05/07/25	1408	Plastic 1L	1	MW1	g / c	Fluoride 9056 TDS Sulfate 9056 Chloride 9056 pH (Lab) Conductivity (Lab)
5045711-01 C	05/07/25	1408	Plastic 500mL pH<2 w/H2SO4	1	MW1	g / c	TOC COD
Preservation Check: pH: <u>✓</u>							
5045711-01 D	05/07/25	1408	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW1	g / c	Radium 226 (sub)
Preservation Check: pH: <u>✓</u>							

Preservation Check Performed by: VED

pH Paper Lot #: 213724

Field data collected by: Hummer, Kelli Date (mm/dd/yy) 05/07/25 Time (24 hr) 1408
 pH 7.85 Cond (umho) 0.956 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature]

[Signature]

5-8-25

1625

PACE- Check here if trip charge applied to associated COC

Printed: 5/6/2025 12:10:16PM

Page 1 of 16

Pace Analytical Services LLC Kentucky
 825 Industrial Road
 P.O. Box 907
 Madisonville, KY 42431

Chain of Custody

Scheduled for: 05/01/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: _____

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(°C) at end time below.

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (°C) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (°C) _____

LAB USE ONLY Workorder # 5045711 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-01 E	05/07/25	1408	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW1	g/c	Radium 228 (sub)
			Preservation Check: pH: <input checked="" type="checkbox"/>				
5045711-01 F	05/07/25	1408	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW1	g/c	Radium 228 (sub)
			Preservation Check: pH: <input checked="" type="checkbox"/>				
5045711-01 G	05/07/25	1408	Plastic 1L pH<2 w/HNO3 Sub	1	MW1	g/c	Radium Total (sub)
			Preservation Check: pH: <input checked="" type="checkbox"/>				
5045711-01 H	05/07/25	1408	AG 250mL pH<2 w/H2SO4	1	MW1	g/c	TOC
			Preservation Check: pH: <input checked="" type="checkbox"/>				

Preservation Check Performed by: VED

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (°C) _____ or (°F) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>5/8/25</u>	Time (24 hr) <u>1625</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: **04/28/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature]

Compliance Monitoring? Yes ___ No ___

required information

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-02 A	5/2/25	0415	Plastic 500mL pH<2 w/HNO3	1	MW2	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH : <u>/</u>				
5045711-02 B	5/2/25	0415	Plastic 1L	1	MW2	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056 COD TOC
5045711-02 C	5/2/25	0415	Plastic 500mL pH<2 w/H2SO4	1	MW2	g / c	
			Preservation Check: pH : <u>/</u>				
5045711-02 D	5/2/25	0415	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW2	g / c	Radium 226 (sub)
			Preservation Check: pH : <u>/</u>				
5045711-02 E	5/2/25	0415	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW2	g / c	Radium 228 (sub)
			Preservation Check: pH : <u>/</u>				

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 5/2/25 Time (24 hr) 0415
 pH 6.73 Cond (umho) 1.86 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: MGD CFS g/min GPD

Relinquished by (Signature): [Signature]

Received by (Signature): [Signature]

Date (mm/dd/yy) 5-2-25

Time (24 hr) 1556

PACE- Check here if trip charge applied to associated COC

Chain of Custody

Scheduled for: **04/28/2025**



Client: **Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#:
 State: _____

PO#:
 Quote#:

Some workorder

Please Print Legibly

Collected by (Signature): _____

Compliance Monitoring? Yes ___ No ___

required information

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Thermometer Serial Number

230753815
 240381205
 Temperature 4.8 °C

LAB USE ONLY Workorder # Sample ID#	*required Information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-02 F	<u>5/2/25</u>	<u>0415</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW2	g / c	Radium 228 (sub)
Preservation Check: pH: <u>/</u>							
5045711-02 G	<u>5/2/25</u>	<u>0415</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW2	g / c	Radium Total (sub)
Preservation Check: pH: <u>/</u>							
5045711-02 H	<u>5/2/25</u>	<u>0415</u>	AG 250mL pH<2 w/H2SO4	1	MW2	g / c	TOC
Preservation Check: pH: <u>/</u>							
5045711-03 A			Plastic 500mL pH<2 w/HNO3	1	MW3A	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
Preservation Check: pH: _____							
5045711-03 B			Plastic 1L	1	MW3A	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056

Preservation Check Performed by: KLS pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by (Signature): [Signature] Received by (Signature): [Signature] Date (mm/dd/yy): 5-2-28 Time (24 hr): 1556

Chain of Custody

Scheduled for: **05/01/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Project: Green Landfill Semiannual Groundwater

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station

Stacy Shelton
 PO Box 24
 Henderson, KY 42419

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____ ***required information*** Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below: Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-02 F			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW2	g / c	Radium 228 (sub)
			Preservation Check: pH: _____				
5045711-02 G			Plastic 1L pH<2 w/HNO3 Sub	1	MW2	g / c	Radium Total (sub)
			Preservation Check: pH: _____				
5045711-02 H			AG 250mL pH<2 w/H2SO4	1	MW2	g / c	TOC
			Preservation Check: pH: _____				
5045711-03 A	5/10/25	1147	Plastic 500mL pH<2 w/HNO3	1	MW3A	g / c	Mercury Tot 6020 Boron Tot 6010B Calcium Tot 6010B Beryllium Tot 6020 Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Cadmium Tot 6020 Copper Tot 6020 Iron Tot 6010B:Antimony Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Lead Tot 6020
			Preservation Check: pH: _____				
5045711-03 B			Plastic 1L	1	MW3A	g / c	Fluoride 9056 TDS Sulfate 9056 Chloride 9056 pH (Lab) Conductivity (Lab)

Preservation Check Performed by: KED pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) _____ Received by: (Signature) _____ Date (mm/dd/yy) _____ Time (24 hr) _____

Ked [Signature] 5/8/25 11:25

Chain of Custody

Scheduled for: **05/01/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State:

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(°C) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (°C) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (°C) _____

LAB USE ONLY Workorder # 5045711 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-03 C	05/04/25	1147	Plastic 500mL pH<2 w/H2SO4	1	MW3A	g/c	TOC COD
			Preservation Check: pH: <u>✓</u>				
5045711-03 D	05/06/25	1147	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW3A	g/c	Radium 226 (sub)
			Preservation Check: pH: <u>✓</u>				
5045711-03 E	05/06/25	1147	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW3A	g/c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5045711-03 F	05/06/25	1147	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW3A	g/c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5045711-03 G	05/06/25	1147	Plastic 1L pH<2 w/HNO3 Sub	1	MW3A	g/c	Radium Total (sub)
			Preservation Check: pH: <u>✓</u>				
5045711-03 H	05/06/25	1147	AG 250mL pH<2 w/H2SO4	1	MW3A	g/c	TOC
			Preservation Check: pH: <u>✓</u>				

Preservation Check Performed by: [Signature] pH Paper Lot #: 213724

Field data collected by: Hunter Merrill Date (mm/dd/yy) 05/06/25 Time (24 hr) 1147
 pH 6.96 Cond (µmho) 7.26 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (°C) _____ or (°F) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 05-05 Time (24 hr) 1625

Chain of Custody

Scheduled for: **05/01/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#: _____
 State: 4-1

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-04 A	<u>05/07/25</u>	<u>1055</u>	Plastic 500mL pH<2 w/HNO3	1	MW4	g/c	Mercury Tot 6020 Boron Tot 6010B Calcium Tot 6010B Beryllium Tot 6020 Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Cadmium Tot 6020 Copper Tot 6020 Iron Tot 6010B Antimony Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Lead Tot 6020
			Preservation Check: pH: <u>✓</u>				
5045711-04 B	<u>05/07/25</u>	<u>1055</u>	Plastic 1L	1	MW4	g/c	Fluoride 9056 TDS Sulfate 9056 Chloride 9056 pH (Lab) Conductivity (Lab) TOC COD
			Preservation Check: pH: <u>✓</u>				
5045711-04 C	<u>05/07/25</u>	<u>1055</u>	Plastic 500mL pH<2 w/H2SO4	1	MW4	g/c	TOC COD
			Preservation Check: pH: <u>✓</u>				
5045711-04 D	<u>05/07/25</u>	<u>1055</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW4	g/c	Radium 226 (sub)
			Preservation Check: pH: <u>✓</u>				
5045711-04 E	<u>05/07/25</u>	<u>1055</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW4	g/c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				

Preservation Check Performed by: KED

pH Paper Lot #: 213724

Field data collected by: Hunter Mirelli Date (mm/dd/yy) 05/07/25 Time (24 hr) 1055

pH 7.01 Cond (µmho) 6.49 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 5-8-25

Time (24 hr) 1625

PACE- Check here if trip charge applied to associated COC

Printed: 5/6/2025 12:10:16PM

Page 6 of 16

Chain of Custody

Scheduled for: 05/01/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Seepage Study
 Henderson Station Number

236753815
240381205

Temperature 10.2°C
on Ice

Phone: (270) 844-5659
 PWS ID#: _____
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(°C) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (°C) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (°C) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-04 F	<u>05/07/25</u>	<u>1055</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW4	g/c	Radium 228 (sub)
Preservation Check: pH: <u>/</u>							
5045711-04 G	<u>05/07/25</u>	<u>1055</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW4	g/c	Radium Total (sub)
Preservation Check: pH: <u>/</u>							
5045711-04 H	<u>05/07/25</u>	<u>1055</u>	AG 250mL pH<2 w/H2SO4	1	MW4	g/c	TOC
Preservation Check: pH: <u>/</u>							
5045711-05 A	_____	_____	Plastic 500mL pH<2 w/HNO3	1	MW5	g/c	Mercury Tot 6020 Boron Tot 6010B Calcium Tot 6010B Beryllium Tot 6020 Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Cadmium Tot 6020 Copper Tot 6020 Iron Tot 6010B Antimony Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Lead Tot 6020
Preservation Check: pH: _____							
5045711-05 B	_____	_____	Plastic 1L	1	MW5	g/c	Fluoride 9056 TDS Sulfate 9056 Chloride 9056 pH (Lab) Conductivity (Lab)
Preservation Check: pH: _____							

Preservation Check Performed by: KED pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (°C) _____ or (°F) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 5-8-25 Time (24 hr) 1625

Chain of Custody

Scheduled for: **04/28/2025**



Client: **Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information**

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-04 F			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW4	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				
5045711-04 G			Plastic 1L pH<2 w/HNO3 Sub	1	MW4	g / c	Radium Total (sub)
			Preservation Check: pH: <u>/</u>				
5045711-04 H			AG 250mL pH<2 w/H2SO4	1	MW4	g / c	TOC
			Preservation Check: pH: <u>/</u>				
5045711-05 A	<u>4/30/25</u>	<u>1532</u>	Plastic 500mL pH<2 w/HNO3	1	MW5	g / c	MSD/MS Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH: <u>/</u>				
5045711-05 B	<u>4/30/25</u>	<u>1532</u>	Plastic 1L	1	MW5	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056
			Preservation Check: pH: <u>/</u>				

Preservation Check Performed by: KLJ pH Paper Lot #: 213724

Field data collected by: Hunter M. 2021 Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>5-12-25</u>	Time (24 hr) <u>1133</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: 04/28/2025



Client: **Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-05 C	<u>4/30/25</u>	<u>1532</u>	Plastic 500mL pH<2 w/H2SO4	1	MW5	g/c	COD TOC
			Preservation Check: pH:	<u>+</u>			
5045711-05 D	<u>4/30/25</u>	<u>1532</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW5	g/c	Radium 226 (sub)
			Preservation Check: pH:	<u>+</u>			
5045711-05 E	<u>4/30/25</u>	<u>1532</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW5	g/c	Radium 228 (sub)
			Preservation Check: pH:	<u>+</u>			
5045711-05 F	<u>4/30/25</u>	<u>1532</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW5	g/c	Radium 228 (sub)
			Preservation Check: pH:	<u>+</u>			
5045711-05 G	<u>4/30/25</u>	<u>1532</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW5	g/c	Radium Total (sub)
			Preservation Check: pH:	<u>+</u>			
5045711-05 H	<u>4/30/25</u>	<u>1532</u>	AG 250mL pH<2 w/H2SO4	1	MW5	g/c	TOC
			Preservation Check: pH:	<u>+</u>			

Preservation Check Performed by: KLS pH Paper Lot #: 213724

Field data collected by: Hunter Mizell Date (mm/dd/yy) 04-30-25 Time (24 hr) 1532 NW-5

pH 6.72 Cond (umho) 5.68 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>5-1-25</u>	Time (24 hr) <u>1133</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: 04/28/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information*		Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
	Date (mm/dd/yy):	Collection Time (24 hr):					
5045711-06 A	<u>4/30/25</u>	<u>1850</u>	Plastic 500mL pH<2 w/HNO3	1	MW6	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH: <u>/</u>				
5045711-06 B	<u>4/30/25</u>	<u>1850</u>	Plastic 1L	1	MW6	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056
5045711-06 C	<u>4/30/25</u>	<u>1850</u>	Plastic 500mL pH<2 w/H2SO4	1	MW6	g / c	COD TOC
			Preservation Check: pH: <u>/</u>				
5045711-06 D	<u>4/30/25</u>	<u>1850</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW6	g / c	Radium 226 (sub)
			Preservation Check: pH: <u>/</u>				
5045711-06 E	<u>4/30/25</u>	<u>1850</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW6	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				

Preservation Check Performed by: KLS pH Paper Lot #: 213724

Field data collected by: Hunter N. Hill Date (mm/dd/yy) 4-30-25 Time (24 hr) 1850 MW-6

pH 6.64 Cond (umho) 4.99 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by (Signature): <u>[Signature]</u>	Received by (Signature): <u>[Signature]</u>	Date (mm/dd/yy): <u>5-1-25</u>	Time (24 hr): <u>1133</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: **04/28/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Thermometer Serial Number

230753815

240381205

Temperature 34°C

Phone: (270) 844-5659

PWS ID#:

State: ky

PO#:

Quote#:

Please Print Legibly

Collected by (Signature): [Signature] **required information**

Compliance Monitoring? Yes No

Samples Chlorinated? Yes No

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-06 F	<u>4/28/25</u>	<u>1850</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW6	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				
5045711-06 G	<u>4/28/25</u>	<u>1850</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW6	g / c	Radium Total (sub)
			Preservation Check: pH: <u>/</u>				
5045711-06 H	<u>4/30/25</u>	<u>1850</u>	AG 250mL pH<2 w/H2SO4	1	MW6	g / c	TOC
			Preservation Check: pH: <u>/</u>				
5045711-07 A			Plastic 500mL pH<2 w/HNO3	1	DUPLICATE	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH: <u>/</u>				
5045711-07 B			Plastic 1L	1	DUPLICATE	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056

Preservation Check Performed by: KLS pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by (Signature): [Signature] Received by (Signature): [Signature] Date (mm/dd/yy): 5-1-25 Time (24 hr): 133

Chain of Custody

Scheduled for: **05/01/2025**



Client: **Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-06 F			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW6	g / c	Radium 228 (sub)
			Preservation Check: pH: _____				
5045711-06 G			Plastic 1L pH<2 w/HNO3 Sub	1	MW6	g / c	Radium Total (sub)
			Preservation Check: pH: _____				
5045711-06 H			AG 250mL pH<2 w/H2SO4	1	MW6	g/c	TOC
			Preservation Check: pH: _____				
5045711-07 A	5-2-25	9:45	Plastic 500mL pH<2 w/HNO3	1	DUPLICATE	g / c	Lithium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Boron Tot 6010B Beryllium Tot 6020 Barium Tot 6020 Chromium Tot 6020 Arsenic Tot 6020 Cobalt Tot 6020 Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH: _____				
5045711-07 B			Plastic 1L	1	DUPLICATE	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Fluoride 9056 Chloride 9056

*Dates
& Times
Per Client*

Preservation Check Performed by: KWJ

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) _____

Received by: (Signature) _____

Date (mm/dd/yy) 5-2-25

Time (24 hr) 1556

Chain of Custody

Scheduled for: **05/01/2025**



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____ Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below: Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information*		Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
	Date (mm/dd/yy):	Collection Time (24 hr):					
5045711-07 C	5-2-25	9:45	Plastic 500mL pH<2 w/H2SO4	1	DUPLICATE	g / c	COD TOC
5045711-07 D			Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	DUPLICATE	g / c	Radium 226 (sub)
5045711-07 E			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
5045711-07 F			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
5045711-07 G			Plastic 1L pH<2 w/HNO3 Sub	1	DUPLICATE	g / c	Radium Total (sub)
5045711-07 H			AG 250mL pH<2 w/H2SO4	1	DUPLICATE	g / c	TOC

Preservation Check Performed by: KLS pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) _____ Received by: (Signature) _____ Date (mm/dd/yy) 5-2-25 Time (24 hr) 1556

Chain of Custody

Scheduled for: **05/01/2025**



Client: **Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5045711 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-08 A	5-2-25	9:15	Plastic 500mL pH<2 w/HNO3	1	FIELD BLANK	g / c	Lithium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Boron Tot 6010B Beryllium Tot 6020 Barium Tot 6020 Chromium Tot 6020 Arsenic Tot 6020 Cobalt Tot 6020 Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH: /				
5045711-08 B			Plastic 1L	1	FIELD BLANK	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Fluoride 9056 Chloride 9056
5045711-08 C			Plastic 500mL pH<2 w/H2SO4	1	FIELD BLANK	g / c	COD TOC
			Preservation Check: pH: /				
5045711-08 D			Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	FIELD BLANK	g / c	Radium 226 (sub)
			Preservation Check: pH: /				
5045711-08 E			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
			Preservation Check: pH: /				

Thermometer Serial Number
 230753815
 240381205
 Temperature 18.8°C

Preservation Check Performed by: KLJ

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) _____

Received by: (Signature) _____

Date (mm/dd/yy) 5-2-25

Time (24 hr) 1556

PACE- Check here if trip charge applied to associated COC

Printed: 5/2/2025 3:56:35PM

Chain of Custody

Scheduled for: **05/01/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045711-08 F	5-2-25	9:15	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
5045711-08 G			Plastic 1L pH<2 w/HNO3 Sub	1	FIELD BLANK	g / c	Radium Total (sub)
5045711-08 H			AG 250mL pH<2 w/H2SO4	1	FIELD BLANK	g / c	TOC

Preservation Check Performed by: KLS

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) _____ Received by: (Signature) _____ Date (mm/dd/yy) 5-2-25 Time (24 hr) 1556



PAGE- Check here if trip charge applied to associated COC

Printed: 5/2/2025 3:56:35PM



Certificate of Analysis 5045714

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 06/13/2025 09:09

Project Name: Green Landfill Semiannual Well MW104

Workorder: 5045714

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 05/08/2025 16:25.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville - 825 Industrial Road, Madisonville, KY 42431

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



Pace Analytical Services, LLC

P.O. Box 907

Madisonville, KY 42431

270.821.7375

www.pacelabs.com

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5045714-01	MW-104/	Groundwater	05/06/2025 15:49	05/08/2025 16:25	Hunter Mizell
<u>LabNumber</u>	<u>Measurement</u>				<u>Value</u>
5045714-01	Field Conductance				8470
	Field pH				6.68



ANALYTICAL RESULTS

Lab Sample ID: **5045714-01**
 Description: **MW-104**

Sample Collection Date Time: 05/06/2025 15:49
 Sample Received Date Time: 05/08/2025 16:25

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Arsenic	0.0012		mg/L	0.0010	0.0004	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Barium	0.016		mg/L	0.004	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Boron	0.30		mg/L	0.10	0.10	SW846 6010 B	05/09/2025 08:23	05/12/2025 17:38	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Calcium	518	D1	mg/L	50.0	25.0	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:36	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Cobalt	0.004		mg/L	0.004	0.004	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Iron	0.648		mg/L	0.100	0.050	SW846 6010 B	05/09/2025 08:23	05/09/2025 16:59	AIS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Lithium	0.06		mg/L	0.02	0.005	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH
Sodium	804	D1	mg/L	26.0	10.0	SW846 6010 B	05/09/2025 08:23	05/12/2025 14:36	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:14	DMH

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	114	M7	mg/L	13	8	HACH 8000	05/13/2025 13:35	05/14/2025 13:35	AKJ
Specific Conductance (Lab)	9440		uS/cm @ 25.0 °C	1	1	2510 B-2011	05/09/2025 13:57	05/09/2025 15:37	AED
pH (Lab)	7.34	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	05/09/2025 13:53	05/09/2025 14:06	AED
Total Dissolved Solids	5720		mg/L	250	250	2540 C-2015	05/12/2025 11:57	05/12/2025 11:57	HAG
Total Organic Carbon	0.8	M7	mg/L	0.5	0.2	5310 C-2014	05/18/2025 03:42	05/18/2025 03:42	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/13/2025 09:04	06/13/2025 09:04	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 09:04	06/13/2025 09:04	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/13/2025 09:04	06/13/2025 09:04	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	1550	D, M6	mg/L	10.0	7.2	SW846 9056	05/09/2025 17:02	05/09/2025 17:02	CDD
Fluoride	0.3		mg/L	0.2	0.2	SW846 9056	05/09/2025 16:40	05/09/2025 16:40	CDD
Sulfate	2260	D, M6	mg/L	20	10	SW846 9056	05/09/2025 17:02	05/09/2025 17:02	CDD



Notes for work order 5045714

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- D2 Sample required dilution due to matrix interference.
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- M1 Matrix spike recovery was high; the method control sample recovery was acceptable.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- M3 The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
- M6 Matrix spike recovery was high.
- M7 Matrix spike recovery was low.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0967 - EPA 200.2

Blank (BEE0967-BLK1)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 15:43

Molybdenum	ND	0.01	mg/L							U
Antimony	ND	0.005	mg/L							U
Mercury	0.0003	0.0005	mg/L							J
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Copper	ND	0.003	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	0.0001	0.0020	mg/L							J

Blank (BEE0967-BLK2)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:24

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U
Iron	ND	0.100	mg/L							U
Sodium	ND	0.26	mg/L							U

LCS (BEE0967-BS1)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 15:46

Antimony	0.066	0.005	mg/L	0.0625		106	85-115			
Molybdenum	0.06	0.01	mg/L	0.0625		101	85-115			
Mercury	0.0028	0.0005	mg/L	0.00250		111	85-115			
Arsenic	0.0613	0.0010	mg/L	0.0625		98.1	85-115			
Barium	0.060	0.004	mg/L	0.0625		96.7	85-115			
Beryllium	0.0656	0.0020	mg/L	0.0625		105	85-115			
Cadmium	0.0620	0.0010	mg/L	0.0625		99.2	85-115			
Chromium	0.0629	0.0020	mg/L	0.0625		101	85-115			
Cobalt	0.062	0.004	mg/L	0.0625		99.2	85-115			
Copper	0.062	0.003	mg/L	0.0625		98.6	85-115			
Lead	0.064	0.002	mg/L	0.0625		102	85-115			
Lithium	0.06	0.02	mg/L	0.0625		102	85-115			
Selenium	0.062	0.003	mg/L	0.0625		98.9	85-115			
Thallium	0.0639	0.0020	mg/L	0.0625		102	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0967 - EPA 200.2

LCS (BEE0967-BS2)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:27

Boron	0.12	0.10	mg/L	0.125		98.8	85-115			
Calcium	6.63	0.50	mg/L	6.25		106	85-115			
Iron	6.44	0.100	mg/L	6.25		103	85-115			
Sodium	6.24	0.26	mg/L	6.25		99.9	85-115			

Matrix Spike (BEE0967-MS1)

Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:37

Mercury	0.0026	0.0005	mg/L	0.00250	ND	105	80-120			
Molybdenum	0.06	0.01	mg/L	0.0625	ND	104	80-120			
Antimony	0.069	0.005	mg/L	0.0625	ND	111	80-120			
Arsenic	0.0764	0.0010	mg/L	0.0625	0.0125	102	80-120			
Barium	0.243	0.004	mg/L	0.0625	0.181	100	80-120			
Beryllium	0.0628	0.0020	mg/L	0.0625	ND	101	80-120			
Cadmium	0.0609	0.0010	mg/L	0.0625	ND	97.5	80-120			
Chromium	0.0643	0.0020	mg/L	0.0625	0.0006	102	80-120			
Cobalt	0.062	0.004	mg/L	0.0625	ND	99.4	80-120			
Copper	0.065	0.003	mg/L	0.0625	0.007	93.7	80-120			
Lead	0.064	0.002	mg/L	0.0625	0.002	98.9	80-120			
Lithium	0.07	0.02	mg/L	0.0625	0.005	108	80-120			
Selenium	0.059	0.003	mg/L	0.0625	ND	93.6	80-120			
Thallium	0.0629	0.0020	mg/L	0.0625	ND	101	80-120			

Matrix Spike (BEE0967-MS2)

Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 17:40

Boron	ND	1.00	mg/L	0.125	ND		80-120			D2, M2, U
Calcium	270	5.00	mg/L	6.25	258	193	80-120			D2, M3
Iron	32.8	1.00	mg/L	6.25	24.3	136	80-120			D2, M1
Sodium	110	2.60	mg/L	6.25	104	95.3	80-120			D2, M3

Matrix Spike Dup (BEE0967-MSD1)

Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:40

Antimony	0.068	0.005	mg/L	0.0625	ND	109	80-120	2.04	20	
Mercury	0.0026	0.0005	mg/L	0.00250	ND	104	80-120	1.27	20	
Molybdenum	0.06	0.01	mg/L	0.0625	ND	101	80-120	2.95	20	
Arsenic	0.0727	0.0010	mg/L	0.0625	0.0125	96.4	80-120	4.96	20	
Barium	0.241	0.004	mg/L	0.0625	0.181	95.9	80-120	1.13	20	
Beryllium	0.0620	0.0020	mg/L	0.0625	ND	99.2	80-120	1.35	20	
Cadmium	0.0592	0.0010	mg/L	0.0625	ND	94.7	80-120	2.90	20	
Chromium	0.0620	0.0020	mg/L	0.0625	0.0006	98.2	80-120	3.66	20	
Cobalt	0.059	0.004	mg/L	0.0625	ND	95.1	80-120	4.47	20	
Copper	0.063	0.003	mg/L	0.0625	0.007	89.7	80-120	3.89	20	
Lead	0.062	0.002	mg/L	0.0625	0.002	95.8	80-120	3.12	20	
Lithium	0.07	0.02	mg/L	0.0625	0.005	108	80-120	0.644	20	
Selenium	0.056	0.003	mg/L	0.0625	ND	90.2	80-120	3.72	20	
Thallium	0.0613	0.0020	mg/L	0.0625	ND	98.1	80-120	2.51	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0967 - EPA 200.2

Matrix Spike Dup (BEE0967-MSD2) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 17:43

Boron	ND	1.00	mg/L	0.125	ND		80-120		20	D2, M2, U
Calcium	269	5.00	mg/L	6.25	258	176	80-120	0.384	20	D2, M3
Iron	32.5	1.00	mg/L	6.25	24.3	131	80-120	0.968	20	D2, M1
Sodium	109	2.60	mg/L	6.25	104	86.5	80-120	0.504	20	D2, M3

Post Spike (BEE0967-PS1) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:42

Antimony	65.4		ug/L	62.5	0.143	104	75-125			
Molybdenum	62.9		ug/L	62.5	1.48	98.2	75-125			
Mercury	2.56		ug/L	2.50	0.100	98.3	75-125			
Arsenic	73.6		ug/L	62.5	12.5	97.8	75-125			
Barium	247		ug/L	62.5	181	106	75-125			
Beryllium	61.8		ug/L	62.5	0.0180	98.8	75-125			
Cadmium	58.2		ug/L	62.5	0.0140	93.0	75-125			
Chromium	61.3		ug/L	62.5	0.619	97.1	75-125			
Cobalt	59.5		ug/L	62.5	0.967	93.6	75-125			
Copper	62.8		ug/L	62.5	6.63	89.9	75-125			
Lead	61.1		ug/L	62.5	2.12	94.4	75-115			
Lithium	67.3		ug/L	62.5	4.83	99.9	75-125			
Selenium	56.6		ug/L	62.5	0.053	90.5	75-125			
Thallium	60.1		ug/L	62.5	0.0140	96.2	75-125			

Post Spike (BEE0967-PS2) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 17:46

Boron	178		ug/L	125	19.9	127	75-125			D2, M1
Calcium	275000		ug/L	6250	258000	270	75-125			D2, M3
Iron	32800		ug/L	6250	24300	135	75-125			D2, M1
Sodium	111000		ug/L	6250	104000	120	75-125			D2, M3



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0580 - Default Prep Micro

LCS (BEE0580-BS1)

Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06

pH (Lab)	4.95		Std. Units	5.00		99.0	98.8-101.2			
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LCS (BEE0580-BS2)

Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06

pH (Lab)	4.99		Std. Units	5.00		99.8	98.8-101.2			
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Duplicate (BEE0580-DUP1) Source: 5045714-01

Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06

pH (Lab)	7.34	0.10	Std. Units		7.34			0.00	10	H3
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Duplicate (BEE0580-DUP2) Source: 5053789-02

Prepared: 5/9/2025 13:53, Analyzed: 5/9/2025 14:06

pH (Lab)	6.13	0.10	Std. Units		6.14			0.163	10	H3
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Batch BEE0760 - Default Prep Micro

Blank (BEE0760-BLK1)

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	ND		1 uS/cm @ 25.0 °C							U
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LCS (BEE0760-BS1)

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	1470		uS/cm @ 25.0 °C	1410		104	90-110			
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Duplicate (BEE0760-DUP1) Source: 5045714-01

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	9470		1 uS/cm @ 25.0 °C		9440			0.317	0.938	
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Duplicate (BEE0760-DUP2) Source: 5053753-01

Prepared: 5/9/2025 13:57, Analyzed: 5/9/2025 15:37

Specific Conductance (Lab)	1	1	uS/cm @ 25.0 °C		1				0.938	
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Batch BEE1165 - Default Prep Wet Chem

Blank (BEE1165-BLK1)

Prepared: 5/12/2025 11:57, Analyzed: 5/12/2025 11:57

Total Dissolved Solids	ND	25	mg/L							U
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Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEE1165 - Default Prep Wet Chem										
LCS (BEE1165-BS1)										
Prepared: 5/12/2025 11:57, Analyzed: 5/12/2025 11:57										
Total Dissolved Solids	88		mg/L	90.0		97.8	80-120			
Duplicate (BEE1165-DUP1) Source: 5045714-01										
Prepared: 5/12/2025 11:57, Analyzed: 5/12/2025 11:57										
Total Dissolved Solids	5760	250	mg/L		5720			0.697	10	
Batch BEE1281 - Default Prep Wet Chem										
Blank (BEE1281-BLK1)										
Prepared: 5/13/2025 13:35, Analyzed: 5/14/2025 13:35										
Chemical Oxygen Demand	ND	13	mg/L							U
LCS (BEE1281-BS1)										
Prepared: 5/13/2025 13:35, Analyzed: 5/14/2025 13:35										
Chemical Oxygen Demand	126	13	mg/L	125		101	90-110			
Duplicate (BEE1281-DUP1) Source: 5045714-01										
Prepared: 5/13/2025 13:35, Analyzed: 5/14/2025 13:35										
Chemical Oxygen Demand	93	13	mg/L		114			20.3	25	
Matrix Spike (BEE1281-MS1) Source: 5045714-01										
Prepared: 5/13/2025 13:35, Analyzed: 5/14/2025 13:35										
Chemical Oxygen Demand	315	13	mg/L	250	114	80.4	90-110			M7
Matrix Spike Dup (BEE1281-MSD1) Source: 5045714-01										
Prepared: 5/13/2025 13:35, Analyzed: 5/14/2025 13:35										
Chemical Oxygen Demand	317	13	mg/L	250	114	81.2	90-110	0.633	10	M7
Batch BEE1762 - Default Prep Wet Chem										
Blank (BEE1762-BLK1)										
Prepared: 5/18/2025 2:38, Analyzed: 5/18/2025 2:38										
Total Organic Carbon	ND	0.5	mg/L							U



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEE1762 - Default Prep Wet Chem										
LCS (BEE1762-BS1)										
Prepared: 5/18/2025 3:00, Analyzed: 5/18/2025 3:00										
Total Organic Carbon	4.89	0.5	mg/L	5.00		97.8	80-120			
Duplicate (BEE1762-DUP1) Source: 5045714-01										
Prepared: 5/18/2025 8:20, Analyzed: 5/18/2025 8:20										
Total Organic Carbon	0.76	0.5	mg/L		0.78			2.94	25	
Duplicate (BEE1762-DUP2) Source: 5051139-01										
Prepared: 5/18/2025 13:41, Analyzed: 5/18/2025 13:41										
Total Organic Carbon	4.30	0.5	mg/L		4.35			1.07	25	
Matrix Spike (BEE1762-MS1) Source: 5045714-01										
Prepared: 5/18/2025 8:41, Analyzed: 5/18/2025 8:41										
Total Organic Carbon	2.38	0.5	mg/L	2.50	0.78	63.9	80-120			M7
Matrix Spike (BEE1762-MS2) Source: 5051139-02										
Prepared: 5/18/2025 14:02, Analyzed: 5/18/2025 14:02										
Total Organic Carbon	7.81	0.5	mg/L	5.00	3.11	94.0	80-120			



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE1033 - Default Prep IC

Blank (BEE1033-BLK1)

Prepared: 5/10/2025 2:20, Analyzed: 5/10/2025 2:20

Chloride	ND	0.5	mg/L							U
Fluoride	ND	0.2	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEE1033-BS1)

Prepared: 5/10/2025 1:59, Analyzed: 5/10/2025 1:59

Chloride	12.1		mg/L	12.5		97.2	90-110			
Fluoride	5.0		mg/L	5.00		99.4	90-110			
Sulfate	24		mg/L	25.0		95.9	90-110			

Matrix Spike (BEE1033-MS1) Source: 5052290-01

Prepared: 5/10/2025 0:33, Analyzed: 5/10/2025 0:33

Chloride	31.0		mg/L	12.5	18.2	102	75-125			
Fluoride	5.8		mg/L	5.00	0.7	103	75-125			
Sulfate	45		mg/L	25.0	19	101	75-125			

Matrix Spike (BEE1033-MS2) Source: 5045714-01

Prepared: 5/10/2025 1:16, Analyzed: 5/10/2025 1:16

Fluoride	103		mg/L	100	0.3	102	75-125			D
Chloride	1730		mg/L	250	1400	133	75-125			D, M6
Sulfate	2680		mg/L	500	2030	130	75-125			D, M6

Matrix Spike Dup (BEE1033-MSD1) Source: 5052290-01

Prepared: 5/10/2025 0:54, Analyzed: 5/10/2025 0:54

Chloride	31.0		mg/L	12.5	18.2	102	75-125	0.0258	15	
Fluoride	5.8		mg/L	5.00	0.7	103	75-125	0.103	15	
Sulfate	45		mg/L	25.0	19	102	75-125	0.126	15	

Matrix Spike Dup (BEE1033-MSD2) Source: 5045714-01

Prepared: 5/10/2025 1:37, Analyzed: 5/10/2025 1:37

Fluoride	104		mg/L	100	0.3	104	75-125	1.33	15	D
Chloride	1730		mg/L	250	1400	134	75-125	0.154	15	D, M6
Sulfate	2670		mg/L	500	2030	127	75-125	0.560	15	D, M6



Certified Analyses included in this Report

Analyte	Certifications
2510 B-2011 in Water	
Specific Conductance (Lab)	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 FL Drinking Water Mdv (E871159)
2540 C-2015 in Water	
Total Dissolved Solids	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
5310 C-2014 in Water	
Total Organic Carbon	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) ADEM Drinking Water Mdv (41880) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
HACH 8000 in Water	
Chemical Oxygen Demand	KY Wastewater Mdv (00030) VA NELAC MDV (460210) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431
SM 4500-H+ B-2011 in Water	
pH (Lab)	KY Drinking Water Mdv (00030) TN Drinking Water (02819)
SW846 6010 B in Water	
Calcium	VA NELAC MDV (460210)

Sample Acceptance Checklist for Work Order 5045714	
Shipped By: Client	Temperature: 10.20° Celcius
Condition	
Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 04/28/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Well MW104

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5045714 Sample ID#	*required information* Date (mm/dd/yy): 05/16/25	Collection Time (24 hr): 1549	Bottle and Preservative Plastic 500mL pH<2 w/HNO3	Containers 1	Sample Description MW-104	Composite g / c	Sample Analysis Requested Sodium Tot 6010B Antimony Tot 6020 Beryllium Tot 6020 Iron Tot 6010B Thallium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Barium Tot 6020 Copper Tot 6020 Arsenic Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Lead Tot 6020
5045714-01 A	05/16/25	1549	Plastic 500mL pH<2 w/HNO3	1	MW-104	g / c	Sodium Tot 6010B Antimony Tot 6020 Beryllium Tot 6020 Iron Tot 6010B Thallium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Barium Tot 6020 Copper Tot 6020 Arsenic Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Lead Tot 6020

Preservation Check: pH : ✓

5045714-01 B	05/16/25	1549	Plastic 1L	1	MW-104	g / c	Chloride 9056 Conductivity (Lab) Fluoride 9056 pH (Lab) Sulfate 9056 TDS COD TOC
--------------	----------	------	------------	---	--------	-------	---

Preservation Check: pH : ✓

5045714-01 C	05/16/25	1549	Plastic 500mL pH<2 w/H2SO4	1	MW-104	g / c	COD TOC
--------------	----------	------	-------------------------------	---	--------	-------	---------

Preservation Check: pH : ✓

5045714-01 D	05/16/25	1549	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW-104	g / c	Radium 226 (sub)
--------------	----------	------	---------------------------------------	---	--------	-------	------------------

Preservation Check Performed by: [Signature] pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 05/16/25 Time (24 hr) 1549
 pH 6.68 Cond (umho) 8.47 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 5-8-25 Time (24 hr) 1625

Chain of Custody

Scheduled for: **04/28/2025**



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Well MW104**

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5045714 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5045714-01 E	05/06/25	1544	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-104	g / c	Radium 228 (sub)
Preservation Check: pH: <u> </u>							
5045714-01 F	05/06/25	1544	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-104	g / c	Radium 228 (sub)
Preservation Check: pH: <u> </u>							
5045714-01 G	05/06/25	1544	Plastic 1L pH<2 w/HNO3 Sub	1	MW-104	g / c	Radium Total (sub)
Preservation Check: pH: <u> </u>							
5045714-01 H	05/06/25	1544	AG 250mL pH<2 w/H2SO4	1	MW-104	g / c	TOC
Preservation Check: pH: <u> </u>							

Thermometer Serial Number

230753815

240381205

Temperature 10.2C

ONICE

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)
[Signature]

Received by: (Signature)
[Signature]

Date (mm/dd/yy)
5-8-25

Time (24 hr)
11:25



June 11, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5045714
Pace Project No.: 30780104

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa A. Wilson
theresa.wilson@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 5045714
 Pace Project No.: 30780104

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 5045714
Pace Project No.: 30780104

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30780104001	5045714-01 MW104	Water	05/06/25 15:49	05/14/25 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 5045714
 Pace Project No.: 30780104

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30780104001	5045714-01 MW104	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5045714
 Pace Project No.: 30780104

Sample: 5045714-01 MW104 **Lab ID: 30780104001** Collected: 05/06/25 15:49 Received: 05/14/25 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	-0.182 ± 0.684 (1.36) C:NA T:94%	pCi/L	06/05/25 15:15	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	0.538 ± 0.394 (0.762) C:74% T:83%	pCi/L	06/04/25 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.538 ± 1.08 (2.12)	pCi/L	06/10/25 18:38	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5045714
 Pace Project No.: 30780104

QC Batch: 747619	Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1	Analysis Description: 903.1 Radium-226
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30780104001

METHOD BLANK: 3641282 Matrix: Water

Associated Lab Samples: 30780104001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0804 ± 0.223 (0.527) C:NA T:93%	pCi/L	06/05/25 14:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5045714
 Pace Project No.: 30780104

QC Batch: 747618	Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0	Analysis Description: 904.0 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30780104001

METHOD BLANK: 3641281 Matrix: Water

Associated Lab Samples: 30780104001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0891 ± 0.334 (0.761) C:82% T:80%	pCi/L	06/04/25 14:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5045714
Pace Project No.: 30780104

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5045714
Pace Project No.: 30780104

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30780104001	5045714-01 MW104	EPA 903.1	747619		
30780104001	5045714-01 MW104	EPA 904.0	747618		
30780104001	5045714-01 MW104	Total Radium Calculation	751144		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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SUBCONTRACT ORDER
Pace Analytical Services, LLC Kentucky
5045714

SENDING LABORATORY:

Pace Analytical Services, LLC Kentucky
 PO BOX 907
 Madisonville, KY 42431
 Phone: (270) 821-7375
 Fax: 844-270-7904
 Project Manager: Rob Whittington

RECEIVING LABORATORY:

Pace Analytical Services LLC Greensburg PA
 1638 Rosey Town Rd Suite 2,3,4
 Greensburg, PA 15601
 Phone :(724) 850-5615
 Fax:

Analysis	Expires	Laboratory ID	Comments
Sample ID: 5045714-01	Water	Sampled:05/06/2025 15:49	Specific Method
Radium Total (sub)	Ground	11/02/2025 15:49	EPA 904.0 Radium Sum C
Radium 228 (sub)		11/02/2025 15:49	EPA 904.0 Radium Sum C
Radium 226 (sub)		11/02/2025 15:49	EPA 903.1

001

mw104

SAMPLE STATE OF ORIGIN KY

RUSH MULTIPLIER 0

Received by Pace Greensburg
 Therm ID 24 Corr Factor +/- 0.0
 Receipt Temp 15.2
 Corrected Temp 15.2
 Correct Preservation YIN

WO# : 30780104



30780104

Van De 5-12-25 Ryler 5/14/25 10:00
 Released By Date Received By Date

Released By Date Received By Date



DC#_Title: ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt-
Greensburg

WO#: 30780104

Effective Date: 01/04/2024

PM: TAW

Due Date: 06/05/25

Client Name: Pace MVKY

CLIENT: PACE_44_MVKY

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Initial / Date

Tracking Number: 1Z0674570111438981

Examined By: MS 5/16/25

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Labeled By: MS 5/16/25

Thermometer Used: 24 Type of Ice: Wet Blue None

Temped By: JML 5/14/25

Cooler Temperature: Observed Temp 15.2 °C Correction Factor: 0.0 °C Final Temp: 15.2 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				10243241	-
Chain of Custody Present	✓			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	✓			2.	
Chain of Custody Relinquished	✓			3.	
Sampler Name & Signature on COC:		✓		4.	
Sample Labels match COC: -Includes date/time/ID Matrix: WT		✓		5.	no dates on 2 times on bottles
Samples Arrived within Hold Time:	✓			6.	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:		✓		8.	
Sufficient Volume:	✓			9.	
Correct Containers Used: -Pace Containers Used	✓			10.	
Containers Intact:	✓			11.	
Orthophosphate field filtered:			✓	12.	
Hex Cr Aqueous samples field filtered:			✓	13.	
Organic Samples checked for dichlorination			✓	14.	
Filtered volume received for dissolved tests:			✓	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	✓			16.	
All containers meet method preservation requirements:	✓			Initial when completed MS	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.	
624.1: Headspace in VOA Vials (0mm)			✓	18.	
Radon: Headspace in RAD Vials (0mm)			✓	19.	
Trip Blank Present:			✓	Trip blank custody seal present? YES or NO	
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed JML	Date: 5/14/25 Survey Meter SN: 25914380
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: ZPC
Date: 5/28/2025
Worklist: 85315
Matrix: WT

Method Blank Assessment	
MB Sample ID	3641281
MB concentration:	0.089
MB 2 Sigma CSU:	0.334
MB MDC:	0.761
MB Numerical Performance Indicator:	0.52
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS (Y or N)?	N
LCS85315	LCS085315
Count Date:	6/4/2025
Spike I.D.:	23-043
Decay Corrected Spike Concentration (pCi/mL):	32.360
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.819
Target Conc. (pCi/L, g, F):	3.950
Uncertainty (Calculated):	0.194
Result (pCi/L, g, F):	3.515
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.875
Numerical Performance Indicator:	-0.95
Percent Recovery:	88.98%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below #
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Muelster

6-6-25
SSS

Sample Matrix Spike Control Assessment	
Sample Collection Date:	5/13/2025
Sample I.D.:	60475112004
Sample MS I.D.:	60475112005
Sample MSD I.D.:	60475112006
Spike I.D.:	23-043
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	32.598
Spike Volume Used in MS (mL):	0.20
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.804
MS Target Conc. (pCi/L, g, F):	8.109
MSD Aliquot (L, g, F):	0.801
MSD Target Conc. (pCi/L, g, F):	8.136
MS Spike Uncertainty (calculated):	0.397
MSD Spike Uncertainty (calculated):	0.399
Sample Result:	0.888
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.446
Sample Matrix Spike Result:	6.754
Sample Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.443
Sample Matrix Spike Duplicate Result:	7.879
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.671
MS Numerical Performance Indicator:	-2.814
MSD Numerical Performance Indicator:	-1.264
MS Percent Recovery:	72.35%
MSD Percent Recovery:	85.93%
MS Status vs Numerical Indicator:	Warning
MSD Status vs Numerical Indicator:	Pass
MS Status vs Recovery:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	60475112004
Sample MS I.D.:	60475112005
Sample MSD I.D.:	60475112006
Sample Matrix Spike Result:	6.754
Sample Matrix Spike Duplicate Result:	1.443
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	7.879
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.671
Duplicate Numerical Performance Indicator:	-0.999
Duplicate Numerical Performance Indicator (Based on the Percent Recoveries) MS/MSD Duplicate RPD:	17.16%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Quality Control Sample Performance Assessment



Test: Ra-226
 Analyst: LL1
 Date: 5/27/2025
 Batch ID: 85316
 Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3641282
MB concentration:	-0.080
MB 2 Sigma CSU:	0.223
MB MDC:	0.527
MB Numerical Performance Indicator:	-0.71
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD85316	LCS085316
Count Date:	6/10/2025
Spike I.D.:	24-046
Spike Concentration (pCi/mL):	31.830
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.662
Target Conc. (pCi/L, g, F):	4.805
Uncertainty (Calculated):	0.226
Result (pCi/L, g, F):	5.529
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.397
Numerical Performance Indicator:	1.00
Percent Recovery:	115.05%
Status vs Numerical Indicator:	Pass
Upper % Recovery Limits:	N/A
Lower % Recovery Limits:	73%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

LL1
6/10/25

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		5/13/2025	
Sample I.D.:		60475112004	
Sample MS I.D.:		60475112005	
Sample MSD I.D.:		60475112006	
Spike I.D.:		24-046	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		31.831	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.656	
MS Target Conc. (pCi/L, g, F):		9.701	
MSD Aliquot (L, g, F):		0.657	
MSD Target Conc. (pCi/L, g, F):		9.689	
MS Spike Uncertainty (calculated):		0.456	
MSD Spike Uncertainty (calculated):		0.455	
Sample Result:		0.590	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.533	
Sample Matrix Spike Result:		10.806	
Sample Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		1.881	
Sample Matrix Spike Duplicate Result:		8.599	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		1.630	
MS Numerical Performance Indicator:		0.308	
MSD Numerical Performance Indicator:		-1.856	
MS Percent Recovery:		103.25%	
MSD Percent Recovery:		82.66%	
MS Status vs Numerical Indicator:		Pass	
MSD Status vs Numerical Indicator:		Pass	
MS Status vs Recovery:		N/A	
MSD Status vs Recovery:		N/A	
MS/MSD Upper % Recovery Limits:		136%	
MS/MSD Lower % Recovery Limits:		71%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	60475112004
Sample MS I.D.:	60475112005
Sample MSD I.D.:	60475112006
Sample Matrix Spike Result:	10.806
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.881
Sample Matrix Spike Duplicate Result:	8.599
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.630
Duplicate Numerical Performance Indicator:	1.581
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	22.15%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	N/A
% RPD Limit:	32%



Certificate of Analysis 5053687

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 05/12/2025 13:33

Project Name: Green Landfill Arsenic Wells	Workorder: 5053687
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Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 05/08/2025 16:18.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville - 825 Industrial Road, Madisonville, KY 42431

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5053687-01	MW-105/5045716 01A	Groundwater	05/06/2025 14:11	05/08/2025 16:18	Rex Dye

ANALYTICAL RESULTS

Lab Sample ID: **5053687-01**
 Description: **MW-105 5045716 01A**

Sample Collection Date Time: 05/06/2025 14:11
 Sample Received Date Time: 05/08/2025 16:18

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	0.0125		mg/L	0.0010	0.0004	SW846-6020 A	05/09/2025 08:23	05/09/2025 16:19	DMH

Notes for work order 5053687

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
 - Results contained in this report are only representative of the samples received.
 - PACE does not provide interpretation of these results unless otherwise stated .
 - All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
 - All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
 - Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
 - The Chain of Custody document is included as part of this report.
 - All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
- Concentrations reported are estimated values.

Qualifiers

- T16 Sample receipt temperature outside 0 - 6°C; sample not collected on same day as receipt; sample received on ice; client gave permission to proceed as documented on the COC or the project manager notified to contact client before proceeding.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0967 - EPA 200.2

Blank (BEE0967-BLK1)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 15:43

Arsenic	ND	0.0010	mg/L							U
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LCS (BEE0967-BS1)

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 15:46

Arsenic	0.0613	0.0010	mg/L	0.0625		98.1	85-115			
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Matrix Spike (BEE0967-MS1) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:37

Arsenic	0.0764	0.0010	mg/L	0.0625	0.0125	102	80-120			
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Matrix Spike Dup (BEE0967-MSD1) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:40

Arsenic	0.0727	0.0010	mg/L	0.0625	0.0125	96.4	80-120	4.96	20	
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Post Spike (BEE0967-PS1) Source: 5053687-01

Prepared: 5/9/2025 8:23, Analyzed: 5/9/2025 16:42

Arsenic	73.6		ug/L	62.5	12.5	97.8	75-125			
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Sample Acceptance Checklist for Work Order 5053687

Shipped By: Client

Temperature: 11.80° Celcius

Condition

Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>



Certificate of Analysis 5045716

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 05/07/2025 14:11

Project Name: Green Landfill Arsenic Wells Workorder: 5045716

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 05/02/2025 15:56.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville - 825 Industrial Road, Madisonville, KY 42431

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5045716-02	MW-106S/	Groundwater	05/01/2025 19:34	05/02/2025 15:56	Hunter Mizell
5045716-03	MW-106D/	Groundwater	05/01/2025 18:14	05/02/2025 15:56	Hunter Mizell
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
5045716-02	Field Conductance	1.36			
	Field pH	6.9			
5045716-03	Field Conductance	1.33			
	Field pH	6.45			

ANALYTICAL RESULTS

Lab Sample ID: **5045716-02**
 Description: **MW-106S**

Sample Collection Date Time: 05/01/2025 19:34
 Sample Received Date Time: 05/02/2025 15:56

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	0.0987		mg/L	0.0010	0.0004	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:38	HJS

ANALYTICAL RESULTS

Lab Sample ID: **5045716-03**
 Description: **MW-106D**

Sample Collection Date Time: 05/01/2025 18:14
 Sample Received Date Time: 05/02/2025 15:56

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	0.0009	J	mg/L	0.0010	0.0004	SW846-6020 A	05/05/2025 07:40	05/05/2025 18:42	HJS



Notes for work order 5045716

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- D2 Sample required dilution due to matrix interference.
- J Estimated value.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEE0301 - EPA 200.2

Blank (BEE0301-BLK1)

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 17:50

Arsenic	ND	0.0010	mg/L							U
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LCS (BEE0301-BS1)

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 17:54

Arsenic	0.0648	0.0010	mg/L	0.0625		104	85-115			
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Matrix Spike (BEE0301-MS1) Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 18:56

Arsenic	0.0939	0.0100	mg/L	0.0625	0.0323	98.5	80-120			D2
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Matrix Spike Dup (BEE0301-MSD1) Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 19:00

Arsenic	0.0924	0.0100	mg/L	0.0625	0.0323	96.2	80-120	1.54	20	D2
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Post Spike (BEE0301-PS1) Source: 5045711-02

Prepared: 5/5/2025 7:40, Analyzed: 5/5/2025 19:04

Arsenic	95.3		ug/L	62.5	32.3	101	75-125			D2
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Sample Acceptance Checklist for Work Order 5045716

Shipped By: Client

Temperature: 4.80° Celcius

Condition

Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 04/28/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Arsenic Wells

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY	*required information*		Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
Workorder #	Date	Collection					
5045716	(mm/dd/yy):	Time (24 hr):					
5045716-01 A			Plastic 500mL pH<2 w/HNO3	1	MW-105	g / c	Arsenic Tot 6020
			Preservation Check: pH : _____				
5045716-02 A	5/1/25	1934	Plastic 500mL pH<2 w/HNO3	1	MW-106S	g / c	Arsenic Tot 6020
			Preservation Check: pH : /				
5045716-03 A	5/1/25	1814	Plastic 500mL pH<2 w/HNO3	1	MW-106D	g / c	Arsenic Tot 6020
			Preservation Check: pH : /				

Thermometer Serial Number:
 / 230753815
 - 240381205
 Temperature 4.8°C

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: Hunter Mitchell Date (mm/dd/yy) 5/1/25 Time (24 hr) www/106S 1814/1924

pH 6.98/6.45 Cond (uS/cm) 1.36/1.33 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 5-2-25

Time (24 hr) 1536



Certificate of Analysis 5105013

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 12/17/2025 16:36

Project Name: Green Landfill Semiannual Groundwater Workorder: 5105013

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 11/21/2025 11:52.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5105013-01	MW1/	Groundwater	11/18/2025 14:50	11/21/2025 11:52	Client
5105013-02	MW2/	Groundwater	11/20/2025 12:40	11/21/2025 11:52	Client
5105013-03	MW3A/	Groundwater	11/20/2025 12:40	11/21/2025 11:52	Client
5105013-04	MW4/	Groundwater	11/19/2025 15:25	11/21/2025 11:52	Client
5105013-05	MW5/	Groundwater	11/19/2025 13:33	11/21/2025 11:52	Client
5105013-06	MW6/	Groundwater	11/20/2025 17:50	11/21/2025 11:52	Client
5105013-07	DUPLICATE/	Groundwater	11/20/2025 16:01	11/21/2025 11:52	Client
5105013-08	FIELD BLANK/	Water	11/20/2025 18:20	11/21/2025 11:52	Client

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
5105013-01	Field Conductance	942
	Field pH	7.30
5105013-02	Field Conductance	1810
	Field pH	6.64
5105013-03	Field Conductance	6870
	Field pH	6.63
5105013-04	Field Conductance	5430
	Field pH	6.49
5105013-05	Field Conductance	4750
	Field pH	6.61
5105013-06	Field Conductance	4700
	Field pH	6.69



ANALYTICAL RESULTS

Lab Sample ID: **5105013-01**
 Description: **MW1**

Sample Collection Date Time: 11/18/2025 14:50
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Arsenic	0.0039		mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Barium	0.097		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Boron	1.81	D1	mg/L	1.00	1.00	SW846 6010 B	11/25/2025 09:03	11/25/2025 22:45	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Calcium	29.3	D1	mg/L	5.00	2.50	SW846 6010 B	11/25/2025 09:03	11/25/2025 22:45	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Iron	2.88		mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/25/2025 22:42	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Lithium	0.03		mg/L	0.02	0.005	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:25	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS
Sodium	194	D1	mg/L	26.0	10.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 22:57	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:24	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	ND	u	mg/L	13	8	HACH 8000	12/02/2025 14:23	12/02/2025 14:23	AKJ
Specific Conductance (Lab)	932		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	8.02	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	562		mg/L	50	50	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	0.8		mg/L	0.5	0.2	5310 C-2014	11/23/2025 15:33	11/23/2025 15:33	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	5.7		mg/L	0.5	0.4	SW846 9056	11/24/2025 15:13	11/24/2025 15:13	DSB1
Fluoride	0.6		mg/L	0.2	0.2	SW846 9056	11/24/2025 15:13	11/24/2025 15:13	DSB1
Sulfate	26		mg/L	1	0.5	SW846 9056	11/24/2025 15:13	11/24/2025 15:13	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105013-02**
 Description: **MW2**

Sample Collection Date Time: 11/20/2025 12:40
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Arsenic	0.0098		mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Barium	0.194		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Boron	ND	u	mg/L	0.10	0.10	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:01	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Calcium	187	D1	mg/L	50.0	25.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:07	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Iron	4.29		mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:01	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Lithium	0.005	J	mg/L	0.02	0.005	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:27	HJS
Molybdenum	0.002	J	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS
Sodium	65.0	D1	mg/L	2.60	1.00	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:04	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:26	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	22		mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	1820		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	7.36	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	1150		mg/L	100	100	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	1.3		mg/L	0.5	0.2	5310 C-2014	11/23/2025 15:55	11/23/2025 15:55	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	192	D	mg/L	5.0	3.6	SW846 9056	11/24/2025 15:57	11/24/2025 15:57	DSB1
Fluoride	0.3		mg/L	0.2	0.2	SW846 9056	11/24/2025 15:35	11/24/2025 15:35	DSB1
Sulfate	175		mg/L	1	0.5	SW846 9056	11/24/2025 15:35	11/24/2025 15:35	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105013-03**
 Description: **MW3A**

Sample Collection Date Time: 11/20/2025 12:40
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Barium	0.036		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:28	HJS
Boron	0.42		mg/L	0.10	0.10	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:10	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Calcium	515	D1	mg/L	50.0	25.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:16	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Iron	0.177		mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:10	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Lithium	0.73		mg/L	0.02	0.005	SW846-6020 A	11/25/2025 09:03	12/02/2025 12:28	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS
Sodium	303	D1	mg/L	26.0	10.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:16	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:29	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	84		mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	5760		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	7.51	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	4040		mg/L	250	250	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	0.4	J	mg/L	0.5	0.2	5310 C-2014	11/23/2025 16:16	11/23/2025 16:16	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	1820	D	mg/L	10.0	7.2	SW846 9056	11/24/2025 16:42	11/24/2025 16:42	DSB1
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	11/24/2025 16:20	11/24/2025 16:20	DSB1
Sulfate	1260	D	mg/L	20	10	SW846 9056	11/24/2025 16:42	11/24/2025 16:42	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105013-04**
 Description: **MW4**

Sample Collection Date Time: 11/19/2025 15:25
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Barium	0.018		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Beryllium	ND	v1, u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/10/2025 11:06	HJS
Boron	1.11	D1	mg/L	1.00	1.00	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:23	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Calcium	664	D1	mg/L	50.0	25.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:35	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Iron	ND	u	mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:20	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Lithium	0.99	D1	mg/L	0.20	0.05	SW846-6020 A	11/25/2025 09:03	12/11/2025 14:55	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Selenium	0.002	J	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS
Sodium	291	D1	mg/L	26.0	10.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:35	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:31	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	67		mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	4970		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	7.42	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	3480		mg/L	250	250	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	0.6		mg/L	0.5	0.2	5310 C-2014	11/23/2025 16:37	11/23/2025 16:37	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	1030	D	mg/L	10.0	7.2	SW846 9056	11/24/2025 17:27	11/24/2025 17:27	DSB1
Fluoride	0.2		mg/L	0.2	0.2	SW846 9056	11/24/2025 17:05	11/24/2025 17:05	DSB1
Sulfate	1590	D	mg/L	20	10	SW846 9056	11/24/2025 17:27	11/24/2025 17:27	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105013-05**
 Description: **MW5**

Sample Collection Date Time: 11/19/2025 13:33
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Barium	0.014		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Beryllium	ND	v1, u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/10/2025 11:07	HJS
Boron	0.29		mg/L	0.10	0.10	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:39	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Calcium	449	D1, M3	mg/L	50.0	25.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:45	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Iron	ND	u	mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:39	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Lithium	0.36	M2	mg/L	0.02	0.005	SW846-6020 A	11/25/2025 09:03	12/11/2025 14:57	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS
Sodium	179	D1, M3	mg/L	26.0	10.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:45	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:36	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	58		mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	4010		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	7.57	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	3410		mg/L	250	250	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	0.8	M7	mg/L	0.5	0.2	5310 C-2014	11/23/2025 16:58	11/23/2025 16:58	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00	-				EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	706	D	mg/L	10.0	7.2	SW846 9056	11/24/2025 18:56	11/24/2025 18:56	DSB1
Fluoride	0.2		mg/L	0.2	0.2	SW846 9056	11/24/2025 18:34	11/24/2025 18:34	DSB1
Sulfate	981	D	mg/L	20	10	SW846 9056	11/24/2025 18:56	11/24/2025 18:56	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105013-06**
 Description: **MW6**

Sample Collection Date Time: 11/20/2025 17:50
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Barium	0.014		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Beryllium	ND	v1, u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/10/2025 11:09	HJS
Boron	0.21		mg/L	0.10	0.10	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:48	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Calcium	345	D1	mg/L	50.0	25.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:55	MRWD
Chromium	0.0048		mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Iron	0.053	J	mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:48	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Lithium	0.04		mg/L	0.02	0.005	SW846-6020 A	11/25/2025 09:03	12/11/2025 15:00	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS
Sodium	356	D1	mg/L	26.0	10.0	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:55	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:38	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	15		mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	4620		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	7.47	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	4510		mg/L	250	250	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	2.0		mg/L	0.5	0.2	5310 C-2014	11/23/2025 17:20	11/23/2025 17:20	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	208	D	mg/L	25.0	18.0	SW846 9056	11/24/2025 19:41	11/24/2025 19:41	DSB1
Fluoride	0.5		mg/L	0.2	0.2	SW846 9056	11/24/2025 19:19	11/24/2025 19:19	DSB1
Sulfate	2140	D	mg/L	50	25	SW846 9056	11/24/2025 19:41	11/24/2025 19:41	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105013-07**
 Description: **DUPLICATE**

Sample Collection Date Time: 11/20/2025 16:01
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Arsenic	0.0015		mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Barium	0.016		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Beryllium	ND	v1, u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/10/2025 11:11	HJS
Boron	0.29		mg/L	0.10	0.10	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:58	MRWD
Cadmium	0.0003	J	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Calcium	537	D1	mg/L	50.0	25.0	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:14	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Cobalt	0.005		mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Copper	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Iron	0.586		mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/25/2025 23:58	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Lithium	0.05		mg/L	0.02	0.005	SW846-6020 A	11/25/2025 09:03	12/11/2025 15:02	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS
Sodium	806	D1	mg/L	26.0	10.0	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:14	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:40	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	89		mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	8690		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	7.41	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	6580		mg/L	250	250	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	0.7		mg/L	0.5	0.2	5310 C-2014	11/23/2025 17:41	11/23/2025 17:41	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00	-				EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	1690	D	mg/L	50.0	36.0	SW846 9056	11/25/2025 14:02	11/25/2025 14:02	DSB1
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	11/24/2025 20:04	11/24/2025 20:04	DSB1
Sulfate	2370	D	mg/L	10	5	SW846 9056	11/24/2025 20:26	11/24/2025 20:26	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105013-08**
 Description: **FIELD BLANK**

Sample Collection Date Time: 11/20/2025 18:20
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Barium	ND	u	mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Beryllium	ND	v1, u	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/10/2025 11:13	HJS
Boron	ND	u	mg/L	0.10	0.10	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:17	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Calcium	ND	u	mg/L	0.50	0.25	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:17	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Copper	0.002	J	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Iron	ND	u	mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:17	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Lithium	ND	d2, u	mg/L	0.20	0.05	SW846-6020 A	11/25/2025 09:03	12/11/2025 15:04	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS
Sodium	ND	u	mg/L	0.26	0.10	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:17	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:42	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	8	J	mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	41		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	6.75	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	ND	G1, u	mg/L	50	50	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	0.2	J	mg/L	0.5	0.2	5310 C-2014	11/23/2025 18:02	11/23/2025 18:02	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	ND	u	mg/L	0.5	0.4	SW846 9056	11/24/2025 20:48	11/24/2025 20:48	DSB1
Fluoride	ND	u	mg/L	0.2	0.2	SW846 9056	11/24/2025 20:48	11/24/2025 20:48	DSB1
Sulfate	ND	u	mg/L	1	0.5	SW846 9056	11/24/2025 20:48	11/24/2025 20:48	DSB1



Notes for work order 5105013

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- D2 Sample required dilution due to matrix interference.
- G1 Residue yield was less than the method required 2.5mg.
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- M3 The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
- M7 Matrix spike recovery was low.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).
- V1 CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Blank (BEK2297-BLK1)

Prepared: 11/25/2025 9:03, Analyzed: 11/25/2025 22:35

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U
Iron	ND	0.100	mg/L							U
Sodium	ND	0.26	mg/L							U

Blank (BEK2297-BLK2)

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 12:19

Mercury	ND	0.0005	mg/L							U
Antimony	ND	0.005	mg/L							U
Molybdenum	ND	0.01	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Copper	ND	0.003	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U

LCS (BEK2297-BS1)

Prepared: 11/25/2025 9:03, Analyzed: 11/25/2025 22:38

Boron	0.13	0.10	mg/L	0.125		102	85-115			
Calcium	6.44	0.50	mg/L	6.25		103	85-115			
Iron	6.37	0.100	mg/L	6.25		102	85-115			
Sodium	5.98	0.26	mg/L	6.25		95.7	85-115			

LCS (BEK2297-BS2)

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 12:22

Antimony	0.062	0.005	mg/L	0.0625		98.8	85-115			
Molybdenum	0.06	0.01	mg/L	0.0625		103	85-115			
Mercury	0.0026	0.0005	mg/L	0.00250		105	85-115			
Arsenic	0.0656	0.0010	mg/L	0.0625		105	85-115			
Barium	0.062	0.004	mg/L	0.0625		99.6	85-115			
Beryllium	0.0641	0.0020	mg/L	0.0625		103	85-115			
Cadmium	0.0614	0.0010	mg/L	0.0625		98.3	85-115			
Chromium	0.0650	0.0020	mg/L	0.0625		104	85-115			
Cobalt	0.061	0.004	mg/L	0.0625		98.1	85-115			
Copper	0.062	0.003	mg/L	0.0625		99.5	85-115			
Lead	0.062	0.002	mg/L	0.0625		99.4	85-115			
Lithium	0.06	0.02	mg/L	0.0625		98.6	85-115			
Selenium	0.065	0.003	mg/L	0.0625		103	85-115			
Thallium	0.0661	0.0020	mg/L	0.0625		106	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Matrix Spike (BEK2297-MS1) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 0:58

Boron	0.43	0.10	mg/L	0.125	0.29	110	80-120			
Calcium	469	0.50	mg/L	6.25	449	321	80-120			M3
Iron	6.28	0.100	mg/L	6.25	ND	100	80-120			
Sodium	201	0.26	mg/L	6.25	179	344	80-120			M3

Matrix Spike (BEK2297-MS2) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:04

Boron	0.38	0.10	mg/L	0.125	0.25	106	80-120			
Calcium	134	0.50	mg/L	6.25	127	114	80-120			
Iron	8.33	0.100	mg/L	6.25	2.07	100	80-120			
Sodium	132	0.26	mg/L	6.25	126	107	80-120			

Matrix Spike (BEK2297-MS3) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:15

Antimony	0.061	0.005	mg/L	0.0625	ND	96.9	80-120			
Mercury	0.0026	0.0005	mg/L	0.00250	ND	106	80-120			
Molybdenum	0.07	0.01	mg/L	0.0625	ND	105	80-120			
Arsenic	0.0715	0.0010	mg/L	0.0625	ND	114	80-120			
Barium	0.078	0.004	mg/L	0.0625	0.014	102	80-120			
Beryllium	0.0539	0.0020	mg/L	0.0625	ND	86.3	80-120			
Cadmium	0.0564	0.0010	mg/L	0.0625	ND	90.2	80-120			
Chromium	0.0663	0.0020	mg/L	0.0625	ND	106	80-120			
Cobalt	0.059	0.004	mg/L	0.0625	ND	94.5	80-120			
Copper	0.058	0.003	mg/L	0.0625	ND	93.2	80-120			
Lead	0.060	0.002	mg/L	0.0625	ND	95.4	80-120			
Lithium	0.40	0.02	mg/L	0.0625	0.36	66.5	80-120			M2
Selenium	0.074	0.003	mg/L	0.0625	ND	118	80-120			
Thallium	0.0637	0.0020	mg/L	0.0625	ND	102	80-120			

Matrix Spike (BEK2297-MS4) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:20

Mercury	0.0025	0.0005	mg/L	0.00250	ND	102	80-120			
Antimony	0.060	0.005	mg/L	0.0625	ND	96.4	80-120			
Molybdenum	0.07	0.01	mg/L	0.0625	0.004	102	80-120			
Arsenic	0.0679	0.0010	mg/L	0.0625	0.0021	105	80-120			
Barium	0.184	0.004	mg/L	0.0625	0.120	103	80-120			
Beryllium	0.0532	0.0020	mg/L	0.0625	ND	85.2	80-120			
Cadmium	0.0575	0.0010	mg/L	0.0625	ND	91.9	80-120			
Chromium	0.0629	0.0020	mg/L	0.0625	ND	101	80-120			
Cobalt	0.073	0.004	mg/L	0.0625	0.015	92.1	80-120			
Copper	0.058	0.003	mg/L	0.0625	ND	93.4	80-120			
Lead	0.060	0.002	mg/L	0.0625	ND	96.0	80-120			
Lithium	0.06	0.02	mg/L	0.0625	0.01	76.0	80-120			M2
Selenium	0.066	0.003	mg/L	0.0625	ND	105	80-120			
Thallium	0.0639	0.0020	mg/L	0.0625	ND	102	80-120			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Matrix Spike Dup (BEK2297-MSD1) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:01

Boron	0.44	0.10	mg/L	0.125	0.29	120	80-120	2.82	20	
Calcium	488	0.50	mg/L	6.25	449	621	80-120	3.92	20	M3
Iron	6.19	0.100	mg/L	6.25	ND	99.0	80-120	1.46	20	
Sodium	209	0.26	mg/L	6.25	179	473	80-120	3.94	20	M3

Matrix Spike Dup (BEK2297-MSD2) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:07

Boron	0.39	0.10	mg/L	0.125	0.25	109	80-120	0.851	20	
Calcium	135	0.50	mg/L	6.25	127	128	80-120	0.658	20	M3
Iron	8.40	0.100	mg/L	6.25	2.07	101	80-120	0.886	20	
Sodium	133	0.26	mg/L	6.25	126	120	80-120	0.632	20	

Matrix Spike Dup (BEK2297-MSD3) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:17

Mercury	0.0025	0.0005	mg/L	0.00250	ND	100	80-120	4.94	20	
Antimony	0.060	0.005	mg/L	0.0625	ND	95.3	80-120	1.74	20	
Molybdenum	0.06	0.01	mg/L	0.0625	ND	103	80-120	2.00	20	
Arsenic	0.0723	0.0010	mg/L	0.0625	ND	116	80-120	1.17	20	
Barium	0.078	0.004	mg/L	0.0625	0.014	102	80-120	0.0327	20	
Beryllium	0.0520	0.0020	mg/L	0.0625	ND	83.3	80-120	3.61	20	
Cadmium	0.0556	0.0010	mg/L	0.0625	ND	89.0	80-120	1.32	20	
Chromium	0.0664	0.0020	mg/L	0.0625	ND	106	80-120	0.208	20	
Cobalt	0.059	0.004	mg/L	0.0625	ND	94.6	80-120	0.169	20	
Copper	0.058	0.003	mg/L	0.0625	ND	93.0	80-120	0.129	20	
Lead	0.059	0.002	mg/L	0.0625	ND	94.1	80-120	1.30	20	
Lithium	0.41	0.02	mg/L	0.0625	0.36	72.7	80-120	0.952	20	M2
Selenium	0.074	0.003	mg/L	0.0625	ND	118	80-120	0.277	20	
Thallium	0.0631	0.0020	mg/L	0.0625	ND	101	80-120	0.898	20	

Matrix Spike Dup (BEK2297-MSD4) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:22

Antimony	0.061	0.005	mg/L	0.0625	ND	97.0	80-120	0.633	20	
Mercury	0.0026	0.0005	mg/L	0.00250	ND	103	80-120	0.925	20	
Molybdenum	0.07	0.01	mg/L	0.0625	0.004	103	80-120	1.31	20	
Arsenic	0.0703	0.0010	mg/L	0.0625	0.0021	109	80-120	3.45	20	
Barium	0.186	0.004	mg/L	0.0625	0.120	105	80-120	0.869	20	
Beryllium	0.0537	0.0020	mg/L	0.0625	ND	86.0	80-120	0.907	20	
Cadmium	0.0579	0.0010	mg/L	0.0625	ND	92.7	80-120	0.823	20	
Chromium	0.0636	0.0020	mg/L	0.0625	ND	102	80-120	1.14	20	
Cobalt	0.074	0.004	mg/L	0.0625	0.015	93.8	80-120	1.46	20	
Copper	0.059	0.003	mg/L	0.0625	ND	94.9	80-120	1.64	20	
Lead	0.061	0.002	mg/L	0.0625	ND	97.2	80-120	1.22	20	
Lithium	0.06	0.02	mg/L	0.0625	0.01	78.2	80-120	2.30	20	M2
Selenium	0.067	0.003	mg/L	0.0625	ND	108	80-120	2.11	20	
Thallium	0.0646	0.0020	mg/L	0.0625	ND	103	80-120	1.15	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Post Spike (BEK2297-PS1) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:11

Boron	427		ug/L	125	289	110	75-125			
Calcium	473000		ug/L	6250	449000	373	75-125			M3
Iron	6170		ug/L	6250	20.9	98.4	75-125			
Sodium	202000		ug/L	6250	179000	369	75-125			M3

Post Spike (BEK2297-PS2) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:24

Antimony	57.7		ug/L	62.5	-0.046	92.4	75-125			
Molybdenum	64.1		ug/L	62.5	-0.04	103	75-125			
Mercury	2.46		ug/L	2.50	0.0408	96.8	75-125			
Arsenic	72.8		ug/L	62.5	0.152	116	75-125			
Barium	75.2		ug/L	62.5	13.8	98.3	75-125			
Beryllium	52.4		ug/L	62.5	0.0040	83.9	75-125			
Cadmium	54.0		ug/L	62.5	0.0310	86.3	75-125			
Chromium	66.5		ug/L	62.5	0.412	106	75-125			
Cobalt	59.2		ug/L	62.5	0.095	94.6	75-125			
Copper	58.5		ug/L	62.5	0.208	93.3	75-125			
Lead	57.2		ug/L	62.5	0.023	91.4	75-115			
Lithium	394		ug/L	62.5	362	51.4	75-125			M2
Selenium	74.0		ug/L	62.5	0.125	118	75-125			
Thallium	61.2		ug/L	62.5	0.0285	97.9	75-125			



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2180 - Default Prep Micro

LCS (BEK2180-BS1)

Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57

pH (Lab)	4.96		Std. Units	5.00		99.2	98.8-101.2			
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LCS (BEK2180-BS2)

Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57

pH (Lab)	5.01		Std. Units	5.00		100	98.8-101.2			
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Duplicate (BEK2180-DUP1) Source: 5105013-05

Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57

pH (Lab)	7.58	0.10	Std. Units		7.57			0.132	10	H3
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Duplicate (BEK2180-DUP2) Source: 5114890-04

Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57

pH (Lab)	8.13	0.10	Std. Units		8.12			0.123	10	H3
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Batch BEK2181 - Default Prep Micro

Blank (BEK2181-BLK1)

Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14

Specific Conductance (Lab)	ND			1 uS/cm @ 25.0 °C						U
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LCS (BEK2181-BS1)

Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14

Specific Conductance (Lab)	1410			uS/cm @ 25.0 °C	1410		100	90-110		
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Duplicate (BEK2181-DUP1) Source: 5105013-05

Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14

Specific Conductance (Lab)	4020			1 uS/cm @ 25.0 °C	4010			0.249	0.938	
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Duplicate (BEK2181-DUP2) Source: 5114846-01

Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14

Specific Conductance (Lab)	708			1 uS/cm @ 25.0 °C	707			0.141	0.938	
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Batch BEK2248 - Default Prep Wet Chem

Blank (BEK2248-BLK1)

Prepared: 11/23/2025 14:29, Analyzed: 11/23/2025 14:29

Total Organic Carbon	ND		0.5	mg/L						U
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Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2248 - Default Prep Wet Chem										
LCS (BEK2248-BS1)										
Prepared: 11/23/2025 14:51, Analyzed: 11/23/2025 14:51										
Total Organic Carbon	4.99	0.5	mg/L	5.00		99.8	80-120			
Duplicate (BEK2248-DUP1) Source: 5105013-04										
Prepared: 11/23/2025 20:10, Analyzed: 11/23/2025 20:10										
Total Organic Carbon	0.48	0.5	mg/L		0.55			13.4	25	J
Duplicate (BEK2248-DUP2) Source: 5110902-01										
Prepared: 11/24/2025 1:29, Analyzed: 11/24/2025 1:29										
Total Organic Carbon	0.70	0.5	mg/L		0.70			0.631	25	
Matrix Spike (BEK2248-MS1) Source: 5105013-05										
Prepared: 11/23/2025 20:31, Analyzed: 11/23/2025 20:31										
Total Organic Carbon	2.75	0.5	mg/L	2.50	0.77	79.6	80-120			M7
Matrix Spike (BEK2248-MS2) Source: 5110902-02										
Prepared: 11/24/2025 1:50, Analyzed: 11/24/2025 1:50										
Total Organic Carbon	5.86	0.5	mg/L	5.00	1.11	95.0	80-120			
Batch BEK2388 - Default Prep Wet Chem										
Blank (BEK2388-BLK1)										
Prepared: 11/24/2025 16:19, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	ND	25	mg/L							U
LCS (BEK2388-BS1)										
Prepared: 11/24/2025 16:19, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	996		mg/L	1000		99.6	80-120			
Duplicate (BEK2388-DUP1) Source: 5105013-05										
Prepared: 11/24/2025 16:19, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	3400	250	mg/L		3410			0.294	10	
Duplicate (BEK2388-DUP2) Source: 5114897-01										
Prepared: 11/24/2025 15:20, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	756	100	mg/L		760			0.528	10	



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2554 - Default Prep Wet Chem										
Blank (BEK2554-BLK1)										
Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52										
Chemical Oxygen Demand	ND	13	mg/L							U
LCS (BEK2554-BS1)										
Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52										
Chemical Oxygen Demand	134	13	mg/L	125		107	90-110			
Duplicate (BEK2554-DUP1) Source: 5105013-04										
Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52										
Chemical Oxygen Demand	63	13	mg/L		67			6.15	25	
Matrix Spike (BEK2554-MS1) Source: 5105013-04										
Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52										
Chemical Oxygen Demand	316	13	mg/L	250	67	99.6	90-110			
Matrix Spike Dup (BEK2554-MSD1) Source: 5105013-04										
Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52										
Chemical Oxygen Demand	300	13	mg/L	250	67	93.2	90-110	5.19	10	
Batch BEL0161 - Default Prep Wet Chem										
Blank (BEL0161-BLK1)										
Prepared: 12/2/2025 14:23, Analyzed: 12/2/2025 14:23										
Chemical Oxygen Demand	ND	13	mg/L							U
LCS (BEL0161-BS1)										
Prepared: 12/2/2025 14:23, Analyzed: 12/2/2025 14:23										
Chemical Oxygen Demand	129	13	mg/L	125		103	90-110			
Duplicate (BEL0161-DUP1) Source: 5101829-01										
Prepared: 12/2/2025 14:23, Analyzed: 12/2/2025 14:23										
Chemical Oxygen Demand	20	13	mg/L		22			9.52	25	
Matrix Spike (BEL0161-MS1) Source: 5101829-01										
Prepared: 12/2/2025 14:23, Analyzed: 12/2/2025 14:23										
Chemical Oxygen Demand	268	13	mg/L	250	22	98.4	90-110			



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEL0161 - Default Prep Wet Chem										
Matrix Spike Dup (BEL0161-MSD1) Source: 5101829-01										
Prepared: 12/2/2025 14:23, Analyzed: 12/2/2025 14:23										
Chemical Oxygen Demand	273	13	mg/L	250	22	100	90-110	1.85	10	



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2310 - Default Prep IC

Blank (BEK2310-BLK1)

Prepared: 11/25/2025 7:37, Analyzed: 11/25/2025 7:37

Fluoride	ND	0.2	mg/L							U
Chloride	ND	0.5	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEK2310-BS1)

Prepared: 11/25/2025 7:15, Analyzed: 11/25/2025 7:15

Chloride	12.3		mg/L	12.5		98.7	90-110			
Fluoride	5.1		mg/L	5.00		102	90-110			
Sulfate	25		mg/L	25.0		99.6	90-110			

Matrix Spike (BEK2310-MS1) Source: 5105013-05

Prepared: 11/25/2025 5:45, Analyzed: 11/25/2025 5:45

Fluoride	104		mg/L	100	0.2	104	75-125			D
Chloride	884		mg/L	250	636	99.2	75-125			D
Sulfate	1390		mg/L	500	883	101	75-125			D

Matrix Spike (BEK2310-MS2) Source: 5105013-06

Prepared: 11/25/2025 6:30, Analyzed: 11/25/2025 6:30

Chloride	807		mg/L	625	187	99.3	75-125			D
Fluoride	259		mg/L	250	0.4	103	75-125			D
Sulfate	3200		mg/L	1250	1920	102	75-125			D

Matrix Spike Dup (BEK2310-MSD1) Source: 5105013-05

Prepared: 11/25/2025 6:08, Analyzed: 11/25/2025 6:08

Fluoride	103		mg/L	100	0.2	103	75-125	0.868	15	D
Chloride	880		mg/L	250	636	97.9	75-125	0.372	15	D
Sulfate	1390		mg/L	500	883	101	75-125	0.166	15	D

Matrix Spike Dup (BEK2310-MSD2) Source: 5105013-06

Prepared: 11/25/2025 6:52, Analyzed: 11/25/2025 6:52

Fluoride	265		mg/L	250	0.4	106	75-125	2.35	15	D
Chloride	818		mg/L	625	187	101	75-125	1.26	15	D
Sulfate	3230		mg/L	1250	1920	105	75-125	1.08	15	D



Certified Analyses included in this Report

Analyte	Certifications
2510 B-2011 in Water	
Specific Conductance (Lab)	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 FL Drinking Water Mdv (E871159)
2540 C-2015 in Water	
Total Dissolved Solids	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
5310 C-2014 in Water	
Total Organic Carbon	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) ADEM Drinking Water Mdv (41880) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
HACH 8000 in Water	
Chemical Oxygen Demand	KY Wastewater Mdv (00030) VA NELAC MDV (460210) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431
SM 4500-H+ B-2011 in Water	
pH (Lab)	KY Drinking Water Mdv (00030) TN Drinking Water (02819)
SW846 6010 B in Water	
Calcium	VA NELAC MDV (460210)

Sample Acceptance Checklist for Work Order 5105013	
Shipped By: Client	Temperature: 5.60° Celcius
Condition	
Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-01 A	<u>11/18/25</u>	<u>1450</u>	Plastic 500mL pH<2 w/HNO3	1	MW1	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH: <u>✓</u>				
5105013-01 B	<u>11/18/25</u>	<u>1450</u>	Plastic 1L	1	MW1	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056
5105013-01 C	<u>11/18/25</u>	<u>1450</u>	Plastic 500mL pH<2 w/H2SO4	1	MW1	g / c	COD TOC
			Preservation Check: pH: <u>✓</u>				
5105013-01 D	<u>11/18/25</u>	<u>1450</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW1	g / c	Radium 226 (sub)
			Preservation Check: pH: <u>✓</u>				

Preservation Check Performed by: VED

pH Paper Lot #: 213724

Field data collected by: Hunter Mitchell Date (mm/dd/yy) 11/18/25 Time (24 hr) 1450
 pH 7.30 Cond (umho) 0.942 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/21/25</u>	Time (24 hr) <u>1152</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature]
 required information

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105013 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-01 E	<u>11/18/25</u>	<u>1450</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW1	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5105013-01 F	<u>11/18/25</u>	<u>1450</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW1	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5105013-01 G	<u>11/18/25</u>	<u>1450</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW1	g / c	Radium Total (sub)
			Preservation Check: pH: <u>✓</u>				
5105013-01 H	<u>11/18/25</u>	<u>1450</u>	AG 250mL pH<2 w/H2SO4	1	MW1	g / c	TOC
			Preservation Check: pH: <u>✓</u>				

Preservation Check Performed by: KED

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature]

[Signature]

11-21-25

1150

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

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 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105013 Sample ID#	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-02 A	<u>11/20/25</u>	<u>1240</u>	Plastic 500mL pH<2 w/HNO3	1	MW2	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
5105013-02 B	<u>11/20/25</u>	<u>1240</u>	Plastic 1L	1	MW2	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056
5105013-02 C	<u>11/20/25</u>	<u>1240</u>	Plastic 500mL pH<2 w/H2SO4	1	MW2	g / c	COD TOC
5105013-02 D	<u>11/20/25</u>	<u>1240</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW2	g / c	Radium 226 (sub)
5105013-02 E	<u>11/20/25</u>	<u>1240</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW2	g / c	Radium 228 (sub)

Preservation Check: pH: ✓

Preservation Check: pH: ✓

Preservation Check: pH: ✓

Preservation Check: pH: ✓

Preservation Check Performed by: KED

pH Paper Lot #: 213724

Field data collected by: Hunter Mizell Date (mm/dd/yy) 11/20/25 Time (24 hr) 1240
 pH 6.64 Cond (uMho) 1.81 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 11-21-25 Time (24 hr) 1152

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
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 Henderson, KY 42419

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] **required information**

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-02 F	<u>11/20/25</u>	<u>1240</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW2	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5105013-02 G	<u>11/20/25</u>	<u>1240</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW2	g / c	Radium Total (sub)
			Preservation Check: pH: <u>✓</u>				
5105013-02 H	<u>11/21/25</u>	<u>1240</u>	AG 250mL pH<2 w/H2SO4	1	MW2	g / c	TOC
			Preservation Check: pH: <u>✓</u>				
5105013-03 A	<u>11/19/25</u>	<u>1030</u>	Plastic 500mL pH<2 w/HNO3	1	MW3A	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
			Preservation Check: pH: <u>✓</u>				
5105013-03 B	<u>11/19/25</u>	<u>1030</u>	Plastic 1L	1	MW3A	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056

Preservation Check Performed by: KED pH Paper Lot #: 213724

Field data collected by: Hunter M. Hill Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11-21-25</u>	Time (24 hr) <u>1152</u>
--	--	------------------------------------	-----------------------------

Chain of Custody

Scheduled for: 10/27/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105013 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-03 C	<u>11/19/25</u>	<u>1030</u>	Plastic 500mL pH<2 w/H2SO4	1	MW3A	g / c	COD TOC
Preservation Check: pH: <u>✓</u>							
5105013-03 D	<u>11/19/25</u>	<u>1030</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW3A	g / c	Radium 226 (sub)
Preservation Check: pH: <u>✓</u>							
5105013-03 E	<u>11/19/25</u>	<u>1030</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW3A	g / c	Radium 228 (sub)
Preservation Check: pH: <u>✓</u>							
5105013-03 F	<u>11/19/25</u>	<u>1030</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW3A	g / c	Radium 228 (sub)
Preservation Check: pH: <u>✓</u>							
5105013-03 G	<u>11/19/25</u>	<u>1030</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW3A	g / c	Radium Total (sub)
Preservation Check: pH: <u>✓</u>							
5105013-03 H	<u>11/19/25</u>	<u>1030</u>	AG 250mL pH<2 w/H2SO4	1	MW3A	g / c	TOC
Preservation Check: pH: <u>✓</u>							

Preservation Check Performed by: KED

pH Paper Lot #: 213724

Field data collected by: Hunter Hill Date (mm/dd/yy) 11/19/25 Time (24 hr) 1010
 pH 6.63 Cond (umho) 6.87 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Requisitioned by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-21-25

Time (24 hr) 1152

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105013 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-04 A	<u>11/14/25</u>	<u>1525</u>	Plastic 500mL pH<2 w/HNO3	1	MW4	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
5105013-04 B	<u>11/14/25</u>	<u>1525</u>	Plastic 1L	1	MW4	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056
5105013-04 C	<u>11/14/25</u>	<u>1525</u>	Plastic 500mL pH<2 w/H2SO4	1	MW4	g / c	COD TOC
5105013-04 D	<u>11/14/25</u>	<u>1525</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW4	g / c	Radium 226 (sub)
5105013-04 E	<u>11/14/25</u>	<u>1525</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW4	g / c	Radium 228 (sub)

Preservation Check: pH: ✓

Preservation Check: pH: ✓

Preservation Check: pH: ✓

Preservation Check: pH: ✓

Preservation Check Performed by: KED

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 11/14/25 Time (24 hr) 1525

pH 6.49 Cond (umho) 5.43 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Requisitioned by: (Signature)
[Signature]

Received by: (Signature)
[Signature]

Date (mm/dd/yy)
11-21-25

Time (24 hr)
1152

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station

Project: Green Landfill Semiannual Groundwater

Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105013 Sample ID#	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-04 F	<u>11/14/25</u>	<u>1505</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW4	g / c	Radium 228 (sub)
Preservation Check: pH: _____							
5105013-04 G	<u>11/14/25</u>	<u>1505</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW4	g / c	Radium Total (sub)
Preservation Check: pH: _____							
5105013-04 H	<u>11/19/25</u>	<u>1505</u>	AG 250mL pH<2 w/H2SO4	1	MW4	g / c	TOC
Preservation Check: pH: _____							
5105013-05 A	<u>11/19/25</u>	<u>1333</u>	Plastic 500mL pH<2 w/HNO3	1	MW5	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
Preservation Check: pH: _____							
5105013-05 B	<u>11/19/25</u>	<u>1333</u>	Plastic 1L	1	MW5	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-21-20

Time (24 hr) 1152

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Groundwater

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105013 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-05 C	<u>11/19/25</u>	<u>1333</u>	Plastic 500mL pH<2 w/H2SO4	1	MW5	g / c	COD TOC
			Preservation Check: pH :	<u>✓</u>			
5105013-05 D	<u>11/19/25</u>	<u>1333</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW5	g / c	Radium 226 (sub)
			Preservation Check: pH :	<u>✓</u>			
5105013-05 E	<u>11/19/25</u>	<u>1333</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW5	g / c	Radium 228 (sub)
			Preservation Check: pH :	<u>✓</u>			
5105013-05 F	<u>11/19/25</u>	<u>1333</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW5	g / c	Radium 228 (sub)
			Preservation Check: pH :	<u>✓</u>			
5105013-05 G	<u>11/19/25</u>	<u>1333</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW5	g / c	Radium Total (sub)
			Preservation Check: pH :	<u>✓</u>			
5105013-05 H	<u>11/19/25</u>	<u>1333</u>	AG 250mL pH<2 w/H2SO4	1	MW5	g / c	TOC
			Preservation Check: pH :	<u>✓</u>			

Preservation Check Performed by: KCD

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 11/19/25 Time (24 hr) 1353

pH 6.61 Cond (uMho) 4.75 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature]

[Signature]

11-21-25

1152

Chain of Custody

Scheduled for: 10/27/2025



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105013 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-06 A	<u>11/20/25</u>	<u>1750</u>	Plastic 500mL pH<2 w/HNO3	1	MW6	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B

Preservation Check: pH: ✓

5105013-06 B 11/20/25 1750 Plastic 1L 1 MW6 g / c pH (Lab) Conductivity (Lab) TDS
Sulfate 9056 Chloride 9056 Fluoride
9056
COD TOC

5105013-06 C 11/20/25 1750 Plastic 500mL pH<2 1 MW6 g / c
w/H2SO4

Preservation Check: pH: ✓

5105013-06 D 11/20/25 1750 Plastic 1L pH<2 w/HNO3 1 MW6 g / c Radium 226 (sub)
Rad 226 Sub

Preservation Check: pH: ✓

5105013-06 E 11/20/25 1750 Plastic 1L pH<2 w/HNO3 1 MW6 g / c Radium 228 (sub)
Rad 228 Sub

Preservation Check: pH: ✓

Preservation Check Performed by: Ver

pH Paper Lot #: 213724

Field data collected by: Hunter A. Hill Date (mm/dd/yy) 11/20/25 Time (24 hr) 1750
 pH 6.69 Cond (umho) 4.70 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-20-25

Time (24 hr) 1750

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station

Project: Green Landfill Semiannual Groundwater

Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature]
 required information

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105013 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-06 F	<u>11/20/25</u>	<u>1250</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW6	g / c	Radium 228 (sub)
Preservation Check: pH: <u>✓</u>							
5105013-06 G	<u>11/20/25</u>	<u>1750</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW6	g / c	Radium Total (sub)
Preservation Check: pH: <u>✓</u>							
5105013-06 H	<u>11/20/25</u>	<u>1750</u>	AG 250mL pH<2 w/H2SO4	1	MW6	g / c	TOC
Preservation Check: pH: <u>✓</u>							
5105013-07 A	<u>11/20/25</u>	<u>1601</u>	Plastic 500mL pH<2 w/HNO3	1	DUPLICATE	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
Preservation Check: pH: <u>✓</u>							
5105013-07 B	<u>11/20/25</u>	<u>1601</u>	Plastic 1L	1	DUPLICATE	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056

Preservation Check Performed by: ICED

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-21-25

Time (24 hr) 1152

Chain of Custody

Scheduled for: 10/27/2025



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
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 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-07 C	<u>11/20/25</u>	<u>1601</u>	Plastic 500mL pH<2 w/H2SO4	1	DUPLICATE	g / c	COD TOC
			Preservation Check: pH :	<u>/</u>			
5105013-07 D	<u>11/20/25</u>	<u>1601</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	DUPLICATE	g / c	Radium 226 (sub)
			Preservation Check: pH :	<u>/</u>			
5105013-07 E	<u>11/20/25</u>	<u>1601</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
			Preservation Check: pH :	<u>/</u>			
5105013-07 F	<u>11/20/25</u>	<u>1601</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
			Preservation Check: pH :	<u>/</u>			
5105013-07 G	<u>11/20/25</u>	<u>1601</u>	Plastic 1L pH<2 w/HNO3 Sub	1	DUPLICATE	g / c	Radium Total (sub)
			Preservation Check: pH :	<u>/</u>			
5105013-07 H	<u>11/20/25</u>	<u>1601</u>	AG 250mL pH<2 w/H2SO4	1	DUPLICATE	g / c	TOC
			Preservation Check: pH :	<u>/</u>			

Preservation Check Performed by: KED pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Reinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 11-21-25 Time (24 hr) 1152

Chain of Custody

Scheduled for: 10/27/2025



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	*required information* Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105013-08 A	<u>11/20/25</u>	<u>1800</u>	Plastic 500mL pH<2 w/HNO3	1	FIELD BLANK	g / c	Beryllium Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Arsenic Tot 6020 Boron Tot 6010B Copper Tot 6020 Antimony Tot 6020 Lead Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Sodium Tot 6010B
Preservation Check: pH: <u>✓</u>							
5105013-08 B	<u>11/20/25</u>	<u>1800</u>	Plastic 1L	1	FIELD BLANK	g / c	pH (Lab) Conductivity (Lab) TDS Sulfate 9056 Chloride 9056 Fluoride 9056
5105013-08 C	<u>11/20/25</u>	<u>1800</u>	Plastic 500mL pH<2 w/H2SO4	1	FIELD BLANK	g / c	COD TOC
Preservation Check: pH: <u>✓</u>							
5105013-08 D	<u>11/20/25</u>	<u>1800</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	FIELD BLANK	g / c	Radium 226 (sub)
Preservation Check: pH: <u>✓</u>							
5105013-08 E	<u>11/20/25</u>	<u>1800</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
Preservation Check: pH: <u>✓</u>							

Preservation Check Performed by: KED

pH Paper Lot #: 213724

Field data collected by: _____	Date (mm/dd/yy) _____	Time (24 hr) _____
pH _____	Cond (umho) _____	Res Cl (mg/L) _____
Temp (oC) _____	or (oF) _____	Static Water Level _____
Flow: _____	<input type="checkbox"/> MGD	<input type="checkbox"/> CFS
	<input type="checkbox"/> g/min	<input type="checkbox"/> GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-21-25 Time (24 hr) 1152

Chain of Custody

Scheduled for: 10/27/2025



Client: **Big Rivers Electric Corporation**
Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **Green Landfill Semiannual Groundwater**

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY	*required information*		Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
Workorder #	Date	Collection					
5105013	(mm/dd/yy):	Time (24 hr):					
5105013-08 F	<u>11/20/25</u>	<u>1800</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5105013-08 G	<u>11/20/25</u>	<u>1800</u>	Plastic 1L pH<2 w/HNO3 Sub	1	FIELD BLANK	g / c	Radium Total (sub)
			Preservation Check: pH: <u>✓</u>				
5105013-08 H	<u>11/20/25</u>	<u>1800</u>	AG 250mL pH<2 w/H2SO4	1	FIELD BLANK	g / c	TOC
			Preservation Check: pH: <u>✓</u>				

Thermometer Serial Number
230753815
240381205
 Temperature 5.6c

Preservation Check Performed by: KCD

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/21/25</u>	Time (24 hr) <u>1152</u>
_____	_____	_____	_____
_____	_____	_____	_____



December 17, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5105013
Pace Project No.: 30829010

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on November 25, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mariah Barlow
mariah.barlow@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 5105013
 Pace Project No.: 30829010

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: 5105013
Pace Project No.: 30829010

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30829010001	5105013-01	Water	11/18/25 14:50	11/25/25 10:30
30829010002	5105013-02	Water	11/20/25 12:40	11/25/25 10:30
30829010003	5105013-03	Water	11/20/25 12:40	11/25/25 10:30
30829010004	5105013-04	Water	11/19/25 15:25	11/25/25 10:30
30829010005	5105013-05	Water	11/19/25 13:33	11/25/25 10:30
30829010006	5105013-05 MS	Water	11/19/25 13:33	11/25/25 10:30
30829010007	5105013-05 MSD	Water	11/19/25 13:33	11/25/25 10:30
30829010008	5105013-06	Water	11/20/25 17:50	11/25/25 10:30
30829010009	5105013-07	Water	11/20/25 16:01	11/25/25 10:30
30829010010	5105013-08	Water	11/20/25 18:20	11/25/25 10:30

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SAMPLE ANALYTE COUNT

Project: 5105013
 Pace Project No.: 30829010

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30829010001	5105013-01	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30829010002	5105013-02	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30829010003	5105013-03	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30829010004	5105013-04	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30829010005	5105013-05	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30829010006	5105013-05 MS	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
30829010007	5105013-05 MSD	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
30829010008	5105013-06	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30829010009	5105013-07	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30829010010	5105013-08	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105013
 Pace Project No.: 30829010

Sample: 5105013-01 **Lab ID: 30829010001** Collected: 11/18/25 14:50 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.407 ± 0.472 (0.761) C:NA T:95%	pCi/L	12/16/25 14:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.363 ± 0.398 (0.833) C:82% T:80%	pCi/L	12/16/25 14:56	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.770 ± 0.870 (1.59)	pCi/L	12/17/25 12:55	7440-14-4	

Sample: 5105013-02 **Lab ID: 30829010002** Collected: 11/20/25 12:40 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.122 ± 0.279 (0.450) C:NA T:92%	pCi/L	12/16/25 14:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.449 ± 0.286 (0.531) C:86% T:100%	pCi/L	12/16/25 14:56	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.571 ± 0.565 (0.981)	pCi/L	12/17/25 12:55	7440-14-4	

Sample: 5105013-03 **Lab ID: 30829010003** Collected: 11/20/25 12:40 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.114 ± 0.352 (0.682) C:NA T:87%	pCi/L	12/16/25 14:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.715 ± 0.368 (0.634) C:83% T:86%	pCi/L	12/16/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.829 ± 0.720 (1.32)	pCi/L	12/17/25 12:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105013
 Pace Project No.: 30829010

Sample: 5105013-04 Lab ID: 30829010004 Collected: 11/19/25 15:25 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.582 ± 0.401 (0.428) C:NA T:91%	pCi/L	12/16/25 14:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.588 ± 0.411 (0.791) C:82% T:83%	pCi/L	12/16/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.17 ± 0.812 (1.22)	pCi/L	12/17/25 12:55	7440-14-4	

Sample: 5105013-05 Lab ID: 30829010005 Collected: 11/19/25 13:33 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0444 ± 0.359 (0.704) C:NA T:108%	pCi/L	12/16/25 14:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.07 ± 0.441 (0.697) C:84% T:86%	pCi/L	12/16/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.11 ± 0.800 (1.40)	pCi/L	12/17/25 12:55	7440-14-4	

Sample: 5105013-05 MS Lab ID: 30829010006 Collected: 11/19/25 13:33 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	107.92 %REC ± NA (NA) C:NA T:NA	pCi/L	12/16/25 14:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	74.48 %REC ± NA (NA) C:NA T:NA	pCi/L	12/16/25 14:57	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105013
 Pace Project No.: 30829010

Sample: 5105013-05 MSD Lab ID: 30829010007 Collected: 11/19/25 13:33 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	101.59 %REC 6.04RPD ± NA (NA) C:NA T:NA	pCi/L	12/16/25 14:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	68.80 %REC 7.93RPD ± NA (NA) C:NA T:NA	pCi/L	12/16/25 14:57	15262-20-1	

Sample: 5105013-06 Lab ID: 30829010008 Collected: 11/20/25 17:50 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.0580 ± 0.341 (0.760) C:NA T:88%	pCi/L	12/16/25 14:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.810 ± 0.535 (1.04) C:84% T:75%	pCi/L	12/16/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.810 ± 0.876 (1.80)	pCi/L	12/17/25 12:55	7440-14-4	

Sample: 5105013-07 Lab ID: 30829010009 Collected: 11/20/25 16:01 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.472 ± 0.345 (0.386) C:NA T:97%	pCi/L	12/16/25 14:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.53 ± 0.609 (0.988) C:80% T:78%	pCi/L	12/16/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.00 ± 0.954 (1.37)	pCi/L	12/17/25 12:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105013
 Pace Project No.: 30829010

Sample: 5105013-08 **Lab ID: 30829010010** Collected: 11/20/25 18:20 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	0.0607 ± 0.277 (0.164) C:NA T:91%	pCi/L	12/16/25 14:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	0.700 ± 0.429 (0.813) C:85% T:87%	pCi/L	12/16/25 14:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.761 ± 0.706 (0.977)	pCi/L	12/17/25 12:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105013
 Pace Project No.: 30829010

QC Batch:	786636	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30829010001, 30829010002, 30829010003, 30829010004, 30829010005, 30829010006, 30829010007, 30829010008, 30829010009, 30829010010

METHOD BLANK: 3838176 Matrix: Water

Associated Lab Samples: 30829010001, 30829010002, 30829010003, 30829010004, 30829010005, 30829010006, 30829010007, 30829010008, 30829010009, 30829010010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.640 ± 0.406 (0.757) C:75% T:83%	pCi/L	12/16/25 14:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105013
 Pace Project No.: 30829010

QC Batch:	786635	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30829010001, 30829010002, 30829010003, 30829010004, 30829010005, 30829010006, 30829010007, 30829010008, 30829010009, 30829010010

METHOD BLANK: 3838175 Matrix: Water

Associated Lab Samples: 30829010001, 30829010002, 30829010003, 30829010004, 30829010005, 30829010006, 30829010007, 30829010008, 30829010009, 30829010010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.264 ± 0.275 (0.388) C:NA T:93%	pCi/L	12/16/25 14:02	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: 5105013
Pace Project No.: 30829010

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5105013
 Pace Project No.: 30829010

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30829010001	5105013-01	EPA 903.1	786635		
30829010002	5105013-02	EPA 903.1	786635		
30829010003	5105013-03	EPA 903.1	786635		
30829010004	5105013-04	EPA 903.1	786635		
30829010005	5105013-05	EPA 903.1	786635		
30829010006	5105013-05 MS	EPA 903.1	786635		
30829010007	5105013-05 MSD	EPA 903.1	786635		
30829010008	5105013-06	EPA 903.1	786635		
30829010009	5105013-07	EPA 903.1	786635		
30829010010	5105013-08	EPA 903.1	786635		
30829010001	5105013-01	EPA 904.0	786636		
30829010002	5105013-02	EPA 904.0	786636		
30829010003	5105013-03	EPA 904.0	786636		
30829010004	5105013-04	EPA 904.0	786636		
30829010005	5105013-05	EPA 904.0	786636		
30829010006	5105013-05 MS	EPA 904.0	786636		
30829010007	5105013-05 MSD	EPA 904.0	786636		
30829010008	5105013-06	EPA 904.0	786636		
30829010009	5105013-07	EPA 904.0	786636		
30829010010	5105013-08	EPA 904.0	786636		
30829010001	5105013-01	Total Radium Calculation	790163		
30829010002	5105013-02	Total Radium Calculation	790163		
30829010003	5105013-03	Total Radium Calculation	790163		
30829010004	5105013-04	Total Radium Calculation	790163		
30829010005	5105013-05	Total Radium Calculation	790163		
30829010008	5105013-06	Total Radium Calculation	790163		
30829010009	5105013-07	Total Radium Calculation	790163		
30829010010	5105013-08	Total Radium Calculation	790163		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.

SUBCONTRACT ORDER
 Pace Analytical Services, LLC Kentucky
 5105013

WO# : 30829010



SENDING LABORATORY:

Pace Analytical Services, LLC Kentucky
 PO BOX 907
 Madisonville, KY 42431
 Phone: (270) 821-7375
 Fax: -
 Project Manager: Rob Whittington

RECEIVING LABORATORY:

Pace Analytical Services LLC Greensburg PA
 1638 Rosey Town Rd Suite 2,3,4
 Greensburg, PA 15601
 Phone : (724) 850-5615
 Fax:

Analysis	Expires	Laboratory ID	Comments
Sample ID: 5105013-01	Water	Sampled:11/18/2025 14:50	Specific Method MW1 001
Radium 228 (sub)	05/17/2026 14:50	EPA 904.0 Radium Sum C	
Radium Total (sub)	05/17/2026 14:50	EPA 904.0 Radium Sum C	
Radium 226 (sub)	05/17/2026 14:50	EPA 903.1	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙

Sample ID: 5105013-02	Water	Sampled:11/20/2025 12:40	Specific Method MW2
Radium 226 (sub)	05/19/2026 12:40	EPA 903.1	
Radium 228 (sub)	05/19/2026 12:40	EPA 904.0 Radium Sum C	002
Radium Total (sub)	05/19/2026 12:40	EPA 904.0 Radium Sum C	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙

Sample ID: 5105013-03	Water	Sampled:11/20/2025 12:40	Specific Method MW3A
Radium 226 (sub)	05/19/2026 12:40	EPA 903.1	
Radium 228 (sub)	05/19/2026 12:40	EPA 904.0 Radium Sum C	003
Radium Total (sub)	05/19/2026 12:40	EPA 904.0 Radium Sum C	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙

Received by Pace Greensburg
 Therm ID 24 Corr Factor +/- -0.1
 Receipt Temp 1.2
 Corrected Temp 1.1
 Correct Preservation N

Released By [Signature] Date 11-24-25 Received By Matthew Smith Date 11/25/25 1030

Released By _____ Date _____ Received By _____ Date _____

SUBCONTRACT ORDER
 Pace Analytical Services, LLC Kentucky
 5105013

WO# : 30829010

PM: MAB Due Date: 12/18/25
 CLIENT: PACE_44_MVKY

Analysis	Expires	Laboratory ID	Comments
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Sample ID: 5105013-04	Water	Sampled: 11/19/2025 15:25	Specific Method MW4	004
Radium Total (sub)		05/18/2026 15:25	EPA 904.0 Radium Sum C	
Radium 226 (sub)		05/18/2026 15:25	EPA 903.1	
Radium 228 (sub)		05/18/2026 15:25	EPA 904.0 Radium Sum C	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙

Sample ID: 5105013-05	Water	Sampled: 11/19/2025 13:33	Specific Method MW5 MS/MSD	
Radium 228 (sub)		05/18/2026 13:33	EPA 904.0 Radium Sum C	
Radium Total (sub)		05/18/2026 13:33	EPA 904.0 Radium Sum C	005
Radium 226 (sub)		05/18/2026 13:33	EPA 903.1	006

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙ 007

Sample ID: 5105013-06	Water	Sampled: 11/20/2025 17:50	Specific Method MW6	
Radium 226 (sub)		05/19/2026 17:50	EPA 903.1	
Radium 228 (sub)		05/19/2026 17:50	EPA 904.0 Radium Sum C	ES 11/25/25 006
Radium Total (sub)		05/19/2026 17:50	EPA 904.0 Radium Sum C	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙ 008

Sample ID: 5105013-07	Water	Sampled: 11/20/2025 16:01	Specific Method Duplicate	
Radium 226 (sub)		05/19/2026 16:01	EPA 903.1	
Radium 228 (sub)		05/19/2026 16:01	EPA 904.0 Radium Sum C	ES 11/25/25 007
Radium Total (sub)		05/19/2026 16:01	EPA 904.0 Radium Sum C	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙ 009

Released By [Signature] Date 11-24-25 Received By [Signature] Date 11/25/25 1030

Released By _____ Date _____ Received By _____ Date _____

SUBCONTRACT ORDER
Pace Analytical Services, LLC Kentucky
5105013

Analysis	Expires	Laboratory ID	Comments
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Sample ID: 5105013-08	Water	Sampled: 11/20/2025 18:20	Specific Method	Field Blank
Radium Total (sub)		05/19/2026 18:20	EPA 904.0 Radium Sum C	
Radium 226 (sub)		05/19/2026 18:20	EPA 903.1	
Radium 228 (sub)		05/19/2026 18:20	EPA 904.0 Radium Sum C	

ES 11/25/25
~~008~~
 010

SAMPLE STATE OF ORIGIN KY

RUSH MULTIPLIER *[Signature]*

WO# : 30829010

PM: MAB Due Date: 12/18/25

CLIENT: PACE_44_MVKY

<i>[Signature]</i>	11-24-25	<i>Matthew Smith</i>	11/25/25 1030
Released By	Date	Received By	Date
Released By	Date	Received By	Date

WO#: 30829010

PM: MAB Due Date: 12/18/25
CLIENT: PACE_44_MVKY

DC#_Title: ENV-FRM-GBUR-0088 v09_Sar
Greensburg
Effective Date: 06/24/2025

Client Name: Pace KY

Project #:

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Initial / Date

Tracking Number: 12067YS70122912974/10673826

Examined By: ES 11/25/25

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Labeled By: ES 11/25/25

Therm. Used: 24 Type of Ice: Wet Blue None

Temped By: ES 11/25/25

Cooler Temp: Observed Temp 1-2 °C Correction Factor: -0.1 °C Final Temp: 1-1 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				6411001	
Chain of Custody Present	/				
Chain of Custody Filled Out: -Were client corrections present on COC	/				
Chain of Custody Relinquished	/				
Sampler Name & Signature on COC:		/			
Sample Labels match COC: -Includes date/time/ID Matrix:		/			
Samples Arrived within Hold Time:	/				no date/time on sample 001 bottles date/time sample 003 = 11/19 10:30
Short Hold Time Analysis (<72hr remaining):		/			
Rush Turn Around Time Requested:		/			
Sufficient Volume:	/				
Correct Containers Used: -Pace Containers Used	/				
Containers Intact:	/				
Orthophosphate field filtered:			/		
Hex Cr Aqueous samples field filtered:			/		
Organic Samples checked for dechlorination			/		
Filtered volume received for dissolved tests: Cr6+, Orthophosphate, DOC, Metals			/		
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, TOX, LL Hg, Radon, non-aqueous matrix	/				
All containers meet method preservation requirements:	/			PH < 2	
				Initial when completed ES	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			/		
624.1: Headspace in VOA Vials (0mm)			/		
Radon: Headspace in RAD Vials (0mm)			/		
Trip Blank Present:			/		Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	/			Initial when completed ES	Date: 11/25/25 Survey Meter SN: 25014380
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.



Certificate of Analysis 5105014

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 12/17/2025 16:40

Project Name: Green Landfill Semiannual Well MW104 Workorder: 5105014

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 11/21/2025 11:52.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



Pace Analytical Services, LLC

P.O. Box 907

Madisonville, KY 42431

270.821.7375

www.pacelabs.com

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5105014-01	MW-104/	Groundwater	11/20/2025 15:21	11/21/2025 11:52	Client
<u>LabNumber</u>	<u>Measurement</u>				<u>Value</u>
5105014-01	Field Conductance				8030
	Field pH				6.56



ANALYTICAL RESULTS

Lab Sample ID: **5105014-01**
 Description: **MW-104**

Sample Collection Date Time: 11/20/2025 15:21
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Arsenic	0.0016		mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Barium	0.017		mg/L	0.004	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Beryllium	ND	u, v1	mg/L	0.0020	0.0010	SW846-6020 A	11/25/2025 09:03	12/10/2025 11:15	HJS
Boron	0.31		mg/L	0.10	0.10	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:26	MRWD
Cadmium	0.0003	J	mg/L	0.0010	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Calcium	533	D1	mg/L	50.0	25.0	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:33	MRWD
Chromium	0.0006	J	mg/L	0.0020	0.0006	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Cobalt	0.005		mg/L	0.004	0.004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Copper	0.007		mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Iron	0.610		mg/L	0.100	0.050	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:26	MRWD
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Lithium	0.05		mg/L	0.02	0.005	SW846-6020 A	11/25/2025 09:03	12/11/2025 15:06	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS
Sodium	808	D1	mg/L	26.0	10.0	SW846 6010 B	11/25/2025 09:03	11/26/2025 00:33	MRWD
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:56	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	92		mg/L	13	8	HACH 8000	11/25/2025 13:52	11/26/2025 13:52	AKJ
Specific Conductance (Lab)	8680		uS/cm @ 25.0 °C	1	1	2510 B-2011	11/26/2025 09:17	11/26/2025 12:14	JEP
pH (Lab)	7.38	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/25/2025 09:48	11/25/2025 16:57	JEP
Total Dissolved Solids	5530		mg/L	250	250	2540 C-2015	11/24/2025 16:19	11/24/2025 16:19	HAG
Total Organic Carbon	0.7		mg/L	0.5	0.2	5310 C-2014	11/23/2025 18:23	11/23/2025 18:23	HMF

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 16:34	12/17/2025 16:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	1750	D	mg/L	10.0	7.2	SW846 9056	11/24/2025 21:33	11/24/2025 21:33	DSB1
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	11/24/2025 21:11	11/24/2025 21:11	DSB1
Sulfate	2290	D	mg/L	20	10	SW846 9056	11/24/2025 21:33	11/24/2025 21:33	DSB1



Notes for work order 5105014

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- M3 The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
- M7 Matrix spike recovery was low.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).
- V1 CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Blank (BEK2297-BLK1)

Prepared: 11/25/2025 9:03, Analyzed: 11/25/2025 22:35

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U
Iron	ND	0.100	mg/L							U
Sodium	ND	0.26	mg/L							U

Blank (BEK2297-BLK2)

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 12:19

Molybdenum	ND	0.01	mg/L							U
Mercury	ND	0.0005	mg/L							U
Antimony	ND	0.005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Copper	ND	0.003	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U

LCS (BEK2297-BS1)

Prepared: 11/25/2025 9:03, Analyzed: 11/25/2025 22:38

Boron	0.13	0.10	mg/L	0.125		102	85-115			
Calcium	6.44	0.50	mg/L	6.25		103	85-115			
Iron	6.37	0.100	mg/L	6.25		102	85-115			
Sodium	5.98	0.26	mg/L	6.25		95.7	85-115			

LCS (BEK2297-BS2)

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 12:22

Molybdenum	0.06	0.01	mg/L	0.0625		103	85-115			
Antimony	0.062	0.005	mg/L	0.0625		98.8	85-115			
Mercury	0.0026	0.0005	mg/L	0.00250		105	85-115			
Arsenic	0.0656	0.0010	mg/L	0.0625		105	85-115			
Barium	0.062	0.004	mg/L	0.0625		99.6	85-115			
Beryllium	0.0641	0.0020	mg/L	0.0625		103	85-115			
Cadmium	0.0614	0.0010	mg/L	0.0625		98.3	85-115			
Chromium	0.0650	0.0020	mg/L	0.0625		104	85-115			
Cobalt	0.061	0.004	mg/L	0.0625		98.1	85-115			
Copper	0.062	0.003	mg/L	0.0625		99.5	85-115			
Lead	0.062	0.002	mg/L	0.0625		99.4	85-115			
Lithium	0.06	0.02	mg/L	0.0625		98.6	85-115			
Selenium	0.065	0.003	mg/L	0.0625		103	85-115			
Thallium	0.0661	0.0020	mg/L	0.0625		106	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Matrix Spike (BEK2297-MS1) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 0:58

Boron	0.43	0.10	mg/L	0.125	0.29	110	80-120			
Calcium	469	0.50	mg/L	6.25	449	321	80-120			M3
Iron	6.28	0.100	mg/L	6.25	ND	100	80-120			
Sodium	201	0.26	mg/L	6.25	179	344	80-120			M3

Matrix Spike (BEK2297-MS2) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:04

Boron	0.38	0.10	mg/L	0.125	0.25	106	80-120			
Calcium	134	0.50	mg/L	6.25	127	114	80-120			
Iron	8.33	0.100	mg/L	6.25	2.07	100	80-120			
Sodium	132	0.26	mg/L	6.25	126	107	80-120			

Matrix Spike (BEK2297-MS3) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:15

Mercury	0.0026	0.0005	mg/L	0.00250	ND	106	80-120			
Molybdenum	0.07	0.01	mg/L	0.0625	ND	105	80-120			
Antimony	0.061	0.005	mg/L	0.0625	ND	96.9	80-120			
Arsenic	0.0715	0.0010	mg/L	0.0625	ND	114	80-120			
Barium	0.078	0.004	mg/L	0.0625	0.014	102	80-120			
Beryllium	0.0539	0.0020	mg/L	0.0625	ND	86.3	80-120			
Cadmium	0.0564	0.0010	mg/L	0.0625	ND	90.2	80-120			
Chromium	0.0663	0.0020	mg/L	0.0625	ND	106	80-120			
Cobalt	0.059	0.004	mg/L	0.0625	ND	94.5	80-120			
Copper	0.058	0.003	mg/L	0.0625	ND	93.2	80-120			
Lead	0.060	0.002	mg/L	0.0625	ND	95.4	80-120			
Lithium	0.40	0.02	mg/L	0.0625	0.36	66.5	80-120			M2
Selenium	0.074	0.003	mg/L	0.0625	ND	118	80-120			
Thallium	0.0637	0.0020	mg/L	0.0625	ND	102	80-120			

Matrix Spike (BEK2297-MS4) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:20

Antimony	0.060	0.005	mg/L	0.0625	ND	96.4	80-120			
Mercury	0.0025	0.0005	mg/L	0.00250	ND	102	80-120			
Molybdenum	0.07	0.01	mg/L	0.0625	0.004	102	80-120			
Arsenic	0.0679	0.0010	mg/L	0.0625	0.0021	105	80-120			
Barium	0.184	0.004	mg/L	0.0625	0.120	103	80-120			
Beryllium	0.0532	0.0020	mg/L	0.0625	ND	85.2	80-120			
Cadmium	0.0575	0.0010	mg/L	0.0625	ND	91.9	80-120			
Chromium	0.0629	0.0020	mg/L	0.0625	ND	101	80-120			
Cobalt	0.073	0.004	mg/L	0.0625	0.015	92.1	80-120			
Copper	0.058	0.003	mg/L	0.0625	ND	93.4	80-120			
Lead	0.060	0.002	mg/L	0.0625	ND	96.0	80-120			
Lithium	0.06	0.02	mg/L	0.0625	0.01	76.0	80-120			M2
Selenium	0.066	0.003	mg/L	0.0625	ND	105	80-120			
Thallium	0.0639	0.0020	mg/L	0.0625	ND	102	80-120			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Matrix Spike Dup (BEK2297-MSD1) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:01

Boron	0.44	0.10	mg/L	0.125	0.29	120	80-120	2.82	20	
Calcium	488	0.50	mg/L	6.25	449	621	80-120	3.92	20	M3
Iron	6.19	0.100	mg/L	6.25	ND	99.0	80-120	1.46	20	
Sodium	209	0.26	mg/L	6.25	179	473	80-120	3.94	20	M3

Matrix Spike Dup (BEK2297-MSD2) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:07

Boron	0.39	0.10	mg/L	0.125	0.25	109	80-120	0.851	20	
Calcium	135	0.50	mg/L	6.25	127	128	80-120	0.658	20	M3
Iron	8.40	0.100	mg/L	6.25	2.07	101	80-120	0.886	20	
Sodium	133	0.26	mg/L	6.25	126	120	80-120	0.632	20	

Matrix Spike Dup (BEK2297-MSD3) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:17

Mercury	0.0025	0.0005	mg/L	0.00250	ND	100	80-120	4.94	20	
Molybdenum	0.06	0.01	mg/L	0.0625	ND	103	80-120	2.00	20	
Antimony	0.060	0.005	mg/L	0.0625	ND	95.3	80-120	1.74	20	
Arsenic	0.0723	0.0010	mg/L	0.0625	ND	116	80-120	1.17	20	
Barium	0.078	0.004	mg/L	0.0625	0.014	102	80-120	0.0327	20	
Beryllium	0.0520	0.0020	mg/L	0.0625	ND	83.3	80-120	3.61	20	
Cadmium	0.0556	0.0010	mg/L	0.0625	ND	89.0	80-120	1.32	20	
Chromium	0.0664	0.0020	mg/L	0.0625	ND	106	80-120	0.208	20	
Cobalt	0.059	0.004	mg/L	0.0625	ND	94.6	80-120	0.169	20	
Copper	0.058	0.003	mg/L	0.0625	ND	93.0	80-120	0.129	20	
Lead	0.059	0.002	mg/L	0.0625	ND	94.1	80-120	1.30	20	
Lithium	0.41	0.02	mg/L	0.0625	0.36	72.7	80-120	0.952	20	M2
Selenium	0.074	0.003	mg/L	0.0625	ND	118	80-120	0.277	20	
Thallium	0.0631	0.0020	mg/L	0.0625	ND	101	80-120	0.898	20	

Matrix Spike Dup (BEK2297-MSD4) Source: 5105015-03

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:22

Molybdenum	0.07	0.01	mg/L	0.0625	0.004	103	80-120	1.31	20	
Antimony	0.061	0.005	mg/L	0.0625	ND	97.0	80-120	0.633	20	
Mercury	0.0026	0.0005	mg/L	0.00250	ND	103	80-120	0.925	20	
Arsenic	0.0703	0.0010	mg/L	0.0625	0.0021	109	80-120	3.45	20	
Barium	0.186	0.004	mg/L	0.0625	0.120	105	80-120	0.869	20	
Beryllium	0.0537	0.0020	mg/L	0.0625	ND	86.0	80-120	0.907	20	
Cadmium	0.0579	0.0010	mg/L	0.0625	ND	92.7	80-120	0.823	20	
Chromium	0.0636	0.0020	mg/L	0.0625	ND	102	80-120	1.14	20	
Cobalt	0.074	0.004	mg/L	0.0625	0.015	93.8	80-120	1.46	20	
Copper	0.059	0.003	mg/L	0.0625	ND	94.9	80-120	1.64	20	
Lead	0.061	0.002	mg/L	0.0625	ND	97.2	80-120	1.22	20	
Lithium	0.06	0.02	mg/L	0.0625	0.01	78.2	80-120	2.30	20	M2
Selenium	0.067	0.003	mg/L	0.0625	ND	108	80-120	2.11	20	
Thallium	0.0646	0.0020	mg/L	0.0625	ND	103	80-120	1.15	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2297 - EPA 200.2

Post Spike (BEK2297-PS1) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 11/26/2025 1:11

Boron	427		ug/L	125	289	110	75-125			
Calcium	473000		ug/L	6250	449000	373	75-125			M3
Iron	6170		ug/L	6250	20.9	98.4	75-125			
Sodium	202000		ug/L	6250	179000	369	75-125			M3

Post Spike (BEK2297-PS2) Source: 5105013-05

Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:24

Mercury	2.46		ug/L	2.50	0.0408	96.8	75-125			
Antimony	57.7		ug/L	62.5	-0.046	92.4	75-125			
Molybdenum	64.1		ug/L	62.5	-0.04	103	75-125			
Arsenic	72.8		ug/L	62.5	0.152	116	75-125			
Barium	75.2		ug/L	62.5	13.8	98.3	75-125			
Beryllium	52.4		ug/L	62.5	0.0040	83.9	75-125			
Cadmium	54.0		ug/L	62.5	0.0310	86.3	75-125			
Chromium	66.5		ug/L	62.5	0.412	106	75-125			
Cobalt	59.2		ug/L	62.5	0.095	94.6	75-125			
Copper	58.5		ug/L	62.5	0.208	93.3	75-125			
Lead	57.2		ug/L	62.5	0.023	91.4	75-115			
Lithium	394		ug/L	62.5	362	51.4	75-125			M2
Selenium	74.0		ug/L	62.5	0.125	118	75-125			
Thallium	61.2		ug/L	62.5	0.0285	97.9	75-125			



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
Batch BEK2180 - Default Prep Micro										
LCS (BEK2180-BS1)										
Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57										
pH (Lab)	4.96		Std. Units	5.00		99.2	98.8-101.2			
LCS (BEK2180-BS2)										
Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57										
pH (Lab)	5.01		Std. Units	5.00		100	98.8-101.2			
Duplicate (BEK2180-DUP1) Source: 5105013-05										
Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57										
pH (Lab)	7.58	0.10	Std. Units		7.57			0.132	10	H3
Duplicate (BEK2180-DUP2) Source: 5114890-04										
Prepared: 11/25/2025 9:48, Analyzed: 11/25/2025 16:57										
pH (Lab)	8.13	0.10	Std. Units		8.12			0.123	10	H3
Batch BEK2181 - Default Prep Micro										
Blank (BEK2181-BLK1)										
Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14										
Specific Conductance (Lab)	ND		1 uS/cm @ 25.0 °C							U
LCS (BEK2181-BS1)										
Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14										
Specific Conductance (Lab)	1410		uS/cm @ 25.0 °C	1410		100	90-110			
Duplicate (BEK2181-DUP1) Source: 5105013-05										
Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14										
Specific Conductance (Lab)	4020	1	uS/cm @ 25.0 °C		4010			0.249	0.938	
Duplicate (BEK2181-DUP2) Source: 5114846-01										
Prepared: 11/26/2025 9:17, Analyzed: 11/26/2025 12:14										
Specific Conductance (Lab)	708	1	uS/cm @ 25.0 °C		707			0.141	0.938	
Batch BEK2248 - Default Prep Wet Chem										
Blank (BEK2248-BLK1)										
Prepared: 11/23/2025 14:29, Analyzed: 11/23/2025 14:29										
Total Organic Carbon	ND	0.5	mg/L							U



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2248 - Default Prep Wet Chem										
LCS (BEK2248-BS1)										
Prepared: 11/23/2025 14:51, Analyzed: 11/23/2025 14:51										
Total Organic Carbon	4.99	0.5	mg/L	5.00		99.8	80-120			
Duplicate (BEK2248-DUP1) Source: 5105013-04										
Prepared: 11/23/2025 20:10, Analyzed: 11/23/2025 20:10										
Total Organic Carbon	0.48	0.5	mg/L		0.55			13.4	25	J
Duplicate (BEK2248-DUP2) Source: 5110902-01										
Prepared: 11/24/2025 1:29, Analyzed: 11/24/2025 1:29										
Total Organic Carbon	0.70	0.5	mg/L		0.70			0.631	25	
Matrix Spike (BEK2248-MS1) Source: 5105013-05										
Prepared: 11/23/2025 20:31, Analyzed: 11/23/2025 20:31										
Total Organic Carbon	2.75	0.5	mg/L	2.50	0.77	79.6	80-120			M7
Matrix Spike (BEK2248-MS2) Source: 5110902-02										
Prepared: 11/24/2025 1:50, Analyzed: 11/24/2025 1:50										
Total Organic Carbon	5.86	0.5	mg/L	5.00	1.11	95.0	80-120			
Batch BEK2388 - Default Prep Wet Chem										
Blank (BEK2388-BLK1)										
Prepared: 11/24/2025 16:19, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	ND	25	mg/L							U
LCS (BEK2388-BS1)										
Prepared: 11/24/2025 16:19, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	996		mg/L	1000		99.6	80-120			
Duplicate (BEK2388-DUP1) Source: 5105013-05										
Prepared: 11/24/2025 16:19, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	3400	250	mg/L		3410			0.294	10	
Duplicate (BEK2388-DUP2) Source: 5114897-01										
Prepared: 11/24/2025 15:20, Analyzed: 11/24/2025 16:19										
Total Dissolved Solids	756	100	mg/L		760			0.528	10	



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2554 - Default Prep Wet Chem

Blank (BEK2554-BLK1)

Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52

Chemical Oxygen Demand	ND	13	mg/L							U
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LCS (BEK2554-BS1)

Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52

Chemical Oxygen Demand	134	13	mg/L	125		107	90-110			
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Duplicate (BEK2554-DUP1)

Source: 5105013-04

Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52

Chemical Oxygen Demand	63	13	mg/L		67			6.15	25	
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Matrix Spike (BEK2554-MS1)

Source: 5105013-04

Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52

Chemical Oxygen Demand	316	13	mg/L	250	67	99.6	90-110			
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Matrix Spike Dup (BEK2554-MSD1)

Source: 5105013-04

Prepared: 11/25/2025 13:52, Analyzed: 11/26/2025 13:52

Chemical Oxygen Demand	300	13	mg/L	250	67	93.2	90-110	5.19	10	
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Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK2310 - Default Prep IC

Blank (BEK2310-BLK1)

Prepared: 11/25/2025 7:37, Analyzed: 11/25/2025 7:37

Fluoride	ND	0.2	mg/L							U
Chloride	ND	0.5	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEK2310-BS1)

Prepared: 11/25/2025 7:15, Analyzed: 11/25/2025 7:15

Chloride	12.3		mg/L	12.5		98.7	90-110			
Fluoride	5.1		mg/L	5.00		102	90-110			
Sulfate	25		mg/L	25.0		99.6	90-110			

Matrix Spike (BEK2310-MS1)

Source: 5105013-05

Prepared: 11/25/2025 5:45, Analyzed: 11/25/2025 5:45

Fluoride	104		mg/L	100	0.2	104	75-125			D
Chloride	884		mg/L	250	636	99.2	75-125			D
Sulfate	1390		mg/L	500	883	101	75-125			D

Matrix Spike (BEK2310-MS2)

Source: 5105013-06

Prepared: 11/25/2025 6:30, Analyzed: 11/25/2025 6:30

Chloride	807		mg/L	625	187	99.3	75-125			D
Fluoride	259		mg/L	250	0.4	103	75-125			D
Sulfate	3200		mg/L	1250	1920	102	75-125			D

Matrix Spike Dup (BEK2310-MSD1)

Source: 5105013-05

Prepared: 11/25/2025 6:08, Analyzed: 11/25/2025 6:08

Fluoride	103		mg/L	100	0.2	103	75-125	0.868	15	D
Chloride	880		mg/L	250	636	97.9	75-125	0.372	15	D
Sulfate	1390		mg/L	500	883	101	75-125	0.166	15	D

Matrix Spike Dup (BEK2310-MSD2)

Source: 5105013-06

Prepared: 11/25/2025 6:52, Analyzed: 11/25/2025 6:52

Fluoride	265		mg/L	250	0.4	106	75-125	2.35	15	D
Chloride	818		mg/L	625	187	101	75-125	1.26	15	D
Sulfate	3230		mg/L	1250	1920	105	75-125	1.08	15	D



Certified Analyses included in this Report

Analyte	Certifications
2510 B-2011 in Water	
Specific Conductance (Lab)	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 FL Drinking Water Mdv (E871159)
2540 C-2015 in Water	
Total Dissolved Solids	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
5310 C-2014 in Water	
Total Organic Carbon	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) ADEM Drinking Water Mdv (41880) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
HACH 8000 in Water	
Chemical Oxygen Demand	KY Wastewater Mdv (00030) VA NELAC MDV (460210) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431
SM 4500-H+ B-2011 in Water	
pH (Lab)	KY Drinking Water Mdv (00030) TN Drinking Water (02819)
SW846 6010 B in Water	
Calcium	VA NELAC MDV (460210)

Sample Acceptance Checklist for Work Order 5105014	
Shipped By: Pace Analytical Services LL	Temperature: 5.60° Celcius
Condition	
Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Well MW104

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY	*required information*		Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
Workorder #	Date	Collection					
5105014	(mm/dd/yy):	Time (24 hr):					
Sample ID#							
5105014-01 A	<u>11/20/25</u>	<u>1501</u>	Plastic 500mL pH<2 w/HNO3	1	MW-104	g / c	Sodium Tot 6010B Antimony Tot 6020 Beryllium Tot 6020 Iron Tot 6010B Thallium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Barium Tot 6020 Copper Tot 6020 Arsenic Tot 6020 Lithium Tot 6020 Mercury Tot 6020 Lead Tot 6020

Preservation Check: pH: ✓

5105014-01 B	<u>11/20/25</u>	<u>1501</u>	Plastic 1L	1	MW-104	g / c	Chloride 9056 Conductivity (Lab) Fluoride 9056 pH (Lab) Sulfate 9056 TDS COD TOC
5105014-01 C	<u>11/20/25</u>	<u>1501</u>	Plastic 500mL pH<2 w/H2SO4	1	MW-104	g / c	COD TOC

Preservation Check: pH: ✓

5105014-01 D	<u>11/20/25</u>	<u>1501</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW-104	g / c	Radium 226 (sub)
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Preservation Check: pH: ✓

Preservation Check Performed by: KCD pH Paper Lot #: D13724

Field data collected by: Hunter A Hill Date (mm/dd/yy) 11/20/25 Time (24 hr) 1501

pH 6.56 Cond (uMho) 8.03 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11-20-25</u>	Time (24 hr) <u>1150</u>
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Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Semiannual Well MW104

Phone: (270) 844-5659
 PWS ID#: _____
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105014 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105014-01 E	<u>11/20/25</u>	<u>1501</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-104	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5105014-01 F	<u>11/20/25</u>	<u>1501</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-104	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5105014-01 G	<u>11/20/25</u>	<u>1501</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW-104	g / c	Radium Total (sub)
			Preservation Check: pH: <u>✓</u>				
5105014-01 H	<u>11/20/25</u>	<u>1501</u>	AG 250mL pH<2 w/H2SO4	1	MW-104	g / c	TOC
			Preservation Check: pH: <u>✓</u>				

Thermometer Serial Number
230753815
240381205
 Temperature 5.6°C

Preservation Check Performed by: ICED

pH Paper Lot #: 213724

Field data collected by: <u>[Signature]</u>	Date (mm/dd/yy) _____	Time (24 hr) _____
pH _____	Cond (umho) _____	Res Cl (mg/L) _____
Temp (oC) _____	or (oF) _____	Static Water Level _____
Flow: _____	<input type="checkbox"/> MGD	<input type="checkbox"/> CFS
	<input type="checkbox"/> g/min	<input type="checkbox"/> GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11-21-25</u>	Time (24 hr) <u>1150</u>
_____	_____	_____	_____
_____	_____	_____	_____



December 17, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5105014
Pace Project No.: 30829009

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on November 25, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mariah Barlow
mariah.barlow@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: 5105014
 Pace Project No.: 30829009

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 5105014
Pace Project No.: 30829009

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30829009001	5105014-01	Water	11/20/25 11:52	11/25/25 10:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 5105014
 Pace Project No.: 30829009

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30829009001	5105014-01	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105014
 Pace Project No.: 30829009

Sample: 5105014-01 **Lab ID: 30829009001** Collected: 11/20/25 11:52 Received: 11/25/25 10:30 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	0.409 ± 0.383 (0.543) C:NA T:90%	pCi/L	12/16/25 14:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	0.957 ± 0.508 (0.935) C:84% T:84%	pCi/L	12/16/25 14:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.37 ± 0.891 (1.48)	pCi/L	12/17/25 12:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105014
 Pace Project No.: 30829009

QC Batch: 786636	Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0	Analysis Description: 904.0 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30829009001

METHOD BLANK: 3838176 Matrix: Water

Associated Lab Samples: 30829009001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.640 ± 0.406 (0.757) C:75% T:83%	pCi/L	12/16/25 14:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105014
 Pace Project No.: 30829009

QC Batch: 786635	Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1	Analysis Description: 903.1 Radium-226
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30829009001

METHOD BLANK: 3838175 Matrix: Water

Associated Lab Samples: 30829009001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.264 ± 0.275 (0.388) C:NA T:93%	pCi/L	12/16/25 14:02	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5105014
Pace Project No.: 30829009

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5105014
Pace Project No.: 30829009

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30829009001	5105014-01	EPA 903.1	786635		
30829009001	5105014-01	EPA 904.0	786636		
30829009001	5105014-01	Total Radium Calculation	790163		

REPORT OF LABORATORY ANALYSIS

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DC#_Title: ENV-FRM-GBUR-0088 v09_Sam
Greensburg
Effective Date: 06/24/2025

WO#: 30829009

PM: MAB Due Date: 12/18/25
CLIENT: PACE_44_MVKY

Client Name: Pace KY

Project #:

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Initial / Date

Tracking Number: 12067 YS7 01 2291 2974

Examined By: ES 11/25/25

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Labeled By: ES 11/25/25

Therm. Used: 24 Type of Ice: Wet Blue None

Temped By: ES 11/25/25

Cooler Temp: Observed Temp 5.7 °C Correction Factor: -0.1 °C Final Temp: 5.6 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				6411001	—
Chain of Custody Present	/			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	/			2.	
Chain of Custody Relinquished	/			3.	
Sampler Name & Signature on COC:		/		4.	
Sample Labels match COC: -Includes date/time/ID Matrix:		/		5.	
	WT			no date/time on bottles	
Samples Arrived within Hold Time:	/			6.	
Short Hold Time Analysis (<72hr remaining):		/		7.	
Rush Turn Around Time Requested:		/		8.	
Sufficient Volume:	/			9.	
Correct Containers Used: -Pace Containers Used	/			10.	
Containers Intact:	/			11.	
Orthophosphate field filtered:			/	12.	
Hex Cr Aqueous samples field filtered:			/	13.	
Organic Samples checked for dechlorination			/	14.	
Filtered volume received for dissolved tests: Cr6+, Orthophosphate, DOC, Metals			/	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, TOX, LL Hg, Radon, non-aqueous matrix	/			16.	
All containers meet method preservation requirements:	/			Initial when completed ES	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			/	17.	
624.1: Headspace in VOA Vials (0mm)			/	18.	
Radon: Headspace in RAD Vials (0mm)			/	19.	
Trip Blank Present:			/	Trip blank custody seal present? YES or NO	
Rad Samples Screened <.05 mrem/hr.	/			Initial when completed MS	Date: 11/25/25 Survey Meter SN: 2526380
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.



Certificate of Analysis 5105015

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 12/10/2025 13:59

Project Name: Green Landfill Arsenic Wells	Workorder: 5105015
--	--------------------

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 11/21/2025 11:52.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5105015-01	MW-105/	Groundwater	11/20/2025 09:37	11/21/2025 11:52	Hunter Mizell
5105015-02	MW-106S/	Groundwater	11/20/2025 11:54	11/21/2025 11:52	Hunter Mizell
5105015-03	MW-106D/	Groundwater	11/20/2025 10:30	11/21/2025 11:52	Hunter Mizell

LabNumber	Measurement	Value
5105015-01	Field Conductance	2540
	Field pH	6.50
5105015-02	Field Conductance	1250
	Field pH	6.77
5105015-03	Field Conductance	1360
	Field pH	6.81

ANALYTICAL RESULTS

Lab Sample ID: **5105015-01**
 Description: **MW-105**

Sample Collection Date Time: 11/20/2025 09:37
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	0.0074		mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 17:58	HJS

ANALYTICAL RESULTS

Lab Sample ID: **5105015-02**
 Description: **MW-106S**

Sample Collection Date Time: 11/20/2025 11:54
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	0.114		mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 18:00	HJS

ANALYTICAL RESULTS

Lab Sample ID: **5105015-03**
 Description: **MW-106D**

Sample Collection Date Time: 11/20/2025 10:30
 Sample Received Date Time: 11/21/2025 11:52

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Arsenic	0.0021		mg/L	0.0010	0.0004	SW846-6020 A	11/25/2025 09:03	12/09/2025 18:05	HJS



Notes for work order 5105015

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

MDL	Method Detection Limit
MRL	Minimum Reporting Limit
ND	Not Detected
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
% Rec	Percent Recovery
RPD	Relative Percent Difference
>	Greater than
<	Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2297 - EPA 200.2										
Blank (BEK2297-BLK2)										
Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 12:19										
Arsenic	ND	0.0010	mg/L							U
LCS (BEK2297-BS2)										
Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 12:22										
Arsenic	0.0656	0.0010	mg/L	0.0625		105	85-115			
Matrix Spike (BEK2297-MS3) Source: 5105013-05										
Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:15										
Arsenic	0.0715	0.0010	mg/L	0.0625	ND	114	80-120			
Matrix Spike (BEK2297-MS4) Source: 5105015-03										
Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:20										
Arsenic	0.0679	0.0010	mg/L	0.0625	0.0021	105	80-120			
Matrix Spike Dup (BEK2297-MSD3) Source: 5105013-05										
Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:17										
Arsenic	0.0723	0.0010	mg/L	0.0625	ND	116	80-120	1.17	20	
Matrix Spike Dup (BEK2297-MSD4) Source: 5105015-03										
Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:22										
Arsenic	0.0703	0.0010	mg/L	0.0625	0.0021	109	80-120	3.45	20	
Post Spike (BEK2297-PS2) Source: 5105013-05										
Prepared: 11/25/2025 9:03, Analyzed: 12/2/2025 13:24										
Arsenic	72.8		ug/L	62.5	0.152	116	75-125			

Sample Acceptance Checklist for Work Order 5105015	
Shipped By: Client	Temperature: 5.60° Celcius
Condition	
Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 10/27/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: Green Landfill Arsenic Wells

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature]
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105015 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105015-01 A	<u>11/20/25</u>	<u>0937</u>	Plastic 500mL pH<2 w/HNO3	1	MW-105	g / c	Arsenic Tot 6020
			Preservation Check: pH :	<input checked="" type="checkbox"/>			
5105015-02 A	<u>11/20/25</u>	<u>1154</u>	Plastic 500mL pH<2 w/HNO3	1	MW-106S	g / c	Arsenic Tot 6020
			Preservation Check: pH :	<input checked="" type="checkbox"/>			
5105015-03 A	<u>11/20/25</u>	<u>1030</u>	Plastic 500mL pH<2 w/HNO3	1	MW-106D	g / c	Arsenic Tot 6020
			Preservation Check: pH :	<input checked="" type="checkbox"/>			

Thermometer Serial Number
230753815
240381205
 Temperature 5.60C

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: Hunter m 2011 Date (mm/dd/yy) 11/20/25 Time (24 hr) 0937/1030/1154

pH 6.50/6.77/6.81 Cond (umho) 2.54/1.75/1.36 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-21-25

Time (24 hr) 1152

Appendix D – Green Landfill Groundwater Data Validation

Memorandum



Date: September 15, 2025

To: Christopher Hoglund

From: Omkar Parab

Re: Quality Assurance/Quality Control (QA/QC) Review of Analytical Data
Big Rivers Electric Company (BREC) - Sebree Station, Landfill Site,
Webster County, Kentucky
Project No. 188680

Groundwater samples were collected at the BREC Sebree Landfill Site in Webster County, Kentucky from April 30 through May 7, 2025. The samples were analyzed by Pace Analytical Services of Madisonville, Kentucky (Pace Madisonville) or Pace Analytical of Greensburg, Pennsylvania (Pace Greensburg) for one or more of the following parameters:

Parameter	Analytical Method	Laboratory
Metals	SW846 6010 B SW846 6020 A	Pace - Madisonville
Specific Conductance	2510 B-2011	
Total Dissolved Solids (TDS)	2540 C-2015	
Total Organic Carbon (TOC)	5310 C-2014	
Chemical Oxygen Demand (COD)	HACH Method 8000	
pH	SM 4500-H+B-2011	
Chloride, Fluoride, and Sulfate	SW846 9056	
Radium-226 Radium-228 *total calculated from radium-226 + radium-228 analyses	EPA 903.1 EPA 904.0 Total Radium by calculation	Pace - Greensburg

The following data sets were reviewed in support of this investigation:

Sample Delivery Group (SDG)	Date(s) Sampled	Matrix
5045716	05/01/2025	Groundwater
5045714	05/06/2025	Groundwater
5053687	05/06/2025	Groundwater
5045711	04/30/2025 through 05/07/2025	Groundwater

The QA/QC results in association with the samples collected were examined for any method-specific requirements. Data qualifiers, when appropriate, were added to the data as recommended in United States Environmental Protection Agency's (USEPA's) *National Functional Guidelines for Inorganic Superfund Methods Data Review* (NFGI, 2020). The QA/QC review results are discussed below, and qualifiers added during this review are summarized in Table 1.

Memorandum *(continued)*



September 15, 2025

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1. Chain-of-Custody (COC) – The relinquished and received signatures, times, and dates were present on the COCs for all samples. For SDGs 5045714 and 5045711, the lab noted that sample collection dates and times were not present on the sample bottles.
2. Requested Analyses Completed – All analyses were completed as requested.
3. Holding Times – The pH measurement for all the samples in SDGs 5045714 and 5045711 was performed more than 24 hours after collection. The recommended holding time for this is immediately, or within 15 minutes. Therefore, these results were qualified as estimated (J). All the other samples/analyses were completed within their recommended holding time.
4. Sample Preservation – All samples were received by Pace-Madisonville at or above the preservation temperature range of 4 degrees Celsius ($^{\circ}\text{C}$) \pm 2 $^{\circ}\text{C}$. Upon arrival, the laboratory noted that the samples were received on ice.

In particular, for SDG 5045714, the samples collected at MW-104 were received above the noted temperature range. Although the lab noted ice was present, the samples were in the cooler(s) for more than one day. As such, the TDS, TOC, and COD results were qualified as estimated (J) due to the preservation temperature exceedance. No other samples in this shipment required thermal preservation. Additionally, the radium samples sent to Pace Greensburg did not require thermal preservation.

5. Field Blank – Field blanks assess the potential for cross-contamination during the sample activities and/or transport. For this review, the field blank was associated with samples collected on 05/02/2025, which included MW2 and DUPLICATE. The following field blank detections were noted during this review:
 - Copper: The associated sample detections were non-detect. No qualifiers were necessary.
 - COD: The detection in associated sample MW2 (Lab ID 5045711-02) was greater than its reporting limit (RL) but less than five times the blank detection and was qualified as estimated potential high bias (J+). No qualifier was required for the non-detect result in associated sample DUPLICATE.
 - Specific conductance: The associated sample detections were greater than five times the blank detection. No qualifiers were added.
 - TOC: The associated sample detections were greater than five times the blank detection. No qualifiers were added.
 - Radium-226 and radium-228: Because of the uncertainty associated with radium results, the review criteria were slightly altered to account for this. The associated radium-226 or radium-228 detections were less than five times the field blank concentration plus/minus

September 15, 2025

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its uncertainty, and the respective results were qualified as estimated (J). Additionally, because these results were used in the calculation to report total radium, the total radium result for said samples was also qualified as estimated (J).

6. Method Blanks – Method blanks assess the potential for cross-contamination during the sample preparation and/or analyses. The following method blank detections were noted during this review:

- Copper: All associated sample detections were non-detect. No qualifiers were necessary.
- Mercury: The low-level detections in associated samples MW1 and MW5 were qualified as non-detect (U). No other samples required qualification.
- Thallium: The low-level detection in associated sample MW5 was qualified as non-detect (U). No other samples required qualification.
- Radium: Radium-226 and radium-228 were detected in all method blanks. Because of the uncertainty associated with radium results, the review criteria were slightly altered to account for this. For any associated radium-226 or radium-228 detection less than five times the corresponding method blank concentration plus its uncertainty, the respective result was qualified as estimated (J). Additionally, because this result was used in the calculation to report total radium, the total radium result for said sample was also qualified as estimated (J).

Based on this, all samples (except the field blank) were qualified and estimated (J) for the radium fractions. Note, several samples were previously qualified estimated (J) for the field blank detections. Note, blanks are not typically qualified based on other blanks. Therefore, the field blank was excluded from this qualification.

7. Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) – The LCS contains a matrix similar to that of the sample that has been spiked with known concentrations of target analytes. The LCS is prepared and analyzed by the same method as the samples. As a measure of analytical accuracy, the results of the LCS are compared against the known analyte concentrations in the spike to determine percent recovery (REC). The purpose of the LCS is to determine the performance of the laboratory with respect to analyte recovery, independent of field sample matrix interference. A LCSD is a duplicate sample of the LCS. The difference between the LCS/LCSD RECs is calculated to evaluate precision and reported as the relative percent difference (RPD).

All LCS/LCSD results were within their respective QC limits.

8. Matrix Spike/Matrix Spike Duplicates (MS/MSD) – MS/MSDs are typically run for organic and inorganic analyses. A sample is split into three portions (original, MS and MSD), and a known amount of a target analyte is added (spiked) to two portions (MS and MSD) of the sample. The

September 15, 2025

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results of these two portions are compared with each other for reproducibility using the RPD. They are also compared against the unspiked portion of the sample for REC of the spike. For one or more MS/MSDs, the lab did not calculate a REC, and no result was reported and accuracy and precision were assessed by review of the associated LCS and/or LCSD results. Only site-specific MS/MSD results were evaluated during this review. In instances where a corresponding post-spike sample was reported, it was also reviewed when MS/MSD results were outside their respective QC limits. The following site-specific MS/MSD and/or post-spike results were outside their respective control limits:

- General MS/MSD and/or post-spike review: For several site-specific MS/MSDs and/or post-spikes, the spike amount was less than $\frac{1}{4}$ the respective concentration in the spiked parent sample. These were generally noted as “NR” by the laboratory to indicate this. No conclusions could be made regarding the accuracy of these results. All other associated QC results for these scenarios were reviewed and were found to be within limits. No qualifiers were added based solely on the MS/MSD and/or post-digestion spike (PDS) results for these samples.
- MS/MSD performed on sample MW-105 (Lab ID 5053687-01):
 - The MS/MSD spike amounts for calcium and iron were less than $\frac{1}{4}$ the respective concentration for the noted parent sample. Upon further review, these analytes were not reported in the spiked parent sample, and no further actions were necessary.
- MS/MSD performed on sample MW-104 (Lab ID 5045714-01):
 - The MS/MSD RECs for COD were below their control limits. COD was detected in the parent spiked sample, and it was qualified as estimated potential low bias (J-).
 - The MS REC for TOC was below its control limits. TOC was detected in the parent spiked sample, and it was qualified as estimated potential low bias (J-).
 - The MS/MSD RECs for chloride and sulfate were above the control limits. The spike amounts did not meet the $\frac{1}{4}$ criteria, and no conclusion could be made. No qualifiers were added based on this MS/MSD for these anions.
- MS/MSD performed on sample MW6 (Lab ID 5045711-06):
 - The MS/MSD spike amounts for calcium and sodium were less than $\frac{1}{4}$ the respective concentration for the noted parent sample. Additionally, the lab performed a PDS on this same parent sample, also not meeting the $\frac{1}{4}$ criteria. As such, no conclusion could be made for these MS/MSD results for calcium and sodium.

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- MS/MSD performed on sample MW2 (Lab ID 5045711-02):
 - The MS/MSD spike amounts for calcium and sodium were less than ¼ the respective concentration for the noted parent sample. As such, no conclusion could be made for these MS/MSD results for calcium and sodium.
- MS/MSD performed on sample MW5 (Lab ID 5045711-05):
 - The MS REC and MS/MSD RPD for radium-226 were outside their QC limits. The radium-226 detection was qualified and estimated (J).
 - The MS/MSD RECs for radium-228 were below their QC limit. The radium-228 detection was qualified as estimated (J).

Additionally, because these radium-226 and radium-228 results were used in the calculation to report total radium, the total radium result for said sample was also qualified as estimated (J).

9. Laboratory Duplicates – Laboratory duplicates were performed to evaluate analytical precision between samples when an MS/MSD may not be appropriate. Only project-specific laboratory duplicates were compared and used for qualifications. All site-specific laboratory duplicates were within QC limits.
10. Field Duplicate Results – Field duplicate results provide information on the ability to reproduce field results and account for error introduced from handling, shipping, storage, preparation, and analysis of field samples. There are no specific USEPA criteria for qualifying data from field duplicate results. Depending upon the sample concentration, one of the following criteria based upon NFGI is applicable:
- Is the compound detected in both portions?
 - If the sample concentrations are greater than 5 times the detection limit, then the maximum allowable RPD is 20 percent for water samples.
 - If the sample concentrations are less than 5 times the detection limit, then a sensitivity test is applied. For the sensitivity test, the sample concentrations must agree within ± the lower detection limit for water samples.

The following field duplicate pair was included in this review:

- MW2 // DUPLICATE: Arsenic and barium did not meet the duplication criteria since they yielded an elevated RPD. As such, the parent/duplicate pair was qualified as estimated (J) for noted analytes. Iron was analyzed at different dilutions; hence, no

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conclusion could be made, and no data qualifiers were added based on these field duplicate results.

General: The field duplicate pair exhibited variable differences in the radium results due to their associated uncertainty. As noted previously, all radium results were qualified estimated (J) for one or more reasons. As such, no further qualifiers were added for these results based solely on the field duplicate review.

11. Detection and Quantitation Limits – Dilutions were required to account for high concentrations of target analytes and/or matrix interferences in one or more field samples (indicated by “D” or “D1” qualifiers added by the lab). The reporting limits were adjusted accordingly, and no data review qualifiers were added based on these dilutions.
12. Conclusion – The data were reviewed for achievement of any method-specified QA/QC criteria. The data are valid for use, as qualified, in reporting the results of this groundwater monitoring event.

Attachments

Table 1 – Data Qualifier Table

Table 2 – Field Duplicate Comparison

**Table 1
Data Qualifier Table
BREC Sebree Landfill - May 2025 Sampling Event
Webster County, Kentucky**

Analytical Method	Analyte(s)	Sample Identification	Laboratory Number	Data Validation Qualifier	Reason(s) for Qualification		
SM 4500-H+B-2011	pH	MW-104	5045714-01	J	Holding time exceedance		
EPA 903.1 EPA 904.0 Total Radium	Radium 226 Radium 228 Total Radium			J	Method blank detection(s) MS and/or MSD RECs/RPDs outside QC limits		
HACH 8000	COD			J	MS/MSD RECs < QC limits Preservation temperature exceedance		
5310 C-2014	TOC			J	MS REC < QC limit Preservation temperature exceedance		
2540 C-2015	TDS			J	Preservation temperature exceedance		
SM 4500-H+B-2011	pH			MW1	5045711-01	J	Holding time exceedance
SW846-6020 A	Mercury	JU	Method blank detection				
EPA 903.1 EPA 904.0 Total Radium	Radium 226 Radium 228 Total Radium	J	Method blank detection				
SM 4500-H+B-2011	pH	J	Holding time exceedance				
HACH 8000	COD	MW2	5045711-02	J+	Field blank detection		
SW846-6020 A	Arsenic			J	Parent/ Duplicate failed RPD test		
SW846-6020 A	Barium			J	Parent/ Duplicate failed RPD test		
EPA 903.1 EPA 904.0 Total Radium	Radium 226 Radium 228 Total Radium			J	Field/Method blank detection		
SM 4500-H+B-2011	pH			MW3A	5045711-03	J	Holding time exceedance
EPA 903.1 EPA 904.0 Total Radium	Radium 226 Radium 228 Total Radium					J	Method blank detection
SM 4500-H+B-2011	pH	MW4	5045711-04			J	Holding time exceedance
EPA 903.1 EPA 904.0 Total Radium	Radium 226 Radium 228 Total Radium			J	Method blank detection		
SM 4500-H+B-2011	pH			MW5	5045711-05	J	Holding time exceedance
SW846-6020 A	Mercury	JU	Method blank detection				
SW846-6020 A	Thallium	JU	Method blank detection				
EPA 903.1 EPA 904.0 Total Radium	Radium 226 Radium 228 Total Radium	J	Method blank detection(s) MS and/or MSD RECs/RPDs outside QC limits				
SM 4500-H+B-2011	pH	MW6	5045711-06			J	Holding time exceedance
EPA 903.1 EPA 904.0 Total Radium	Radium 226 Radium 228 Total Radium			J	Method blank detection		

Table 1
Data Qualifier Table
BREC Sebree Landfill - May 2025 Sampling Event
Webster County, Kentucky

Analytical Method	Analyte(s)	Sample Identification	Laboratory Number	Data Validation Qualifier	Reason(s) for Qualification
SM 4500-H+B-2011	pH	DUPLICATE	5045711-07	J	Holding time exceedance
SW846-6020 A	Arsenic			J	Parent/ Duplicate failed RPD test
SW846-6020 A	Barium			J	Parent/ Duplicate failed RPD test
EPA 903.1	Radium 226			J	Field/Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
SM 4500-H+B-2011	pH	FIELD BLANK	5045711-08	J	Holding time exceedance

Notes:

- COD = Chemical oxygen demand
- J = Estimated value / qualified as estimated
- J+ = Qualified as estimated potential high bias
- JU = Estimated trace concentration was qualified as non-detect
- LCS/LCSD = Laboratory control sample/Laboratory control sample duplicate
- MS = Matrix spike
- MSD = Matrix spike duplicate
- MW = Monitoring Well
- QC = Quality control
- REC = Percent recovery
- RPD = Relative percent difference
- TDS = Total dissolved solids
- TOC = Total organic carbon

Table 2
Field Duplicate Comparison
BREC Sebree Landfill Site - May 2025 Sampling Event
Webster County, Kentucky

Sample Identification: Laboratory Number: Date Sampled:	MW2 5045711-02 5/2/2025	DUPLICATE 5045711-07 5/2/2025	Units	Meets QC
Arsenic	0.0323 J	0.0094 J	mg/L	No, (RPD 110%)
Barium	0.251 J	0.177 J	mg/L	No, (RPD 35%)
Calcium	200	178	mg/L	Yes
Iron	13.5	1.81	mg/L	No, (Dilution)
Lithium	0.005 J	0.007 J	mg/L	Yes
Molybdenum	0.004 J	0.003 J	mg/L	Yes
Sodium	66.6	69.6	mg/L	Yes
Chemical Oxygen Demand	24 J+	13 U	mg/L	Yes
Specific Conductance (Lab)	1800	1750	uS/cm	Yes
pH (Lab)	7.45 J	7.67 J	std unit	Yes
Radium 226	0.675 J	0.0619 J	pCi/L	No, (Dilution)
Radium 228	0.493 J	0.177 J	pCi/L	Yes
Radium Total	1.17 J	0.177 J	pCi/L	Yes
Chloride	175	173	mg/L	Yes
Fluoride	0.2	0.2	mg/L	Yes
Sulfate	167	161	mg/L	Yes
Total Dissolved Solids	1040	1230	mg/L	Yes
Total Organic Carbon	1.7	1.6	mg/L	Yes

Notes:

- Dilution = Analyzed at different dilutions
- J = Estimated value / qualified as estimated
- J+ = Qualified as estimated potential high bias
- mg/L = milligrams per Liter
- MW = Monitoring Well
- pCi/L = picoCuries per Liter
- QC = Quality control
- RPD = Relative percent difference
- std. unit = standard unit
- U = Non-detect sample result
- umhos/cm = microsiemens per centimeter

Memorandum



Date: January 26, 2026

To: Christopher Hoglund

From: Omkar Parab

Re: Quality Assurance/Quality Control (QA/QC) Review of Analytical Data
Big Rivers Electric Company (BREC) - Sebree Station, Landfill Site,
Webster County, Kentucky
Project No. 188680

Groundwater samples were collected at the BREC Sebree Landfill Site in Webster County, Kentucky from November 18 through November 20, 2025. The samples were analyzed by Pace Analytical Services of Madisonville, Kentucky (Pace Madisonville) or Pace Analytical of Greensburg, Pennsylvania (Pace Greensburg) for one or more of the following parameters:

Parameters	Analytical Methods	Laboratory
Metals	SW846 6010 B SW846 6020 A	Pace - Madisonville
Specific Conductance	2510 B-2011	
Total Dissolved Solids (TDS)	2540 C-2015	
Total Organic Carbon (TOC)	5310 C-2014	
Chemical Oxygen Demand (COD)	HACH Method 8000	
pH	SM 4500-H+B-2011	
Chloride, Fluoride, and Sulfate	SW846 9056	
Radium-226 Radium-228 *total calculated from radium-226 + radium-228 analyses	EPA 903.1 EPA 904.0 Total Radium by calculation	Pace - Greensburg

The following data sets were reviewed in support of this investigation:

Sample Delivery Groups (SDGs)	Date(s) Sampled	Matrix
5105013	11/18/2025 through 11/20/2025	Groundwater
5105014	11/20/2025	Groundwater
5105015	11/20/2025	Groundwater

The QA/QC results in association with the samples collected were examined for any method-specific requirements. Data qualifiers, when appropriate, were added to the data as recommended in United States Environmental Protection Agency's (USEPA's) *National Functional Guidelines for Inorganic Superfund Methods Data Review* (NFGI, 2020). The QA/QC review results are discussed below, and qualifiers added during this review are summarized in Table 1.

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1. Chain-of-Custody (COC) – The “sampler” name and signature were not included on one or more COCs; however, all relinquished and received signatures, times, and dates were present on these COCs. Additionally, Pace Greensburg noted that the sampler information was also not present on the COCs transferred between laboratories. Because these samples were appropriately transferred between sampler and sister laboratory locations, impacts were minimal, and no further actions were necessary for these omissions.

In addition to these above omissions, the lab noted that the collection dates and times for one or more samples in SDGs 5105013 and 5105014 were not present on the sample bottles. The lab appropriately used the information provided on the COC(s) to log the affected samples.

2. Requested Analyses Completed – All analyses were completed as requested.
3. Holding Times – The pH measurements for all the samples in SDGs 5105013 and 5105014 were performed more than 24 hours after collection. The method recommended holding time for this is immediately, or within 15 minutes. Therefore, these results were qualified as estimated (J). All the other samples/analyses were completed within their recommended holding time.
4. Sample Preservation – All samples were received by Pace-Madisonville below or within the preservation temperature range of 4 degrees Celsius ($^{\circ}\text{C}$) \pm 2 $^{\circ}\text{C}$. The radium samples sent to Pace Greensburg did not require thermal preservation, and no further actions were needed. No samples were received frozen upon their deliveries.
5. Field Blank – Field blanks assess the potential for cross-contamination during the sample activities and/or transport. For this review, the field blank was associated with samples collected on 11/20/2025, which included MW2, MW3A, MW6, and DUPLICATE. The following field blank detections were noted during this review:
 - Copper: The associated sample detections were non-detect. No qualifiers were necessary.
 - COD: The detections in associated samples MW2 (Lab identification [ID] 5105013-02) and MW6 (Lab ID 5105013-06) were greater than their reporting limits (RL) but less than five times the blank detection and were qualified as estimated potential high bias (J+). No qualifiers were required for the detections greater than five times the blank detection in associated samples MW3A (Lab ID 5105013-03) and DUPLICATE (Lab ID 5105013-07).
 - Specific conductance: The associated sample detections were greater than five times the blank detection. No qualifiers were added.

Memorandum *(continued)*



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- TOC: The detection in the associated sample DUPLICATE (Lab ID 5105013-07) was greater than its reporting limit (RL) but less than five times the blank detection and was qualified as estimated potential high bias (J+). The low-level detection (J-flagged) in the associated sample MW3A (Lab ID 5105013-03) was qualified as non-detect (U). No qualifiers were required for the detections greater than five times the blank detection in the associated samples MW2 (Lab ID 5105013-02) and MW6 (Lab ID 5105013-06).
- Radium-226 and radium-228: Because of the uncertainty associated with radium results, the review criteria were slightly altered to account for this. The associated radium-226 or radium-228 detections were less than five times the field blank concentration plus/minus its uncertainty, and the respective results were qualified as estimated (J). Additionally, because these results were used in the calculation to report total radium, the total radium result for said samples was also qualified as estimated (J). This included the above-noted associated samples MW2, MW3A, MW6, and DUPLICATE (see assigned Lab IDs in Pace Greensburg data, as they vary from Pace Madisonville).

6. Method Blanks – Method blanks assess the potential for cross-contamination during the sample preparation and/or analyses. The following method blank detections were noted during this review:

- Radium: Radium-226 and radium-228 were detected in all method blanks. Because of the uncertainty associated with radium results, the review criteria were slightly altered to account for this. For any associated radium-226 or radium-228 detection less than five times the corresponding method blank concentration plus its uncertainty, the respective result was qualified as estimated (J). Additionally, because this result was used in the calculation to report total radium, the total radium result for said sample was also qualified as estimated (J).

Based on this, all samples (except the field blank) were qualified and estimated (J) for the radium fractions. Note, several samples were previously qualified estimated (J) for the field blank detections. Note, blanks are not typically qualified based on other blanks. Therefore, the field blank was excluded from this qualification.

7. Laboratory Control Sample (LCS) – The LCS contains a matrix similar to that of the sample that has been spiked with known concentrations of target analytes. The LCS is prepared and analyzed by the same method as the samples. As a measure of analytical accuracy, the results of the LCS are compared against the known analyte concentrations in the spike to determine percent recovery (REC). The purpose of the LCS is to determine the performance of the laboratory with respect to analyte recovery, independent of field sample matrix interference.

All LCS results were within their respective QC limits.

8. Matrix Spike/Matrix Spike Duplicates (MS/MSD) – MS/MSDs are typically run for organic and inorganic analyses. A sample is split into three portions (original, MS and MSD), and a known

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amount of a target analyte is added (spiked) to two portions (MS and MSD) of the sample. The results of these two portions are compared with each other for reproducibility using the relative percent difference (RPD). They are also compared against the unspiked portion of the sample for REC of the spike. Only site-specific MS/MSD results were evaluated during this review. In instances where a corresponding post-spike sample was reported, it was also reviewed when MS/MSD results were outside their respective QC limits. All site-specific MS/MSD RECs and/or RPDs and/or post-spike results (similar to MS/MSDs) were within their control limits except for the following:

- MS/MSD performed on sample MW5 (Lab ID 5105013-05):
 - The MS/MSD spike amounts for calcium, sodium, and lithium were less than $\frac{1}{4}$ the respective concentration for the noted parent sample. Additionally, the lab performed a PDS on this same parent sample, also not meeting the $\frac{1}{4}$ criteria. As such, no conclusion could be made for these MS/MSD results for calcium, sodium, and lithium.
 - The MS REC for TOC was below its control limits. TOC was detected in the spiked parent sample and was qualified as estimated potential low bias (J-).
 - MS/MSD performed on sample MW-3A (Lab ID 5105015-03):
 - The MS and/or MSD RECs for lithium were below their control limits. The lithium detection in the noted spiked parent sample was qualified as estimated potential low bias (J-). Additionally, the spike amounts for calcium and sodium did not meet the $\frac{1}{4}$ criteria, and no conclusion could be made for these two analytes.
9. Laboratory Duplicates – Laboratory duplicates were performed to evaluate analytical precision between samples when an MS/MSD may not be appropriate. Only project-specific laboratory duplicates were compared and used for qualifications. All site-specific laboratory duplicates were within QC limits.
10. Field Duplicate Results – Field duplicate results provide information on the ability to reproduce field results and account for error introduced from handling, shipping, storage, preparation, and analysis of field samples. There are no specific USEPA criteria for qualifying data from field duplicate results. Depending upon the sample concentration, one of the following criteria based upon NFGI is applicable:
- Is the compound detected in both portions?
 - If the sample concentrations are greater than 5 times the reporting limit, then the maximum allowable RPD is 20 percent for water samples.

Memorandum *(continued)*



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- If the sample concentrations are less than 5 times the reporting limit, then a sensitivity test is applied. For the sensitivity test, the sample concentrations must agree within \pm the lower reporting limit for water samples.

The following field duplicate pair was included in this review:

- MW-104 // DUPLICATE (5045714-01 // 5105013-07): Copper did not meet the duplication criteria since it failed the sensitivity test. As such, the parent/duplicate pair was qualified as estimated (J) for the noted analyte.

General: The field duplicate pair exhibited variable differences in the radium results due to their associated uncertainty. As noted previously, all radium results were qualified as estimated (J) for one or more reasons. As such, no further qualifiers were added for these results based solely on the field duplicate review.

11. Detection and Quantitation Limits – Dilutions were required to account for high concentrations of target analytes and/or matrix interferences in one or more field samples (indicated by “D” or “D1” qualifiers added by the lab). The reporting limits were adjusted accordingly, and no data review qualifiers were added based on these dilutions.
12. Miscellaneous – The laboratory noted that one or more CCVs for beryllium were above their control limits. This is an upper-level QC item and is beyond the scope of this review; thus, specific CCV results were not provided by the laboratory. Since the associated sample results were non-detects for beryllium, no further action was required, and no qualifiers were added.
13. Conclusion – The data were reviewed for achievement of any method-specified QA/QC criteria. The data are valid for use, as qualified, in reporting the results of this groundwater monitoring event.

Attachments

Table 1 – Data Qualifier Table

Table 2 – Field Duplicate Comparison

Table 1
Data Qualifier Table
BREC Sebree Landfill - November 2025 Sampling Event
Webster County, Kentucky

Analytical Method	Analyte(s)	Sample Identification	Laboratory Number	Data Validation Qualifier	Reason(s) for Qualification
SM 4500-H+B-2011	pH	MW-104	5105014-01	J	Holding time exceedance
EPA 903.1	Radium 226			J	Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
SW846-6020 A	Copper			J	Parent/ field duplicate failed sensitivity test
SM 4500-H+B-2011	pH	MW1	5105013-01	J	Holding time exceedance
EPA 903.1	Radium 226			J	Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
SM 4500-H+B-2011	pH	MW2	5105013-02	J	Holding time exceedance
EPA 903.1	Radium 226			J	Field/Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
HACH 8000	COD			J+	Field blank detection
SM 4500-H+B-2011	pH	MW3A	5105013-03	J	Holding time exceedance
EPA 903.1	Radium 226			J	Field/Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
SW846-6020 A	Lithium			J-	MS/MSD RECs < QC limit
5310 C-2014	TOC	JU	Field blank detection		
SM 4500-H+B-2011	pH	MW4	5105013-04	J	Holding time exceedance
EPA 903.1	Radium 226			J	Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
SM 4500-H+B-2011	pH	MW5	5105013-05	J	Holding time exceedance
EPA 903.1	Radium 226			J	Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
5310 C-2014	TOC			J-	MS REC < QC limit
SM 4500-H+B-2011	pH	MW6	5105013-06	J	Holding time exceedance
EPA 903.1	Radium 226			J	Field/Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium				
HACH 8000	COD			J+	Field blank detection

Table 1
Data Qualifier Table
BREC Sebree Landfill - November 2025 Sampling Event
Webster County, Kentucky

Analytical Method	Analyte(s)	Sample Identification	Laboratory Number	Data Validation Qualifier	Reason(s) for Qualification
SM 4500-H+B-2011	pH	DUPLICATE	5105013-07	J	Holding time exceedance
EPA 903.1	Radium 226			J	Field/Method blank detection
EPA 904.0	Radium 228				
Total Radium	Total Radium			J+	Field blank detection
5310 C-2014	TOC			UJ	Parent/ field duplicate failed sensitivity test
SW846-6020 A	Copper				
SM 4500-H+B-2011	pH	FIELD BLANK	5105013-08	J	Holding time exceedance

Notes:

- COD = Chemical oxygen demand
- J = Estimated value / qualified as estimated
- J- = Qualified as estimated potential low bias
- J+ = Qualified as estimated potential high bias
- JU = Estimated trace concentration was qualified as non-detect
- MS/MSD = Matrix spike/matrix spike duplicate
- MW = Monitoring Well
- QC = Quality control
- REC = Percent recovery
- TOC = Total organic carbon

Table 2
Field Duplicate Comparison
BREC Sebree Landfill Site - November 2025 Sampling Event
Webster County, Kentucky

Sample Identification: Laboratory Number: Date Sampled:	MW-104 5105014-01 11/20/2025	DUPLICATE 5105013-07 11/20/2025	Units	Meets QC
Arsenic	0.0016	0.0015	mg/L	Yes
Barium	0.017	0.016	mg/L	Yes
Boron	0.31	0.29	mg/L	Yes
Cadmium	0.0003 J	0.0003 J	mg/L	Yes
Calcium	533	537	mg/L	Yes
Chemical Oxygen Demand	92	89	mg/L	Yes
Chromium	0.0006 J	0.002 U	mg/L	Yes
Cobalt	0.005	0.005	mg/L	Yes
Copper	0.007 J	0.003 UJ	mg/L	No, (Sensitivity failed)
Iron	0.61	0.586	mg/L	Yes
Lithium	0.05	0.05	mg/L	Yes
pH (Lab)	7.38 J	7.41 J	Std. Units	Yes
Radium-226	0.409 J	0.472 J	pCi/L	Yes
Radium-228	0.957 J	1.53 J	pCi/L	No, (See text memo)
Total Radium	1.37 J	2.00 J	pCi/L	No, (See text memo)
Chloride	1,750	1,690	mg/L	Yes
Fluoride	0.4	0.4	mg/L	Yes
Sulfate	2,290	2,370	mg/L	Yes
Sodium	808	806	mg/L	Yes
Specific Conductance (Lab)	8,680	8,690	uS/cm	Yes
Total Dissolved Solids	5,530	6,580	mg/L	Yes
Total Organic Carbon	0.7	0.7	mg/L	Yes

Notes:

- J = Estimated value / qualified as estimated
- mg/L = milligrams per Liter
- MW = Monitoring Well
- pCi/L = picoCuries per Liter
- QC = Quality control
- std. unit = standard unit
- U = Non-detect sample result
- UJ = Qualified as estimated at the reporting limit

Appendix E – Green Landfill Groundwater Statistical Evaluations



October 15, 2025

Mr. Mark Bertram
Big Rivers Electric Corporation
9000 Highway 2096
Robards, KY 42452

Re: Statistical Evaluation of May 2025 Assessment Monitoring Groundwater Data
Sebree Generating Station Green Landfill in Robards, Kentucky
Agency Interest ID #: 4196

Dear Mr. Bertram:

This letter presents the results of the statistical evaluation of analytical data from the May 2025 assessment monitoring event performed at the Sebree Generating Station's Green Landfill in Webster County, Robards, Kentucky in accordance with the requirements of U.S. Environmental Protection Agency's *Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments (40 Code of Federal Regulations [CFR] Part 257, Subpart D)*¹. This letter also presents a comparison of the May 2025 sampling results to calculated background concentrations and groundwater protection standards (GWPSs). The background and GWPSs for the groundwater monitoring network were reviewed and updated as part of the statistical evaluation completed for the May 2025 sampling event and are presented in **Table 1**. These background concentrations and GWPSs will continue to be reviewed and updated as additional data are collected. A comparison of the May 2025 data to the updated GWPSs is presented in **Table 2**. The statistical evaluation presented herein was performed in accordance with the *Groundwater Monitoring System and Statistical Methods Assessment* document².

In May 2025, the Green Landfill groundwater monitoring well network was sampled for Appendix III and Appendix IV parameters per the assessment monitoring program requirements of 40 CFR §257.95(d). Interwell prediction limit statistical analyses were performed for these well/constituent pairs and are discussed subsequently. GWPSs were also developed in accordance with 40 CFR §257.95(h) which describes a GWPS as the higher value between a determined background concentration for the coal combustion residuals unit and the established maximum concentration limit (MCL) or the GWPS criteria presented in 40 CFR §257.95(h)(2) for select Appendix IV parameters without an MCL. This letter presents the results of the statistical

¹ United States Environmental Protection Agency, 2018, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One)*. 40 CFR Part 257, Federal Register, Vol. 83, No. 146, July 30.

² AECOM, 2016, *CCR Landfill Groundwater Monitoring System and Statistical Methods Assessment and Certification*, Green Station CCR Landfill, June 28.

Mr. Mark Bertram
Big Rivers Electric Corporation
October 15, 2025
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evaluation of the May 2025 assessment monitoring event for inclusion in the Sebree Generating Station Operating Record.

Statistical Evaluation of Sebree Green Landfill Compliance Monitoring Well Network Evaluation

An interwell prediction limit evaluation was performed to compare the concentrations of Appendix III and Appendix IV parameters observed in May 2025 compliance (downgradient) monitoring wells MW-2, MW-3A, MW-4, MW-5, and MW-6 to calculated prediction limits (i.e., background limits) that were established using data collected from March of 2016 through May of 2025 from upgradient monitoring well MW-1. Certain Appendix III and Appendix IV parameters were detected in May 2025 at concentrations at or above the laboratory method detection limit. One or more of these resulted in statistically significant increases (SSI) above the calculated background limits (equivalent to the MW-1 prediction limits). A comparison of the May 2025 data to the updated background limits and GWPSs is presented in **Table 2**, and a summary of the statistical evaluation is included in **Attachment 1**. This included the following well/constituent pairs for downgradient compliance monitoring wells with SSIs above calculated background limits:

Appendix III Parameters:

- Calcium (MW-2, MW-3A, MW-4, MW-5, and MW-6)
- Chloride (MW-2, MW-3A, MW-4, MW-5, and MW-6)
- Sulfate (MW-2, MW-3A, MW-4, MW-5, and MW-6)
- Total dissolved solids (TDS) (MW-2, MW-3A, MW-4, MW-5, and MW-6)

Appendix IV Parameters:

- Arsenic (MW-2)
- Barium (MW-2)
- Lithium (MW-3A, MW-4, MW-5, and MW-6)
- Molybdenum (MW-2 and MW-4)
- Selenium (MW-4)

With a few exceptions, results of SSIs above background were generally consistent with the 2016 through November 2024 statistical results. The Appendix III SSIs for calcium, chloride, sulfate, and TDS continue to occur at downgradient compliance monitoring wells. The reported Appendix IV SSIs for arsenic, barium, lithium, and molybdenum in this event were consistent with previous events. However, the previous SSIs for mercury (MW-2) and radium 226 + 228

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Big Rivers Electric Corporation
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(MW-3A) in the November 2024 event were not present in this event. Lastly, an SSI for molybdenum (MW-4) and selenium (MW-4) were present within this event but was not present in the November 2024 event.

The Appendix IV constituents with SSIs (arsenic, barium, lithium, molybdenum, and selenium) were further evaluated to determine whether they are present at statistically significant levels (SSLs) over the GWPS by calculating the lower confidence limit (LCL) at 95% confidence for each well and constituent using all the baseline, detection, and assessment monitoring results collected to date from each monitoring well. For a constituent to be present at an SSL over the GWPS, its LCL must be greater than the GWPS. The comparison of the calculated LCLs with the GWPSs for arsenic, barium, lithium, molybdenum, and selenium at downgradient compliance monitoring wells MW-2, MW-3A, MW-4, MW-5, and MW-6 resulted in the following well/constituent pairs with SSLs above the GWPS:

- Arsenic (MW-2)
- Lithium (MW-3A, MW-4, MW-5, and MW-6)

The LCLs for the remaining well/constituent pairs for barium and selenium were less than their respective GWPS. Thus, they were not considered SSLs. A comparison of the May 2025 data to the GWPSs is presented in **Table 2** and **Attachment 1** provides a summary of the calculated LCLs in comparison with the GWPSs. Results of SSLs above the GWPSs were consistent with the November 2024 results.

Given that certain Appendix III and IV constituents were observed at the Green Landfill groundwater monitoring network at concentrations above their respective calculated background limit and the LCL for certain Appendix IV constituents was greater than the corresponding GWPSs, these results do not warrant a transition to detection monitoring per the requirements of 40 CFR §257.95(e) and assessment monitoring will continue for the next semiannual monitoring event in 2025.

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Sincerely,

Burns & McDonnell Engineering Company, Inc.



Chris Hoglund, PG
Project Manager

Attachments:

Table 1 – Calculated Background and Groundwater Protection Standards for Groundwater
Table 2 – Summary of May 2025 Analytical Results

Attachment 1 – Sanitas™ Statistical Outputs

cc: Greg Dick, BREC Sebree Station
Hunter Mizell, BREC Sebree Station

TABLES

TABLE 1
Calculated Background and Groundwater Protection Standards for Groundwater
Sebree Generating Station - Green Landfill
Robards, Kentucky

Detection Constituents (Appendix III)	Units	Background*	MCL	40 CFR §257.95(h)(2) Criteria	Groundwater Protection Standard
Boron	mg/L	2.172	--	--	--
Calcium	mg/L	36.53	--	--	--
Chloride	mg/L	13.9	--	--	--
Fluoride	mg/L	0.888	4.0	--	4.0
pH (field)	SU	5.058-8.211	--	--	--
Sulfate	mg/L	47.42	--	--	--
TDS	mg/L	721.8	--	--	--
Assessment Constituents (Appendix IV)	Units	Background*	MCL	40 CFR §257.95(h)(2) Criteria	Groundwater Protection Standard
Antimony	mg/L	0.00297	0.006	--	0.006
Arsenic	mg/L	0.004285	0.01	--	0.01
Barium	mg/L	0.09996	2	--	2
Beryllium	mg/L	0.000533	0.004	--	0.004
Cadmium	mg/L	0.000299	0.005	--	0.005
Chromium	mg/L	0.00354	0.1	--	0.1
Cobalt	mg/L	0.002	--	0.006	0.006
Fluoride	mg/L	0.888	4	--	4
Lead	mg/L	0.000279	--	0.01	0.01
Lithium	mg/L	0.0396	--	0.04	0.04
Mercury	mg/L	0.0002	0.002	--	0.002
Molybdenum	mg/L	0.002	--	0.1	0.1
Combined Radium 226 and 228**	pCi/L	2.455	5	--	5
Selenium	mg/L	0.00105	0.05	--	0.05
Thallium	mg/L	0.000498	0.002	--	0.002

Notes:

*Groundwater protection standards were developed in accordance with §257.95(h). Background concentrations were determined utilizing interwell prediction limits (see Attachment 1). Upgradient Monitoring Well MW-1 was used to calculate background concentrations. This included background data ranging from March 2016 through May 2025.

**Combined radium is reported with an uncertainty range. However, this range cannot be incorporated into statistical calculations as it varies per result and is not a standard value. Therefore, to maintain consistency in reporting these results, the reported laboratory concentration was used for the statistical analyses.

CFR - Code of Federal Regulations

MCL - maximum contaminant level

mg/L - milligrams per Liter

pCi/L - picocuries per Liter

SU - standard units

TDS - total dissolved solids

TABLE 2
Summary of May 2025 Analytical Results
 Sebree Generating Station - Green Landfill
 Robards, Kentucky

APPENDIX III CONSTITUENTS	1H2025 Calculated Background	1H2025 GWPS	2025 GWPS Reference	Units	MW-1	MW-2	MW-3A	MW-4	MW-5	MW-6	
					Background Well	Downgradient Compliance Wells					
					Assessment Monitoring						
Boron	2.172	--	Background	mg/L	1.61 D1	<0.10 M2, U	0.33	0.48	0.29	0.21 M2	
Calcium	36.53	--	Background	mg/L	35.2 D1	200 D1, M3	480 D1	382 D1	502 D1	452 M3,D1	
Chloride	13.9	--	Background	mg/L	5.8	175 D	1830 D	320 D	1030 D	174 D	
Fluoride	0.888	4.0	MCL	mg/L	0.5	0.2	0.4	0.3	<0.2 U	0.4	
pH (Field Measurement)	5.058-8.211	--	Background	SU	7.85	6.73	6.90	7.01	6.72	6.64	
Sulfate	47.42	--	Background	mg/L	35	167	1200 D	3160 D	1530 D	2380 D	
Total Dissolved Solids	721.8	--	Background	mg/L	582	1040	4450	5680	4030	4890	
APPENDIX IV CONSTITUENTS											
Antimony	0.00297	0.006	MCL	mg/L	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	
Arsenic	0.004285	0.01	MCL	mg/L	0.0005 J	0.0323 J	<0.00040 U	<0.00040 U	<0.00040 U	<0.00040 U	
Barium	0.09996	2	MCL	mg/L	0.072	0.251 J	0.037	0.015	0.015	0.017	
Beryllium	0.000533	0.004	MCL	mg/L	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 U	
Cadmium	0.000299	0.005	MCL	mg/L	<0.00010 U	<0.00010 U	0.0001 J	<0.00010 U	0.0001 J	0.0001 J	
Chromium	0.00354	0.1	MCL	mg/L	<0.00060 U	<0.00060 U	<0.00060 U	0.0011 J	0.0007 J	<0.00060 U	
Cobalt	0.002	0.006	40 CFR §257.95(h)(2) Criteria	mg/L	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	
Fluoride	0.888	4.0	MCL	mg/L	0.5	0.2	0.4	0.3	<0.2 U	0.4	
Lead	0.000279	0.01	40 CFR §257.95(h)(2) Criteria	mg/L	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	
Lithium	0.0396	0.04	40 CFR §257.95(h)(2) Criteria	mg/L	0.03	0.005 J	0.60	0.47	0.43	0.06	
Mercury	0.0002	0.002	MCL	mg/L	0.0002 J	<0.00020 U	<0.00020 U	<0.00020 U	0.0002 J	<0.00020 U	
Molybdenum	0.002	0.1	40 CFR §257.95(h)(2) Criteria	mg/L	<0.0020 U	0.004 J	<0.0020 U	0.003 J	<0.0020 U	<0.0020 U	
Radium 226 + 228	2.455	5	MCL	pCi/L	1.97 J	1.53 J	2.26 J	2.16 J	1.92 J	2.14 J	
Selenium	0.00105	0.05	MCL	mg/L	<0.0010 U	<0.0010 U	<0.0010 U	0.019	<0.0010 U	<0.0010 U	
Thallium	0.000498	0.002	MCL	mg/L	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	0.0001 J	<0.00010 U	

Bold - Analyte detected above calculated background concentration.

Appendix IV constituent was detected in compliance monitoring well located downgradient of the CCR Landfill at a statistically significant level above its GWPS (see Attachment 1 for confidence interval statistical outputs).

CFR - Code of Federal Regulations

D - Results reported from dilution.

D1 - Sample required dilution due to high concentration of target analysis.

GWPS - Groundwater Protection Standard

J - Result is less than the reporting limit but greater than or equal to the method detection limit, and/or the concentration is qualified as estimated/qualified as estimated during the lab data review.

M2 - Matrix spike recovery was low; the method control sample recovery was acceptable.

M3 - The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.

MCL - maximum contaminant level

mg/L - milligrams per Liter

pCi/L - picocuries per Liter

SU - standard units

U - Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in the laboratory's Laboratory Information Management System).

ATTACHMENT 1 - SANITAS™ STATISTICAL OUTPUTS

Prediction Limit

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data Printed 10/8/2025, 11:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-2	0.00297	n/a	5/2/2025	0.001ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Antimony (mg/L)	MW-3A	0.00297	n/a	5/6/2025	0.001ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Antimony (mg/L)	MW-4	0.00297	n/a	5/7/2025	0.001ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Antimony (mg/L)	MW-5	0.00297	n/a	4/30/2025	0.001ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Antimony (mg/L)	MW-6	0.00297	n/a	4/30/2025	0.001ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Arsenic (mg/L)	MW-2	0.004285	n/a	5/2/2025	0.0323	Yes	24	8.333	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-3A	0.004285	n/a	5/6/2025	0.0002ND	No	24	8.333	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-4	0.004285	n/a	5/7/2025	0.0002ND	No	24	8.333	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-5	0.004285	n/a	4/30/2025	0.0002ND	No	24	8.333	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-6	0.004285	n/a	4/30/2025	0.0002ND	No	24	8.333	ln(x)	0.01	Param Inter
Barium (mg/L)	MW-2	0.09996	n/a	5/2/2025	0.251	Yes	24	0	No	0.01	Param Inter
Barium (mg/L)	MW-3A	0.09996	n/a	5/6/2025	0.037	No	24	0	No	0.01	Param Inter
Barium (mg/L)	MW-4	0.09996	n/a	5/7/2025	0.015	No	24	0	No	0.01	Param Inter
Barium (mg/L)	MW-5	0.09996	n/a	4/30/2025	0.015	No	24	0	No	0.01	Param Inter
Barium (mg/L)	MW-6	0.09996	n/a	4/30/2025	0.017	No	24	0	No	0.01	Param Inter
Beryllium (mg/L)	MW-2	0.000533	n/a	5/2/2025	0.0005ND	No	23	95.65	n/a	0.03858	NP Inter (NDs)
Beryllium (mg/L)	MW-3A	0.000533	n/a	5/6/2025	0.0005ND	No	23	95.65	n/a	0.03858	NP Inter (NDs)
Beryllium (mg/L)	MW-4	0.000533	n/a	5/7/2025	0.0005ND	No	23	95.65	n/a	0.03858	NP Inter (NDs)
Beryllium (mg/L)	MW-5	0.000533	n/a	4/30/2025	0.0005ND	No	23	95.65	n/a	0.03858	NP Inter (NDs)
Beryllium (mg/L)	MW-6	0.000533	n/a	4/30/2025	0.0005ND	No	23	95.65	n/a	0.03858	NP Inter (NDs)
Boron (mg/L)	MW-2	2.172	n/a	5/2/2025	0.05ND	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-3A	2.172	n/a	5/6/2025	0.33	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-4	2.172	n/a	5/7/2025	0.48	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-5	2.172	n/a	4/30/2025	0.29	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-6	2.172	n/a	4/30/2025	0.21	No	25	0	No	0.01	Param Inter
Cadmium (mg/L)	MW-2	0.000299	n/a	5/2/2025	0.00005ND	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Cadmium (mg/L)	MW-3A	0.000299	n/a	5/6/2025	0.0001J	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Cadmium (mg/L)	MW-4	0.000299	n/a	5/7/2025	0.00005ND	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Cadmium (mg/L)	MW-5	0.000299	n/a	4/30/2025	0.0001J	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Cadmium (mg/L)	MW-6	0.000299	n/a	4/30/2025	0.0001J	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Calcium (mg/L)	MW-2	36.53	n/a	5/2/2025	200	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-3A	36.53	n/a	5/6/2025	480	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-4	36.53	n/a	5/7/2025	382	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-5	36.53	n/a	4/30/2025	502	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-6	36.53	n/a	4/30/2025	452	Yes	25	0	No	0.01	Param Inter
Chloride (mg/L)	MW-2	13.9	n/a	5/2/2025	175	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-3A	13.9	n/a	5/6/2025	1830	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-4	13.9	n/a	5/7/2025	320	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-5	13.9	n/a	4/30/2025	1030	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-6	13.9	n/a	4/30/2025	174	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chromium (mg/L)	MW-2	0.00354	n/a	5/2/2025	0.0003ND	No	23	78.26	n/a	0.03858	NP Inter (NDs)
Chromium (mg/L)	MW-3A	0.00354	n/a	5/6/2025	0.0003ND	No	23	78.26	n/a	0.03858	NP Inter (NDs)
Chromium (mg/L)	MW-4	0.00354	n/a	5/7/2025	0.0011J	No	23	78.26	n/a	0.03858	NP Inter (NDs)
Chromium (mg/L)	MW-5	0.00354	n/a	4/30/2025	0.0007J	No	23	78.26	n/a	0.03858	NP Inter (NDs)
Chromium (mg/L)	MW-6	0.00354	n/a	4/30/2025	0.0003ND	No	23	78.26	n/a	0.03858	NP Inter (NDs)
Cobalt (mg/L)	MW-2	0.002	n/a	5/2/2025	0.002ND	No	23	52.17	n/a	0.03858	NP Inter (NDs)
Cobalt (mg/L)	MW-3A	0.002	n/a	5/6/2025	0.002ND	No	23	52.17	n/a	0.03858	NP Inter (NDs)
Cobalt (mg/L)	MW-4	0.002	n/a	5/7/2025	0.002ND	No	23	52.17	n/a	0.03858	NP Inter (NDs)
Cobalt (mg/L)	MW-5	0.002	n/a	4/30/2025	0.002ND	No	23	52.17	n/a	0.03858	NP Inter (NDs)
Cobalt (mg/L)	MW-6	0.002	n/a	4/30/2025	0.002ND	No	23	52.17	n/a	0.03858	NP Inter (NDs)

Prediction Limit

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data Printed 10/8/2025, 11:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	MW-2	0.888	n/a	5/2/2025	0.2	No	25	0	n/a	0.03581	NP Inter (normality)
Fluoride (mg/L)	MW-3A	0.888	n/a	5/6/2025	0.4	No	25	0	n/a	0.03581	NP Inter (normality)
Fluoride (mg/L)	MW-4	0.888	n/a	5/7/2025	0.3	No	25	0	n/a	0.03581	NP Inter (normality)
Fluoride (mg/L)	MW-5	0.888	n/a	4/30/2025	0.1ND	No	25	0	n/a	0.03581	NP Inter (normality)
Fluoride (mg/L)	MW-6	0.888	n/a	4/30/2025	0.4	No	25	0	n/a	0.03581	NP Inter (normality)
Lead (mg/L)	MW-2	0.000279	n/a	5/2/2025	0.00025ND	No	23	73.91	n/a	0.03858	NP Inter (NDs)
Lead (mg/L)	MW-3A	0.000279	n/a	5/6/2025	0.00025ND	No	23	73.91	n/a	0.03858	NP Inter (NDs)
Lead (mg/L)	MW-4	0.000279	n/a	5/7/2025	0.00025ND	No	23	73.91	n/a	0.03858	NP Inter (NDs)
Lead (mg/L)	MW-5	0.000279	n/a	4/30/2025	0.00025ND	No	23	73.91	n/a	0.03858	NP Inter (NDs)
Lead (mg/L)	MW-6	0.000279	n/a	4/30/2025	0.00025ND	No	23	73.91	n/a	0.03858	NP Inter (NDs)
Lithium (mg/L)	MW-2	0.0396	n/a	5/2/2025	0.005J	No	24	8.333	n/a	0.03714	NP Inter (normality)
Lithium (mg/L)	MW-3A	0.0396	n/a	5/6/2025	0.6	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Lithium (mg/L)	MW-4	0.0396	n/a	5/7/2025	0.47	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Lithium (mg/L)	MW-5	0.0396	n/a	4/30/2025	0.43	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Lithium (mg/L)	MW-6	0.0396	n/a	4/30/2025	0.06	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Mercury (ug/L)	MW-2	0.2	n/a	5/2/2025	0.1ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Mercury (ug/L)	MW-3A	0.2	n/a	5/6/2025	0.1ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Mercury (ug/L)	MW-4	0.2	n/a	5/7/2025	0.1ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Mercury (ug/L)	MW-5	0.2	n/a	4/30/2025	0.2J	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Mercury (ug/L)	MW-6	0.2	n/a	4/30/2025	0.1ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Molybdenum (mg/L)	MW-2	0.002	n/a	5/2/2025	0.004	Yes	23	56.52	n/a	0.03858	NP Inter (NDs)
Molybdenum (mg/L)	MW-3A	0.002	n/a	5/6/2025	0.001ND	No	23	56.52	n/a	0.03858	NP Inter (NDs)
Molybdenum (mg/L)	MW-4	0.002	n/a	5/7/2025	0.003	Yes	23	56.52	n/a	0.03858	NP Inter (NDs)
Molybdenum (mg/L)	MW-5	0.002	n/a	4/30/2025	0.001ND	No	23	56.52	n/a	0.03858	NP Inter (NDs)
Molybdenum (mg/L)	MW-6	0.002	n/a	4/30/2025	0.001ND	No	23	56.52	n/a	0.03858	NP Inter (NDs)
pH [Field] (SU)	MW-2	8.211	5.058	5/2/2025	6.73	No	25	0	x^5	0.005	Param Inter
pH [Field] (SU)	MW-3A	8.211	5.058	5/6/2025	6.9	No	25	0	x^5	0.005	Param Inter
pH [Field] (SU)	MW-4	8.211	5.058	5/7/2025	7.01	No	25	0	x^5	0.005	Param Inter
pH [Field] (SU)	MW-5	8.211	5.058	4/30/2025	6.72	No	25	0	x^5	0.005	Param Inter
pH [Field] (SU)	MW-6	8.211	5.058	4/30/2025	6.64	No	25	0	x^5	0.005	Param Inter
Radium 226 + 228 (pCi/L)	MW-2	2.455	n/a	5/2/2025	1.17	No	22	0	sqrt(x)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-3A	2.455	n/a	5/6/2025	1.11	No	22	0	sqrt(x)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-4	2.455	n/a	5/7/2025	1.42	No	22	0	sqrt(x)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-5	2.455	n/a	4/30/2025	2.05	No	22	0	sqrt(x)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-6	2.455	n/a	4/30/2025	0.615	No	22	0	sqrt(x)	0.01	Param Inter
Selenium (mg/L)	MW-2	0.00105	n/a	5/2/2025	0.0005ND	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Selenium (mg/L)	MW-3A	0.00105	n/a	5/6/2025	0.0005ND	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Selenium (mg/L)	MW-4	0.00105	n/a	5/7/2025	0.019	Yes	23	91.3	n/a	0.03858	NP Inter (NDs)
Selenium (mg/L)	MW-5	0.00105	n/a	4/30/2025	0.0005ND	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Selenium (mg/L)	MW-6	0.00105	n/a	4/30/2025	0.0005ND	No	23	91.3	n/a	0.03858	NP Inter (NDs)
Sulfate (mg/L)	MW-2	47.42	n/a	5/2/2025	167	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-3A	47.42	n/a	5/6/2025	1200	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-4	47.42	n/a	5/7/2025	3160	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-5	47.42	n/a	4/30/2025	1530	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-6	47.42	n/a	4/30/2025	2380	Yes	25	0	sqrt(x)	0.01	Param Inter
Thallium (mg/L)	MW-2	0.000498	n/a	5/2/2025	0.00005ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Thallium (mg/L)	MW-3A	0.000498	n/a	5/6/2025	0.00005ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Thallium (mg/L)	MW-4	0.000498	n/a	5/7/2025	0.00005ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Thallium (mg/L)	MW-5	0.000498	n/a	4/30/2025	0.0001J	No	23	65.22	n/a	0.03858	NP Inter (NDs)
Thallium (mg/L)	MW-6	0.000498	n/a	4/30/2025	0.00005ND	No	23	65.22	n/a	0.03858	NP Inter (NDs)

Prediction Limit

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data Printed 10/8/2025, 11:24 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Total Dissolved Solids (mg/L)	MW-2	721.8	n/a	5/2/2025	1040	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-3A	721.8	n/a	5/6/2025	4450	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-4	721.8	n/a	5/7/2025	5680	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-5	721.8	n/a	4/30/2025	4030	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-6	721.8	n/a	4/30/2025	4890	Yes	25	0	x^2	0.01	Param Inter

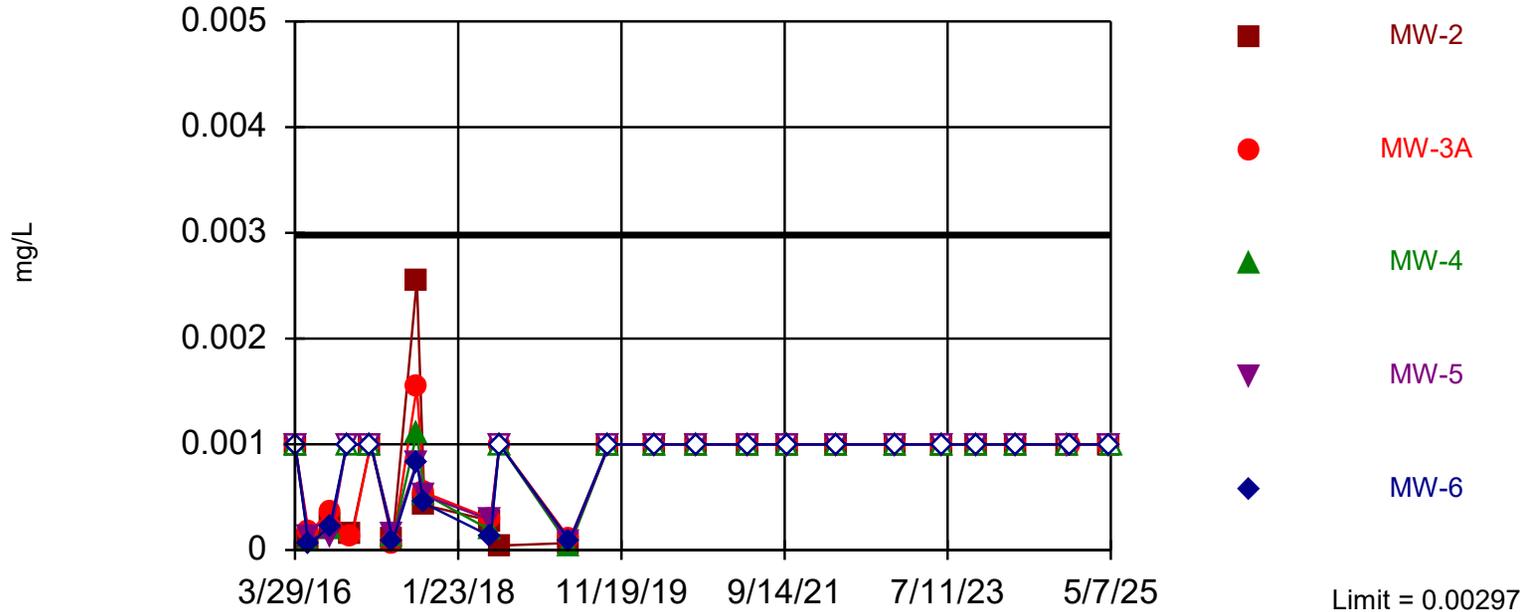
Prediction Limit

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data Printed 10/8/2025, 11:24 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-2	0.004285	n/a	5/2/2025	0.0323	Yes	24	8.333	ln(x)	0.01	Param Inter
Barium (mg/L)	MW-2	0.09996	n/a	5/2/2025	0.251	Yes	24	0	No	0.01	Param Inter
Calcium (mg/L)	MW-2	36.53	n/a	5/2/2025	200	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-3A	36.53	n/a	5/6/2025	480	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-4	36.53	n/a	5/7/2025	382	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-5	36.53	n/a	4/30/2025	502	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-6	36.53	n/a	4/30/2025	452	Yes	25	0	No	0.01	Param Inter
Chloride (mg/L)	MW-2	13.9	n/a	5/2/2025	175	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-3A	13.9	n/a	5/6/2025	1830	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-4	13.9	n/a	5/7/2025	320	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-5	13.9	n/a	4/30/2025	1030	Yes	25	0	n/a	0.03581	NP Inter (normality)
Chloride (mg/L)	MW-6	13.9	n/a	4/30/2025	174	Yes	25	0	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-3A	0.0396	n/a	5/6/2025	0.6	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Lithium (mg/L)	MW-4	0.0396	n/a	5/7/2025	0.47	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Lithium (mg/L)	MW-5	0.0396	n/a	4/30/2025	0.43	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Lithium (mg/L)	MW-6	0.0396	n/a	4/30/2025	0.06	Yes	24	8.333	n/a	0.03714	NP Inter (normality)
Molybdenum (mg/L)	MW-2	0.002	n/a	5/2/2025	0.004	Yes	23	56.52	n/a	0.03858	NP Inter (NDs)
Molybdenum (mg/L)	MW-4	0.002	n/a	5/7/2025	0.003	Yes	23	56.52	n/a	0.03858	NP Inter (NDs)
Selenium (mg/L)	MW-4	0.00105	n/a	5/7/2025	0.019	Yes	23	91.3	n/a	0.03858	NP Inter (NDs)
Sulfate (mg/L)	MW-2	47.42	n/a	5/2/2025	167	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-3A	47.42	n/a	5/6/2025	1200	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-4	47.42	n/a	5/7/2025	3160	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-5	47.42	n/a	4/30/2025	1530	Yes	25	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-6	47.42	n/a	4/30/2025	2380	Yes	25	0	sqrt(x)	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-2	721.8	n/a	5/2/2025	1040	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-3A	721.8	n/a	5/6/2025	4450	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-4	721.8	n/a	5/7/2025	5680	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-5	721.8	n/a	4/30/2025	4030	Yes	25	0	x^2	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-6	721.8	n/a	4/30/2025	4890	Yes	25	0	x^2	0.01	Param Inter

Within Limit

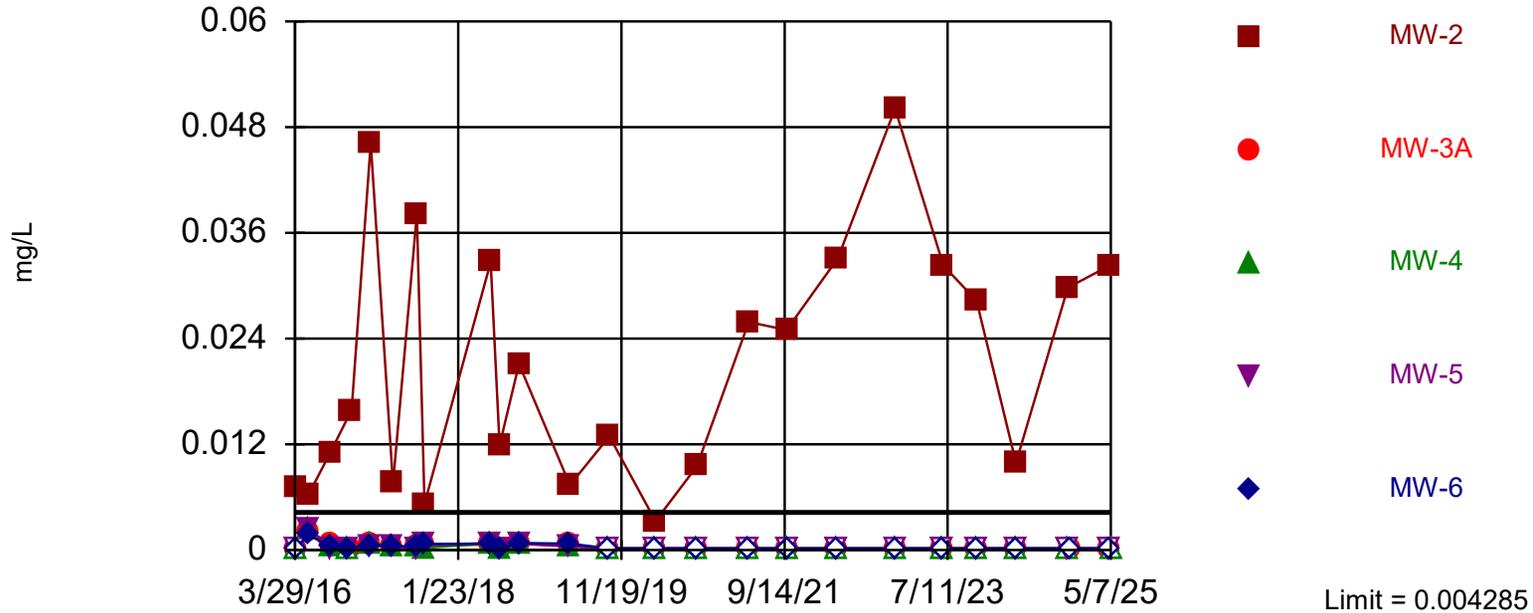
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 65.22% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified.

Exceeds Limit: MW-2

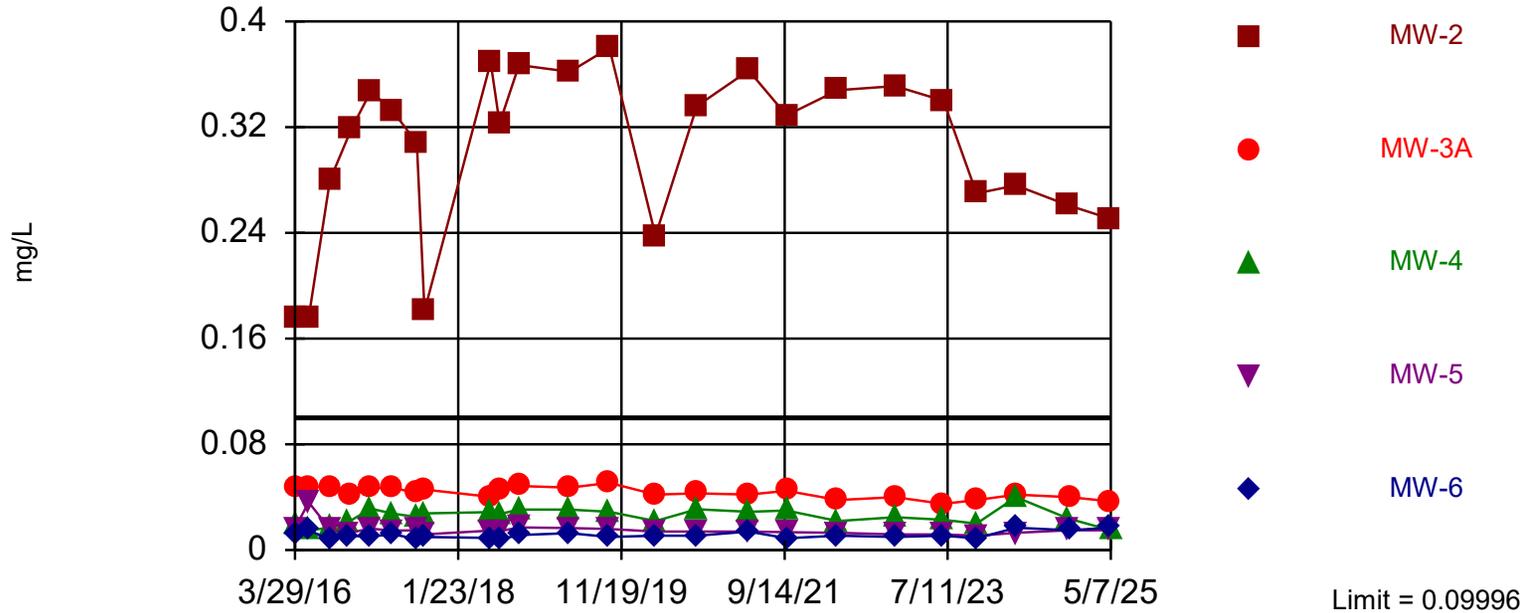
Prediction Limit Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-7.23, Std. Dev.=0.6964, n=24, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9254, critical = 0.916. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. No background outliers were found.

Exceeds Limit: MW-2

Prediction Limit Interwell Parametric

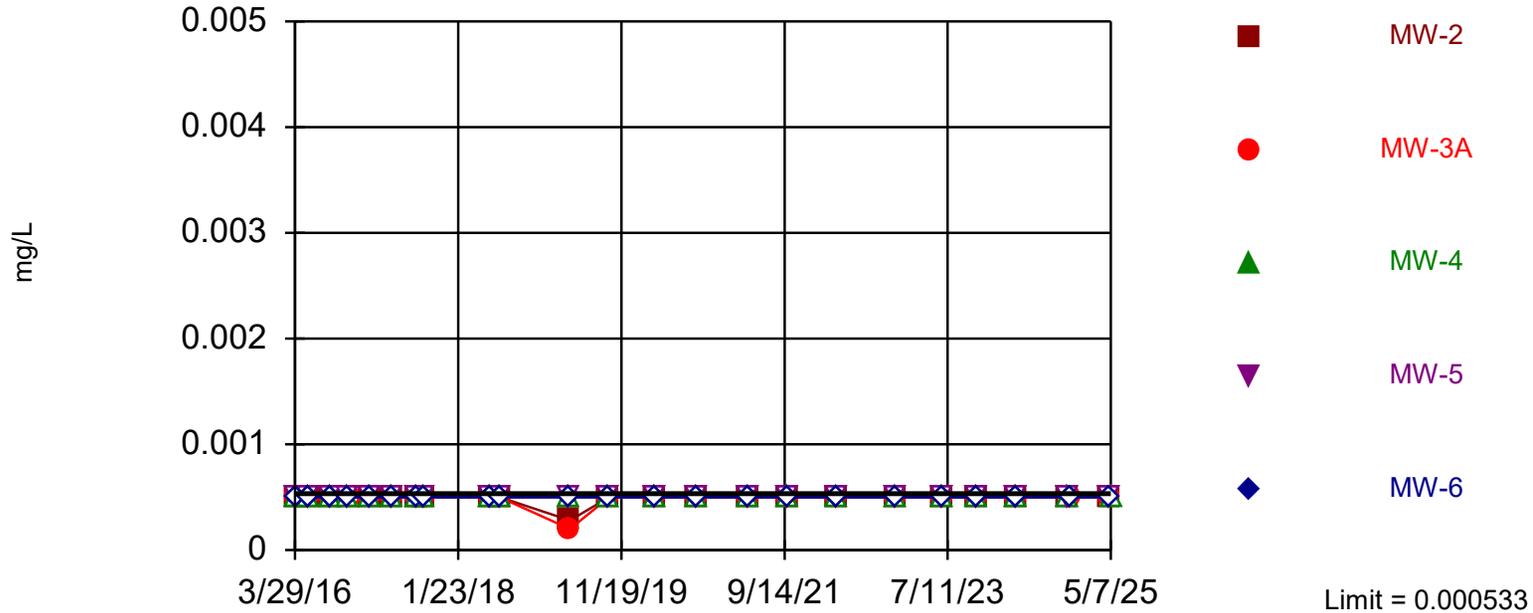


Background Data Summary: Mean=0.08113, Std. Dev.=0.007382, n=24. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9689, critical = 0.916. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. No background outliers were found.

Constituent: Barium Analysis Run 10/8/2025 11:23 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Within Limit

Prediction Limit Interwell Non-parametric

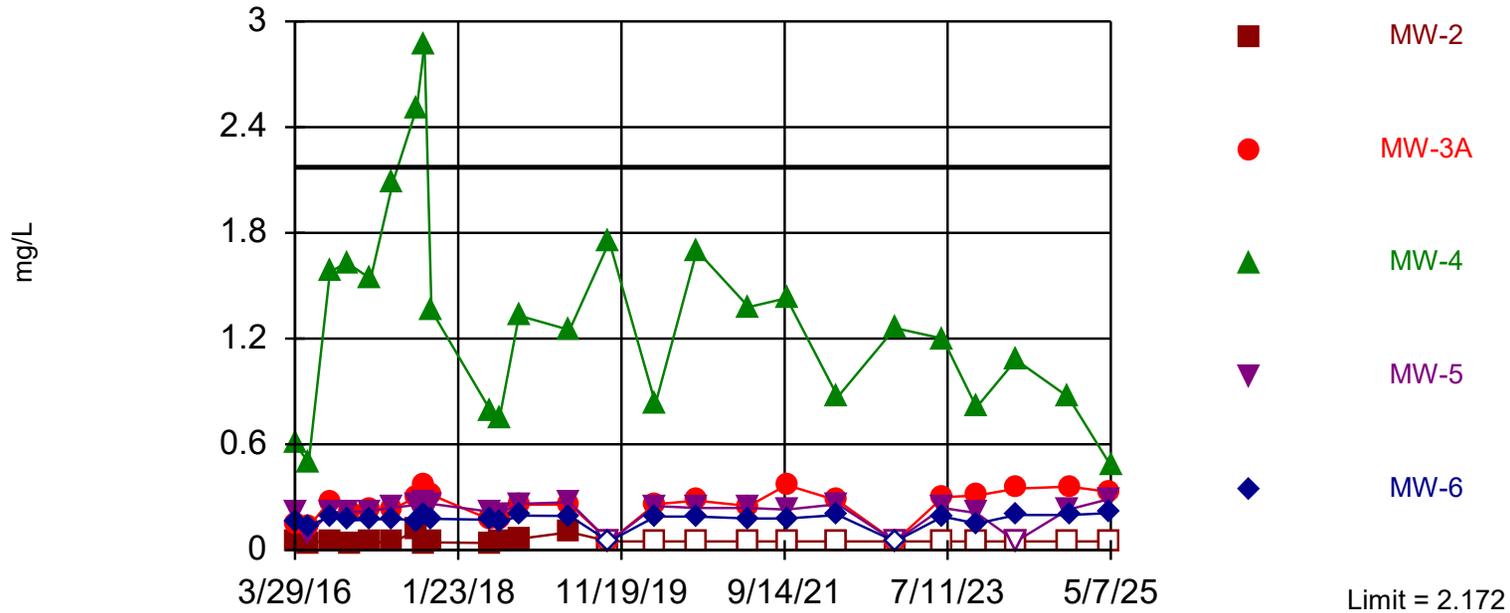


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified.

Within Limit

Prediction Limit

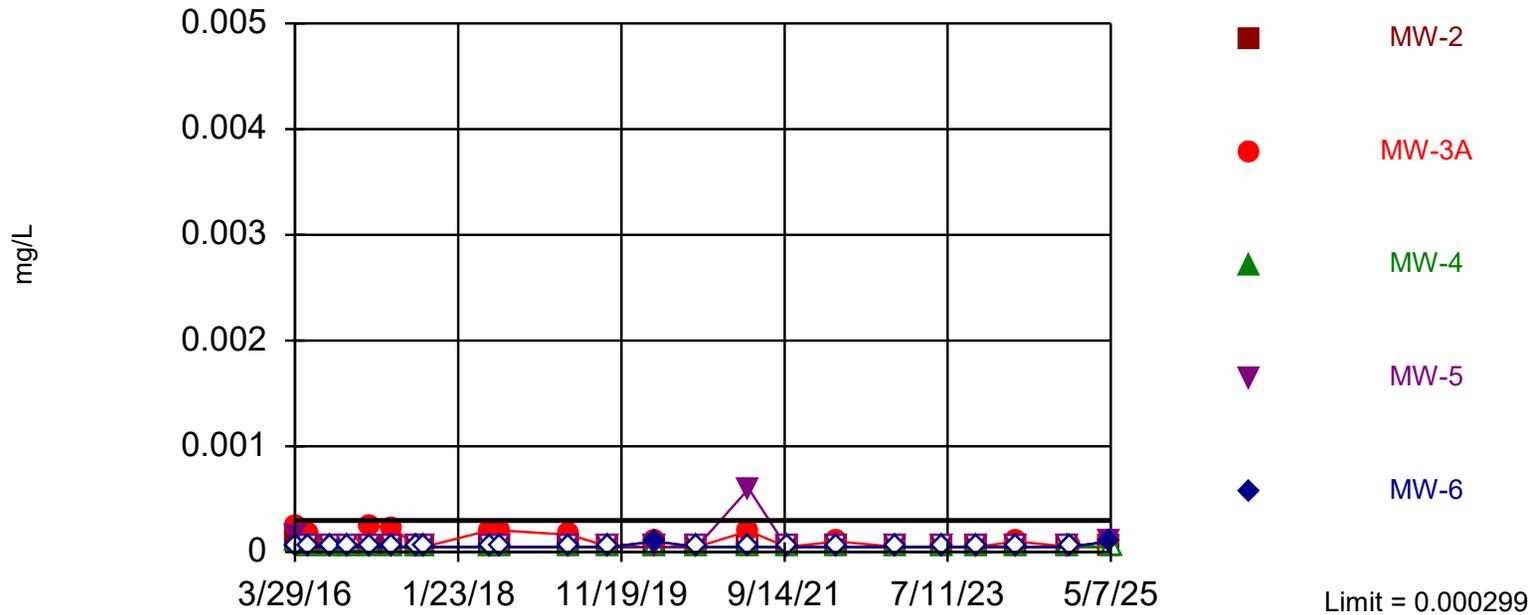
Interwell Parametric



Background Data Summary: Mean=1.735, Std. Dev.=0.172, n=25. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9251, critical = 0.918. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. At least one background value was a statistical outlier but was below the user-set cutoff of 3 times the median. No background outliers were found.

Within Limit

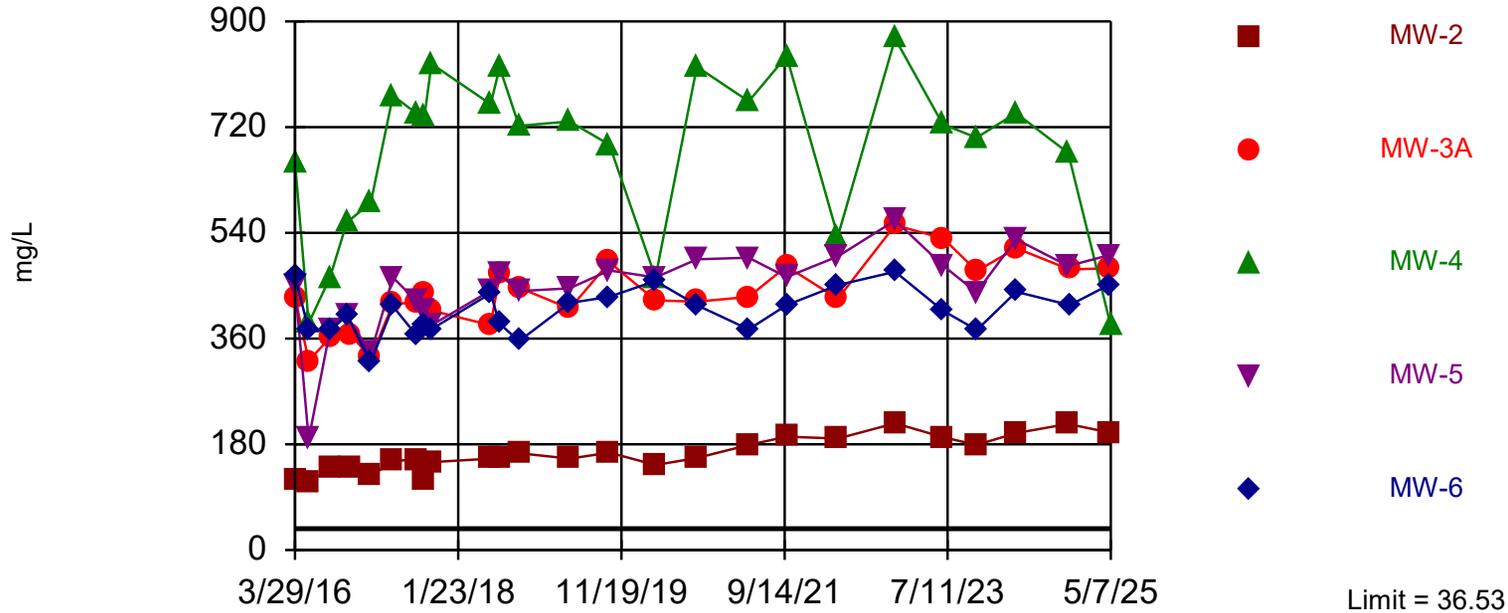
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated.

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

Prediction Limit
Interwell Parametric

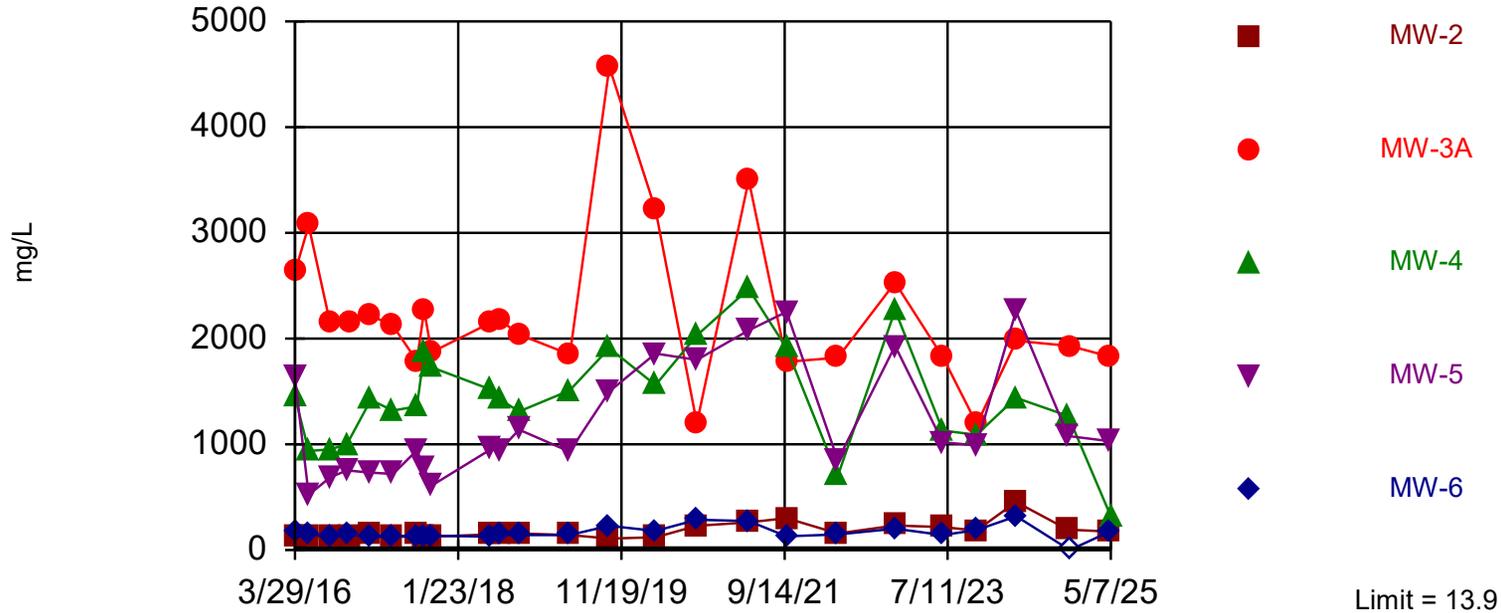


Background Data Summary: Mean=29.03, Std. Dev.=2.95, n=25. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9693, critical = 0.918. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. At least one background value was a statistical outlier but was below the user-set cutoff of 3 times the median. No background outliers were found.

Constituent: Calcium Analysis Run 10/8/2025 11:23 PM View: 1H2025
 Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

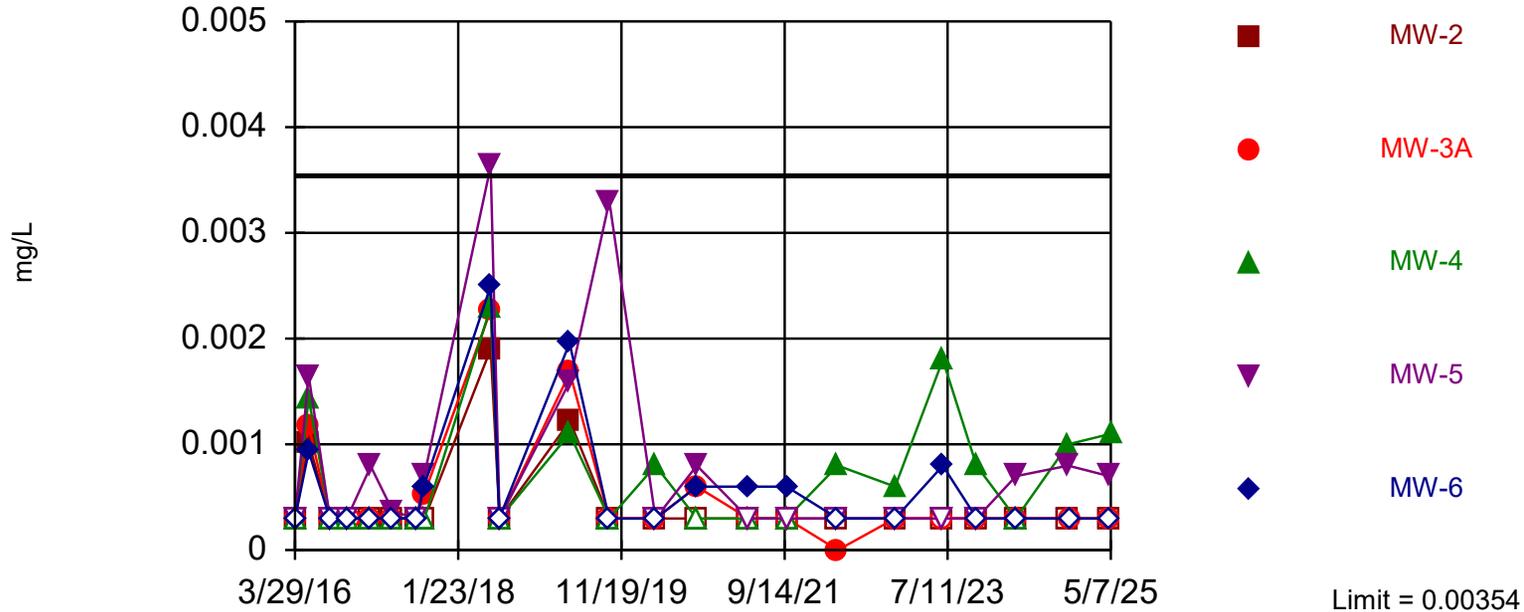
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 25 background values. Report alpha = 0.1667. Individual comparison alpha = 0.03581. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated.

Within Limit

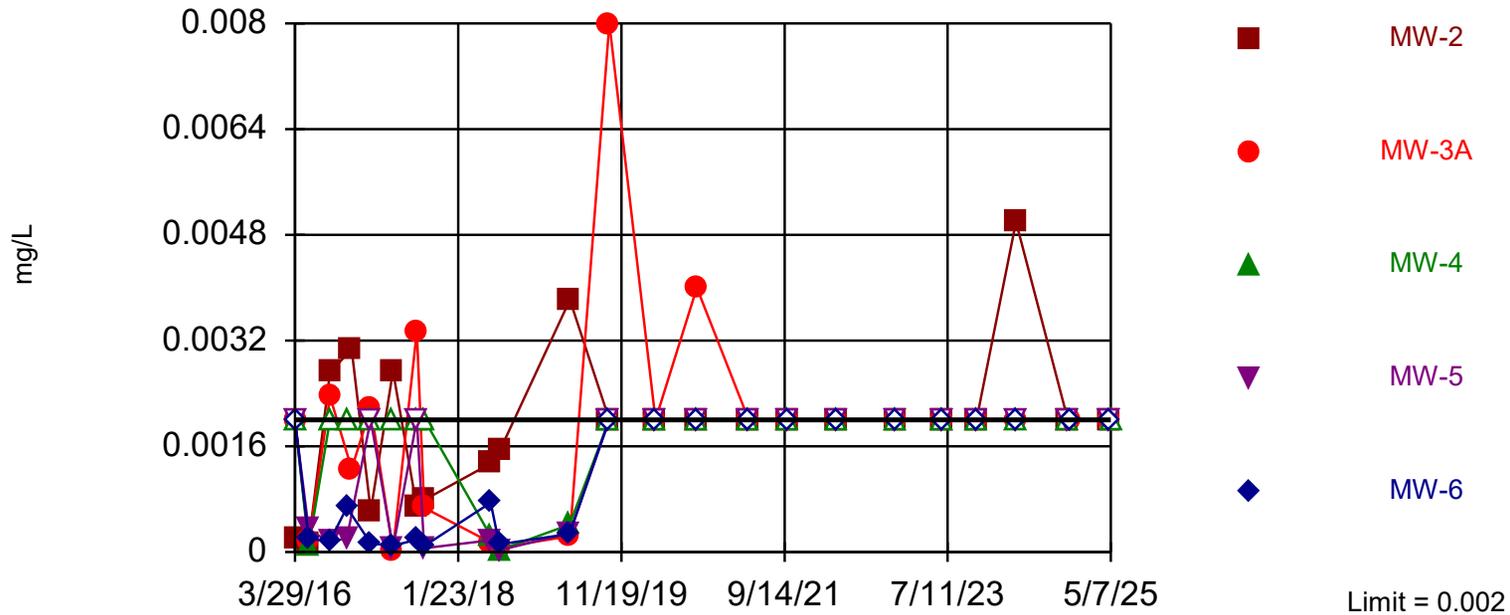
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 78.26% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated.

Within Limit

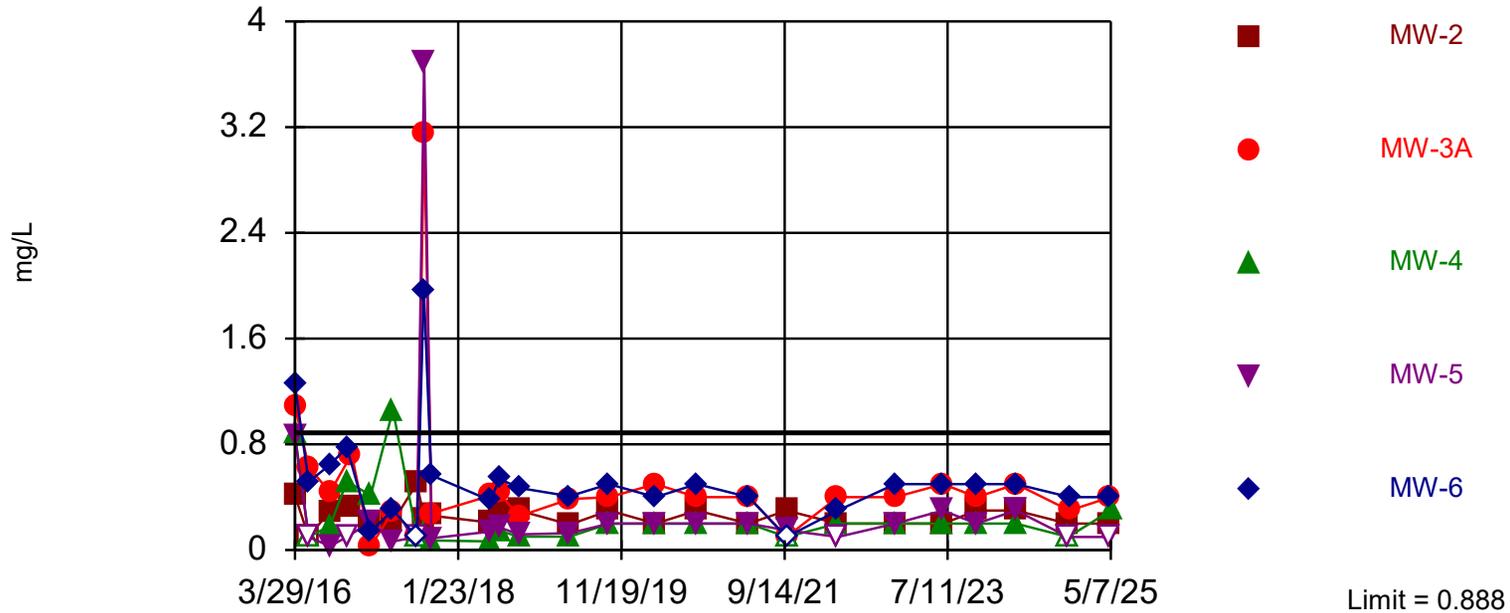
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 52.17% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated.

Within Limit

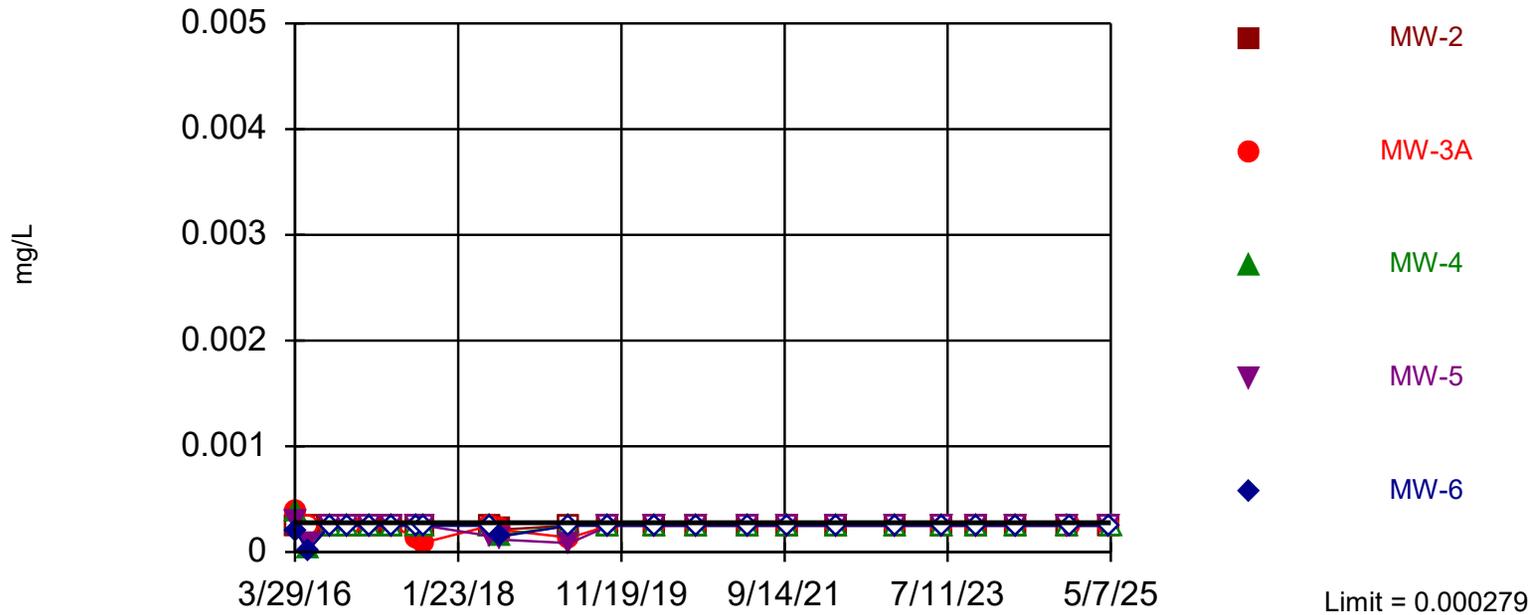
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 25 background values. Report alpha = 0.1667. Individual comparison alpha = 0.03581. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated.

Within Limit

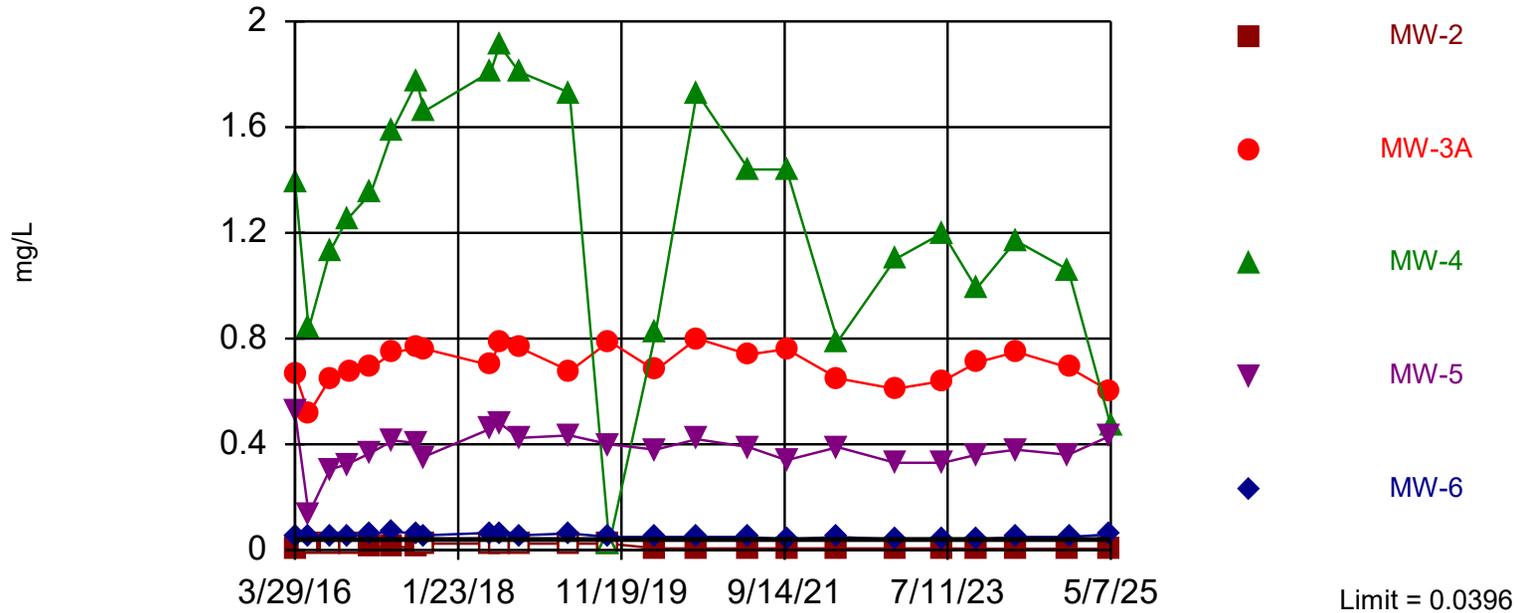
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 73.91% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated.

Exceeds Limit: MW-3A, MW-4, MW-5, MW-6

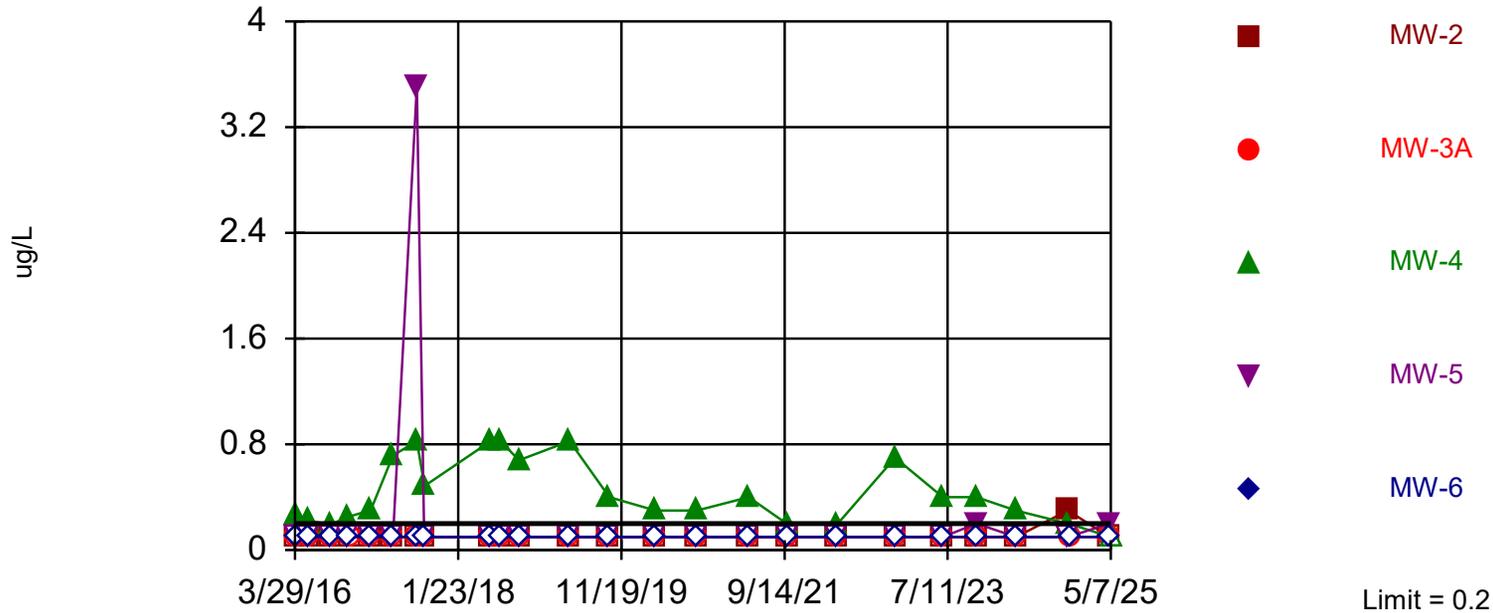
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 24 background values. 8.333% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified.

Within Limit

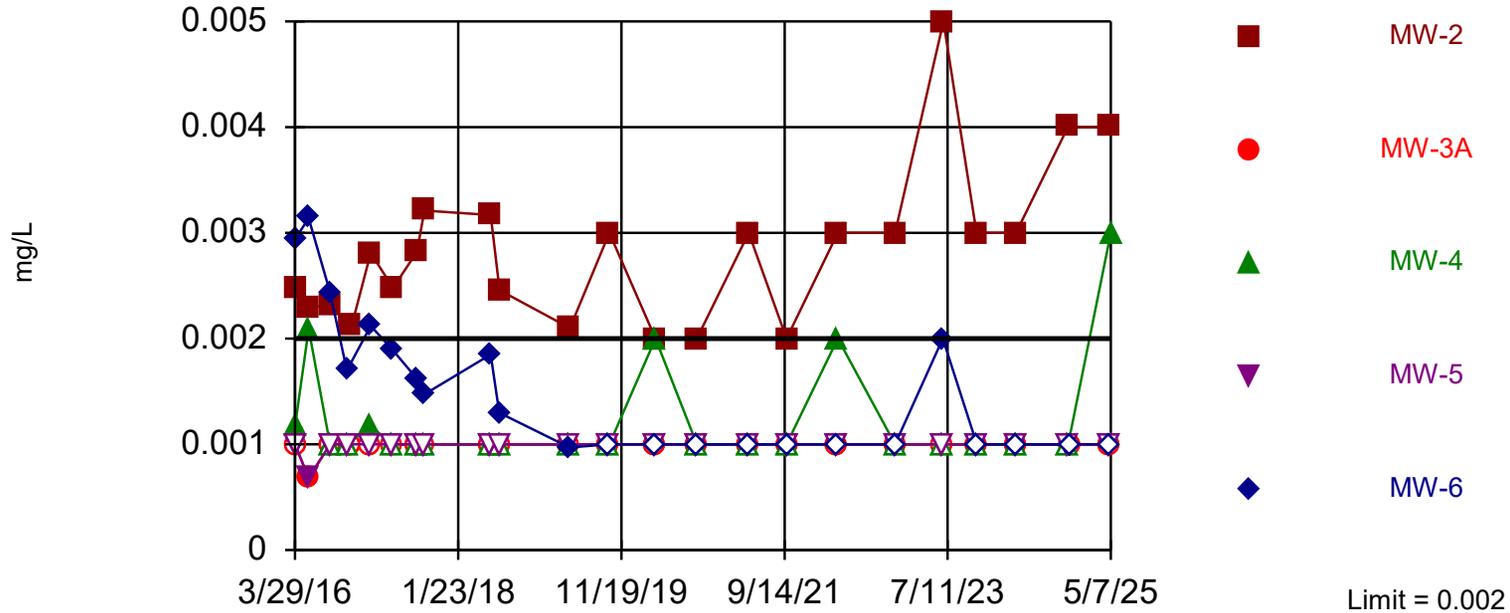
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 91.67% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified.

Exceeds Limit: MW-2, MW-4

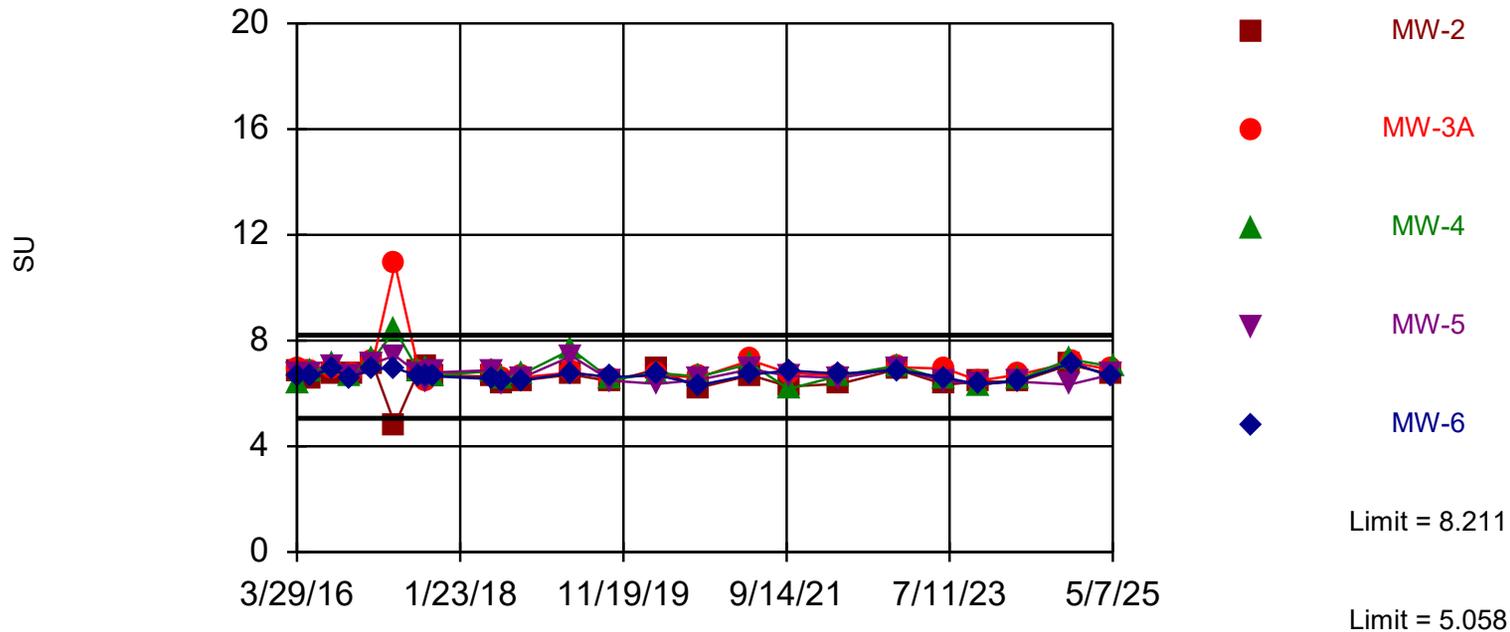
Prediction Limit Interwell Non-parametric



Within Limits

Prediction Limit

Interwell Parametric



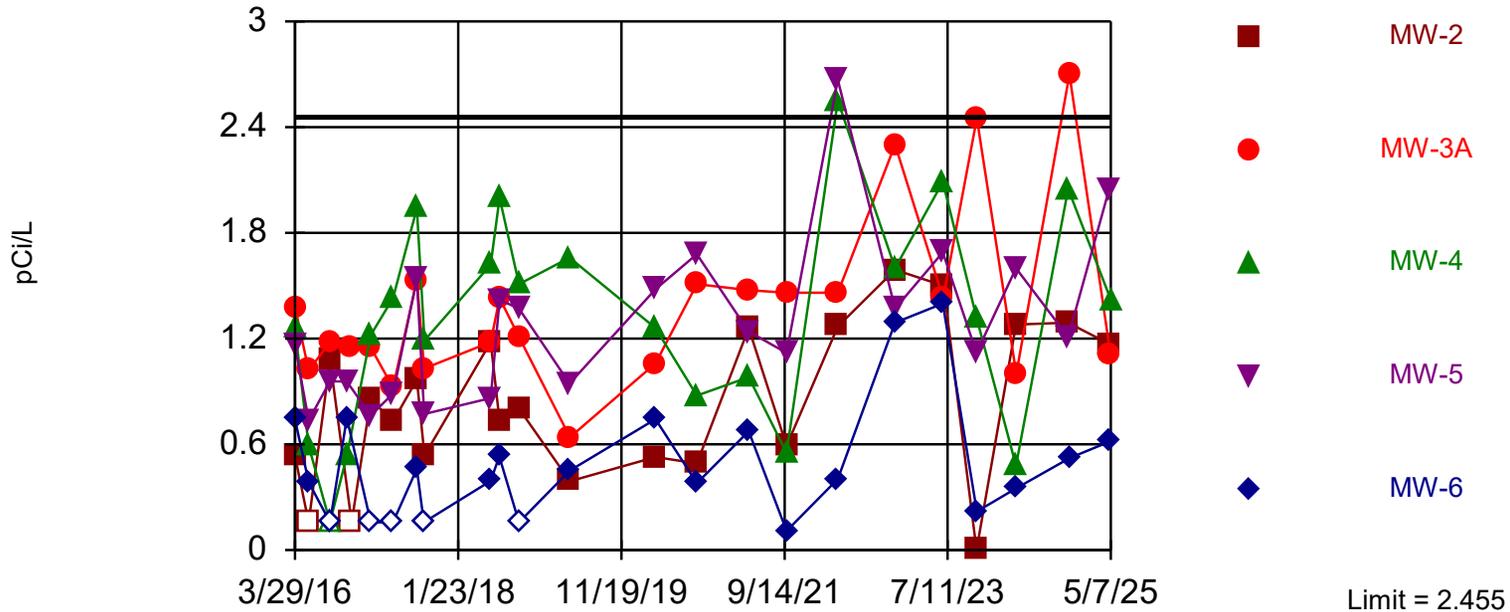
Background Data Summary (based on x⁵ transformation): Mean=20312, Std. Dev.=5960, n=25. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9341, critical = 0.918. Report alpha = 0.04901. Individual comparison alpha = 0.005. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified.

Constituent: pH [Field] Analysis Run 10/8/2025 11:23 PM View: 1H2025
 Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Within Limit

Prediction Limit

Interwell Parametric



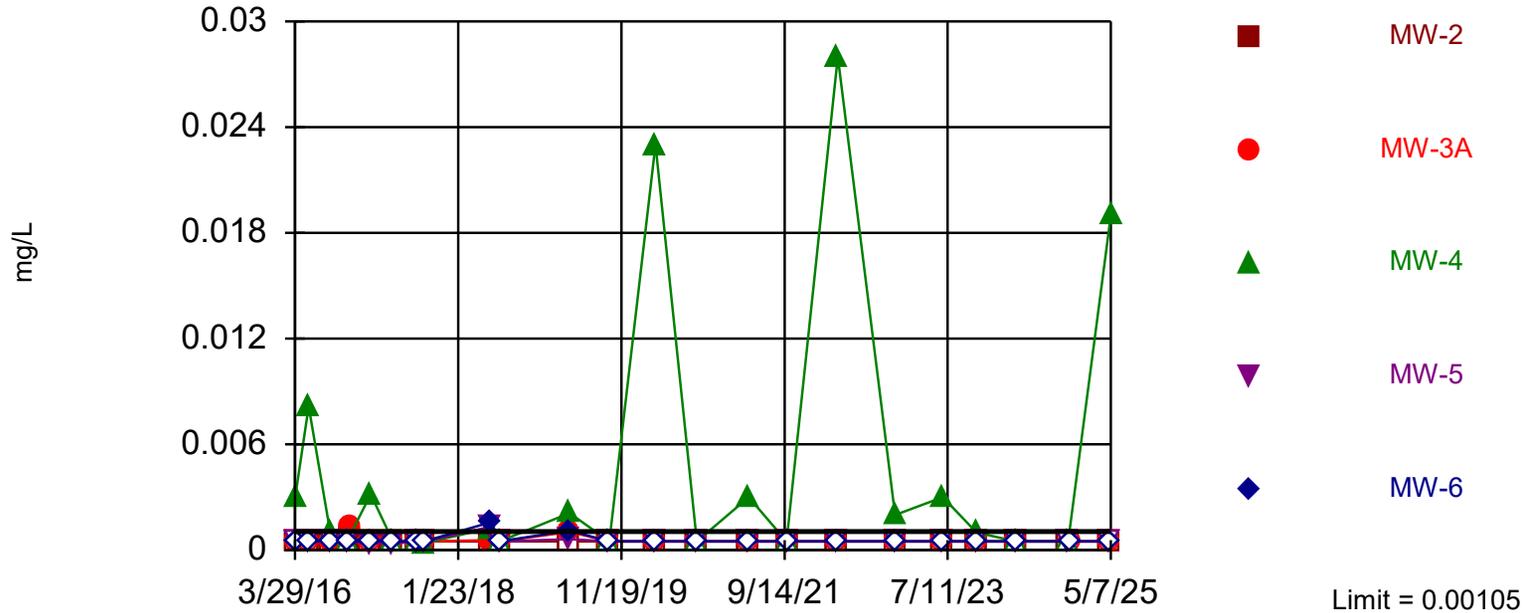
Background Data Summary (based on square root transformation): Mean=0.9714, Std. Dev.=0.2314, n=22.
Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9117, critical = 0.911. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. One background outlier was removed: 0.176 (11/7/2023).

Constituent: Radium 226 + 228 Analysis Run 10/8/2025 11:23 PM View: 1H2025

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Exceeds Limit: MW-4

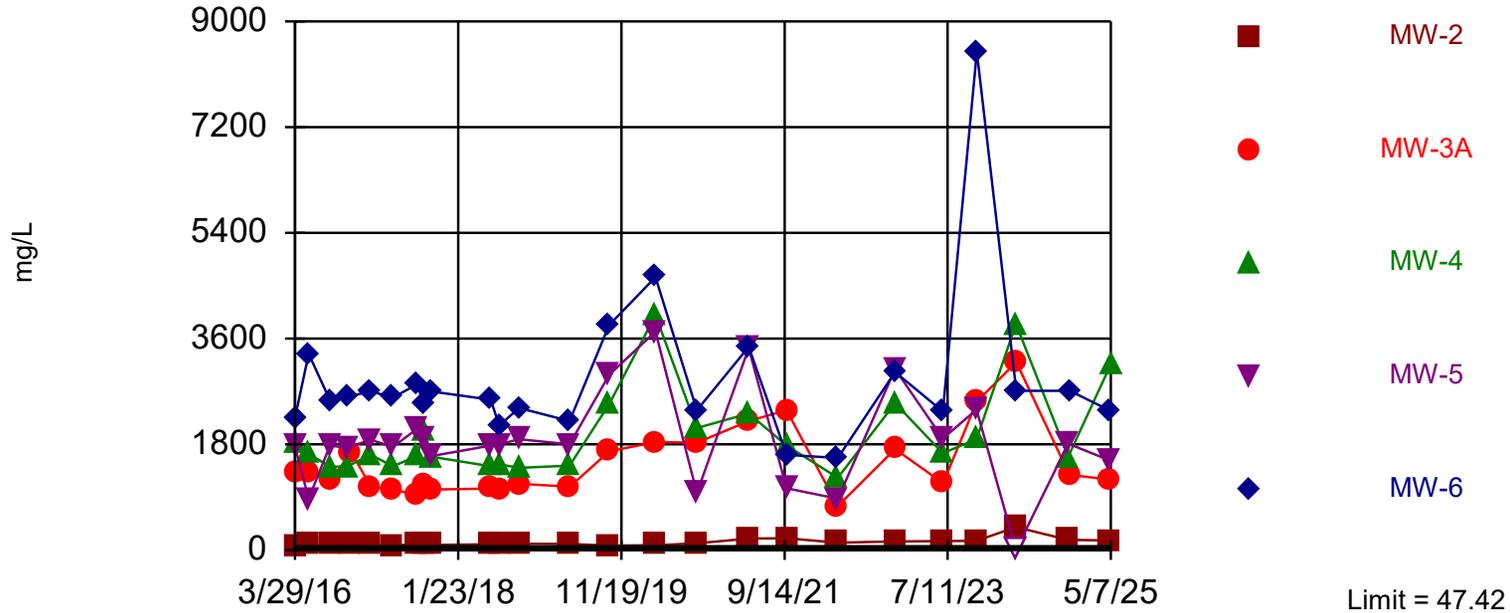
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified.

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

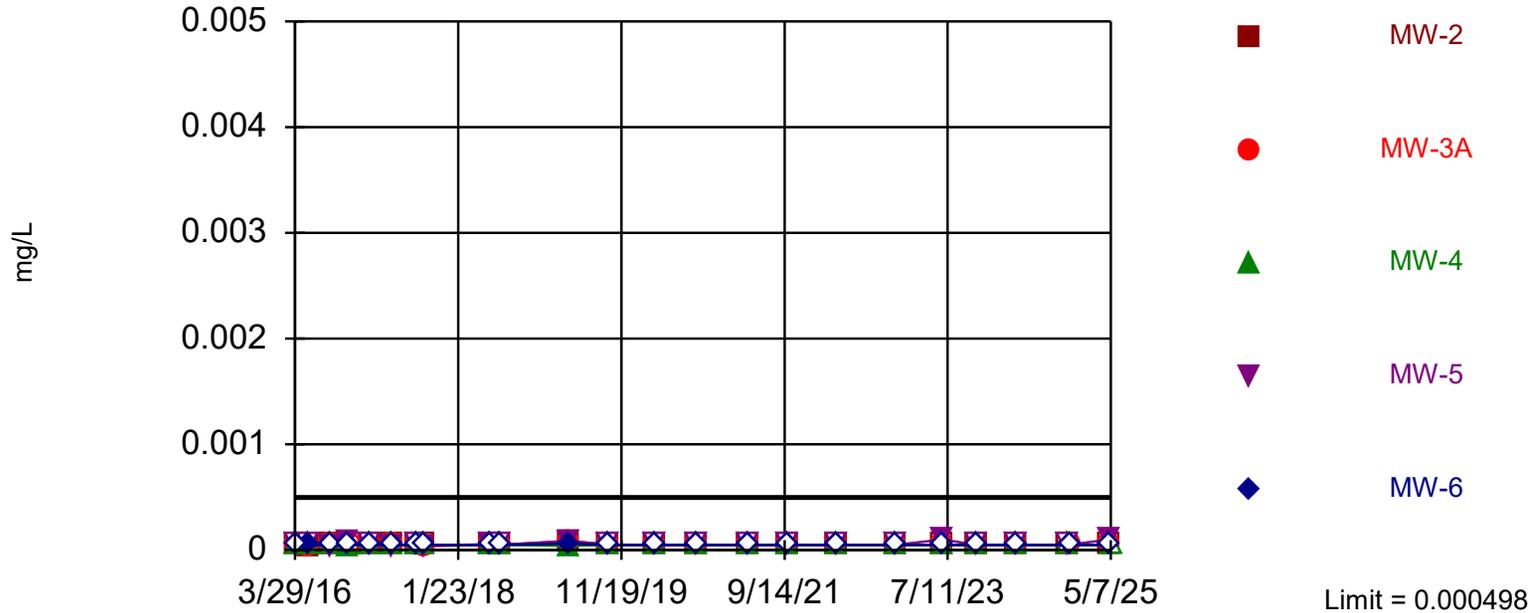
Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation): Mean=5.281, Std. Dev.=0.6315, n=25. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.932, critical = 0.918. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. No background outliers were found.

Within Limit

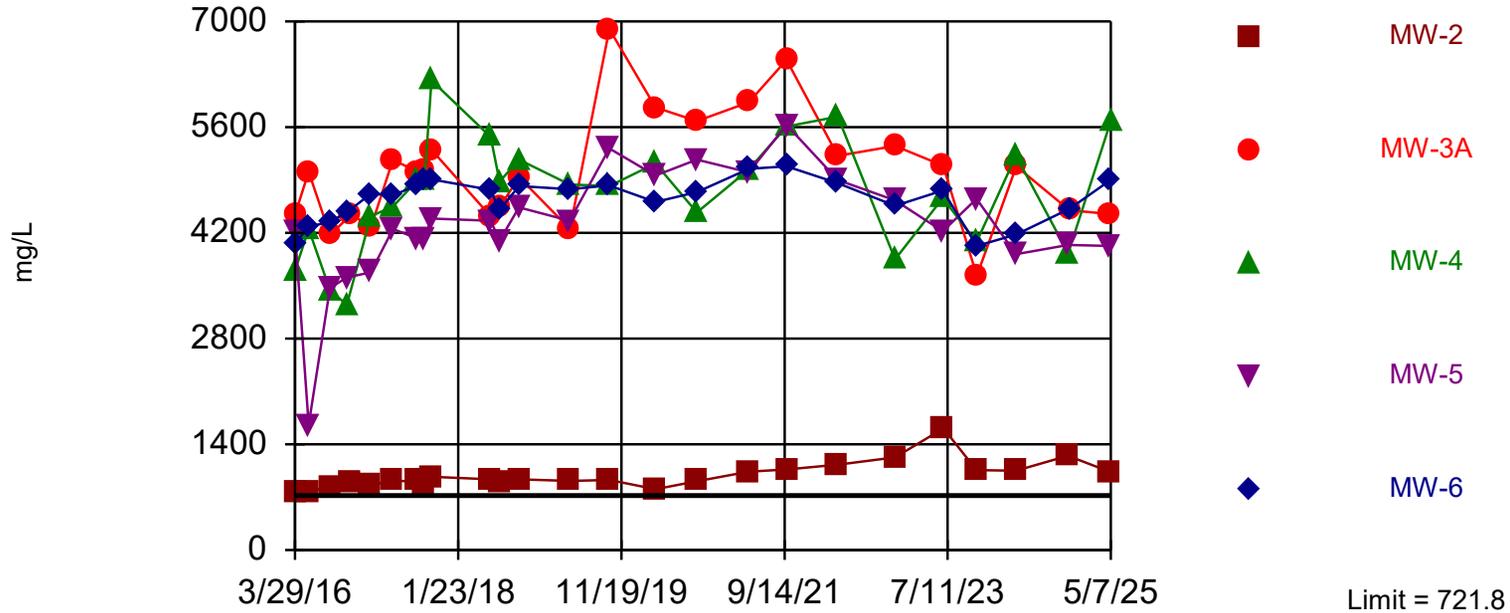
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 65.22% NDs. Report alpha = 0.1786. Individual comparison alpha = 0.03858. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated.

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

Prediction Limit Interwell Parametric



Background Data Summary (based on square transformation): Mean=341541, Std. Dev.=70583, n=25. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.919, critical = 0.918. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified.

Constituent: Total Dissolved Solids Analysis Run 10/8/2025 11:23 PM View: 1H2025

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Confidence Interval

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data Printed 10/15/2025, 3:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-1 (bg)	0.002	0.000254	0.006	No	23	65.22	No	0.01	NP (NDs)
Antimony (mg/L)	MW-2	0.002	0.000149	0.006	No	23	60.87	No	0.01	NP (NDs)
Antimony (mg/L)	MW-3A	0.002	0.000163	0.006	No	23	65.22	No	0.01	NP (NDs)
Antimony (mg/L)	MW-4	0.002	0.000118	0.006	No	23	69.57	No	0.01	NP (NDs)
Antimony (mg/L)	MW-5	0.002	0.000128	0.006	No	23	69.57	No	0.01	NP (NDs)
Antimony (mg/L)	MW-6	0.002	0.000093	0.006	No	23	69.57	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-1 (bg)	0.001108	0.0005306	0.01	No	24	8.333	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MW-2	0.02797	0.01393	0.01	Yes	24	0	No	0.01	Param.
Arsenic (mg/L)	MW-3A	0.000598	0.000343	0.01	No	24	54.17	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-4	0.000778	0.000318	0.01	No	24	58.33	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-5	0.000562	0.000356	0.01	No	24	54.17	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-6	0.000722	0.000357	0.01	No	24	54.17	No	0.01	NP (NDs)
Barium (mg/L)	MW-1 (bg)	0.08489	0.07736	2	No	24	0	No	0.01	Param.
Barium (mg/L)	MW-2	0.3372	0.2792	2	No	24	0	x^2	0.01	Param.
Barium (mg/L)	MW-3A	0.04563	0.0413	2	No	24	0	No	0.01	Param.
Barium (mg/L)	MW-4	0.02848	0.02239	2	No	24	0	No	0.01	Param.
Barium (mg/L)	MW-5	0.016	0.013	2	No	24	0	No	0.01	NP (normality)
Barium (mg/L)	MW-6	0.01273	0.01008	2	No	24	0	No	0.01	Param.
Beryllium (mg/L)	MW-1 (bg)	0.001	0.000102	0.004	No	23	95.65	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-2	0.001	0.000102	0.004	No	23	95.65	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-3A	0.001	0.000102	0.004	No	23	95.65	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-4	0.001	0.000102	0.004	No	23	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-5	0.001	0.000102	0.004	No	23	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-6	0.001	0.000102	0.004	No	23	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-1 (bg)	0.000152	0.0001	0.005	No	23	91.3	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-2	0.000152	0.0001	0.005	No	23	95.65	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-3A	0.0002	0.0001	0.005	No	23	47.83	No	0.01	NP (normality)
Cadmium (mg/L)	MW-4	0.000152	0.0001	0.005	No	23	95.65	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-5	0.000152	0.0001	0.005	No	23	86.96	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-6	0.000152	0.0001	0.005	No	23	91.3	No	0.01	NP (NDs)
Chromium (mg/L)	MW-1 (bg)	0.001	0.000382	0.1	No	23	78.26	No	0.01	NP (NDs)
Chromium (mg/L)	MW-2	0.001	0.000339	0.1	No	23	86.96	No	0.01	NP (NDs)
Chromium (mg/L)	MW-3A	0.001	0.000339	0.1	No	23	73.91	No	0.01	NP (NDs)
Chromium (mg/L)	MW-4	0.0011	0.000339	0.1	No	23	56.52	No	0.01	NP (NDs)
Chromium (mg/L)	MW-5	0.0008	0.000366	0.1	No	23	52.17	No	0.01	NP (NDs)
Chromium (mg/L)	MW-6	0.0008	0.000597	0.1	No	23	65.22	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-1 (bg)	0.004	0.000759	0.006	No	23	52.17	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-2	0.004	0.00134	0.006	No	23	47.83	No	0.01	NP (normality)
Cobalt (mg/L)	MW-3A	0.004	0.000243	0.006	No	23	47.83	No	0.01	NP (normality)
Cobalt (mg/L)	MW-4	0.004	0.000031	0.006	No	23	82.61	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-5	0.004	0.000152	0.006	No	23	65.22	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-6	0.004	0.000189	0.006	No	23	56.52	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-1 (bg)	0.6	0.5	4	No	25	0	No	0.01	NP (normality)
Fluoride (mg/L)	MW-2	0.2934	0.2143	4	No	25	4	sqrt(x)	0.01	Param.
Fluoride (mg/L)	MW-3A	0.5	0.3	4	No	25	8	No	0.01	NP (normality)
Fluoride (mg/L)	MW-4	0.3	0.146	4	No	25	16	No	0.01	NP (normality)
Fluoride (mg/L)	MW-5	0.2	0.128	4	No	25	24	No	0.01	NP (normality)
Fluoride (mg/L)	MW-6	0.517	0.374	4	No	25	8	No	0.01	NP (normality)
Lead (mg/L)	MW-1 (bg)	0.0005	0.00007	0.01	No	23	73.91	No	0.01	NP (NDs)
Lead (mg/L)	MW-2	0.0005	0.0000675	0.01	No	23	95.65	No	0.01	NP (NDs)

Confidence Interval

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data Printed 10/15/2025, 3:49 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lead (mg/L)	MW-3A	0.0005	0.000092	0.01	No	23	78.26	No	0.01	NP (NDs)
Lead (mg/L)	MW-4	0.0005	0.0000675	0.01	No	23	86.96	No	0.01	NP (NDs)
Lead (mg/L)	MW-5	0.0005	0.000079	0.01	No	23	78.26	No	0.01	NP (NDs)
Lead (mg/L)	MW-6	0.0005	0.0000675	0.01	No	23	86.96	No	0.01	NP (NDs)
Lithium (mg/L)	MW-1 (bg)	0.0315	0.0295	0.04	No	24	8.333	No	0.01	NP (normality)
Lithium (mg/L)	MW-2	0.00959	0.006	0.04	No	24	37.5	No	0.01	NP (normality)
Lithium (mg/L)	MW-3A	0.7368	0.6655	0.04	Yes	24	0	No	0.01	Param.
Lithium (mg/L)	MW-4	1.508	1.032	0.04	Yes	24	4.167	No	0.01	Param.
Lithium (mg/L)	MW-5	0.4182	0.3432	0.04	Yes	24	0	No	0.01	Param.
Lithium (mg/L)	MW-6	0.05712	0.04861	0.04	Yes	24	0	No	0.01	Param.
Mercury (ug/L)	MW-1 (bg)	0.2	0.1	2	No	24	91.67	No	0.01	NP (NDs)
Mercury (ug/L)	MW-2	0.2	0.1	2	No	24	95.83	No	0.01	NP (NDs)
Mercury (ug/L)	MW-3A	0.2	0.1	2	No	24	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-4	0.5242	0.2898	2	No	24	4.167	sqrt(x)	0.01	Param.
Mercury (ug/L)	MW-5	0.2	0.1	2	No	24	87.5	No	0.01	NP (NDs)
Mercury (ug/L)	MW-6	0.2	0.1	2	No	24	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-1 (bg)	0.002	0.0013	0.1	No	23	56.52	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-2	0.003172	0.002444	0.1	No	23	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	MW-3A	0.002	0.000873	0.1	No	23	95.65	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-4	0.002	0.000873	0.1	No	23	73.91	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-5	0.002	0.000873	0.1	No	23	95.65	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-6	0.00212	0.00185	0.1	No	23	47.83	No	0.01	NP (normality)
Radium 226 + 228 (pCi/L)	MW-1 (bg)	1.231	0.6877	5	No	23	0	No	0.01	Param.
Radium 226 + 228 (pCi/L)	MW-2	1.065	0.6056	5	No	23	8.696	No	0.01	Param.
Radium 226 + 228 (pCi/L)	MW-3A	1.593	1.118	5	No	23	0	sqrt(x)	0.01	Param.
Radium 226 + 228 (pCi/L)	MW-4	1.632	1.012	5	No	23	4.348	No	0.01	Param.
Radium 226 + 228 (pCi/L)	MW-5	1.527	1.047	5	No	23	0	No	0.01	Param.
Radium 226 + 228 (pCi/L)	MW-6	0.6291	0.325	5	No	23	21.74	sqrt(x)	0.01	Param.
Selenium (mg/L)	MW-1 (bg)	0.001	0.000348	0.05	No	23	91.3	No	0.01	NP (NDs)
Selenium (mg/L)	MW-2	0.001	0.000348	0.05	No	23	91.3	No	0.01	NP (NDs)
Selenium (mg/L)	MW-3A	0.00103	0.000422	0.05	No	23	82.61	No	0.01	NP (NDs)
Selenium (mg/L)	MW-4	0.00276	0.0006021	0.05	No	23	39.13	ln(x)	0.01	Param.
Selenium (mg/L)	MW-5	0.001	0.000368	0.05	No	23	82.61	No	0.01	NP (NDs)
Selenium (mg/L)	MW-6	0.0011	0.000348	0.05	No	23	91.3	No	0.01	NP (NDs)
Thallium (mg/L)	MW-1 (bg)	0.0001	0.000083	0.002	No	23	65.22	No	0.01	NP (NDs)
Thallium (mg/L)	MW-2	0.0001	0.000036	0.002	No	23	91.3	No	0.01	NP (NDs)
Thallium (mg/L)	MW-3A	0.0001	0.000036	0.002	No	23	86.96	No	0.01	NP (NDs)
Thallium (mg/L)	MW-4	0.0001	0.000036	0.002	No	23	91.3	No	0.01	NP (NDs)
Thallium (mg/L)	MW-5	0.0001	0.000044	0.002	No	23	65.22	No	0.01	NP (NDs)
Thallium (mg/L)	MW-6	0.0001	0.000036	0.002	No	23	91.3	No	0.01	NP (NDs)

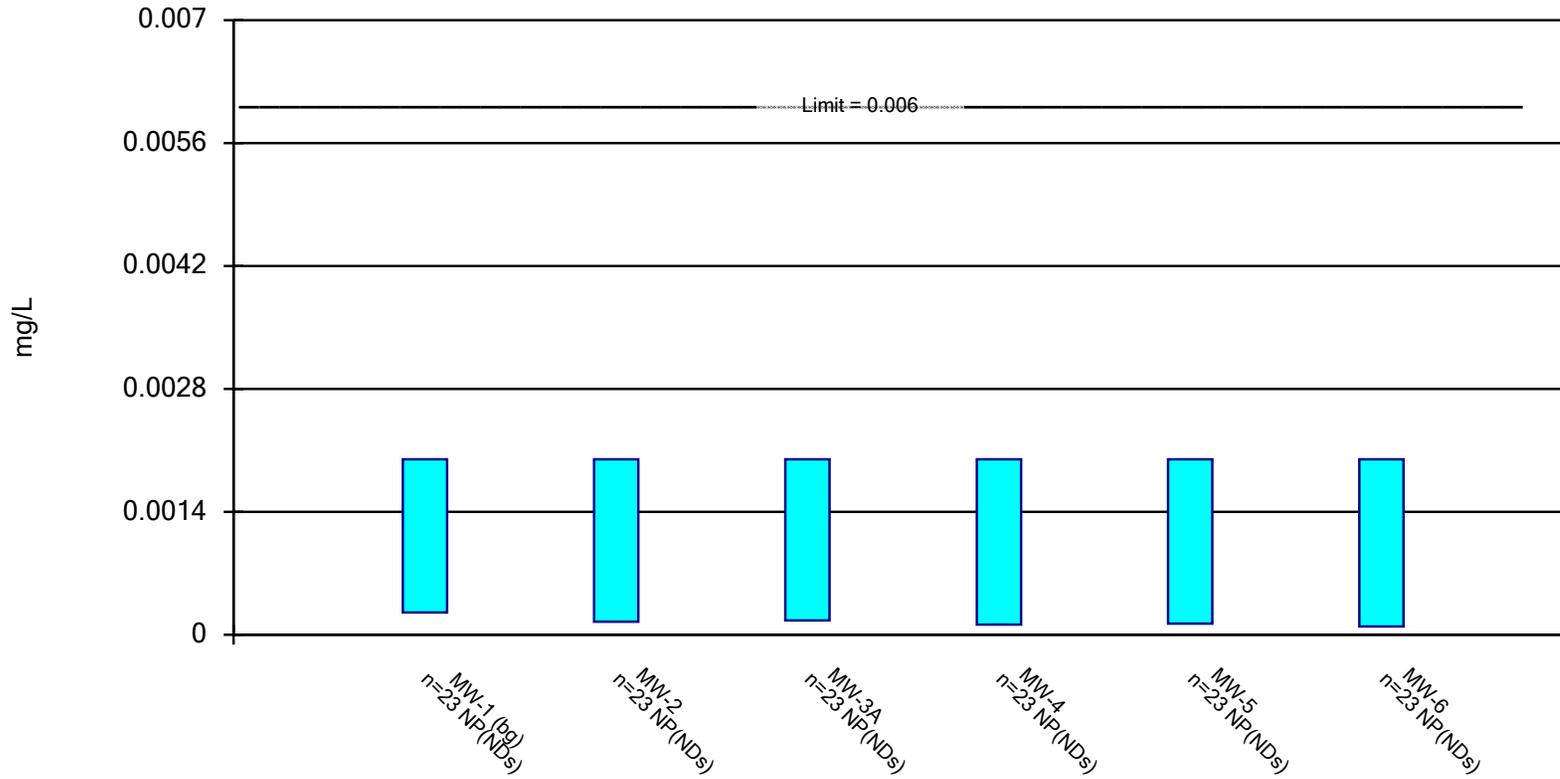
Confidence Interval

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data Printed 10/15/2025, 3:49 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-2	0.02797	0.01393	0.01	Yes	24	0	No	0.01	Param.
Lithium (mg/L)	MW-3A	0.7368	0.6655	0.04	Yes	24	0	No	0.01	Param.
Lithium (mg/L)	MW-4	1.508	1.032	0.04	Yes	24	4.167	No	0.01	Param.
Lithium (mg/L)	MW-5	0.4182	0.3432	0.04	Yes	24	0	No	0.01	Param.
Lithium (mg/L)	MW-6	0.05712	0.04861	0.04	Yes	24	0	No	0.01	Param.

Non-Parametric Confidence Interval

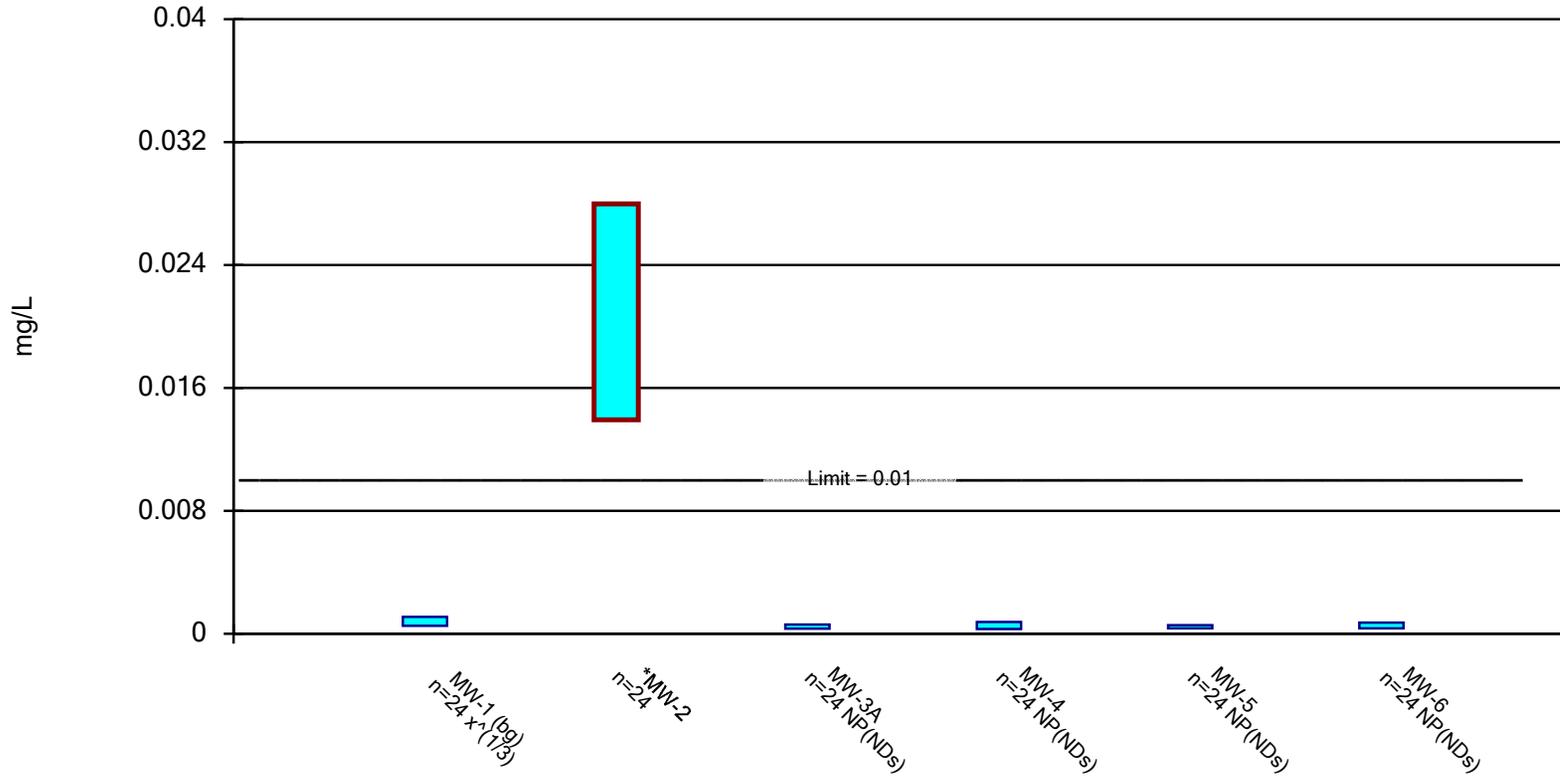
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric and Non-Parametric (NP) Confidence Interval

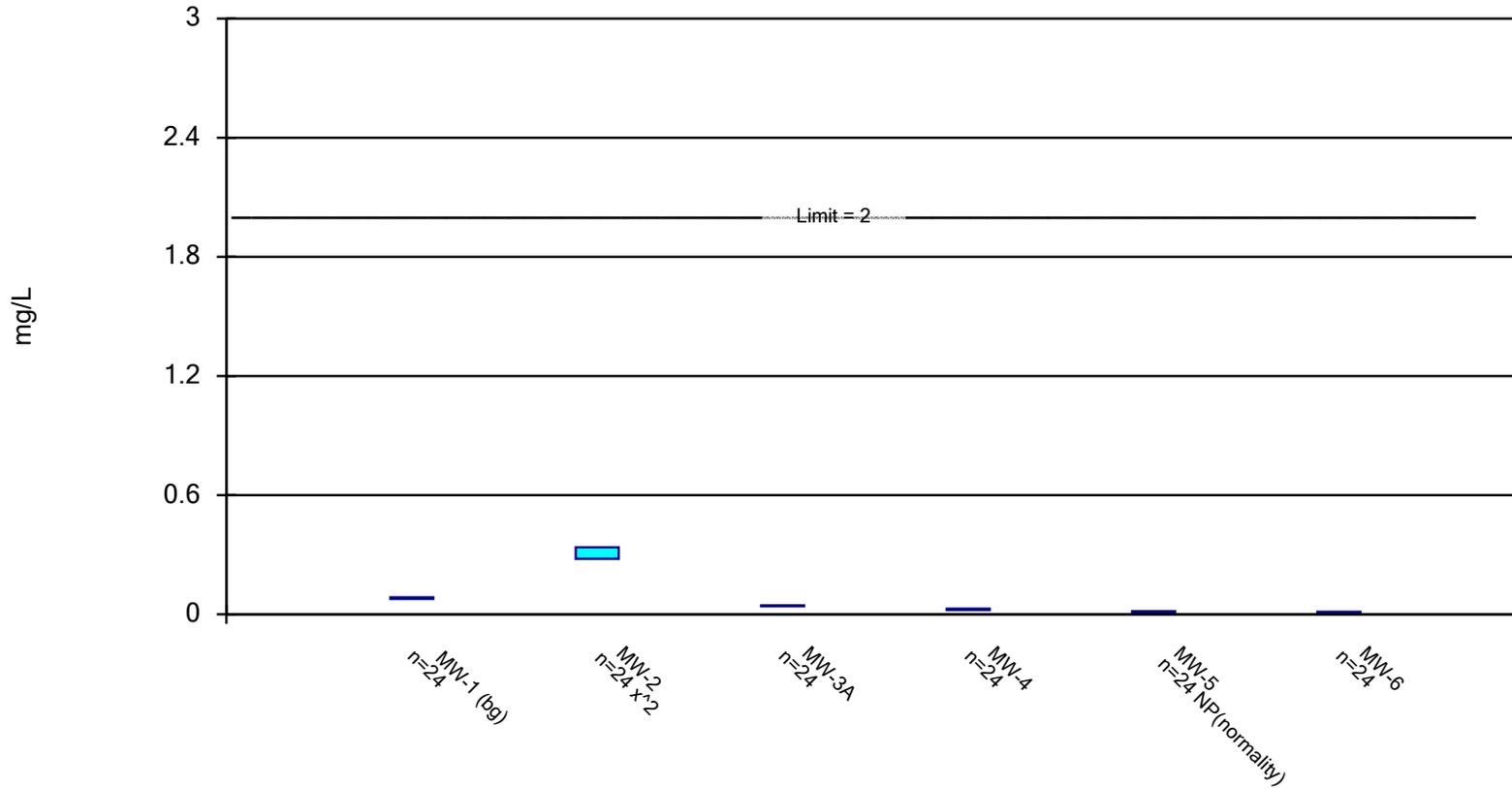
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric and Non-Parametric (NP) Confidence Interval

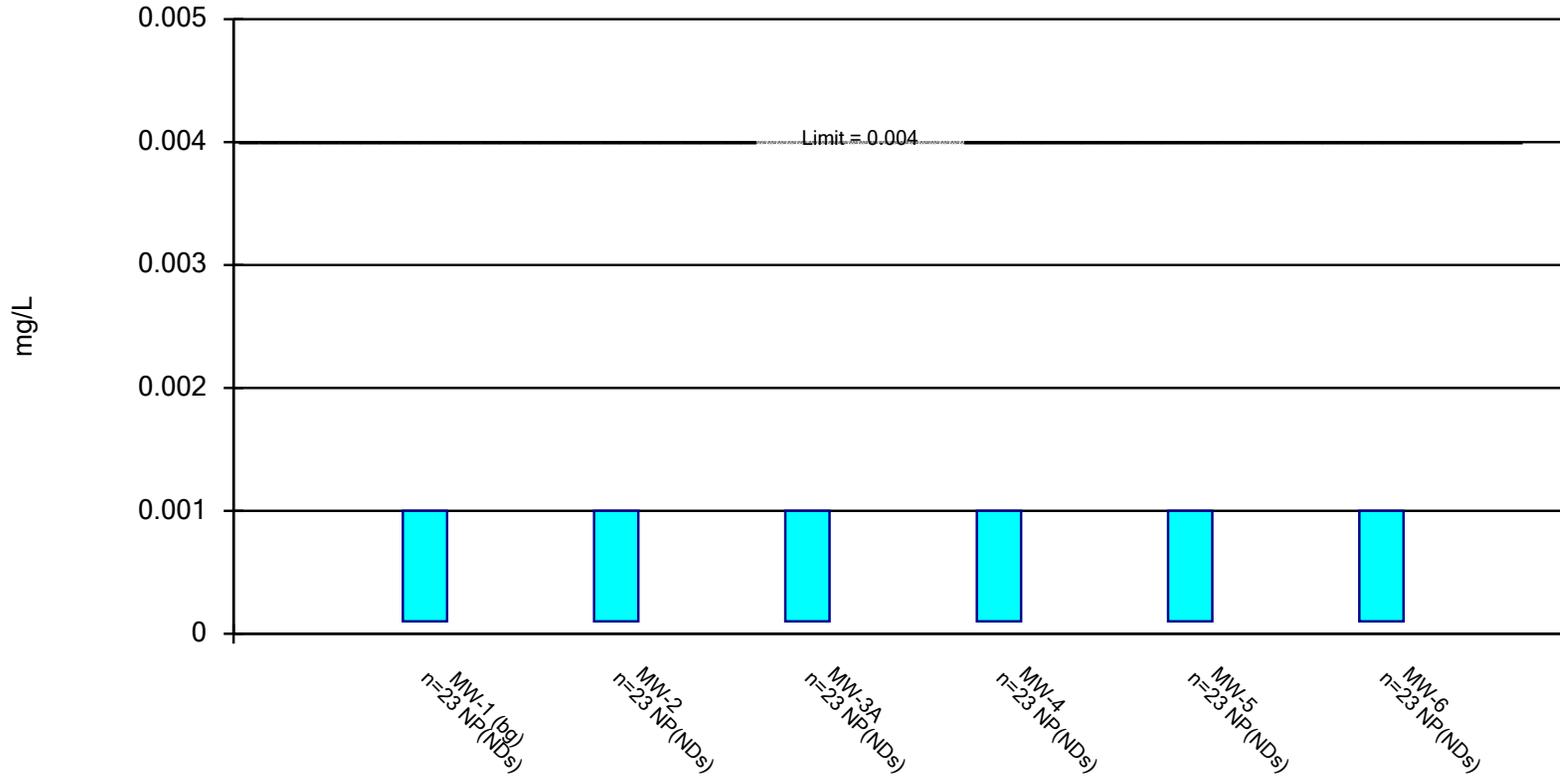
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Non-Parametric Confidence Interval

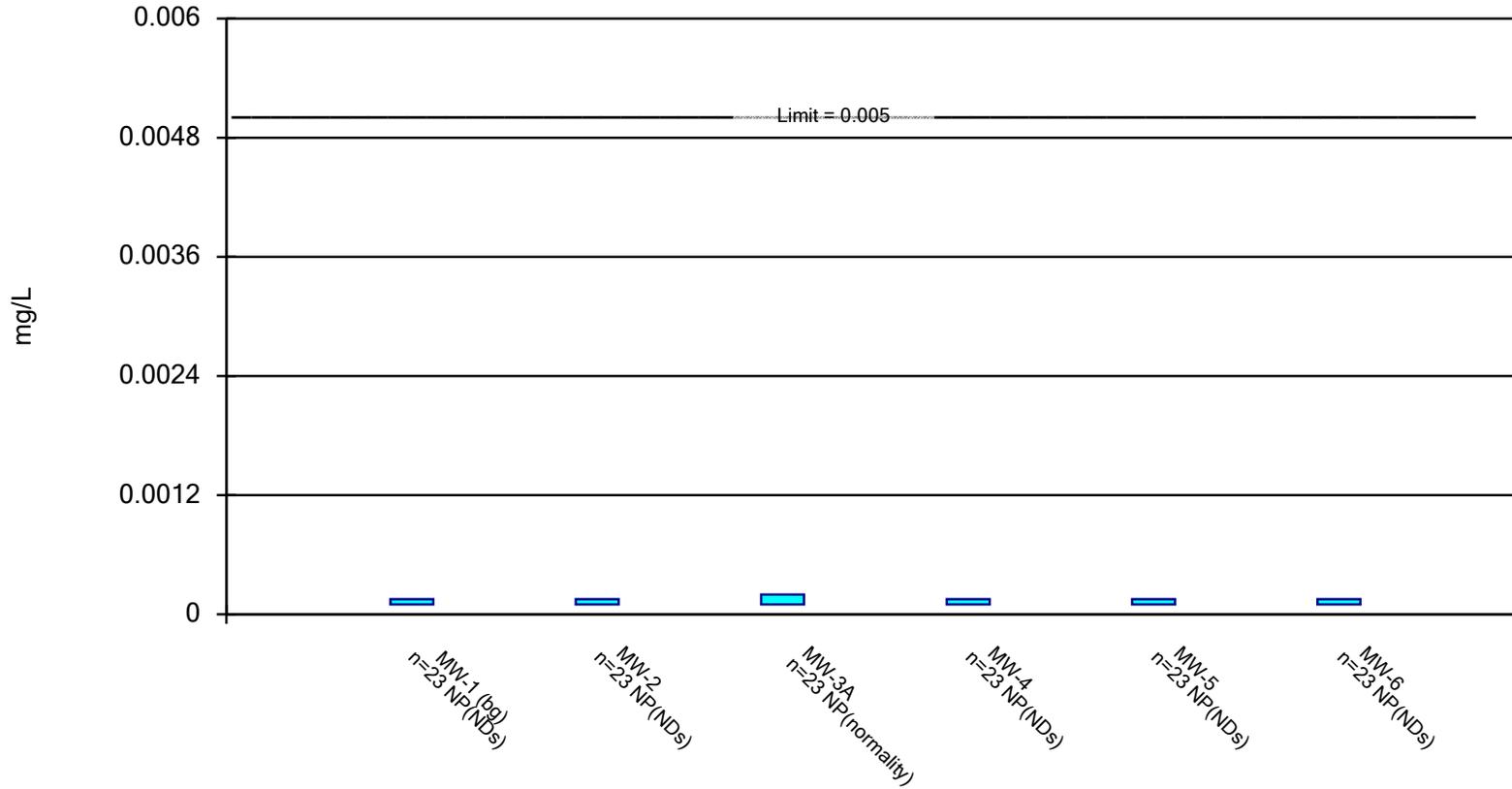
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Non-Parametric Confidence Interval

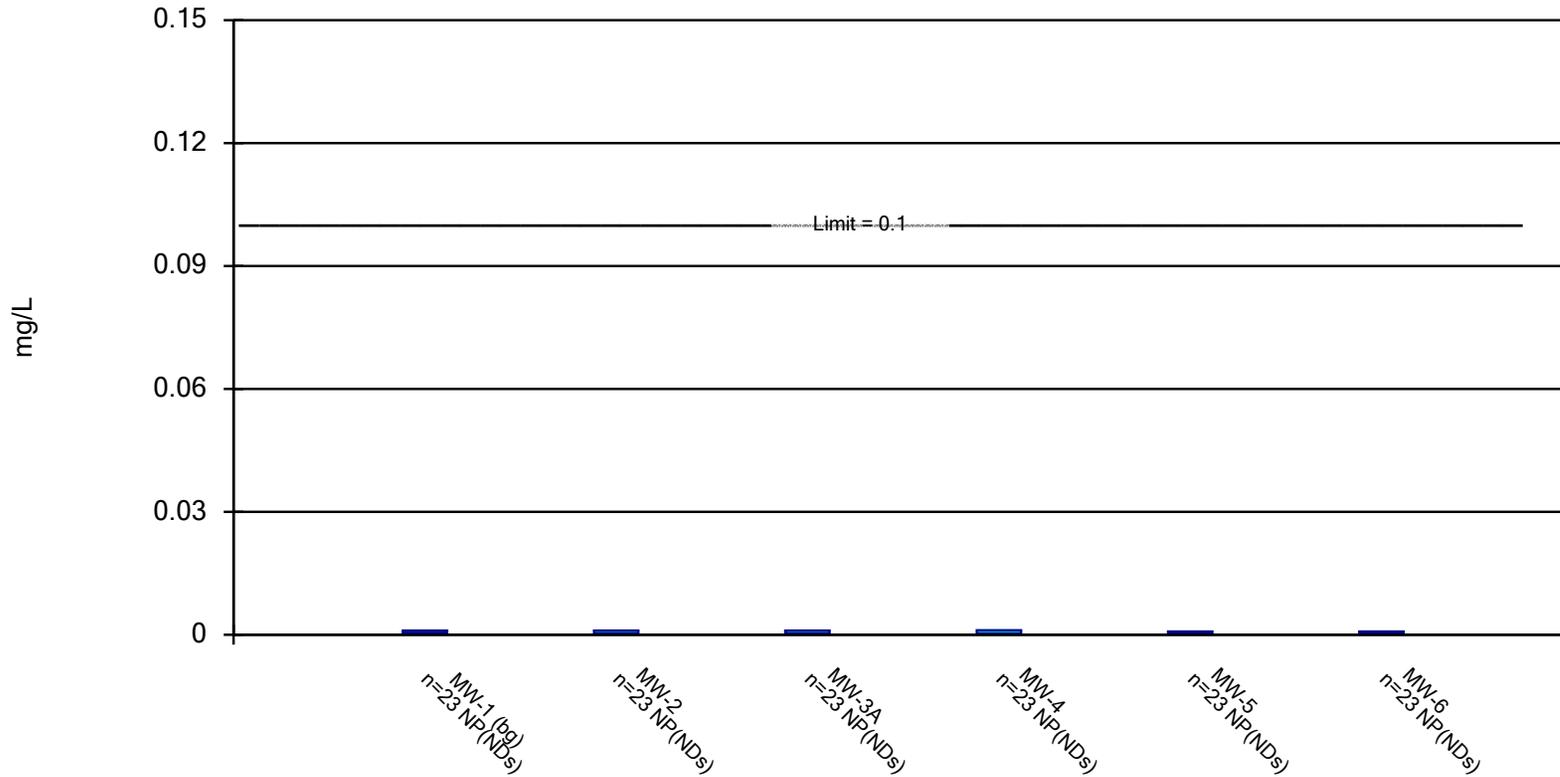
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Non-Parametric Confidence Interval

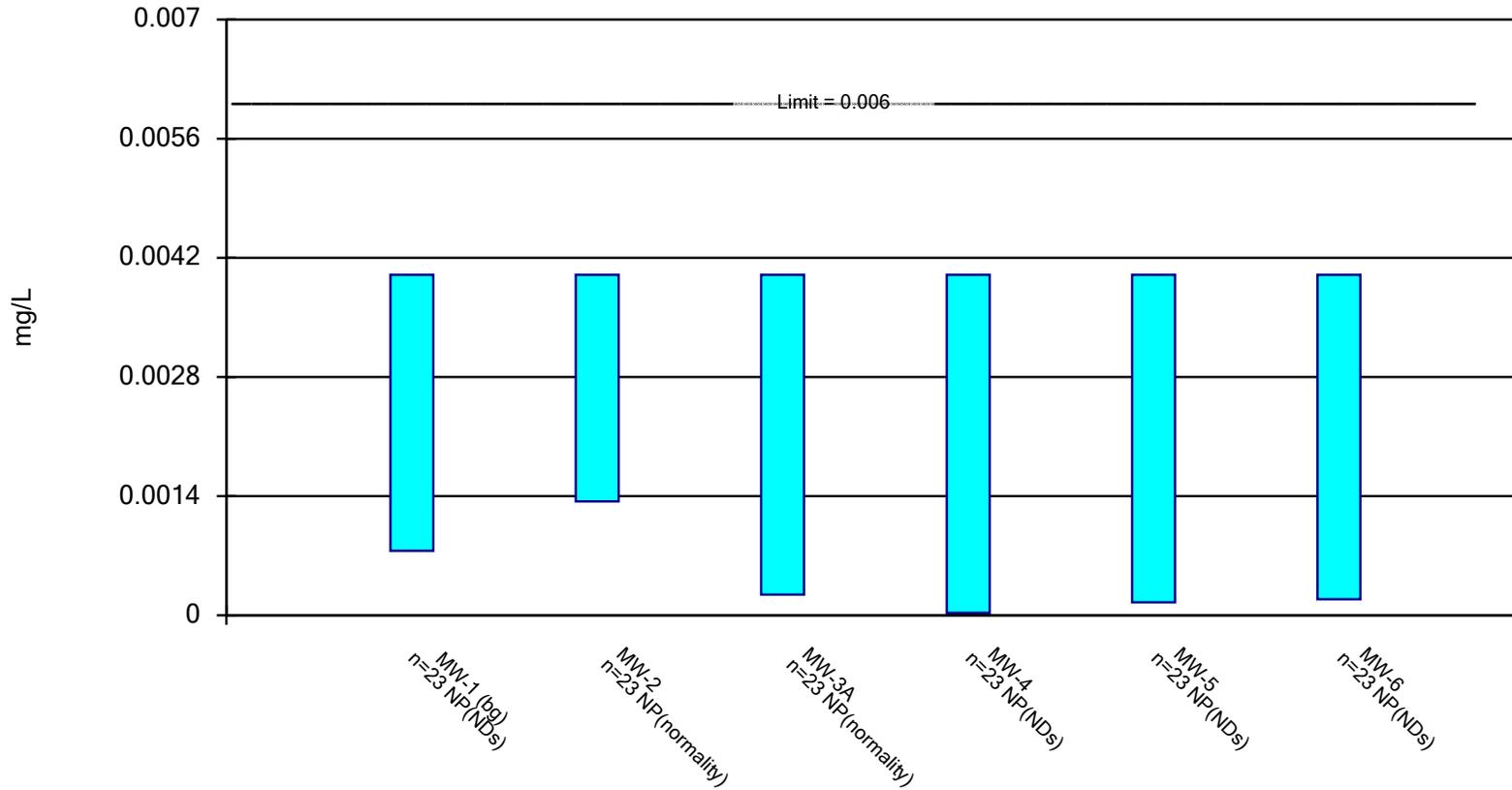
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Non-Parametric Confidence Interval

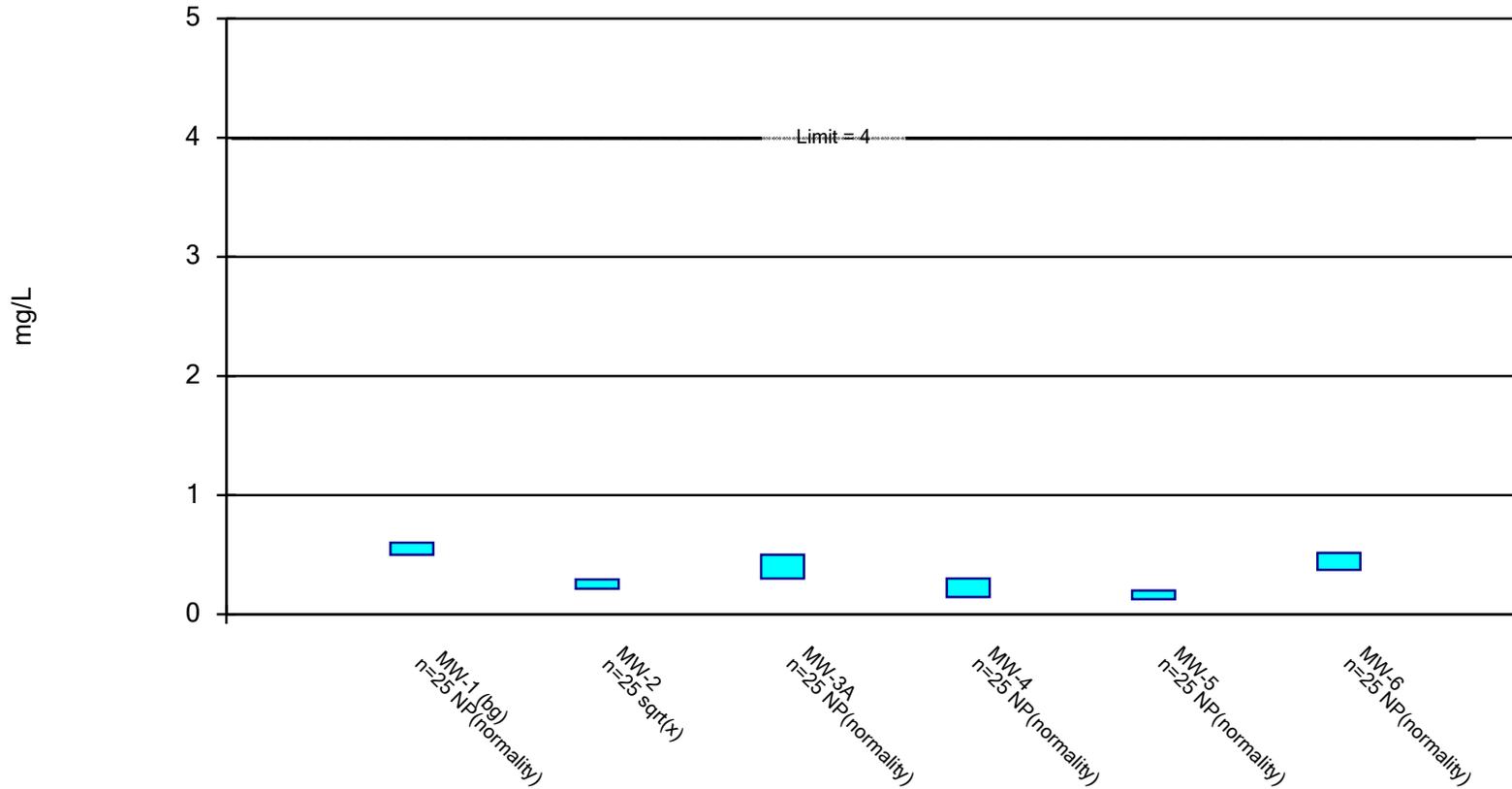
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric and Non-Parametric (NP) Confidence Interval

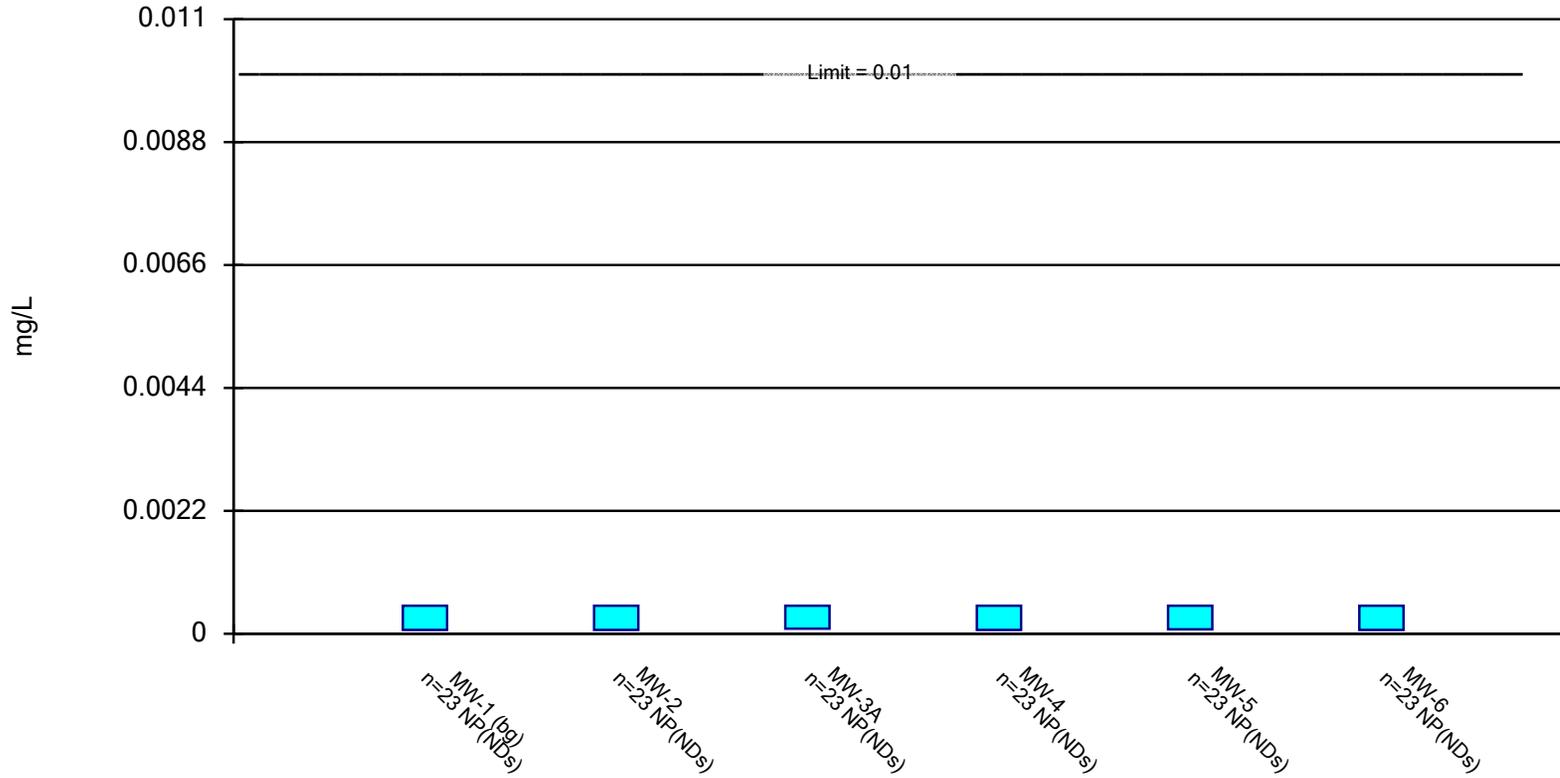
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Non-Parametric Confidence Interval

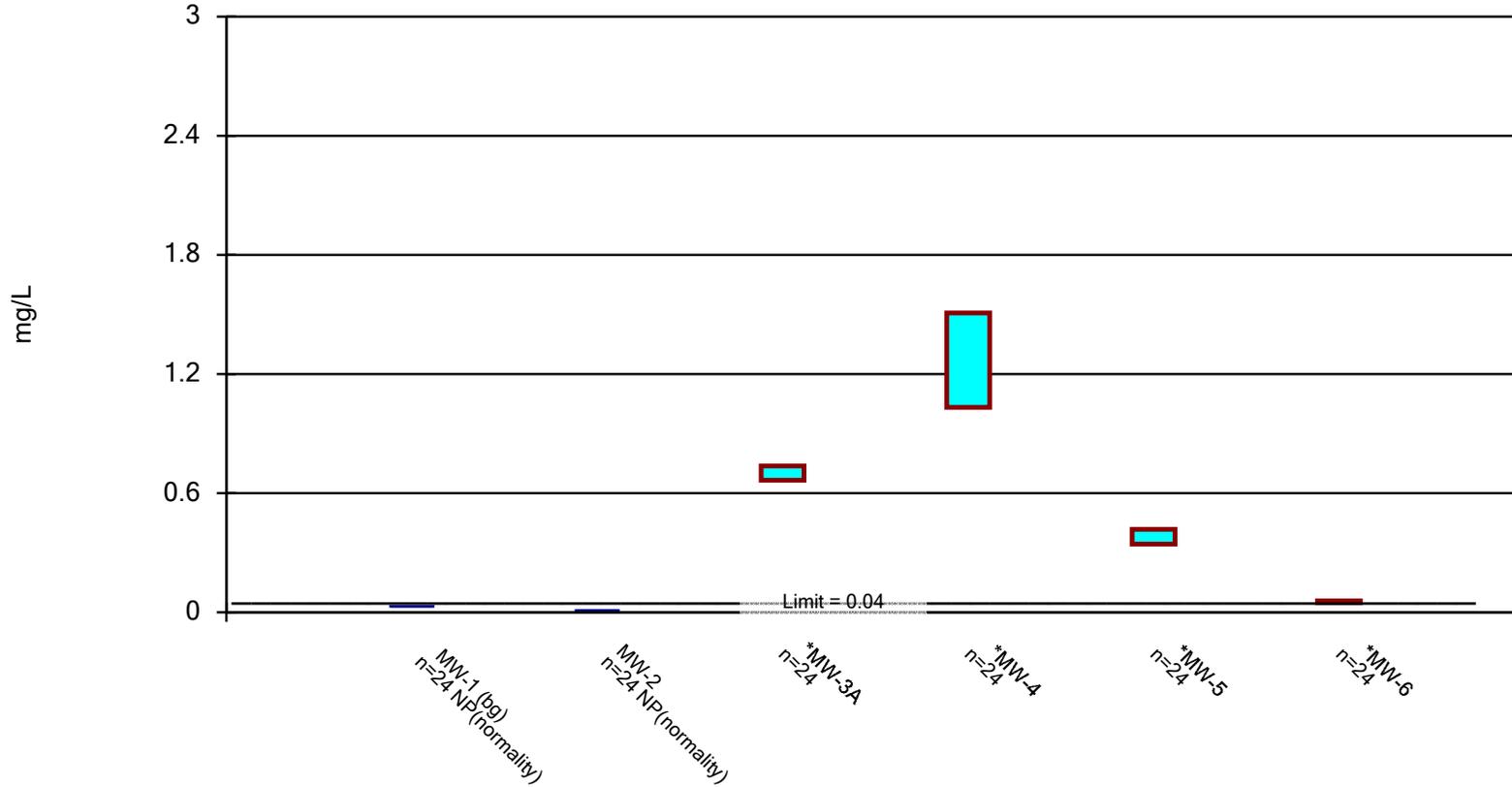
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric and Non-Parametric (NP) Confidence Interval

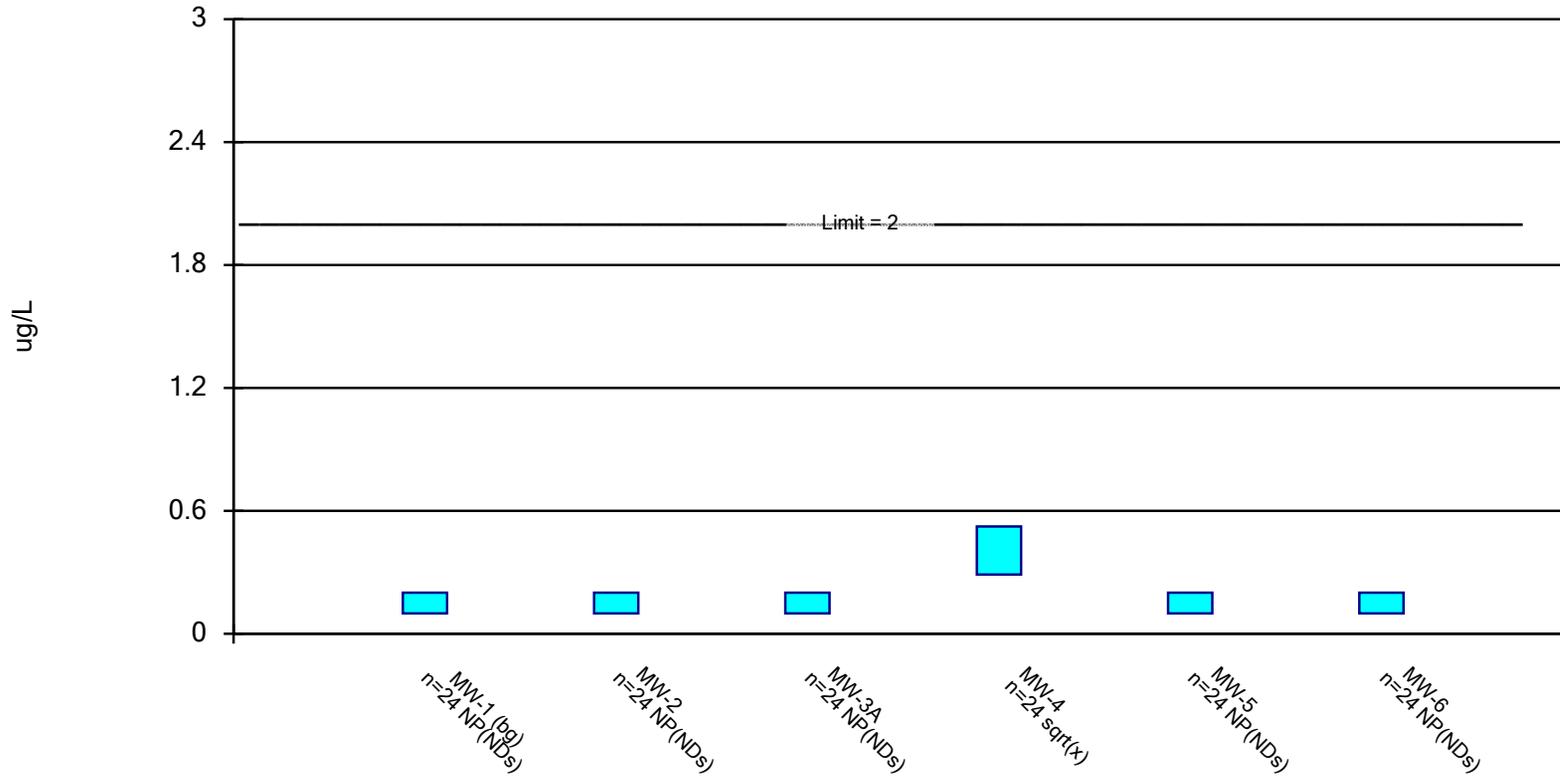
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric and Non-Parametric (NP) Confidence Interval

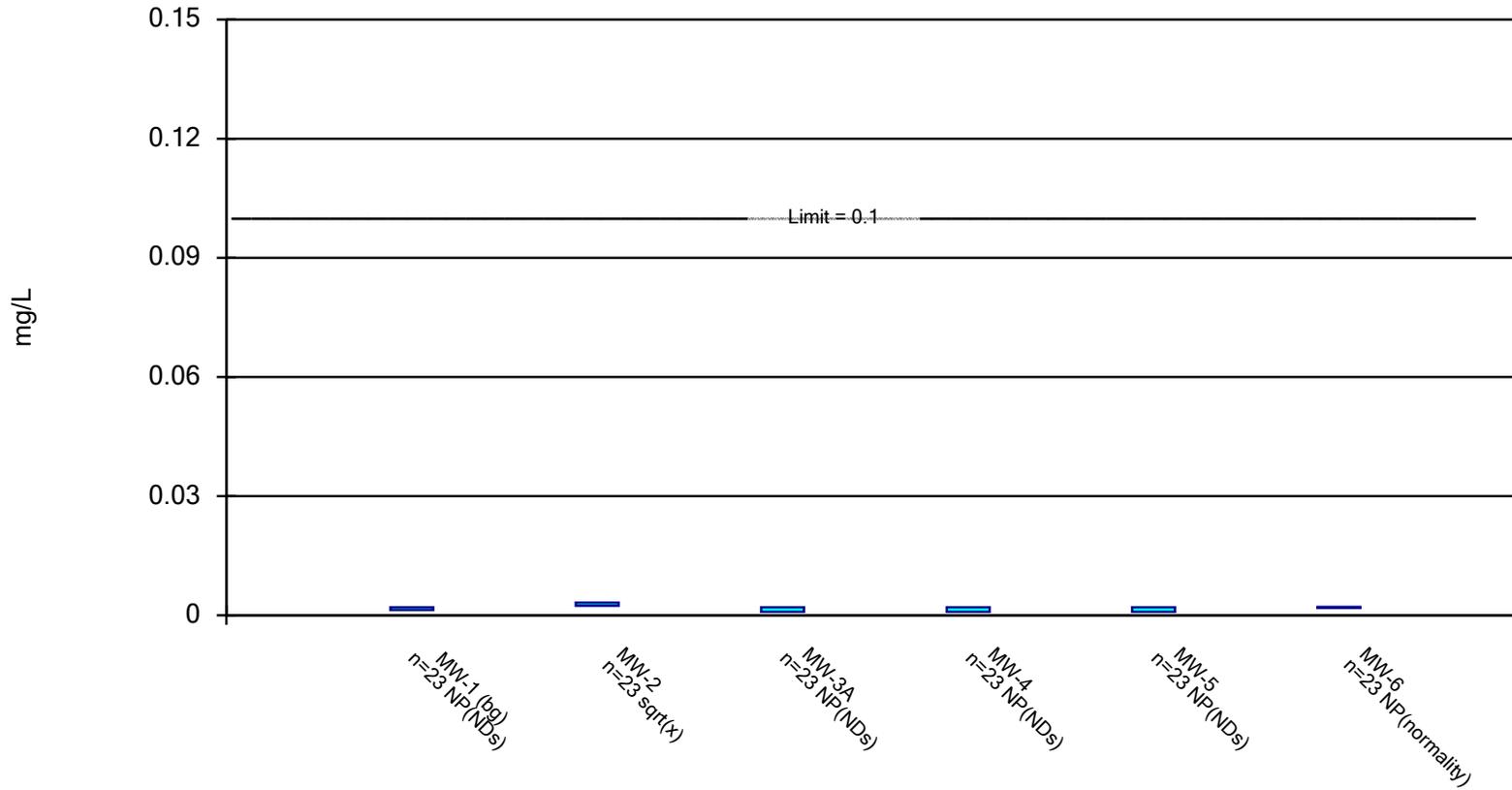
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric and Non-Parametric (NP) Confidence Interval

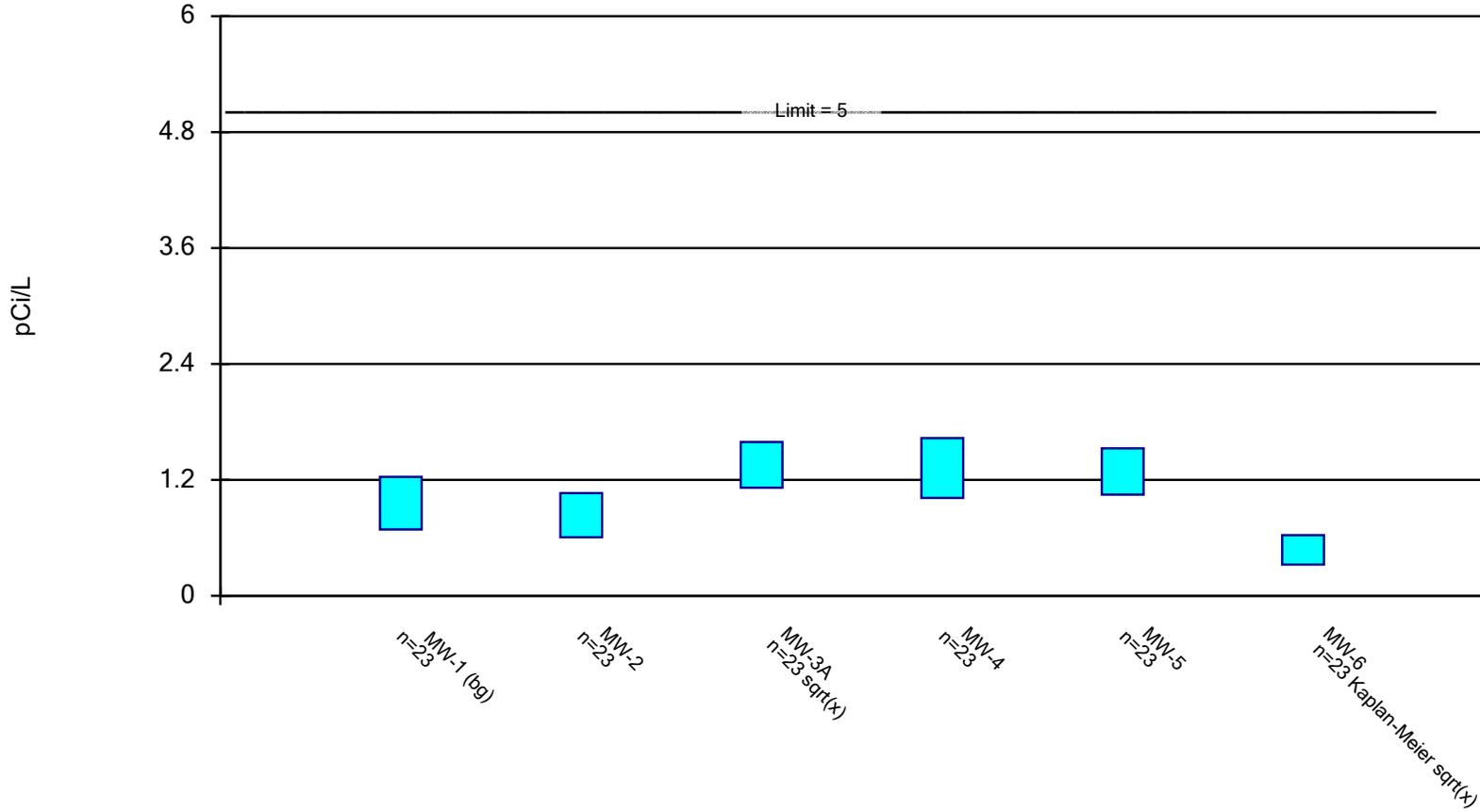
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

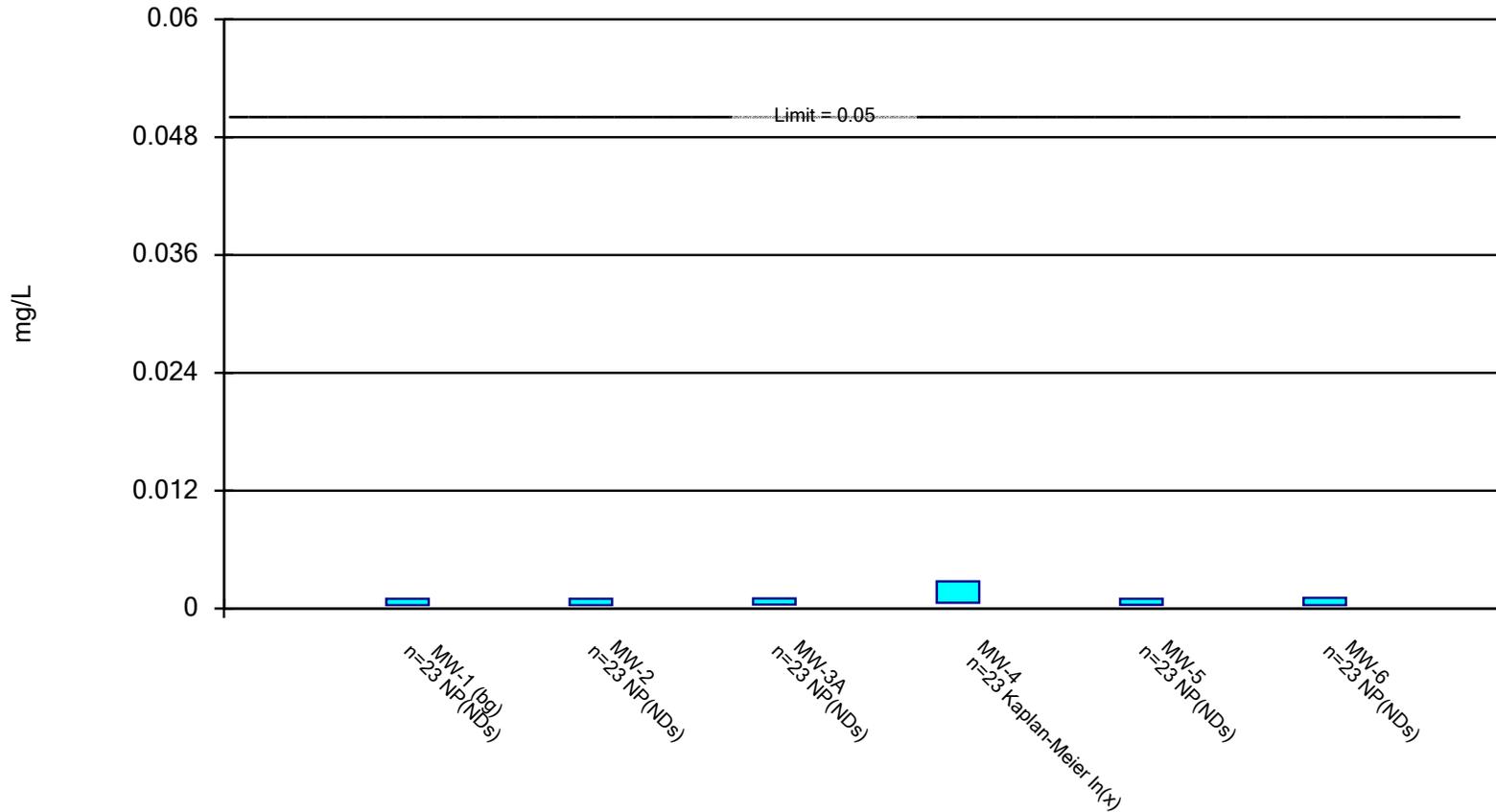


Constituent: Radium 226 + 228 Analysis Run 10/15/2025 3:47 PM View: 1H2025

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Parametric and Non-Parametric (NP) Confidence Interval

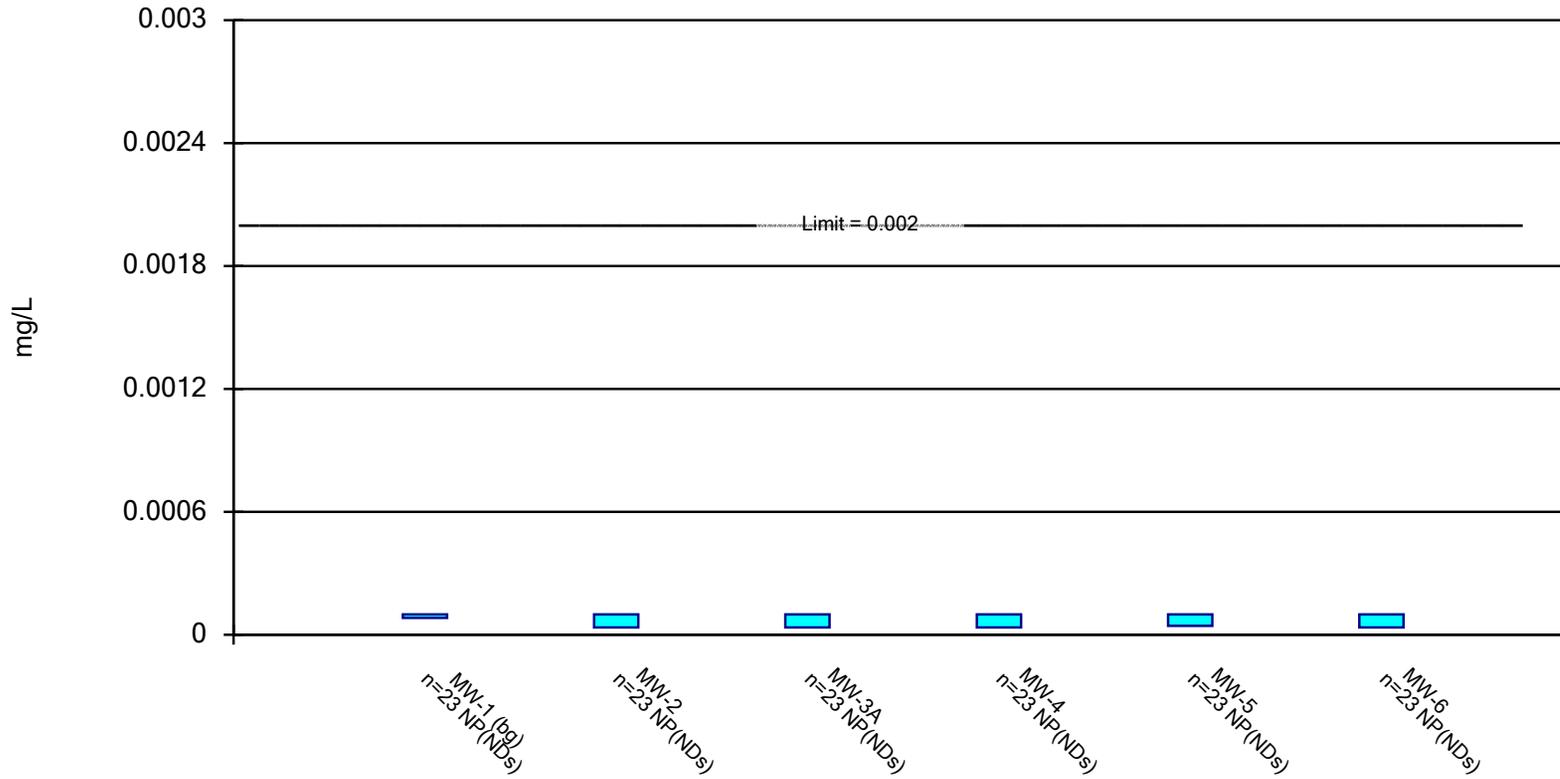
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 10/15/2025 3:47 PM View: 1H2025
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data



January 26, 2026

Mr. Mark Bertram
Big Rivers Electric Corporation
9000 Highway 2096
Robards, KY 42452

Re: Statistical Evaluation of November 2025 Assessment Monitoring Groundwater Data
Sebree Generating Station Green Landfill in Robards, Kentucky
Agency Interest ID #: 4196

Dear Mr. Bertram:

This letter presents the results of the statistical evaluation of analytical data from the November 2025 assessment monitoring event performed at the Sebree Generating Station's Green Landfill in Webster County, Robards, Kentucky in accordance with the requirements of U.S. Environmental Protection Agency's *Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments (40 Code of Federal Regulations [CFR] Part 257, Subpart D)*¹. This letter also presents a comparison of the November 2025 sampling results to calculated background concentrations and groundwater protection standards (GWPSs). The background and GWPSs for the groundwater monitoring network were reviewed and updated as part of the statistical evaluation completed for the November 2025 sampling event and are presented in **Table 1**. These background concentrations and GWPSs will continue to be reviewed and updated as additional data are collected. A comparison of the November 2025 data to the updated GWPSs is presented in **Table 2**. The statistical evaluation presented herein was performed in accordance with the *Groundwater Monitoring System and Statistical Methods Assessment* document².

In November 2025, the Green Landfill groundwater monitoring well network was sampled for Appendix III and Appendix IV parameters per the assessment monitoring program requirements of 40 CFR §257.95(d). Interwell prediction limit statistical analyses were performed for these monitoring well/constituent pairs and are discussed subsequently. GWPSs were also developed in accordance with 40 CFR §257.95(h) which describes a GWPS as the higher value between a determined background concentration for the coal combustion residuals unit and the established maximum concentration limit (MCL) or the GWPS criteria presented in 40 CFR §257.95(h)(2) for select Appendix IV parameters without an MCL. This letter presents the results of the statistical

¹ United States Environmental Protection Agency, 2018, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One)*. 40 CFR Part 257, Federal Register, Vol. 83, No. 146, July 30.

² AECOM, 2016, *CCR Landfill Groundwater Monitoring System and Statistical Methods Assessment and Certification*, Green Station CCR Landfill, June 28.

Mr. Mark Bertram
Big Rivers Electric Corporation
January 26, 2026
Page 2

evaluation of the November 2025 assessment monitoring event for inclusion in the Sebree Generating Station Operating Record.

Statistical Evaluation of Sebree Green Landfill Compliance Monitoring Well Network Evaluation

An interwell prediction limit evaluation was performed to compare the concentrations of Appendix III and Appendix IV parameters observed in November 2025 compliance (downgradient) Monitoring Wells MW-2, MW-3A, MW-4, MW-5, and MW-6 to calculated prediction limits (i.e., background limits) that were established using data collected from March of 2016 through November of 2025 from upgradient Monitoring Well MW-1. Certain Appendix III and Appendix IV parameters were detected in November 2025 at concentrations at or above the laboratory method detection limit. One or more of these resulted in statistically significant increases (SSI) above the calculated background limits (equivalent to the MW-1 prediction limits). A comparison of the November 2025 data to the updated background limits and GWPSs is presented in **Table 2**, and a summary of the statistical evaluation is included in **Attachment 1**. This included the following monitoring well/constituent pairs for downgradient compliance monitoring wells with SSIs above calculated background limits:

Appendix III Parameters:

- Calcium (MW-2, MW-3A, MW-4, MW-5, and MW-6)
- Chloride (MW-2, MW-3A, MW-4, MW-5, and MW-6)
- Sulfate (MW-2, MW-3A, MW-4, MW-5, and MW-6)
- Total dissolved solids (TDS) (MW-2, MW-3A, MW-4, MW-5, and MW-6)

Appendix IV Parameters:

- Arsenic (MW-2)
- Barium (MW-2)
- Chromium (MW-6)
- Lithium (MW-3A, MW-4, MW-5, and MW-6)

With a few exceptions, results of SSIs above background were generally consistent with the May 2025 and previous statistical results. The Appendix III SSIs for calcium, chloride, sulfate, and TDS continue to occur in groundwater at downgradient compliance monitoring wells. The reported Appendix IV SSIs for arsenic, barium, and lithium present in groundwater this event were consistent with previous events. Chromium at MW-6 was detected as an initial SSI in this event, although it was not present in the 2024 or 2025 events. Furthermore, it also was not

Mr. Mark Bertram
Big Rivers Electric Corporation
January 26, 2026
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determined to be a statistical outlier at this time. Lastly, the previous SSIs for molybdenum (MW-2 and MW-4) and selenium (MW-4) in the May 2025 event were not present in groundwater this event.

The Appendix IV constituents with SSIs (arsenic, barium, chromium, and lithium,) were further evaluated to determine whether they are present at statistically significant levels (SSLs) over the GWPS by calculating the lower confidence limit (LCL) at 95% confidence for each monitoring well and constituent using all the baseline, detection, and assessment monitoring results collected to date from each monitoring well. For a constituent to be present at an SSL over the GWPS, its LCL must be greater than the GWPS. The comparison of the calculated LCLs with the GWPSs for arsenic, barium, chromium, and lithium at downgradient compliance Monitoring Wells MW-2, MW-3A, MW-4, MW-5, and MW-6 resulted in the following monitoring well/constituent pairs with SSLs above the GWPS:

- Arsenic (MW-2)
- Lithium (MW-3A, MW-4, MW-5, and MW-6)

The LCLs for the remaining monitoring well/constituent pairs for barium and chromium were less than their respective GWPS. Thus, they were not considered SSLs. A comparison of the November 2025 data to the GWPSs is presented in **Table 2** and **Attachment 1** provides a summary of the calculated LCLs in comparison with the GWPSs. Results of SSLs above the GWPSs were consistent with the May 2025 results.

Given that certain Appendix III and IV constituents were observed at the Green Landfill groundwater monitoring network at concentrations above their respective calculated background limit and the LCL for certain Appendix IV constituents was greater than the corresponding GWPSs, these results do not warrant a transition to detection monitoring per the requirements of 40 CFR §257.95(e) and assessment monitoring will continue for the next semiannual monitoring event in 2026.

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Sincerely,

Burns & McDonnell Engineering Company, Inc.



Chris Hoglund, PG
Project Manager

Attachments:

Table 1 – Calculated Background and Groundwater Protection Standards for Groundwater

Table 2 – Summary of November 2025 Analytical Results

Attachment 1 – Sanitas™ Statistical Outputs

cc: Greg Dick, BREC Sebree Station
Hunter Mizell, BREC Sebree Station

TABLES

TABLE 1
Calculated Background and Groundwater Protection Standards for Groundwater
Sebree Generating Station - Green Landfill
Robards, Kentucky

Detection Constituents (Appendix III)	Units	2H2025 Background ¹	MCL	40 CFR §257.95(h)(2) Criteria	Groundwater Protection Standard
Boron	mg/L	2.062	--	--	--
Calcium	mg/L	35.47	--	--	--
Chloride	mg/L	7.46	--	--	--
Fluoride	mg/L	0.7127	4.0	--	4.0
pH (field)	SU	6.389-8.200	--	--	--
Sulfate	mg/L	46.84	--	--	--
TDS	mg/L	693.9	--	--	--
Assessment Constituents (Appendix IV)	Units	2H2025 Background ¹	MCL	40 CFR §257.95(h)(2) Criteria	Groundwater Protection Standard
Antimony	mg/L	0.00297	0.006	--	0.006
Arsenic	mg/L	0.005354	0.01	--	0.01
Barium	mg/L	0.1018	2	--	2
Beryllium	mg/L	0.000533	0.004	--	0.004
Cadmium	mg/L	0.000299	0.005	--	0.005
Chromium	mg/L	0.00354	0.1	--	0.1
Cobalt	mg/L	0.002	--	0.006	0.006
Fluoride	mg/L	0.7127	4	--	4
Lead ²	mg/L	0.000279	0.010 ²	0.015	0.010 ²
Lithium	mg/L	0.0396	--	0.04	0.04
Mercury	mg/L	0.0002	0.002	--	0.002
Molybdenum	mg/L	0.002	--	0.1	0.1
Combined Radium 226 and 228 ³	pCi/L	2.483	5	--	5
Selenium	mg/L	0.00105	0.05	--	0.05
Thallium	mg/L	0.000498	0.002	--	0.002

Notes:

¹Groundwater protection standards were developed in accordance with §257.95(h). Background concentrations were determined utilizing interwell prediction limits (see Attachment 1). Upgradient Monitoring Well MW-1 was used to calculate background concentrations. This included background data ranging from March 2016 through November 2025.

²Lead GWPSs under 40 CFR §257.95 are currently set at 0.015 mg/L, consistent with the existing CCR Rule. However, EPA's Lead and Copper Rule Improvements (2024) have established a new enforceable MCL of 0.01 mg/L, effective December 2024. Future CCR compliance determinations will be expected to reflect this updated standard and is presented as the MCL for lead in the above table.

³Combined radium is reported with an uncertainty range. However, this range cannot be incorporated into statistical calculations as it varies per result and is not a standard value. Therefore, to maintain consistency in reporting these results, the reported laboratory concentration was used for the statistical analyses.

CFR - Code of Federal Regulations
MCL - maximum contaminant level
mg/L - milligrams per Liter

pCi/L - picocuries per Liter
SU - standard units
TDS - total dissolved solids

TABLE 2
Summary of November 2025 Analytical Results
 Sebree Generating Station - Green Landfill
 Robards, Kentucky

APPENDIX III CONSTITUENTS	2H2025 Calculated Background	2H2025 GWPS	2025 GWPS Reference	Units	MW-1	MW-2	MW-3A	MW-4	MW-5	MW-6	
					Background Well	Downgradient Compliance Wells					
					Assessment Monitoring						
Boron	2.062	--	Background	mg/L	1.81 D1	<0.10 U	0.42	1.11 D1	0.29	0.21	
Calcium	35.47	--	Background	mg/L	29.3 D1	187 D1	515 D1	664 D1	449 D1, M3	345 D1	
Chloride	7.46	--	Background	mg/L	5.7	192	1820 D	1030 D	706 D	208 D	
Fluoride	0.7127	4.0	MCL	mg/L	0.6	0.3	0.4	0.2	0.2	0.5	
pH (Field Measurement)	6.389-8.200	--	Background	SU	7.3	6.64	6.63	6.49	6.61	6.69	
Sulfate	46.84	--	Background	mg/L	26	175	1260 D	1590 D	981 D	2140 D	
Total Dissolved Solids	693.9	--	Background	mg/L	562	1150	4440	3480	3410	4510	
APPENDIX IV CONSTITUENTS											
Antimony	0.00297	0.006	MCL	mg/L	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	
Arsenic	0.005354	0.01	MCL	mg/L	0.0039	0.0098	<0.00040 U	<0.00040 U	<0.00040 U	<0.00040 U	
Barium	0.1018	2	MCL	mg/L	0.097	0.194	0.036	0.018	0.014	0.014	
Beryllium	0.000533	0.004	MCL	mg/L	<0.0010 U	<0.0010 U	<0.0010 U	<0.0010 V1, U	<0.0010 V1, U	<0.0010 V1,U	
Cadmium	0.000299	0.005	MCL	mg/L	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	
Chromium	0.00354	0.1	MCL	mg/L	<0.00060 U	<0.00060 U	<0.00060 U	<0.00060 U	<0.00060 U	0.0048	
Cobalt	0.002	0.006	40 CFR §257.95(h)(2) Criteria	mg/L	<0.0040 U	<0.0040 U	<0.0040 U	<0.0040 U	<0.0040 U	<0.0040 U	
Fluoride	0.7127	4.0	MCL	mg/L	0.6	0.3	0.4	0.2	0.2	0.5	
Lead	0.000279	0.010	MCL	mg/L	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	
Lithium	0.0396	0.04	40 CFR §257.95(h)(2) Criteria	mg/L	0.03	0.005 J	0.73 J-	0.99 D1	0.36 M2	0.04	
Mercury	0.0002	0.002	MCL	mg/L	<0.00020 U	<0.00020 U	<0.00020 U	<0.00020 U	<0.00020 U	<0.00020 U	
Molybdenum	0.002	0.1	40 CFR §257.95(h)(2) Criteria	mg/L	<0.0020 U	0.002 J	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	
Radium 226 + 228	2.483	5	MCL	pCi/L	0.77 J	0.571 J	0.829 J	1.17 J	1.11 J	0.810 J	
Selenium	0.00105	0.05	MCL	mg/L	<0.0010 U	<0.0010 U	<0.0010 U	0.002 J	<0.0010 U	<0.0010 U	
Thallium	0.000498	0.002	MCL	mg/L	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	<0.00010 U	

Bold - Analyte detected above calculated background concentration.

Appendix IV constituent was detected in compliance monitoring well located downgradient of the CCR Landfill at a statistically significant level above its GWPS (see Attachment 1 for confidence interval statistical outputs).

CFR - Code of Federal Regulations

D - Results reported from dilution.

D1 - Sample required dilution due to high concentration of target analysis.

GWPS - Groundwater Protection Standard

J (+/-) - Result is less than the reporting limit but greater than or equal to the method detection limit, and/or the concentration is qualified as estimated/qualified as estimated during the lab data review. If indicated, a high or low bias indicator may also be applied to the data review qualifier.

M2 - Matrix spike recovery was low; the method control sample recovery was acceptable.

M3 - The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.

MCL - maximum contaminant level

mg/L - milligrams per Liter

pCi/L - picocuries per Liter

SU - standard units

U - Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in the laboratory's Laboratory Information Management System).

V1 - CCV recovery was above method acceptance limits. This target analyte not detected in the sample.

ATTACHMENT 1 - SANITAS™ STATISTICAL OUTPUTS

Prediction Limits

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721 Printed 1/26/2026, 11:47 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-2	0.00297	n/a	11/20/2025	0.001ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Antimony (mg/L)	MW-3A	0.00297	n/a	11/20/2025	0.001ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Antimony (mg/L)	MW-4	0.00297	n/a	11/19/2025	0.001ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Antimony (mg/L)	MW-5	0.00297	n/a	11/19/2025	0.001ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Antimony (mg/L)	MW-6	0.00297	n/a	11/20/2025	0.001ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Arsenic (mg/L)	MW-2	0.005354	n/a	11/20/2025	0.0098	Yes	25	8	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-3A	0.005354	n/a	11/20/2025	0.0002ND	No	25	8	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-4	0.005354	n/a	11/19/2025	0.0002ND	No	25	8	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-5	0.005354	n/a	11/19/2025	0.0002ND	No	25	8	ln(x)	0.01	Param Inter
Arsenic (mg/L)	MW-6	0.005354	n/a	11/20/2025	0.0002ND	No	25	8	ln(x)	0.01	Param Inter
Barium (mg/L)	MW-2	0.1018	n/a	11/20/2025	0.194	Yes	25	0	No	0.01	Param Inter
Barium (mg/L)	MW-3A	0.1018	n/a	11/20/2025	0.036	No	25	0	No	0.01	Param Inter
Barium (mg/L)	MW-4	0.1018	n/a	11/19/2025	0.018	No	25	0	No	0.01	Param Inter
Barium (mg/L)	MW-5	0.1018	n/a	11/19/2025	0.014	No	25	0	No	0.01	Param Inter
Barium (mg/L)	MW-6	0.1018	n/a	11/20/2025	0.014	No	25	0	No	0.01	Param Inter
Beryllium (mg/L)	MW-2	0.000533	n/a	11/20/2025	0.0005ND	No	24	95.83	n/a	0.03714	NP Inter (NDs)
Beryllium (mg/L)	MW-3A	0.000533	n/a	11/20/2025	0.0005ND	No	24	95.83	n/a	0.03714	NP Inter (NDs)
Beryllium (mg/L)	MW-4	0.000533	n/a	11/19/2025	0.0005ND	No	24	95.83	n/a	0.03714	NP Inter (NDs)
Beryllium (mg/L)	MW-5	0.000533	n/a	11/19/2025	0.0005ND	No	24	95.83	n/a	0.03714	NP Inter (NDs)
Beryllium (mg/L)	MW-6	0.000533	n/a	11/20/2025	0.0005ND	No	24	95.83	n/a	0.03714	NP Inter (NDs)
Boron (mg/L)	MW-2	2.062	n/a	11/20/2025	0.05ND	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-3A	2.062	n/a	11/20/2025	0.42	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-4	2.062	n/a	11/19/2025	1.11	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-5	2.062	n/a	11/19/2025	0.29	No	25	0	No	0.01	Param Inter
Boron (mg/L)	MW-6	2.062	n/a	11/20/2025	0.21	No	25	0	No	0.01	Param Inter
Cadmium (mg/L)	MW-2	0.000299	n/a	11/20/2025	0.00005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Cadmium (mg/L)	MW-3A	0.000299	n/a	11/20/2025	0.00005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Cadmium (mg/L)	MW-4	0.000299	n/a	11/19/2025	0.00005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Cadmium (mg/L)	MW-5	0.000299	n/a	11/19/2025	0.00005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Cadmium (mg/L)	MW-6	0.000299	n/a	11/20/2025	0.00005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Calcium (mg/L)	MW-2	35.47	n/a	11/20/2025	187	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-3A	35.47	n/a	11/20/2025	515	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-4	35.47	n/a	11/19/2025	664	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-5	35.47	n/a	11/19/2025	449	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-6	35.47	n/a	11/20/2025	345	Yes	25	0	No	0.01	Param Inter
Chloride (mg/L)	MW-2	7.46	n/a	11/20/2025	192	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-3A	7.46	n/a	11/20/2025	1820	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-4	7.46	n/a	11/19/2025	1030	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-5	7.46	n/a	11/19/2025	706	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-6	7.46	n/a	11/20/2025	208	Yes	22	0	No	0.01	Param Inter
Chromium (mg/L)	MW-2	0.00354	n/a	11/20/2025	0.0003ND	No	24	79.17	n/a	0.03714	NP Inter (NDs)
Chromium (mg/L)	MW-3A	0.00354	n/a	11/20/2025	0.0003ND	No	24	79.17	n/a	0.03714	NP Inter (NDs)
Chromium (mg/L)	MW-4	0.00354	n/a	11/19/2025	0.0003ND	No	24	79.17	n/a	0.03714	NP Inter (NDs)
Chromium (mg/L)	MW-5	0.00354	n/a	11/19/2025	0.0003ND	No	24	79.17	n/a	0.03714	NP Inter (NDs)
Chromium (mg/L)	MW-6	0.00354	n/a	11/20/2025	0.0048	Yes	24	79.17	n/a	0.03714	NP Inter (NDs)
Cobalt (mg/L)	MW-2	0.002	n/a	11/20/2025	0.002ND	No	24	54.17	n/a	0.03714	NP Inter (NDs)
Cobalt (mg/L)	MW-3A	0.002	n/a	11/20/2025	0.002ND	No	24	54.17	n/a	0.03714	NP Inter (NDs)
Cobalt (mg/L)	MW-4	0.002	n/a	11/19/2025	0.002ND	No	24	54.17	n/a	0.03714	NP Inter (NDs)
Cobalt (mg/L)	MW-5	0.002	n/a	11/19/2025	0.002ND	No	24	54.17	n/a	0.03714	NP Inter (NDs)
Cobalt (mg/L)	MW-6	0.002	n/a	11/20/2025	0.002ND	No	24	54.17	n/a	0.03714	NP Inter (NDs)

Prediction Limits

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721 Printed 1/26/2026, 11:47 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	MW-2	0.7127	n/a	11/20/2025	0.3	No	24	0	ln(x)	0.01	Param Inter
Fluoride (mg/L)	MW-3A	0.7127	n/a	11/20/2025	0.4	No	24	0	ln(x)	0.01	Param Inter
Fluoride (mg/L)	MW-4	0.7127	n/a	11/19/2025	0.2	No	24	0	ln(x)	0.01	Param Inter
Fluoride (mg/L)	MW-5	0.7127	n/a	11/19/2025	0.2	No	24	0	ln(x)	0.01	Param Inter
Fluoride (mg/L)	MW-6	0.7127	n/a	11/20/2025	0.5	No	24	0	ln(x)	0.01	Param Inter
Lead (mg/L)	MW-2	0.000279	n/a	11/20/2025	0.00025ND	No	24	75	n/a	0.03714	NP Inter (NDs)
Lead (mg/L)	MW-3A	0.000279	n/a	11/20/2025	0.00025ND	No	24	75	n/a	0.03714	NP Inter (NDs)
Lead (mg/L)	MW-4	0.000279	n/a	11/19/2025	0.00025ND	No	24	75	n/a	0.03714	NP Inter (NDs)
Lead (mg/L)	MW-5	0.000279	n/a	11/19/2025	0.00025ND	No	24	75	n/a	0.03714	NP Inter (NDs)
Lead (mg/L)	MW-6	0.000279	n/a	11/20/2025	0.00025ND	No	24	75	n/a	0.03714	NP Inter (NDs)
Lithium (mg/L)	MW-2	0.0396	n/a	11/20/2025	0.005J	No	25	8	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-3A	0.0396	n/a	11/20/2025	0.73	Yes	25	8	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-4	0.0396	n/a	11/19/2025	0.99	Yes	25	8	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-5	0.0396	n/a	11/19/2025	0.36	Yes	25	8	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-6	0.0396	n/a	11/20/2025	0.04	Yes	25	8	n/a	0.03581	NP Inter (normality)
Mercury (ug/L)	MW-2	0.2	n/a	11/20/2025	0.1ND	No	25	92	n/a	0.03581	NP Inter (NDs)
Mercury (ug/L)	MW-3A	0.2	n/a	11/20/2025	0.1ND	No	25	92	n/a	0.03581	NP Inter (NDs)
Mercury (ug/L)	MW-4	0.2	n/a	11/19/2025	0.1ND	No	25	92	n/a	0.03581	NP Inter (NDs)
Mercury (ug/L)	MW-5	0.2	n/a	11/19/2025	0.1ND	No	25	92	n/a	0.03581	NP Inter (NDs)
Mercury (ug/L)	MW-6	0.2	n/a	11/20/2025	0.1ND	No	25	92	n/a	0.03581	NP Inter (NDs)
Molybdenum (mg/L)	MW-2	0.002	n/a	11/20/2025	0.002J	No	24	58.33	n/a	0.03714	NP Inter (NDs)
Molybdenum (mg/L)	MW-3A	0.002	n/a	11/20/2025	0.001ND	No	24	58.33	n/a	0.03714	NP Inter (NDs)
Molybdenum (mg/L)	MW-4	0.002	n/a	11/19/2025	0.001ND	No	24	58.33	n/a	0.03714	NP Inter (NDs)
Molybdenum (mg/L)	MW-5	0.002	n/a	11/19/2025	0.001ND	No	24	58.33	n/a	0.03714	NP Inter (NDs)
Molybdenum (mg/L)	MW-6	0.002	n/a	11/20/2025	0.001ND	No	24	58.33	n/a	0.03714	NP Inter (NDs)
pH [Field] (SU)	MW-2	8.2	6.389	11/20/2025	6.64	No	25	0	No	0.005	Param Inter
pH [Field] (SU)	MW-3A	8.2	6.389	11/19/2025	6.63	No	25	0	No	0.005	Param Inter
pH [Field] (SU)	MW-4	8.2	6.389	11/19/2025	6.49	No	25	0	No	0.005	Param Inter
pH [Field] (SU)	MW-5	8.2	6.389	11/19/2025	6.61	No	25	0	No	0.005	Param Inter
pH [Field] (SU)	MW-6	8.2	6.389	11/20/2025	6.69	No	25	0	No	0.005	Param Inter
Radium 226 + 228 (pCi/L)	MW-2	2.483	n/a	11/20/2025	0.571	No	23	0	x^(1/3)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-3A	2.483	n/a	11/20/2025	0.829	No	23	0	x^(1/3)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-4	2.483	n/a	11/19/2025	1.17	No	23	0	x^(1/3)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-5	2.483	n/a	11/19/2025	1.11	No	23	0	x^(1/3)	0.01	Param Inter
Radium 226 + 228 (pCi/L)	MW-6	2.483	n/a	11/20/2025	0.81	No	23	0	x^(1/3)	0.01	Param Inter
Selenium (mg/L)	MW-2	0.00105	n/a	11/20/2025	0.0005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Selenium (mg/L)	MW-3A	0.00105	n/a	11/20/2025	0.0005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Selenium (mg/L)	MW-4	0.00105	n/a	11/19/2025	0.002J	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Selenium (mg/L)	MW-5	0.00105	n/a	11/19/2025	0.0005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Selenium (mg/L)	MW-6	0.00105	n/a	11/20/2025	0.0005ND	No	24	91.67	n/a	0.03714	NP Inter (NDs)
Sulfate (mg/L)	MW-2	46.84	n/a	11/20/2025	175	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-3A	46.84	n/a	11/20/2025	1260	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-4	46.84	n/a	11/19/2025	1590	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-5	46.84	n/a	11/19/2025	981	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-6	46.84	n/a	11/20/2025	2140	Yes	26	0	sqrt(x)	0.01	Param Inter
Thallium (mg/L)	MW-2	0.000498	n/a	11/20/2025	0.00005ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Thallium (mg/L)	MW-3A	0.000498	n/a	11/20/2025	0.00005ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Thallium (mg/L)	MW-4	0.000498	n/a	11/19/2025	0.00005ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Thallium (mg/L)	MW-5	0.000498	n/a	11/19/2025	0.00005ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)
Thallium (mg/L)	MW-6	0.000498	n/a	11/20/2025	0.00005ND	No	24	66.67	n/a	0.03714	NP Inter (NDs)

Prediction Limits

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721 Printed 1/26/2026, 11:47 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Total Dissolved Solids (mg/L)	MW-2	693.9	n/a	11/20/2025	1150	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-3A	693.9	n/a	11/20/2025	4040	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-4	693.9	n/a	11/19/2025	3480	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-5	693.9	n/a	11/19/2025	3410	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-6	693.9	n/a	11/20/2025	4510	Yes	23	0	No	0.01	Param Inter

Prediction Limits

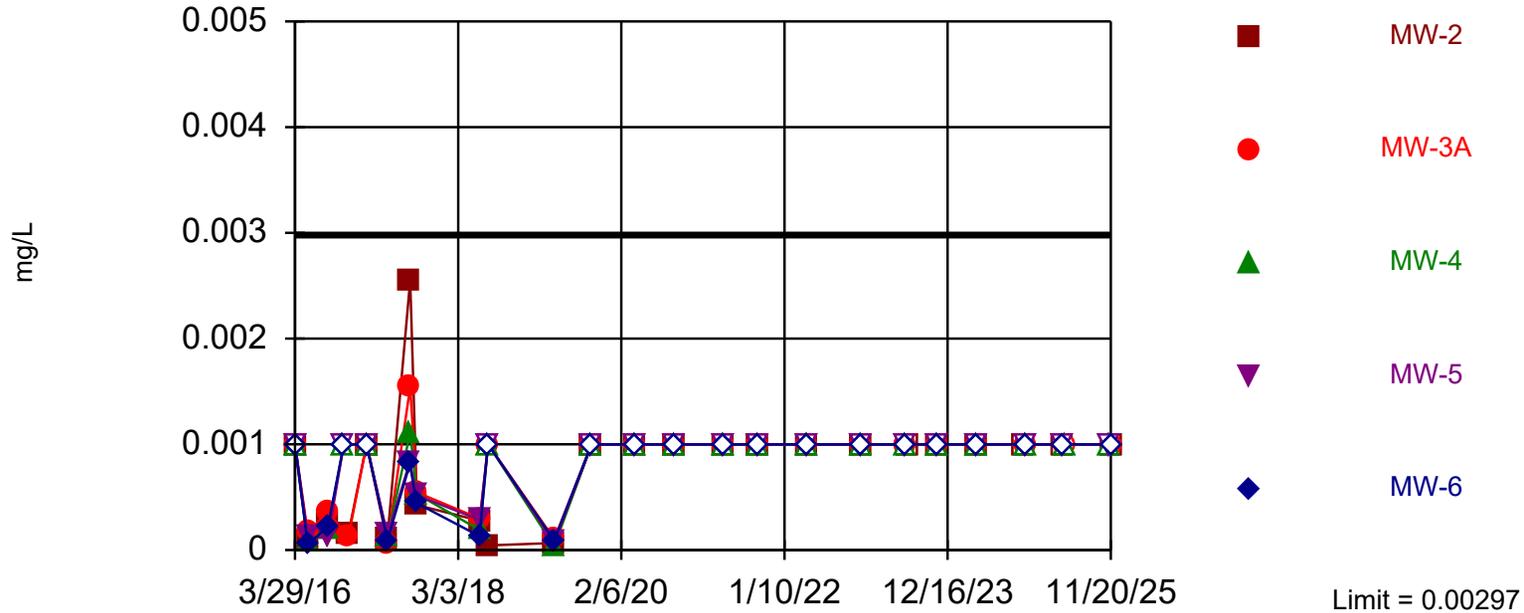
Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721 Printed 1/26/2026, 11:47 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-2	0.005354	n/a	11/20/2025	0.0098	Yes	25	8	ln(x)	0.01	Param Inter
Barium (mg/L)	MW-2	0.1018	n/a	11/20/2025	0.194	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-2	35.47	n/a	11/20/2025	187	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-3A	35.47	n/a	11/20/2025	515	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-4	35.47	n/a	11/19/2025	664	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-5	35.47	n/a	11/19/2025	449	Yes	25	0	No	0.01	Param Inter
Calcium (mg/L)	MW-6	35.47	n/a	11/20/2025	345	Yes	25	0	No	0.01	Param Inter
Chloride (mg/L)	MW-2	7.46	n/a	11/20/2025	192	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-3A	7.46	n/a	11/20/2025	1820	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-4	7.46	n/a	11/19/2025	1030	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-5	7.46	n/a	11/19/2025	706	Yes	22	0	No	0.01	Param Inter
Chloride (mg/L)	MW-6	7.46	n/a	11/20/2025	208	Yes	22	0	No	0.01	Param Inter
Chromium (mg/L)	MW-6	0.00354	n/a	11/20/2025	0.0048	Yes	24	79.17	n/a	0.03714	NP Inter (NDs)
Lithium (mg/L)	MW-3A	0.0396	n/a	11/20/2025	0.73	Yes	25	8	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-4	0.0396	n/a	11/19/2025	0.99	Yes	25	8	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-5	0.0396	n/a	11/19/2025	0.36	Yes	25	8	n/a	0.03581	NP Inter (normality)
Lithium (mg/L)	MW-6	0.0396	n/a	11/20/2025	0.04	Yes	25	8	n/a	0.03581	NP Inter (normality)
Sulfate (mg/L)	MW-2	46.84	n/a	11/20/2025	175	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-3A	46.84	n/a	11/20/2025	1260	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-4	46.84	n/a	11/19/2025	1590	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-5	46.84	n/a	11/19/2025	981	Yes	26	0	sqrt(x)	0.01	Param Inter
Sulfate (mg/L)	MW-6	46.84	n/a	11/20/2025	2140	Yes	26	0	sqrt(x)	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-2	693.9	n/a	11/20/2025	1150	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-3A	693.9	n/a	11/20/2025	4040	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-4	693.9	n/a	11/19/2025	3480	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-5	693.9	n/a	11/19/2025	3410	Yes	23	0	No	0.01	Param Inter
Total Dissolved Solids (mg/L)	MW-6	693.9	n/a	11/20/2025	4510	Yes	23	0	No	0.01	Param Inter

Within Limit

Prediction Limit

Interwell Non-parametric



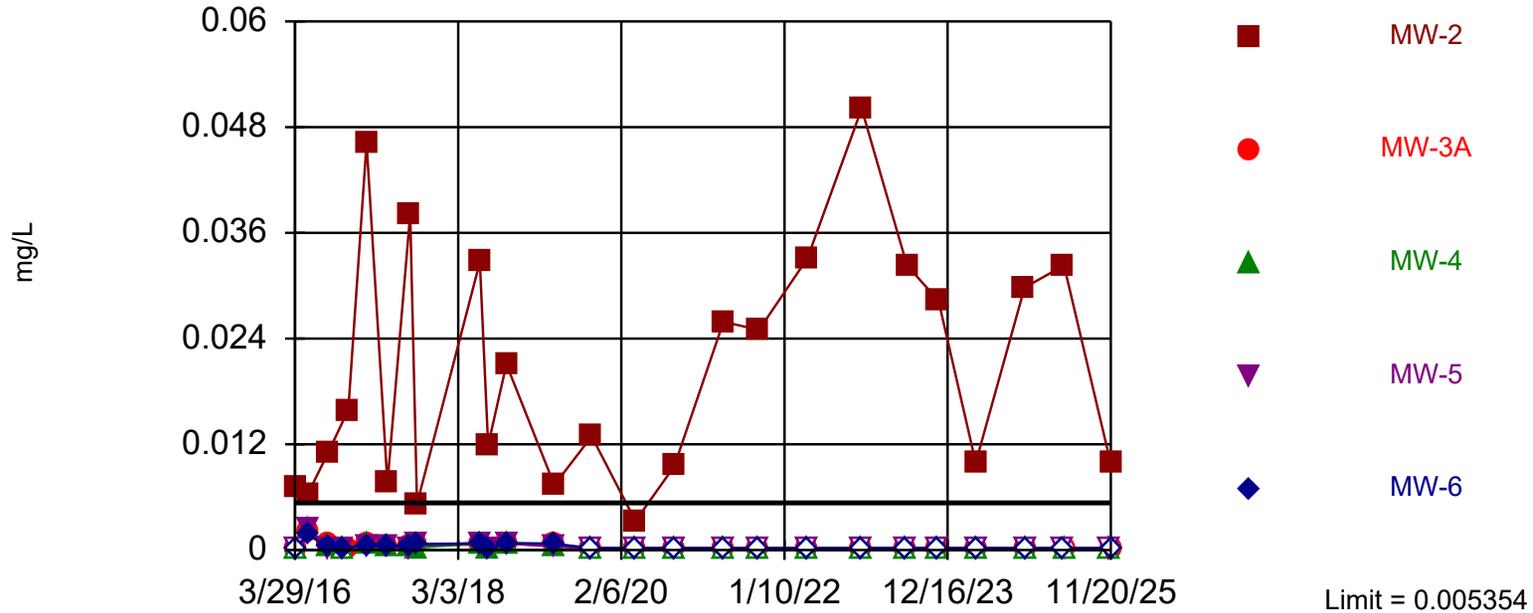
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 66.67% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified. Seasonality was not detected with 95% confidence.

Constituent: Antimony Analysis Run 1/26/2026 11:44 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Exceeds Limit: MW-2

Prediction Limit Interwell Parametric

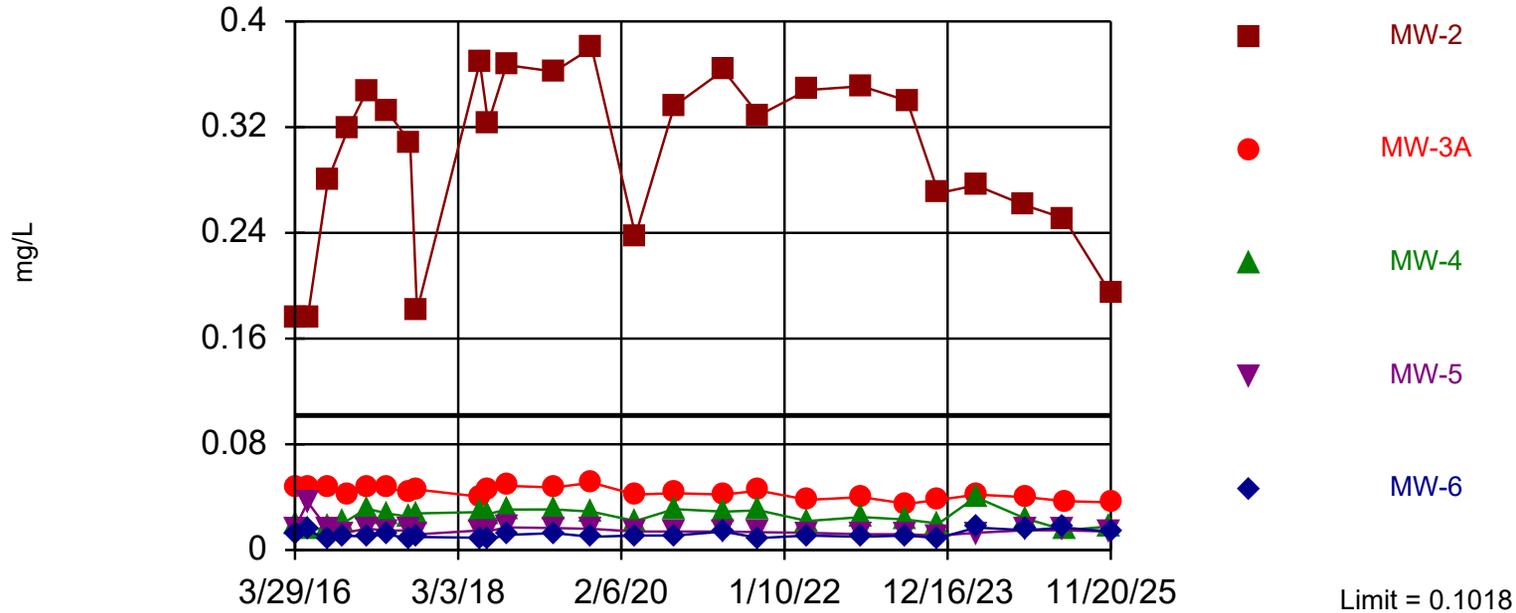


Background Data Summary (based on natural log transformation): Mean=-7.162, Std. Dev.=0.7603, n=25, 8% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.933, critical = 0.918. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. No background outliers were found.

Exceeds Limit: MW-2

Prediction Limit

Interwell Parametric



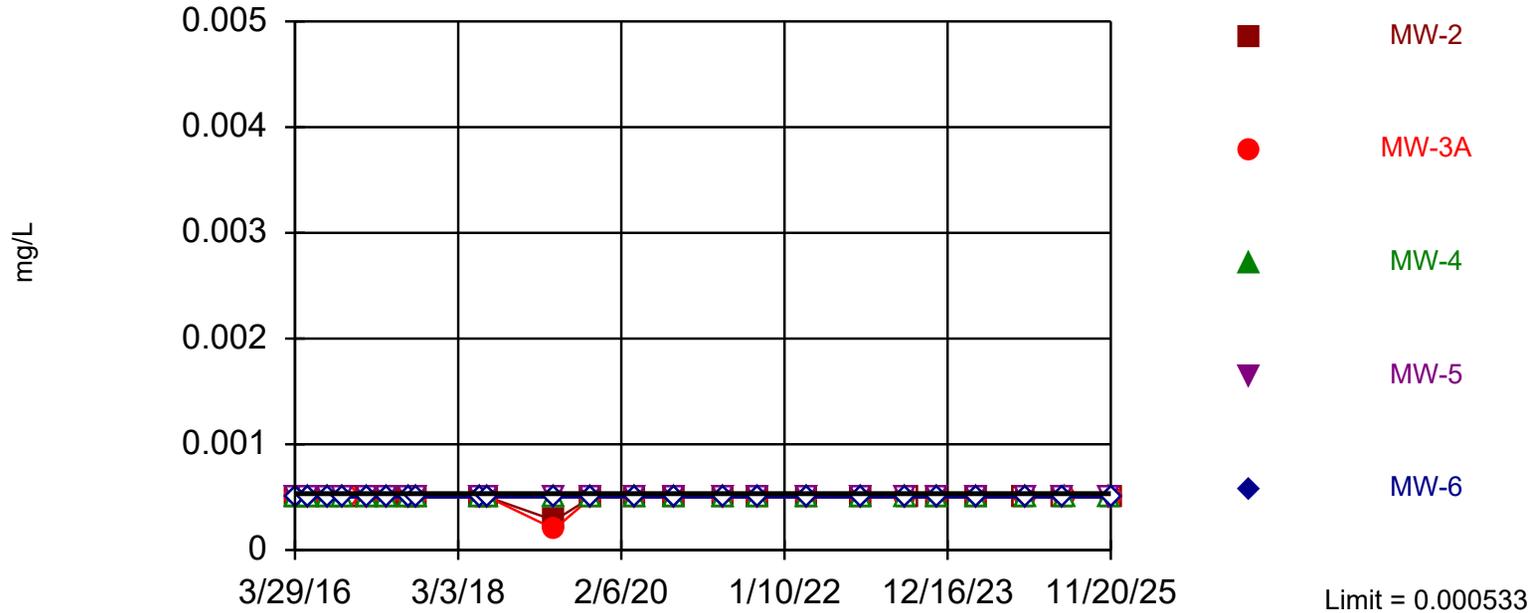
Background Data Summary: Mean=0.08176, Std. Dev.=0.007894, n=25. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9572, critical = 0.918. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. No background outliers were found.

Constituent: Barium Analysis Run 1/26/2026 11:44 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Within Limit

Prediction Limit Interwell Non-parametric

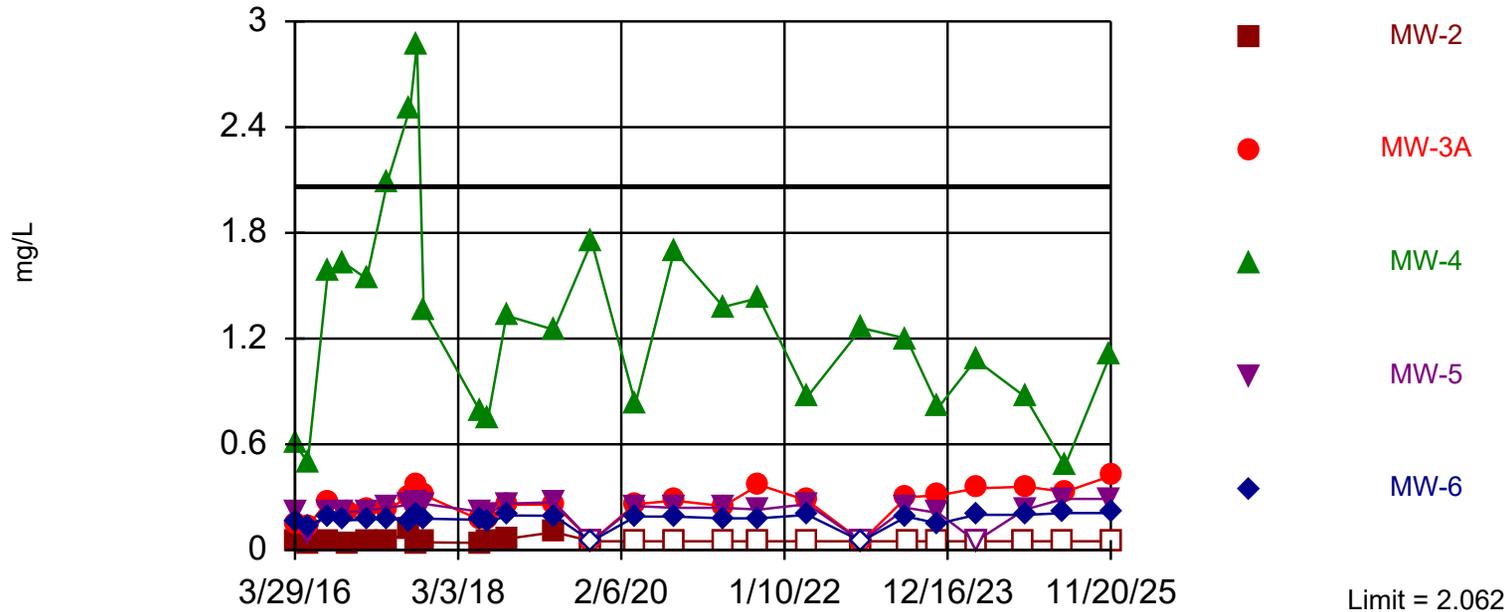


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 95.83% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Within Limit

Prediction Limit

Interwell Parametric



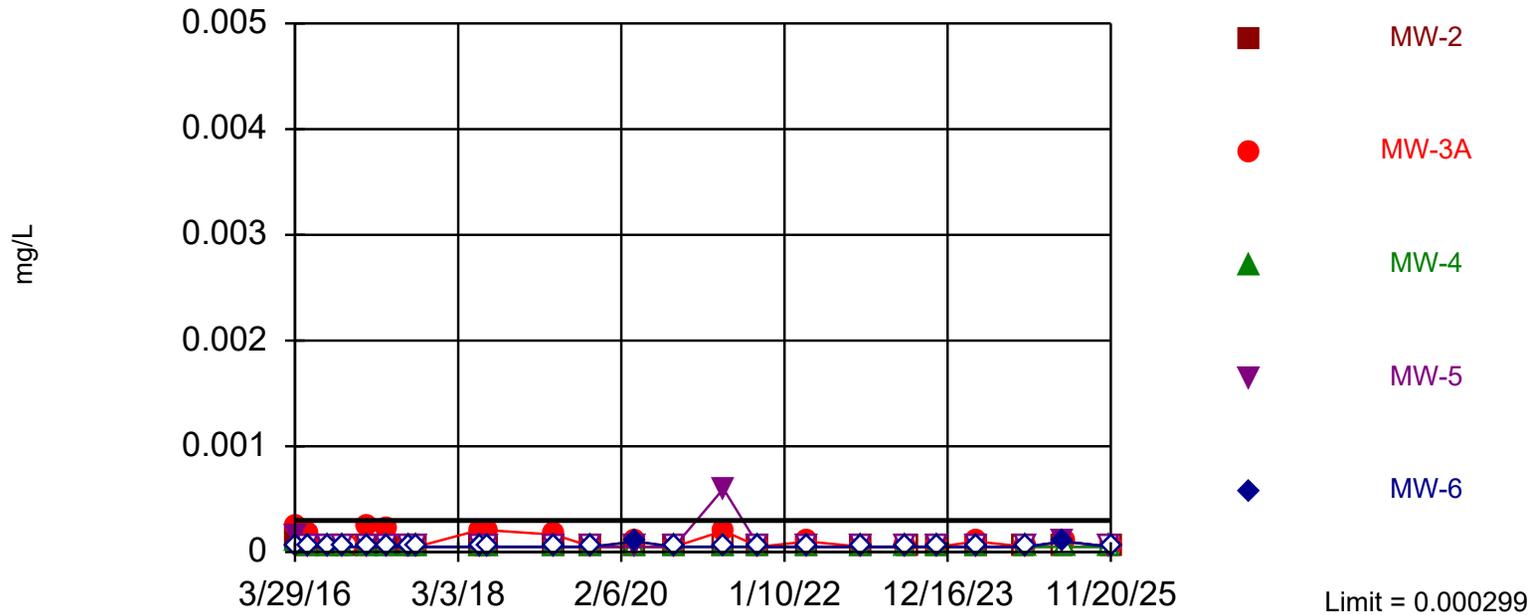
Background Data Summary: Mean=1.717, Std. Dev.=0.1357, n=25. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9407, critical = 0.918. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. One background outlier was removed: 2.25 (8/18/2016).

Constituent: Boron Analysis Run 1/26/2026 11:45 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Within Limit

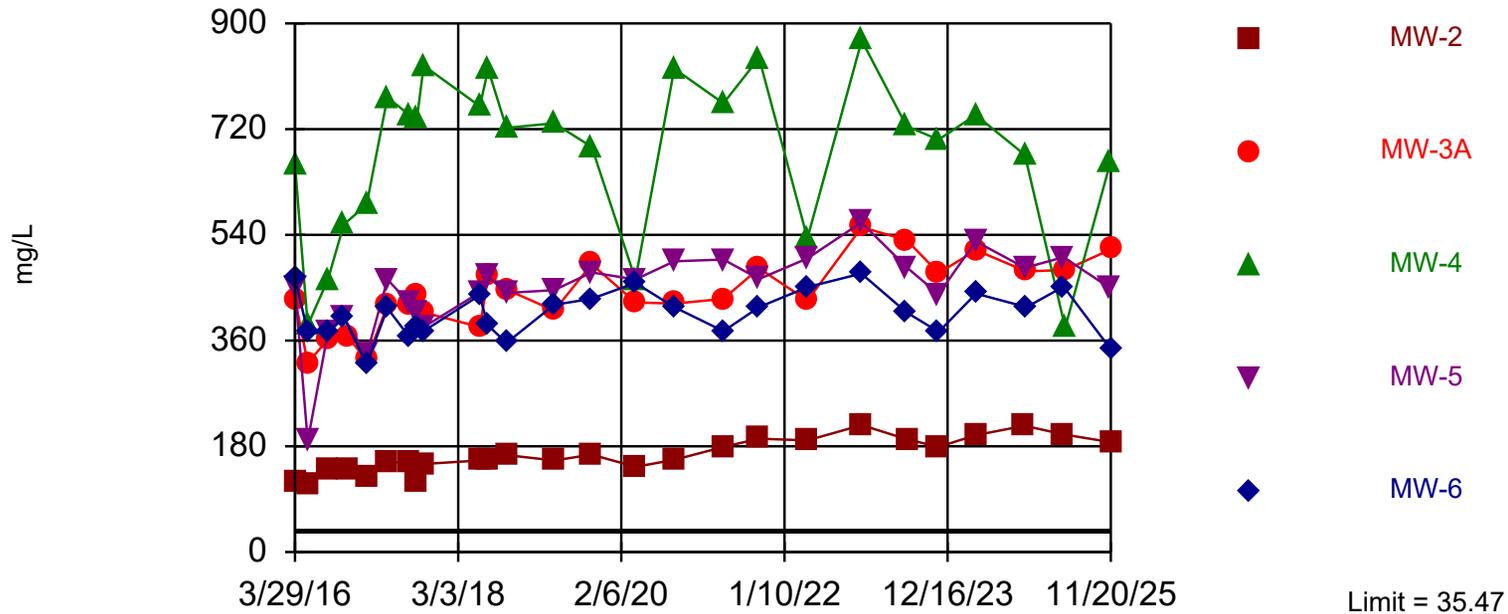
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 91.67% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

Prediction Limit Interwell Parametric



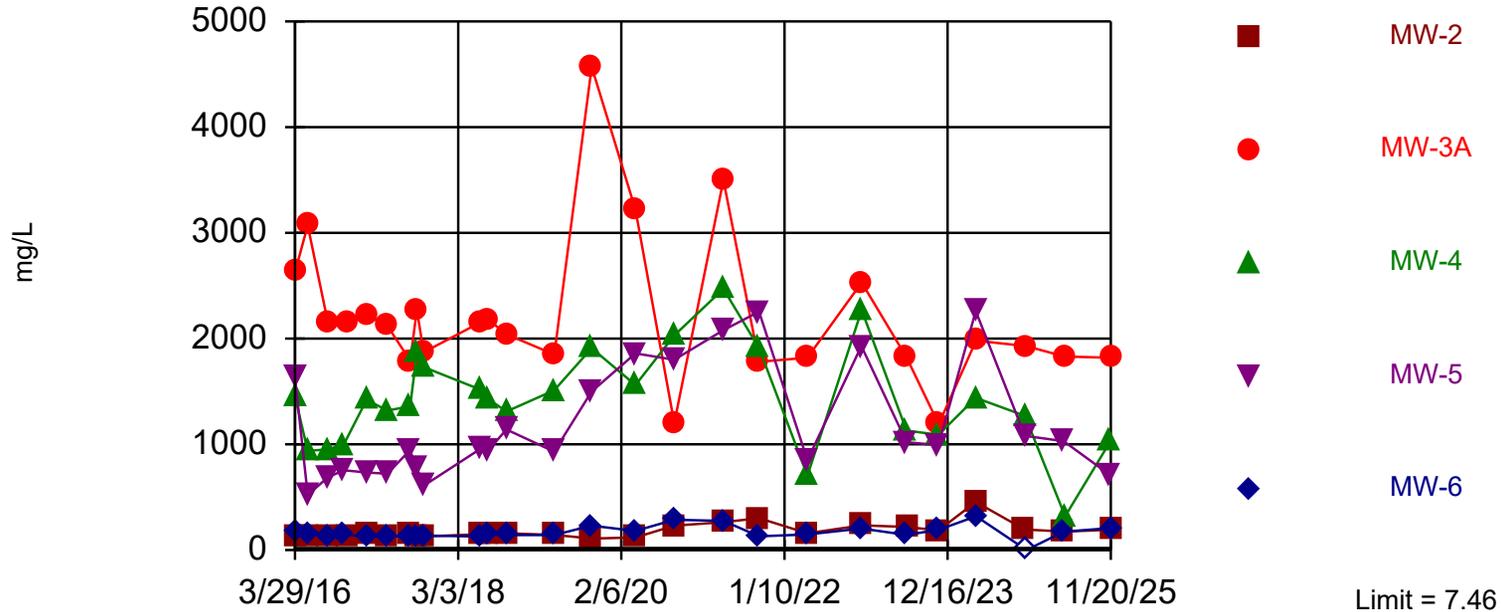
Background Data Summary: Mean=29.37, Std. Dev.=2.401, n=25. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9759, critical = 0.918. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. One background outlier was removed: 20.8 (2/1/2017).

Constituent: Calcium Analysis Run 1/26/2026 11:45 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

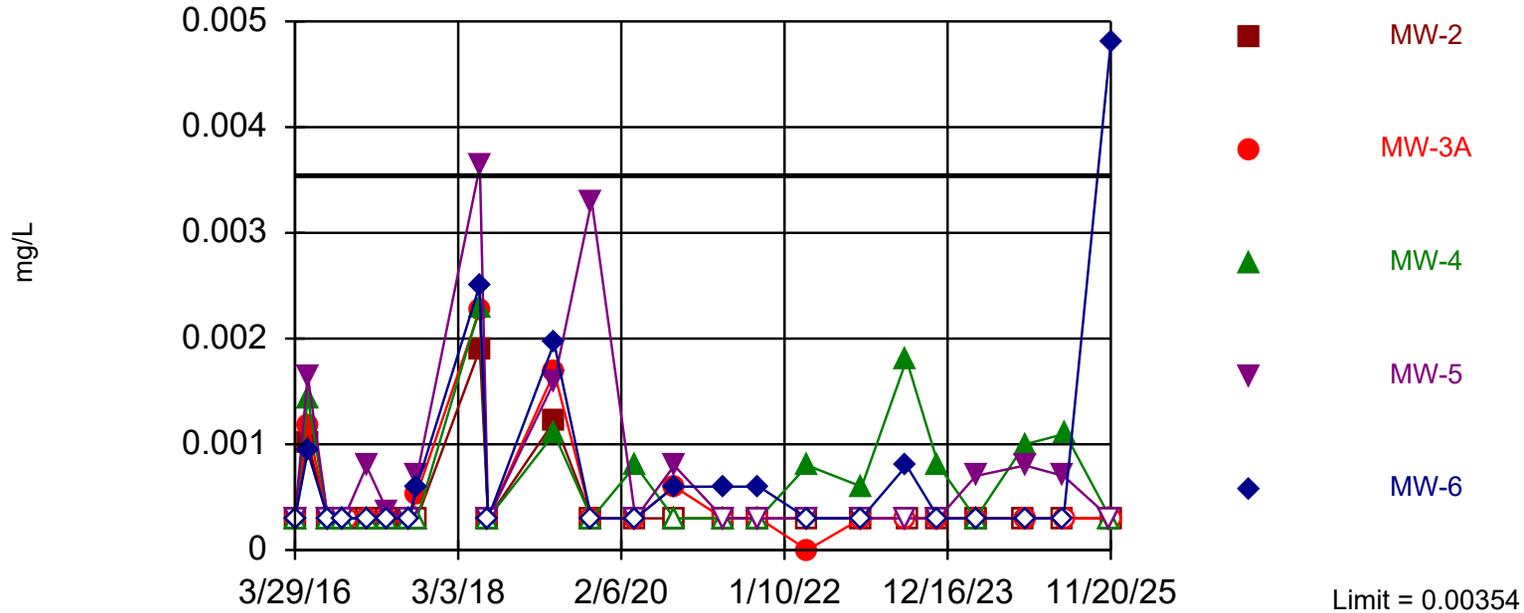
Prediction Limit Interwell Parametric



Background Data Summary: Mean=6.002, Std. Dev.=0.5663, n=22. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.954, critical = 0.911. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. Four background outliers were removed: 9.03 (3/29/2016); 0.501 (5/23/2016); 4.07 (10/5/2017); 13.9 (4/20/2022).

Exceeds Limit: MW-6

Prediction Limit Interwell Non-parametric

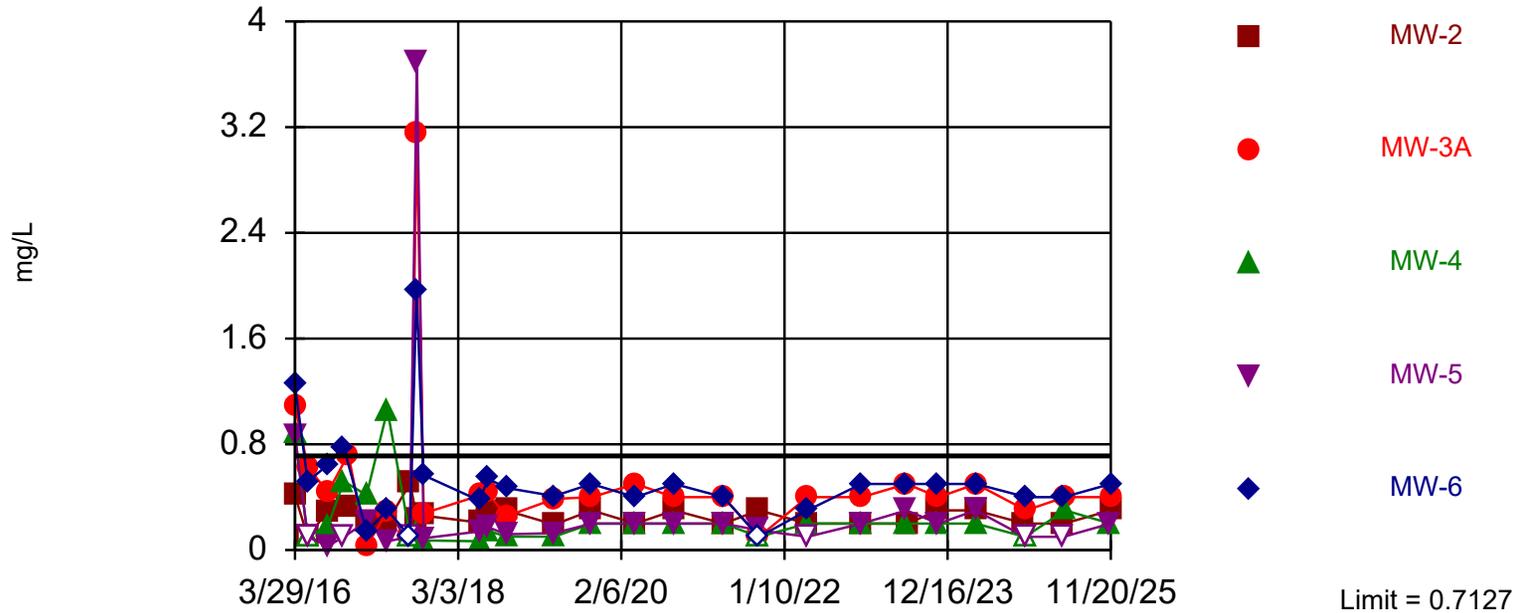


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 79.17% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Within Limit

Prediction Limit

Interwell Parametric



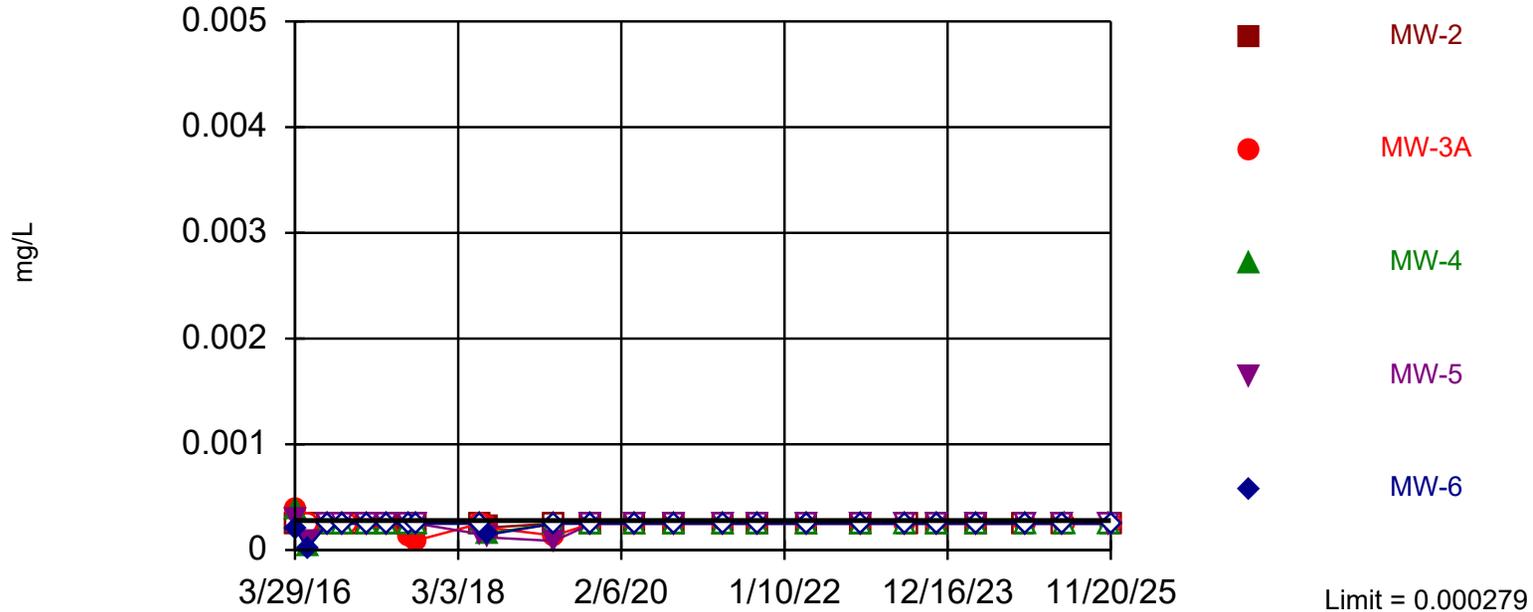
Background Data Summary (based on natural log transformation): Mean=-0.5932, Std. Dev.=0.09974, n=24. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9169, critical = 0.916. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. Two background outliers were removed: 0.888 (3/29/2016); 0.0204 (5/23/2016).

Constituent: Fluoride Analysis Run 1/26/2026 11:45 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Within Limit

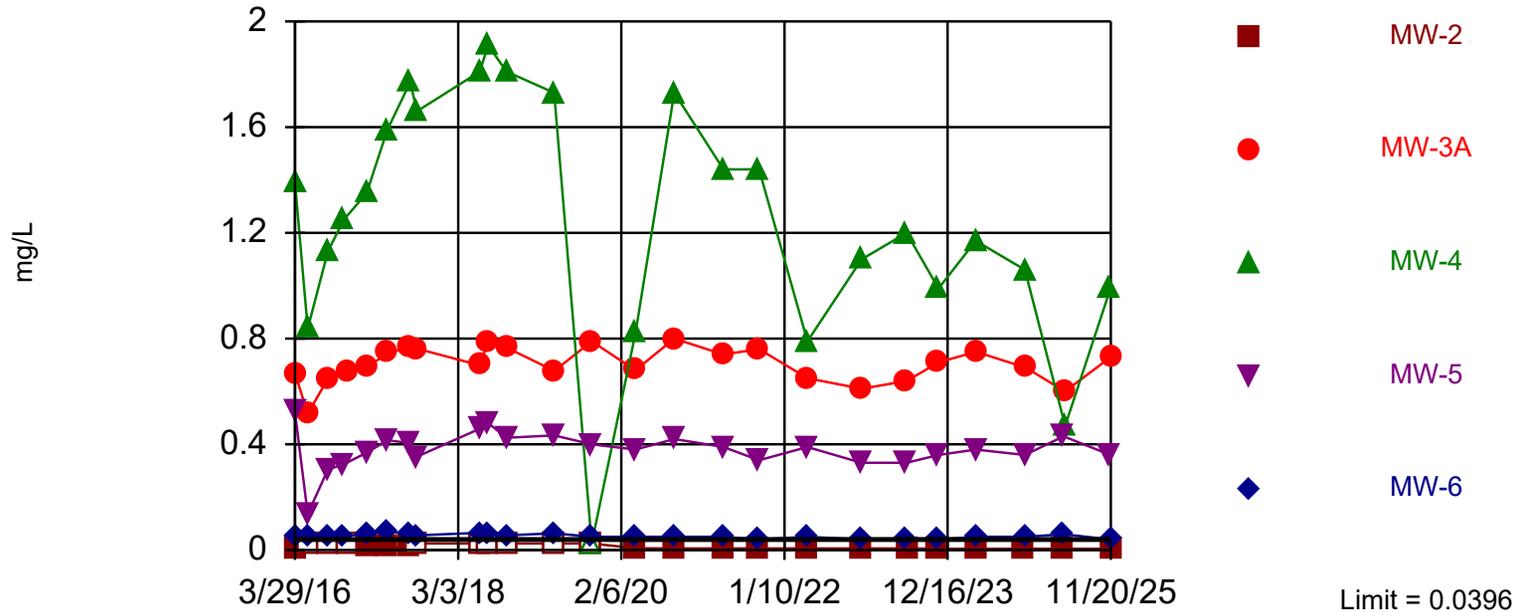
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 75% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Exceeds Limit: MW-3A, MW-4, MW-5, MW-6

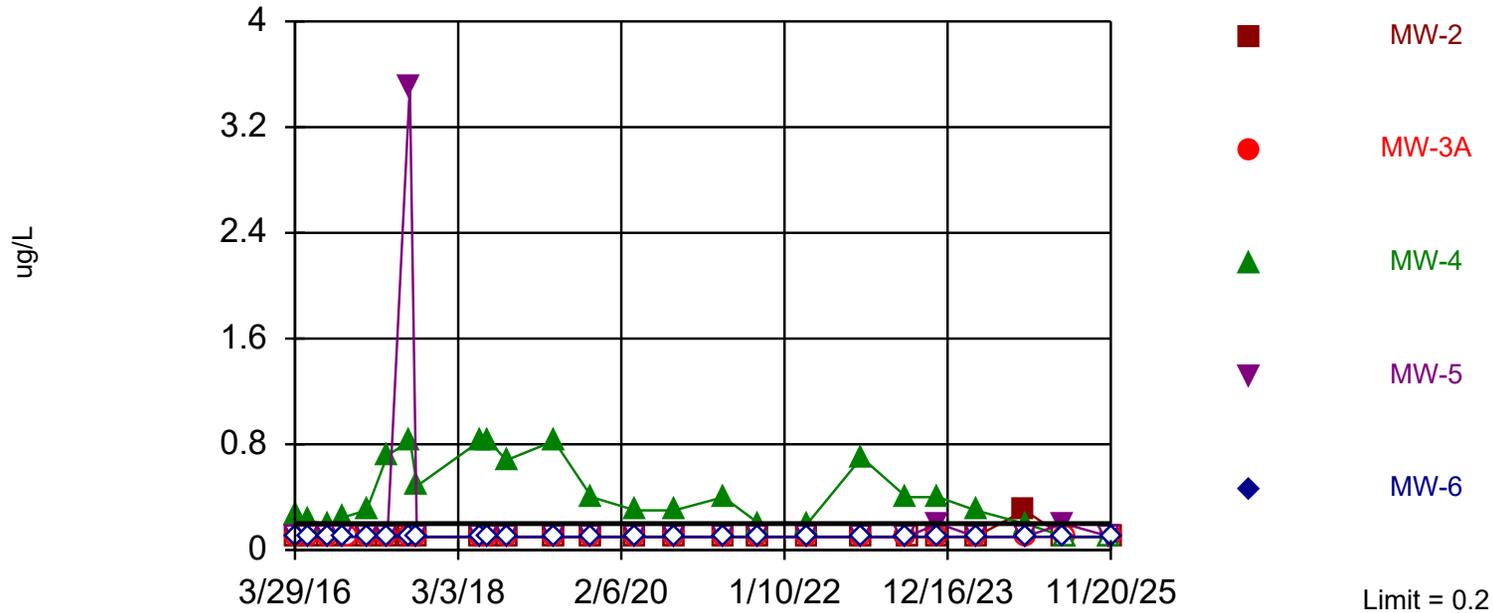
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 25 background values. 8% NDs. Report alpha = 0.1667. Individual comparison alpha = 0.03581. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Within Limit

Prediction Limit Interwell Non-parametric



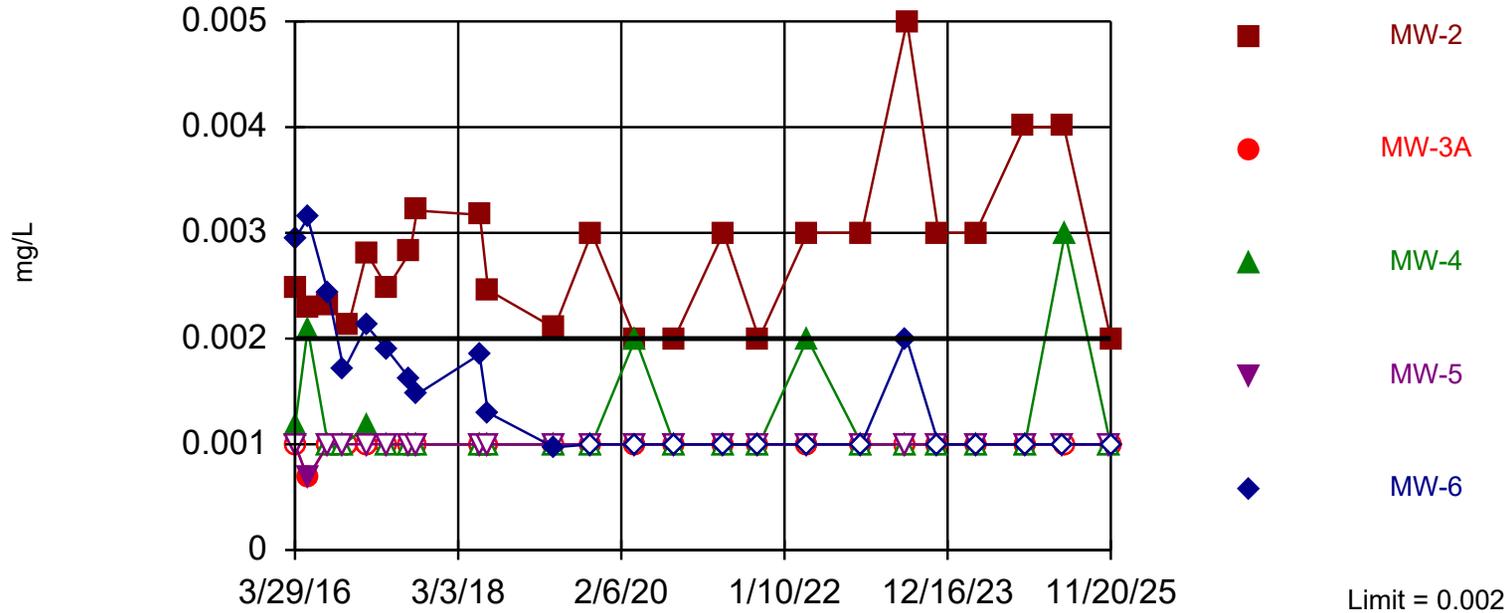
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 25 background values. 92% NDs. Report alpha = 0.1667. Individual comparison alpha = 0.03581. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Mercury Analysis Run 1/26/2026 11:45 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Within Limit

Prediction Limit Interwell Non-parametric

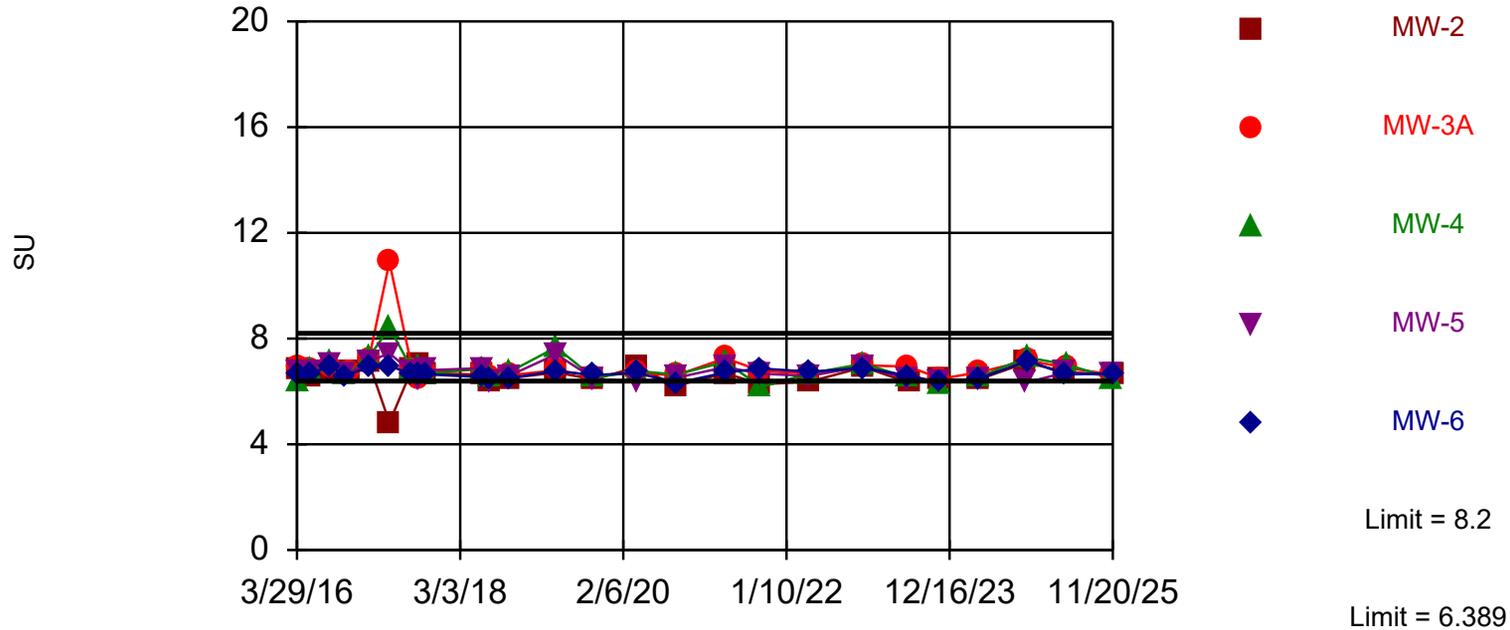


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 58.33% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. Distribution was found to be non-normal after removal of suspect values, so outliers could not be identified. Seasonality was not detected with 95% confidence.

Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=7.294, Std. Dev.=0.3173, n=25. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9674, critical = 0.918. Report alpha = 0.05. Individual comparison alpha = 0.005. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. One background outlier was removed: 4.86 (5/2/2017).

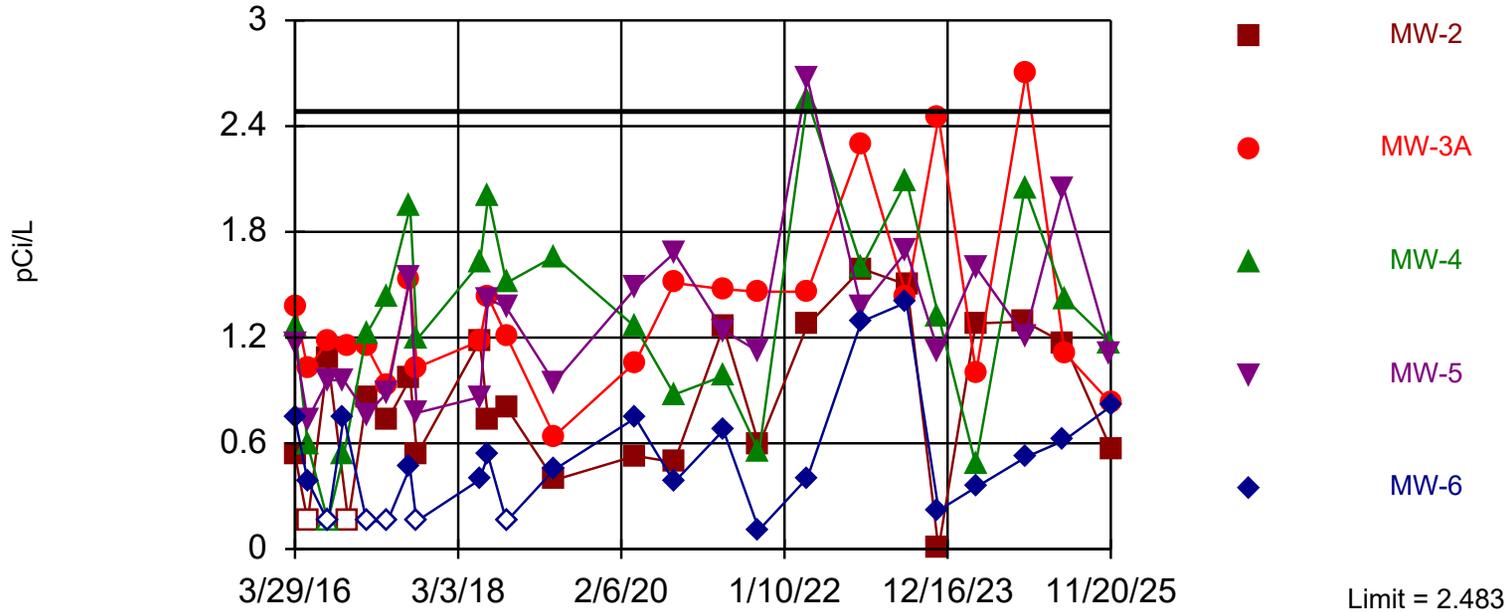
Constituent: pH [Field] Analysis Run 1/26/2026 11:45 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Within Limit

Prediction Limit

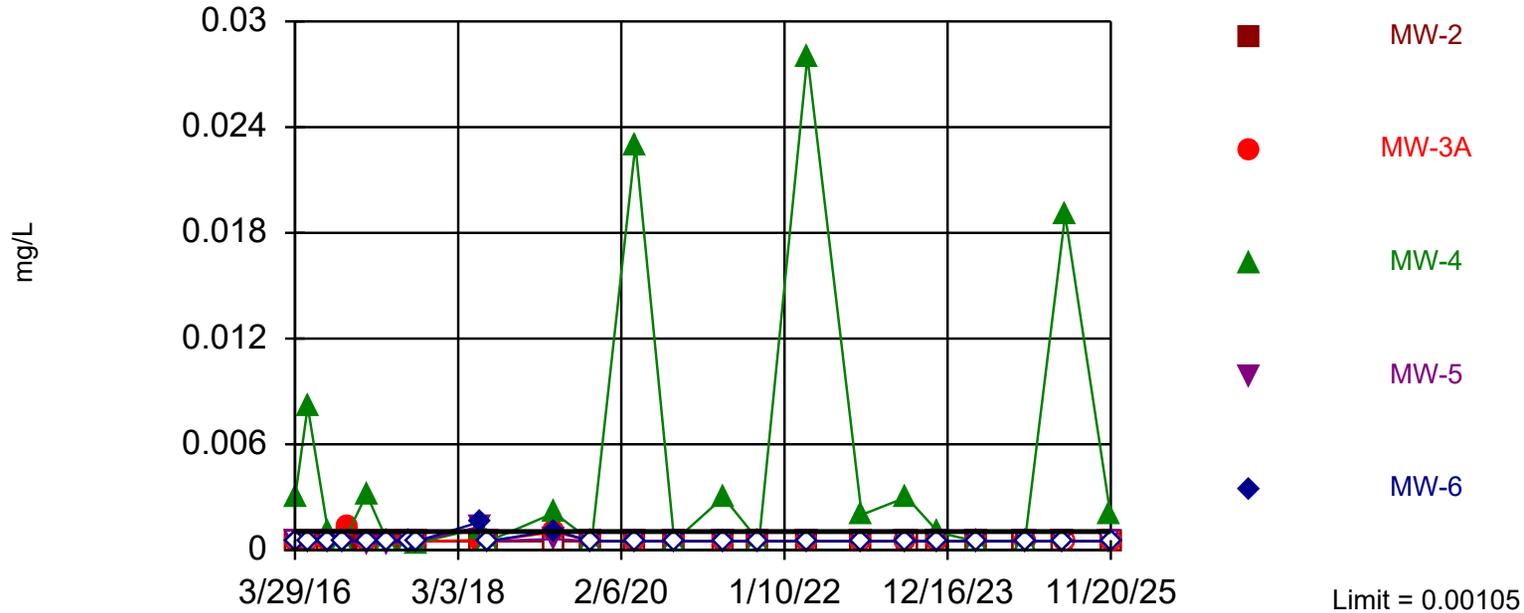
Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.9727, Std. Dev.=0.1489, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9225, critical = 0.914. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. One background outlier was removed: 0.176 (11/7/2023).

Within Limit

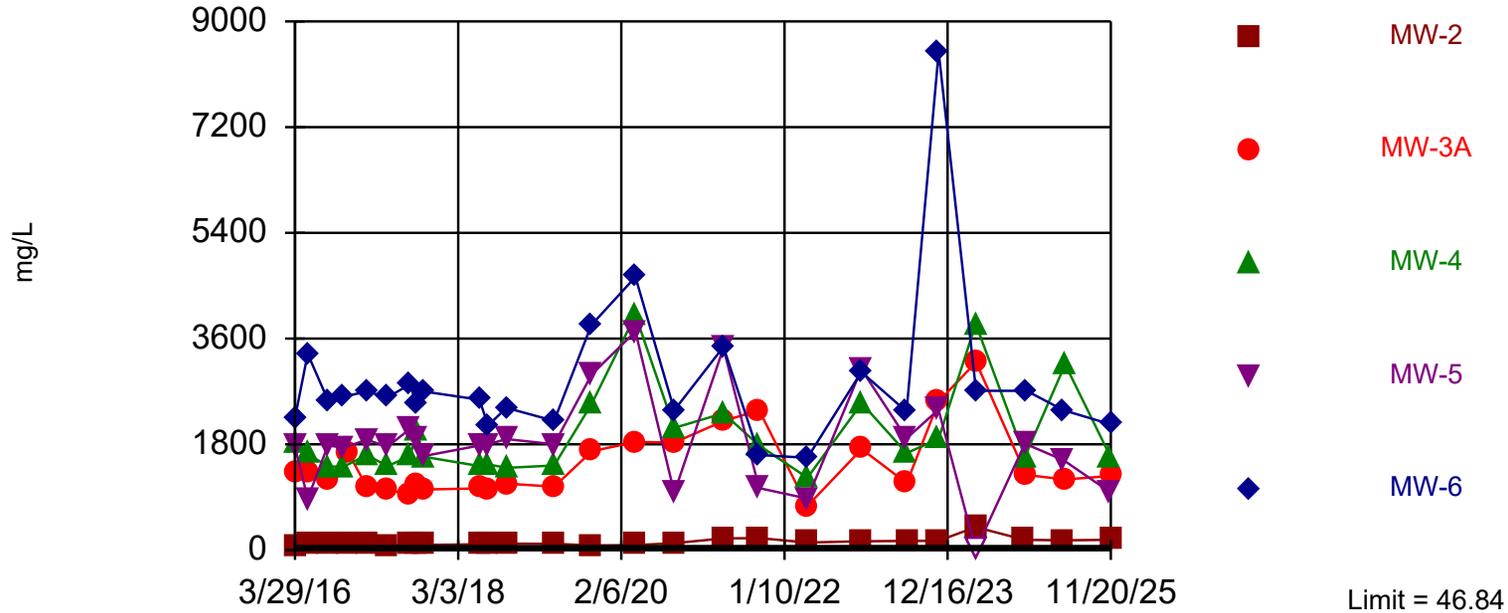
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 91.67% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

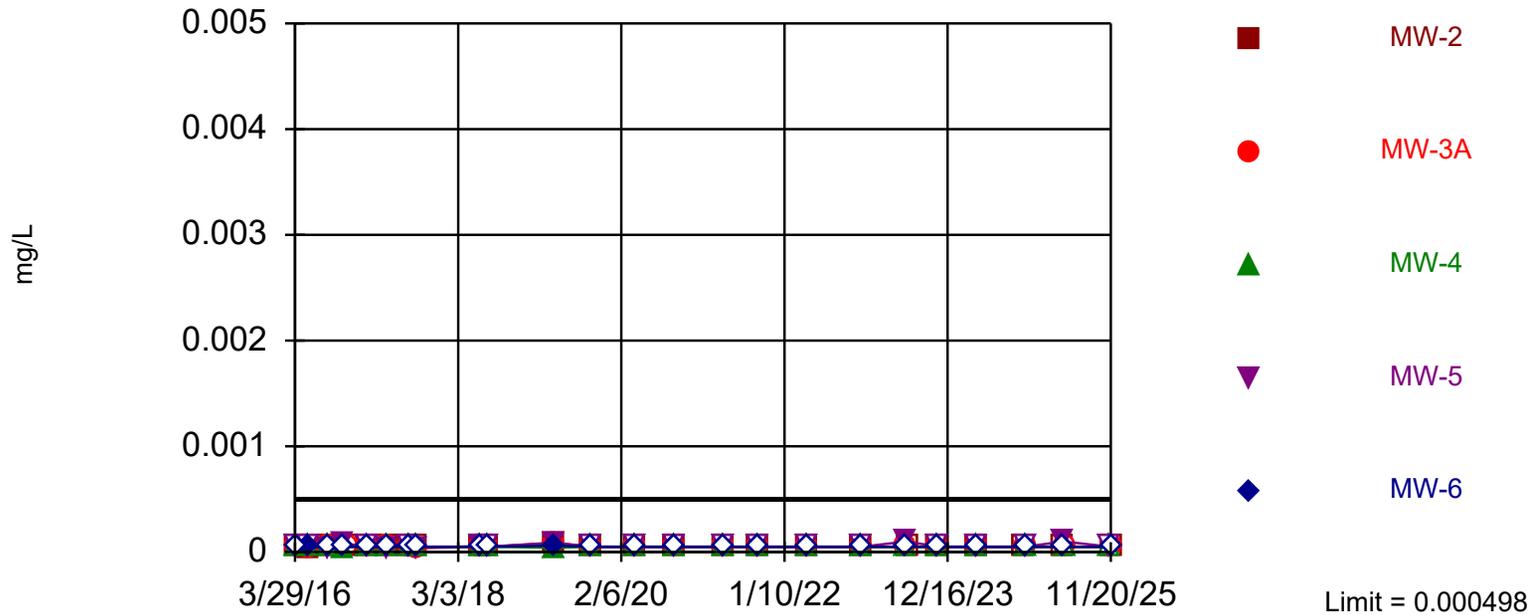
Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation): Mean=5.274, Std. Dev.=0.6198, n=26. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9315, critical = 0.92. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. No background outliers were found.

Within Limit

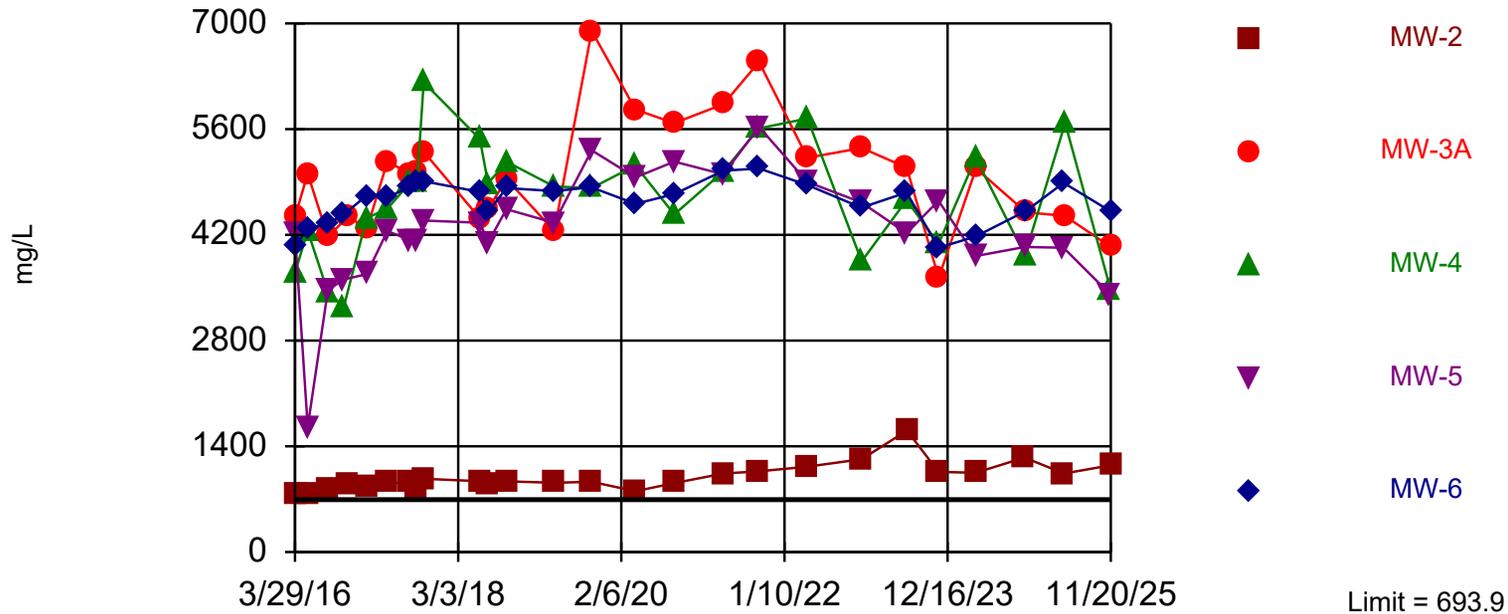
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 66.67% NDs. Report alpha = 0.1724. Individual comparison alpha = 0.03714. Most recent point for each compliance well compared to limit. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Exceeds Limit: MW-2, MW-3A, MW-4, MW-5, MW-6

Prediction Limit Interwell Parametric



Background Data Summary: Mean=598.5, Std. Dev.=37.23, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9659, critical = 0.914. Report alpha = 0.05. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit. EPA 1989 outlier screening was performed on the background data. Three background outliers were removed: 444 (9/30/2019); 488 (4/6/2020); 388 (9/22/2020).

Constituent: Total Dissolved Solids Analysis Run 1/26/2026 11:45 AM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

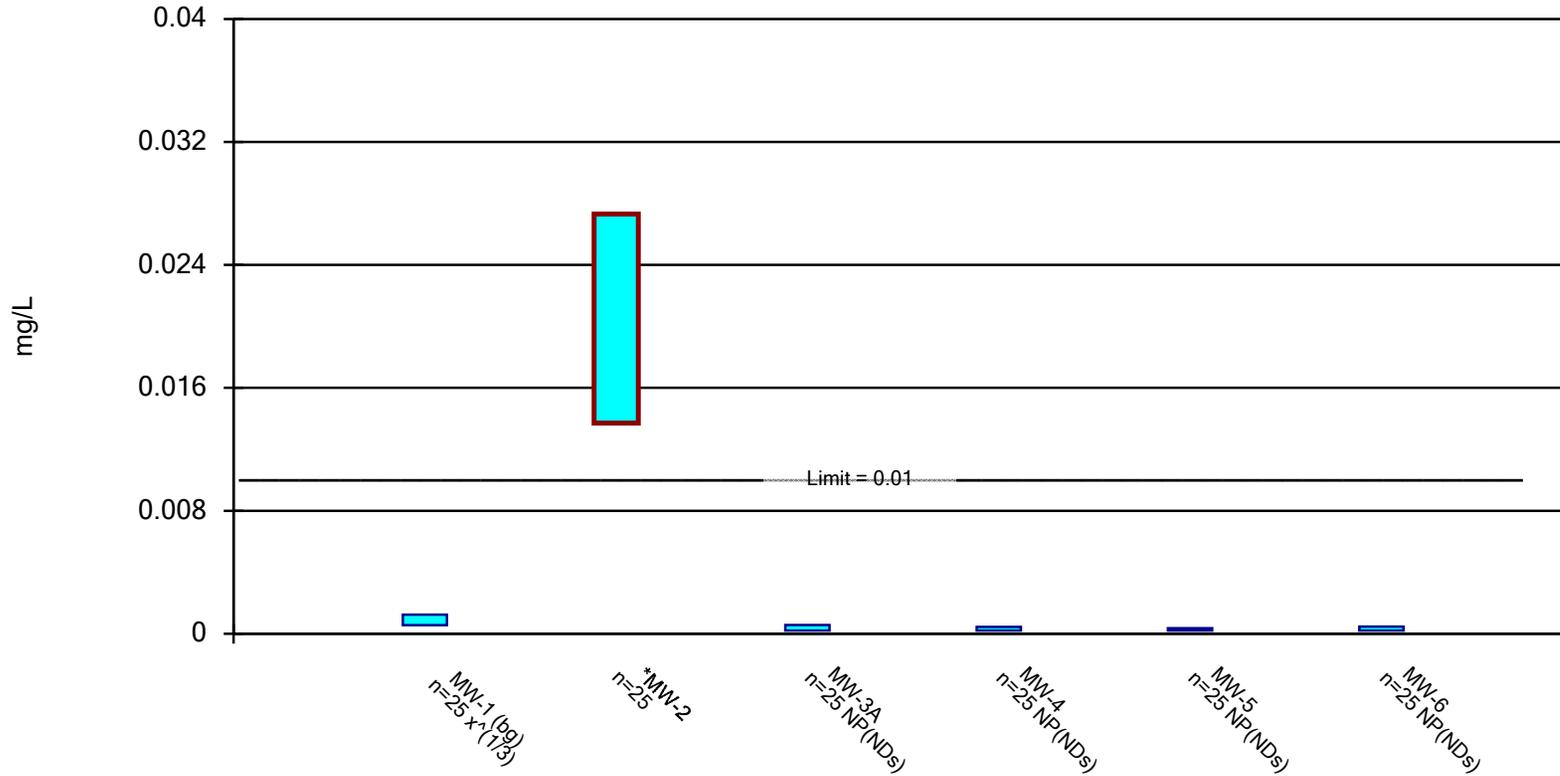
Confidence Interval

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721 Printed 1/26/2026, 3:22 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-1 (bg)	0.001239	0.0005564	0.01	No	25	8	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MW-2	0.02731	0.0137	0.01	Yes	25	0	No	0.01	Param.
Arsenic (mg/L)	MW-3A	0.000569	0.0002	0.01	No	25	56	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-4	0.000445	0.0002	0.01	No	25	60	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-5	0.000356	0.0002	0.01	No	25	56	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-6	0.000467	0.0002	0.01	No	25	56	No	0.01	NP (NDs)
Barium (mg/L)	MW-1 (bg)	0.08569	0.07783	2	No	25	0	No	0.01	Param.
Barium (mg/L)	MW-2	0.334	0.2747	2	No	25	0	x^2	0.01	Param.
Barium (mg/L)	MW-3A	0.04537	0.04097	2	No	25	0	No	0.01	Param.
Barium (mg/L)	MW-4	0.02814	0.02214	2	No	25	0	No	0.01	Param.
Barium (mg/L)	MW-5	0.0158	0.013	2	No	25	0	No	0.01	NP (normality)
Barium (mg/L)	MW-6	0.0128	0.01021	2	No	25	0	No	0.01	Param.
Chromium (mg/L)	MW-1 (bg)	0.000382	0.0003	0.1	No	24	79.17	No	0.01	NP (NDs)
Chromium (mg/L)	MW-2	0.00102	0.0003	0.1	No	24	87.5	No	0.01	NP (NDs)
Chromium (mg/L)	MW-3A	0.000529	0.0003	0.1	No	24	75	No	0.01	NP (NDs)
Chromium (mg/L)	MW-4	0.001	0.0003	0.1	No	24	58.33	No	0.01	NP (NDs)
Chromium (mg/L)	MW-5	0.000793	0.0003	0.1	No	24	54.17	No	0.01	NP (NDs)
Chromium (mg/L)	MW-6	0.0006	0.0003	0.1	No	24	62.5	No	0.01	NP (NDs)
Lithium (mg/L)	MW-1 (bg)	0.0314	0.0298	0.04	No	25	8	No	0.01	NP (normality)
Lithium (mg/L)	MW-2	0.025	0.006	0.04	No	25	36	No	0.01	NP (normality)
Lithium (mg/L)	MW-3A	0.7365	0.6681	0.04	Yes	25	0	No	0.01	Param.
Lithium (mg/L)	MW-4	1.488	1.029	0.04	Yes	25	4	No	0.01	Param.
Lithium (mg/L)	MW-5	0.4158	0.344	0.04	Yes	25	0	No	0.01	Param.
Lithium (mg/L)	MW-6	0.05662	0.04809	0.04	Yes	25	0	No	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

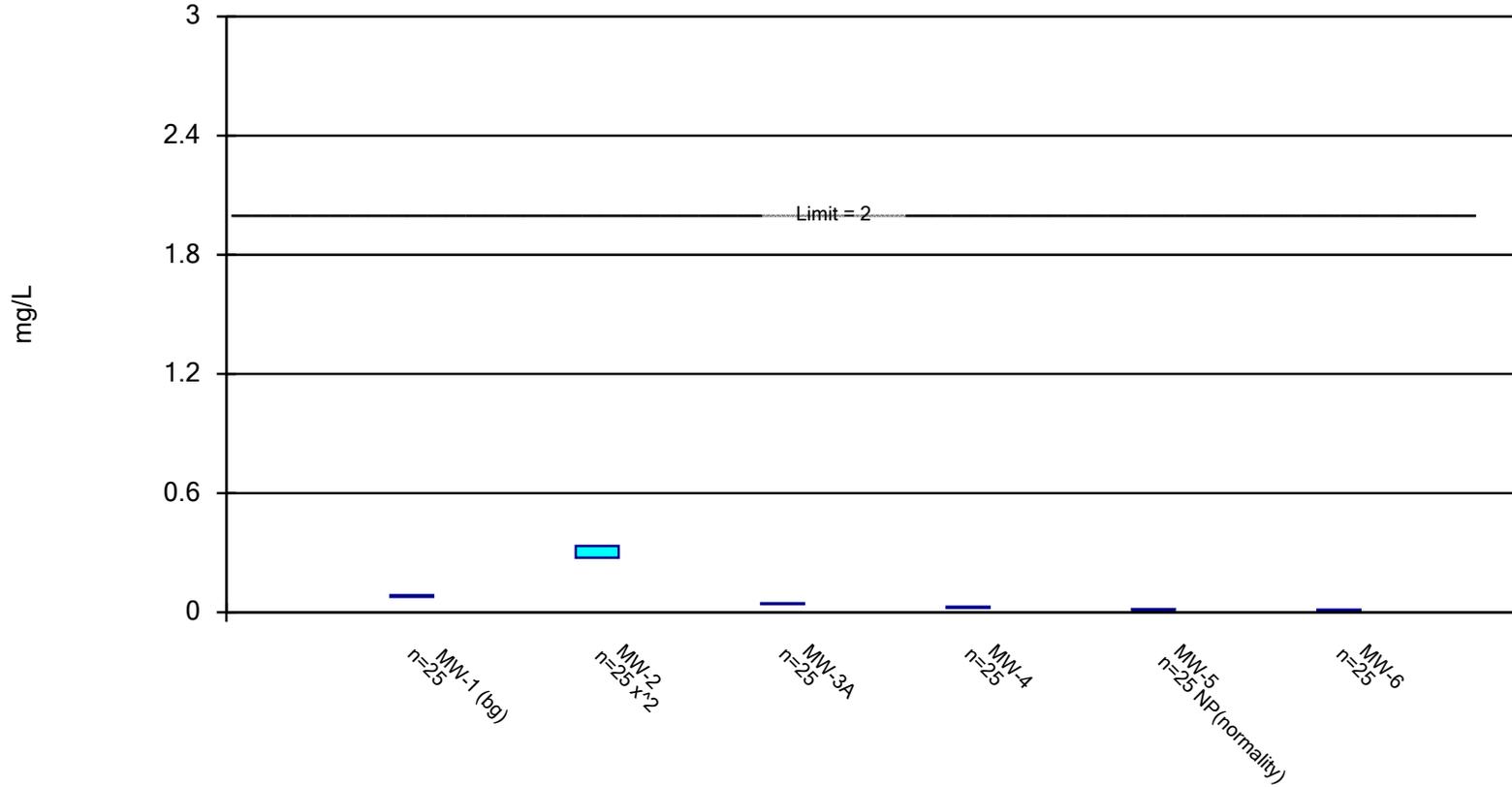


Constituent: Arsenic Analysis Run 1/26/2026 3:20 PM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

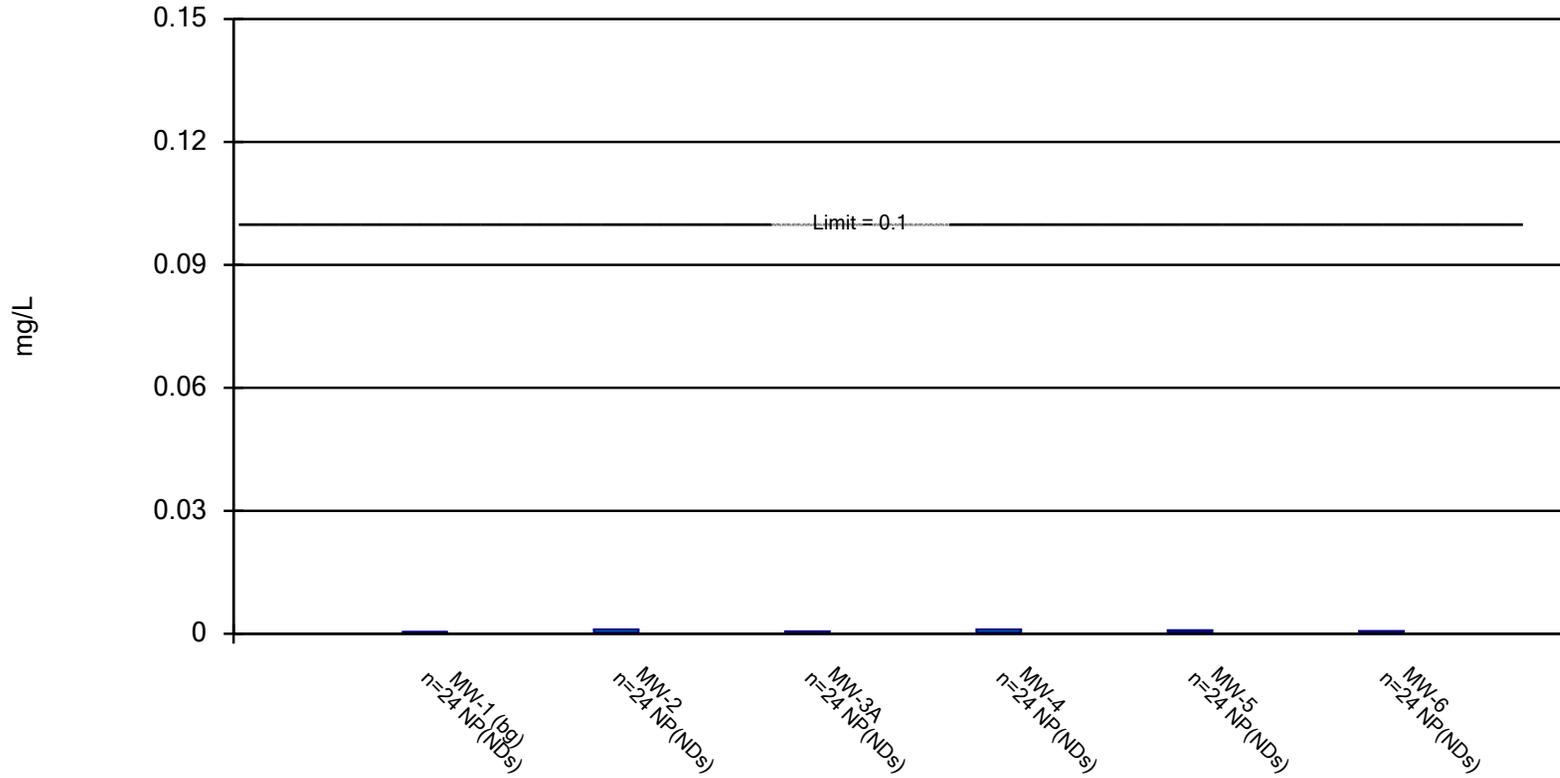


Constituent: Barium Analysis Run 1/26/2026 3:21 PM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

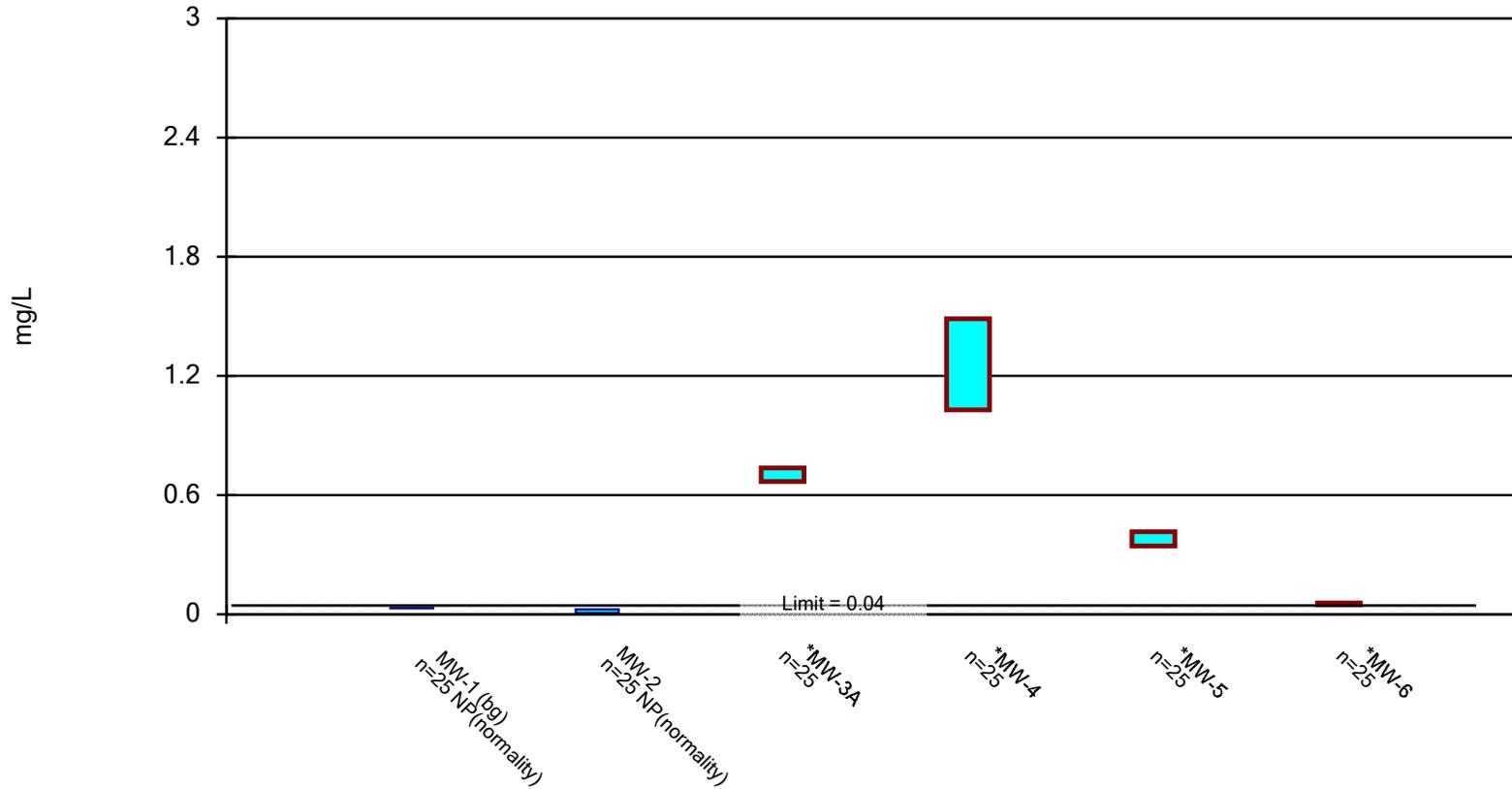


Constituent: Chromium Analysis Run 1/26/2026 3:21 PM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/26/2026 3:21 PM View: Jan2026 ssl

Big Rivers Electric Corp. Client: Burns & McDonnell Data: Green LF All Data-B737721





ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

**2025 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**BIG RIVERS ELECTRIC CORP.
SEBREE GENERATING STATION
REID/HMP&L CCR SURFACE IMPOUNDMENT**

Prepared By:

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January 27, 2026

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EXECUTIVE SUMMARY

Groundwater monitoring requirements in accordance with Sections 257.94 and 257.95 of the U.S. Environmental Protection Agency's (EPA) Coal Combustion Residuals (CCR) Rule, 40 CFR Part 257 Subpart D, have been completed for the Reid/Henderson Municipal Power & Light (Reid/HMP&L) CCR Surface Impoundment (the Unit) at the Big Rivers Electric Corporation's (BREC) Sebree Generating Station (the Station) located in Webster County, Kentucky. The CCR monitoring well network for this Unit consists of four monitoring wells (MW-7 through MW-10) as shown on Figure 1. Well MW-7 is the background monitoring well, and wells MW-8, MW-9, and MW-10 are the downgradient monitoring wells. The Unit also has an assessment groundwater monitoring network to assist in defining the nature and extent of impacts as required under 40 CFR 257.95(g)(1). The current assessment network consists of wells MW-110, MW-111, and MW-112, which are also shown on Figure 1. Well MW-110 was installed in 1st Quarter 2019, while wells MW-111 and MW-112 were installed in 1st Quarter 2022.

This overview of the 2025 groundwater monitoring period is provided in accordance with revised requirements under Section 257.90(e)(6) of the CCR Rule. Each required item is discussed separately below.

- Section 257.90(e)(6)(i) – At the start of the current monitoring period, the subject CCR unit was operating under the assessment monitoring program in accordance with Section 257.95 of the CCR Rule.
- Section 257.90(e)(6)(ii) – At the end of the current monitoring period, the subject CCR unit continues to operate under the assessment monitoring program in accordance with Section 257.95 of the CCR Rule.
- Section 257.90(e)(6)(iii) – The following statistically significant increases (SSIs) above established background for the Appendix III detection monitoring constituents were noted during this monitoring period:

CCR Wells

- MW-7 (upgradient) – none
- MW-8 – boron, calcium, chloride, fluoride, sulfate and total dissolved solids (both events)
- MW-9 – calcium (both events); chloride (June 2025); total dissolved solids (November 2025)
- MW-10 – boron, chloride, fluoride, pH, and total dissolved solids (both events)

Expanded Nature and Extent Assessment Wells

- MW-110 – boron, calcium, chloride, fluoride, and sulfate (both events); total dissolved solids (November 2025)
- MW-111 – boron, chloride, fluoride, and total dissolved solids (both events)
- MW-112 – boron, chloride, sulfate, and total dissolved solids (both events)

The initial statistical evaluation of Appendix III constituents determined that there were SSIs in downgradient monitoring wells relative to established background prediction limits for various Appendix III parameters at various downgradient monitoring locations. The monitoring program was transitioned to assessment monitoring under Section 257.95 of the CCR Rule in February 2018. As noted further below, the impoundment closure activities have been completed in 2024 and the site is currently under post-closure care. In accordance with Sections 257.104(b)(3) and 257.104(c)(3), groundwater monitoring and corrective action will continue in accordance with Sections 257.95 and 257.98, respectively, until documentation that all groundwater protection standards (GWPSs) have been met in groundwater.

- Section 257.90(e)(6)(iv) – There was one only constituent confirmed at a statistically significant level (SSL) above GWPSs for the Appendix IV assessment monitoring constituents for this Unit during this monitoring period. Specifically, this was for lithium at downgradient CCR monitoring well MW-10. This is consistent with previous monitoring periods.

The assessment of corrective measures (ACM) in accordance with Section 257.96(a) of the CCR Rule was initiated in January 2019. A public meeting was held on May 24, 2023 to present the results of the ACM and supporting hydrogeologic studies. A Final Report on Selection of Groundwater Remedy was issued on July 25, 2023.

- Section 257.90(e)(6)(v) – As noted above, the Final Report on Selection of Groundwater Remedy was issued on July 25, 2023. The selected remedy was identified as Alternative #2b which consists of closure by removal, institutional controls, and groundwater monitoring.
- Section 257.90(e)(6)(vi) – Remedial activities pursuant to Section 257.98 of the CCR Rule were initiated on July 31, 2023 with contractor mobilization to the site. The closure work has been completed and the closure was formally certified by Sargent & Lundy on September 30, 2024. The work is summarized in Reid/HMP&L CCR Surface Impoundment Closure Report & Certification dated October 7, 2024.

1.0 INTRODUCTION

On behalf of Big Rivers Electric Corporation (BREC), KPRG Associates, Inc. (KPRG) has prepared this Annual Groundwater Monitoring and Corrective Action Report for the Reid/Henderson Municipal Power & Light (Reid/HMP&L) CCR Surface Impoundment (the Unit) at the Sebree Generating Station (the Station) located in Webster County, Kentucky.

Groundwater sampling in accordance with the 2025 semi-annual assessment monitoring requirements promulgated by Sections 257.94 and 257.95 of the U.S. Environmental Protection Agency's (EPA) Coal Combustion Residuals (CCR) Rule, 40 CFR Part 257 Subpart D, have been successfully completed for the Unit. The CCR monitoring well network consists of four monitoring wells (MW-7 through MW-10) as shown on Figure 1. Well MW-7 is the upgradient, background monitoring location. Monitoring wells MW-8, MW-9 and MW-10 are the downgradient monitoring locations. The Unit also has an assessment groundwater monitoring network to assist in defining and monitoring the nature and extent of groundwater impacts as required under 40 CFR 257.95(g)(1). The current assessment network consists of wells MW-110, MW-111, and MW-112, which are also shown on Figure 1. Well MW-110 was installed in 1st Quarter 2019, while wells MW-111 and MW-112 were installed in 1st Quarter 2022.

This annual report covers the work performed relative to CCR groundwater monitoring during the calendar year 2025. It does not necessarily duplicate all information or activities reported in previous annual submittals. It is prepared in accordance with 40 CFR 257.90(e)(1) through (6) and summarizes the sampling procedures used, provides an evaluation of groundwater flow conditions, summarizes the analytical data generated, presents the statistical evaluations and assessment monitoring completed, identifies the other key compliance actions completed during the year, and provides the current status of the site compliance activities along with recommendations.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the Unit's groundwater monitoring program consists of the CCR groundwater monitoring network around the Reid/HMP&L CCR Surface Impoundment (wells MW-7 through MW-10) and the assessment monitoring network (wells MW-110, MW-111 and MW-112), all as shown on Figure 1. Characterization well MW-110 was installed by AECOM in February 2019. It is noted that well MW-110 was installed without proper Kentucky Division of Waste Management (KDWM) approval. However, as discussed in the Supplemental Site Investigation Report dated September 1, 2022, the well was installed using recognized industry practices by a Kentucky licensed well driller. The groundwater sampling data from this well is believed to be representative of existing water quality and is only being used for screening purposes.

In February 2022, KPRG installed two additional characterization monitoring wells, MW-111 and MW-112, for the purposes of assisting with defining the extent of potential lithium impacts to the southwest and south-southeast of well MW-10 (KPRG and S&L, 2022). The wells were installed using rotary sonic drilling and constructed in accordance with the “Monitoring Well Drilling/Construction Specification” submitted to the Kentucky Energy and Environment Cabinet, Department of Environmental Protection, Division of Waste Management (DWM) on February 11, 2022, and verbally approved by the DWM on February 15, 2022, with formal written approval received on February 17, 2022. No new monitoring wells were installed in 2025.

As part of sampling procedures, the integrity of all monitoring wells was inspected and water levels were obtained using an electronic water level meter (see summary of water level discussion below). All wells were found in good condition with locked protector casings and intact concrete surface seals.

All groundwater samples were collected using the low-flow sampling technique from dedicated pumps. The samples were not filtered prior to analysis to provide for total metals concentrations as opposed to dissolved metals concentrations.

2.2 Groundwater Flow Evaluation

Water level data measurements were obtained from each well during each round of semi-annual groundwater monitoring which occurred in June and November of 2025. The water level data for 2025 are summarized in Table 1.

Table 1. Reid/HMP&L CCR Surface Impoundment – 2025 Groundwater Elevation Data

Monitoring Well	Top of Casing Elevation (ft, amsl)	Groundwater Elevation (ft, amsl) June 2025	Groundwater Elevation (ft, amsl) November 2025
MW-7	440.93	410.18	408.50
MW-8	394.29	388.80	387.84
MW-9	395.40	388.81	387.62
MW-10	422.27	387.22	387.88
MW-110	388.70	384.29	383.07
MW-111	403.57	388.37	387.75
MW-112	427.77	389.35	387.97

The water levels were used to generate groundwater flow maps for the two sampling events, which are provided as Figures 2 and 3. A review of the maps indicates groundwater flow is generally consistent with previous maps with groundwater flow to the southwest towards an unnamed tributary to Groves Creek located west-southwest of the impoundment. In accordance with general groundwater sampling requirements under 40 CFR 257.93(c), Table 2 provides a summary of the natural flow direction and an estimated rate of groundwater flow for each sampling event. The flow rate was calculated using the following equation:

$$V_s = \frac{Kdh}{n_e dl}, \text{ where:}$$

- V_s is seepage velocity (distance/time)
- K is hydraulic conductivity (distance/time)
- dh/dl is hydraulic gradient (unitless)
- n_e is effective porosity (unitless)

The hydraulic conductivity geometric mean of 3.1×10^{-5} cm/sec (1.02×10^{-6} ft/sec) used in Table 2 was obtained from the slug test results completed on wells MW-10, MW-110, MW-111, and MW-112. The horizontal hydraulic gradient was obtained from the respective groundwater flow maps provided on Figures 2 and 3. An estimated effective porosity of the aquifer materials of 0.10 was used (Freeze and Cherry, 1979).

Table 2. Reid/HMP&L CCR Surface Impoundment – Groundwater Seepage Velocity Estimates

Date	Groundwater Flow Direction	K_{avg} (ft/sec)	Average Hydraulic Gradient	Porosity (unitless)	Estimated Seepage Velocity (ft/day)
June 2025	Southwesterly	1.02E-6	0.0139	0.1	0.012
November 2025	Southwesterly	1.02E-6	0.0129	0.1	0.011

3.0 ANALYTICAL DATA AND MONITORING STATUS

3.1 Sampling Summary

The groundwater sampling summary from 2025 is provided in Table 3, in accordance with 40 CFR 257.90(e)(3). The table includes the event type dates of sampling and wells included in the sampling.

Table 3. Reid/HMP&L CCR Surface Impoundment – Summary of Groundwater Sampling Events

Event Type	Sampling Event	Dates	Wells Sampled
Assessment	Semi-Annual	June 2-5, 2025	MW-7 (upgradient), MW-8, MW-9, and MW-10
Characterization	Semi-Annual	June 3-4, 2025	MW-110, MW-111, and MW-112
Assessment	Semi-Annual	November 7-11, 2025	MW-7 (upgradient), MW-8, MW-9, and MW-10
Characterization	Semi-Annual	November 6-7, 2025	MW-110, MW-111, MW-112

3.2 Data Summary

As discussed in Section 1.0, this site is in post-closure care as of September 30, 2024 with continued groundwater monitoring in accordance with Section 257.95. The analytical data for each well from the assessment monitoring groundwater sampling for Appendix III and IV parameters are provided in Appendix A (Tables A-1 through A-7) along with calculated prediction limits and applicable Groundwater Protection Standards (GWPSs) under the CCR Rule for Appendix IV constituents. All tables include the sample dates and whether the specific well is considered upgradient or downgradient relative to groundwater flow and the Unit. The analytical data packages from these sampling events are provided in Appendix B. It is noted that updated background calculations for statistical purposes were completed by AECOM as part of the 2021 Annual Groundwater and Corrective Action Report and are considered to still be representative for statistical comparison purposes. The statistical background for the Appendix III and IV groundwater quality data at the Reid Surface Impoundment were evaluated by AECOM in 2021 using an interwell approach that statistically compared constituent concentrations at downgradient monitoring wells to those present at a background monitoring well. Monitoring well MW-7 is the designated background and monitoring wells MW-8, MW-9, and MW-10 are designated as compliance wells because they are located downgradient of the impoundment.

The statistical analyses were performed in accordance with the U.S. Environmental Protection Agency’s Final CCR Rule 40 CFR Parts 257.93(f), 257.93(g), and 257.93(h) and the Groundwater Monitoring System and Statistical Methods Certification. Prediction limits (i.e., parametric or nonparametric) with 1 of 2 retesting were developed for each constituent based on the frequency of non-detect values and whether the background data for that constituent exhibited a normal, lognormal, or nonparametric distribution. For the

statistical analysis, non-detect values were represented as one-half the detection limit. No outliers were identified in the background data. The background datasets were used to develop an upper prediction limit (UPL) for the Appendix III and IV background data at 95 percent confidence. Data from the downgradient monitoring wells for the same time period were compared to the UPL to identify statistically significant increases (SSIs) over background. Mann-Kendall trend analysis was used to identify statistically significant increasing trends for constituents with SSIs. Appendix IV GWPSs were established as the higher of either the established federal maximum contaminant level (MCL) or the background 95% UPL for the specific compound. Recalculation of background values is not appropriate at this time because the Unit is under a semi-annual assessment sampling program. It has been 3 years since the recalculation of background statistics. Unified Guidance recommends for semi-annual sampling programs, the *minimum* timeframe prior to recalculating background is 2 to 3 years. A review of the data generated since 2021 for background well MW-7 indicates relatively stable conditions with detections falling between historical data ranges. Based on this observation and the three-year new data minimum just being met last year, it is believed that the existing GWPS concentrations are still representative for the site.

Relative to the results of the expanded assessment monitoring program for the purposes of defining the extent of groundwater impacts, groundwater sampling was performed at the Unit in June and November 2025. The sampling included all existing CCR network and assessment network monitoring wells. The groundwater samples were analyzed for the full list of CCR Rule Appendix III and Appendix IV parameters. The data are included in the tables provided in Appendix A along with all previous data for the wells. Detections above established prediction limits suggesting a statistically significant increase (SSI) in downgradient wells for both Appendix III and Appendix IV parameters are as follows:

Appendix III Parameters

CCR Wells

- MW-7 (upgradient) – none
- MW-8 – boron, calcium, chloride, fluoride, sulfate and total dissolved solids (both events)
- MW-9 – calcium (both events); chloride (June 2025); total dissolved solids (November 2025)
- MW-10 – boron, chloride, fluoride, pH, and total dissolved solids (both events)

Expanded Nature and Extent Assessment Wells

- MW-110 – boron, calcium chloride, fluoride, and sulfate (both events); total dissolved solids (November 2025)
- MW-111 – boron, chloride, fluoride, and total dissolved solids (both events)
- MW-112 – boron, chloride, sulfate, and total dissolved solids (both events)

Appendix IV Parameters

CCR Wells

- MW-7 – none
- MW-8 – fluoride, lithium, combined radium 226/228 (both events)
- MW-9 – barium (both events); combined radium 226/228 (June 2025)
- MW-10 – barium, fluoride, and lithium (both events); chromium and combined 226/228 (November 2025)

Expanded Nature and Extent Assessment Wells

- MW-110 – fluoride, chromium, lead, and lithium (both events)
- MW-111 – barium and fluoride (both events)
- MW-112 –barium (both events); lithium (June 2025)

Relative to statistically significant level (SSL) detections above established GWPSs, the data indicate results consistent with historical sampling with lithium being the only parameter that was detected above an established GWPS. None of the other noted SSIs for Appendix IV parameters were above the established GWPSs for those parameters. The new lithium data collected during the 2025 sampling events are summarized below in Table 4. Only lithium at well location MW-10 exceeds the established GWPS of 0.04 mg/l.

Table 4. Reid/HMP&L CCR Surface Impoundment – 2025 Lithium Analytical Results

Monitoring Well	Parameter	
	Lithium GWPS 0.04 mg/L	
	June 2025	November 2025
MW-7	0.007J	0.007J
MW-8	0.03	0.03
MW-9	0.008J	0.006J
MW-10	0.52	0.63
MW-110	0.02	0.02
MW-111	0.009J	0.008J
MW-112	0.01J	0.009J

J – Estimated value.

The areal distribution of lithium impacts is provided on Figure 4, which includes all assessment lithium data generated to date. This illustrates that the extent of impacts above the GWPS for lithium has been defined, and the impacts appear to be limited to the general vicinity of well MW-10. This areal distribution suggests that impacts to groundwater likely

originated as seepage from beneath the southern portion of the surface impoundment, possibly due to the added driving head associated with the ponded water that was present in this portion of the unit for an extended period of time prior to completion of impoundment closure. It is noted that numerical groundwater modeling performed in support of groundwater remedy engineering evaluations corroborates this hypothesis.

3.3 Current Monitoring Status

The site is currently in post-closure care and continues to be in semi-annual assessment groundwater monitoring in accordance with Section 257.104(b)(3). No further delineation of lithium impacts is proposed at this time.

4.0 CORRECTIVE ACTIONS STATUS

Closure by removal with institutional controls and groundwater monitoring was the selected remedy for the Reid/HMP&L CCR Surface Impoundment. Corrective action activities (closure by removal) were completed in 2024 with the closure work being formally certified complete by Sargent & Lundy on September 30, 2024. The work is summarized in Reid/HMP&L CCR Surface Impoundment Closure Report & Certification dated October 7, 2024.

The Reid/HMP&L CCR Surface Impoundment is currently in post-closure care. In accordance with Section 257.104(c)(3), institutional controls and groundwater monitoring will continue at the site in accordance with Section 257.98 until all GWPSs have been met in groundwater.

5.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The site is currently in post-closure care and continues to be in semi-annual assessment groundwater monitoring in accordance with Section 257.104(b)(3) and Section 257.95. The monitoring requirements in accordance with the CCR Rule are being successfully met. Only monitoring well MW-10 has shown a concentration of one Appendix IV parameter above the established GWPSs. Specifically, lithium was detected at this location in both 2025 sampling events above its GWPS of 0.04 mg/l. One part of the selected groundwater remedy, closure of the Reid/HMP&L CCR Surface Impoundment by removal of ash, has been completed with formal closure certification by Sargent & Lundy on September 30, 2024 at which time the site transitioned to post-closure care. Institutional controls and continued groundwater monitoring will continue at the site until all GWPSs have been met in groundwater.

At this time, it is recommended to continue with semi-annual monitoring in accordance with 40 CFR 257.104(b)(3) and 257.95. The next sampling event is scheduled for the June 2026 timeframe.

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Sebree Generating Station, Reid/HMP&L CCR Surface Impoundment. Rev. 0. January 2025.

FIGURES



LEGEND

MW-7
 EXISTING MONITORING WELL LOCATION

*
 MONITORING WELL HAS ARTESIAN PROPERTIES



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K P R G KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478
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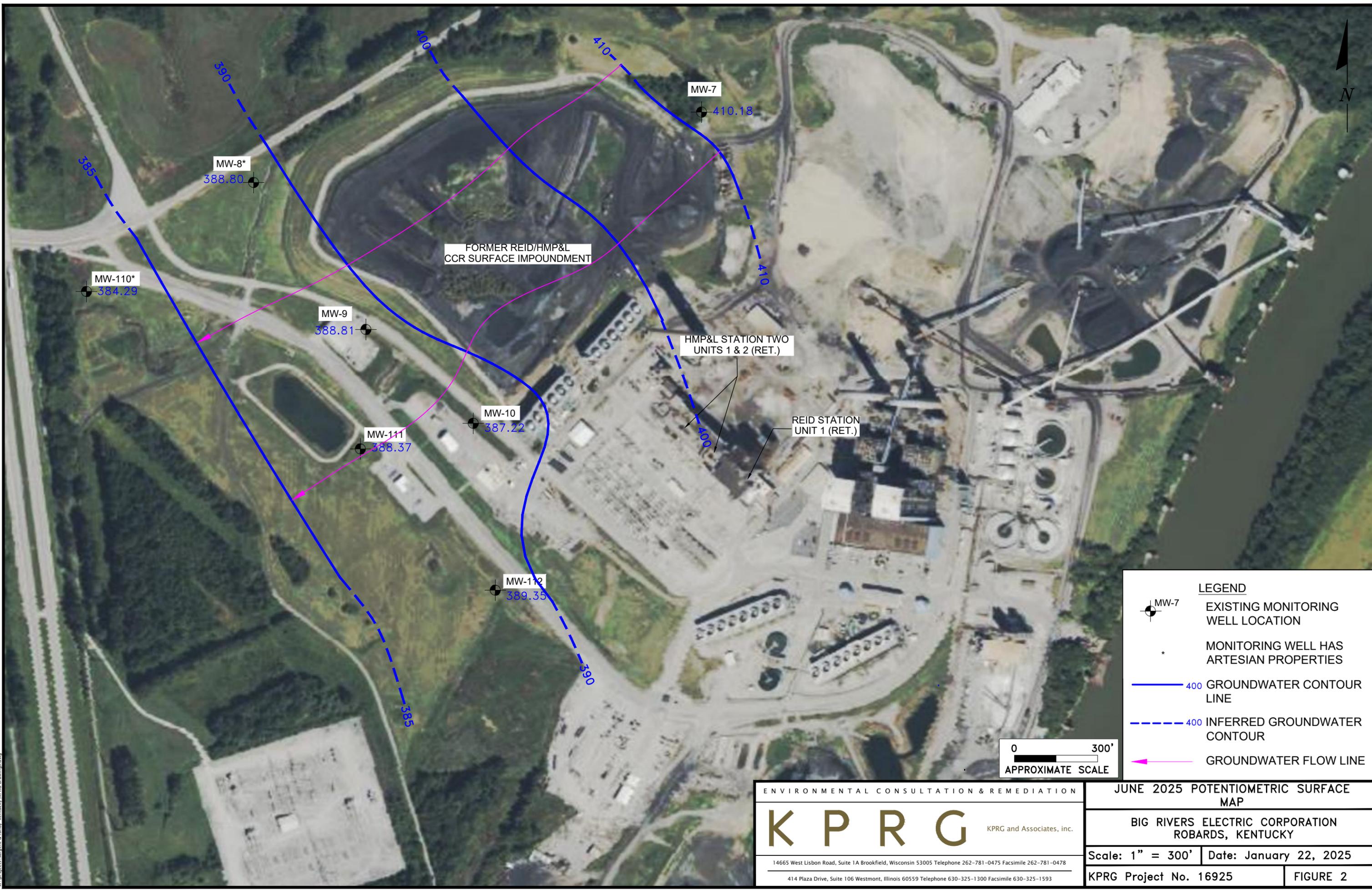
MONITORING WELL LOCATIONS

**BIG RIVERS ELECTRIC CORPORATION
 ROBARDS, KENTUCKY**

Scale: 1" = 300' Date: January 22, 2026

KPRG Project No. 16925 **FIGURE 1**

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LEGEND

- MW-7 EXISTING MONITORING WELL LOCATION
- * MONITORING WELL HAS ARTESIAN PROPERTIES
- 400 GROUNDWATER CONTOUR LINE
- 400 INFERRED GROUNDWATER CONTOUR
- GROUNDWATER FLOW LINE

0 300'
APPROXIMATE SCALE

ENVIRONMENTAL CONSULTATION & REMEDIATION

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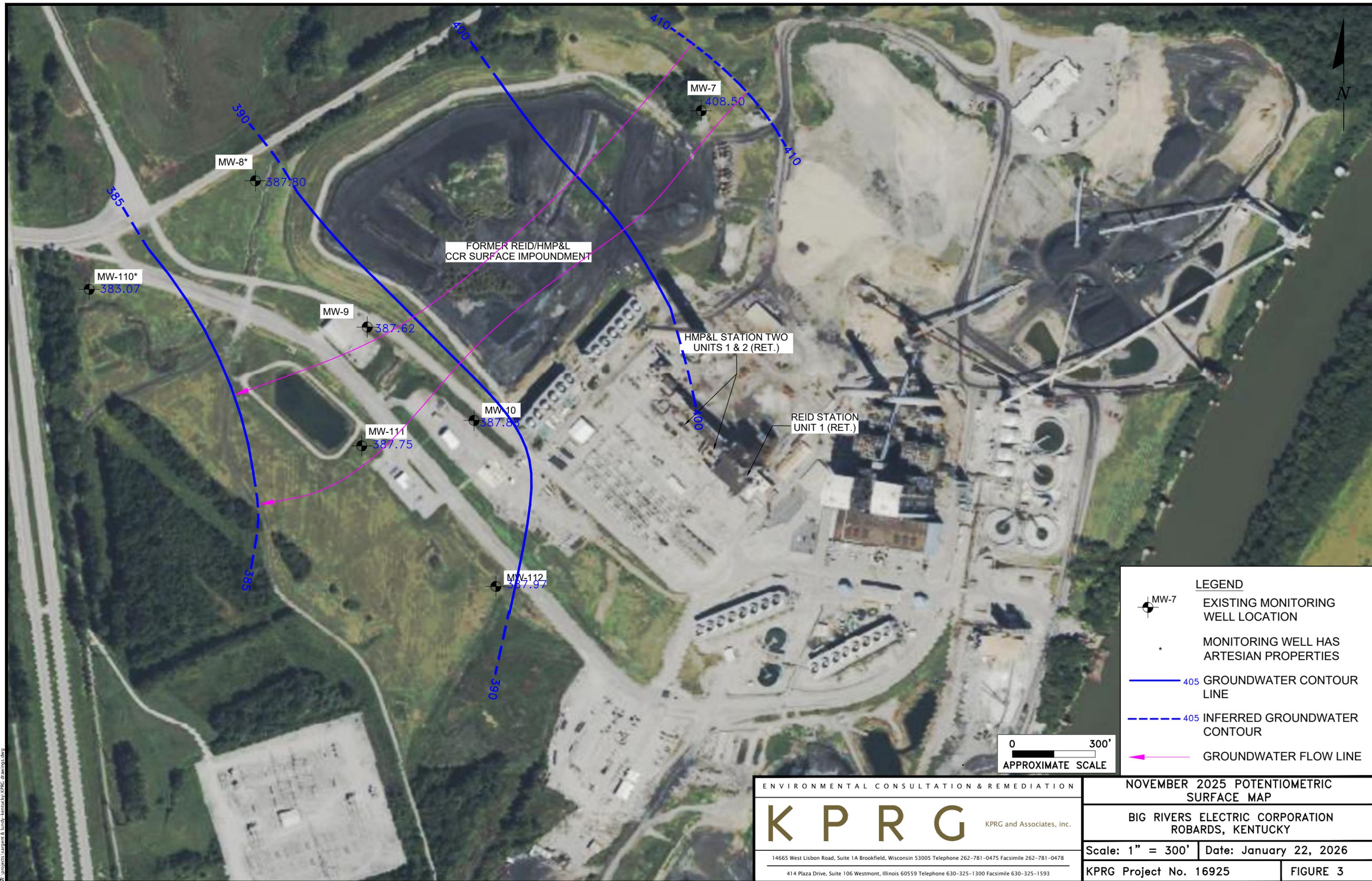
JUNE 2025 POTENTIOMETRIC SURFACE MAP

BIG RIVERS ELECTRIC CORPORATION
ROBARDS, KENTUCKY

Scale: 1" = 300' Date: January 22, 2025

KPRG Project No. 16925 FIGURE 2

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LEGEND

- MW-7 EXISTING MONITORING WELL LOCATION
- * MONITORING WELL HAS ARTESIAN PROPERTIES
- 405 GROUNDWATER CONTOUR LINE
- 405 INFERRED GROUNDWATER CONTOUR
- GROUNDWATER FLOW LINE

0 300'
APPROXIMATE SCALE

ENVIRONMENTAL CONSULTATION & REMEDIATION

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NOVEMBER 2025 POTENTIOMETRIC SURFACE MAP

BIG RIVERS ELECTRIC CORPORATION
ROBARDS, KENTUCKY

Scale: 1" = 300' Date: January 22, 2026

KPRG Project No. 16925 FIGURE 3

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MW-08	
Apr-20	0.03
Sep-20	0.03
Apr-21	0.03
Sep-20	0.04
Mar-22	0.035
Jun-22	0.0309
Nov-22	0.03
Jun-23	0.03
Nov-23	0.03 M2
Jun-24	0.03
Nov-24	0.040
Jun-25	0.03
Nov-25	0.03

MW-07	
Apr-20	0.007 V1, J
Sep-20	0.008 J
Apr-21	0.008 J
Sep-20	0.03 M1, M2
Mar-22	0.01
Jun-22	0.00823
Nov-22	0.008 M1, J
Jun-23	0.007 J
Nov-23	0.007 J
Jun-24	0.008 J
Nov-24	0.008 J
Jun-25	0.007 J
Nov-25	0.007 J

FORMER REID/HMP&L
CCR SURFACE IMPOUNDMENT

MW-110*

MW-110	
Apr-20	0.02
Sep-20	0.02 M4
Apr-21	0.02
Sep-20	0.02
Mar-22	0.02
Jun-22	0.0217
Dec-22	0.01 J
Jun-23	0.01 J
Nov-23	0.01 J
Jun-24	0.01 J
Nov-24	0.02
Jun-25	0.02
Nov-25	0.02

MW-9

MW-09	
Apr-20	0.01 V1, J
Sep-20	0.009 J
Apr-21	0.01 J
Sep-20	0.005 J
Mar-22	0.0078
Jun-22	0.00673 J
Nov-22	0.006 J
Jun-23	0.006 J
Nov-23	0.006 J
Jun-24	0.006 J
Nov-24	0.0067
Jun-25	0.008 J
Nov-25	0.006 J

HMP&L STATION TWO
UNITS 1 & 2 (RET.)

MW-10

MW-10	
Apr-20	0.49
Sep-20	0.56
Apr-21	0.57
Sep-20	0.49
Mar-22	0.55
Jun-22	0.486
Nov-22	0.50
Jun-23	0.52
Nov-23	0.54
Jun-24	0.60
Nov-24	0.58
Jun-25	0.52
Nov-25	0.63

REID STATION
UNIT 1 (RET.)

MW-111

MW-111	
Apr-20	WNI
Sep-20	WNI
Apr-21	WNI
Sep-20	WNI
Mar-22	0.014
Jun-22	0.00994
Dec-22	0.008 J
Jun-23	0.008 J
Nov-23	0.008 J
Jun-24	0.008 J
Nov-24	0.008 J
Jun-25	0.009 J
Nov-25	0.008 J

MW-112

MW-112	
Apr-20	WNI
Sep-20	WNI
Apr-21	WNI
Sep-20	WNI
Mar-22	0.011
Jun-22	0.0319
Dec-22	0.007 J
Jun-23	0.006 J
Nov-23	0.007 J
Jun-24	0.007 J
Nov-24	0.007 J
Jun-25	0.01 J
Nov-25	0.009 J

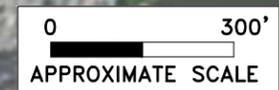
LEGEND

 MW-7
EXISTING MONITORING WELL LOCATION WITH LITHIUM RESULTS IN MG/L AND DATE. REFER TO DATA SUMMARY TABLES IN APPENDIX A FOR DESCRIPTION OF DATA QUALIFIERS.

* MONITORING WELL HAS ARTESIAN PROPERTIES

BOLD VALUES EXCEED LITHIUM GROUNDWATER PROTECTION STANDARD OF 0.04 mg/L

WNI = WELL NOT INSTALLED



ENVIRONMENTAL CONSULTATION & REMEDIATION



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AREAL DISTRIBUTION OF IMPACTS
- LITHIUM

BIG RIVERS ELECTRIC CORPORATION
ROBARDS, KENTUCKY

Scale: 1" = 300' | Date: January 22, 2026

KPRG Project No. 16925 | FIGURE 4

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APPENDIX A
Groundwater Data Summary Tables

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY
Table A-1. MW-7 (up-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE														
			3/30/2016	5/31/2016	8/23/2016	10/18/2016	1/31/2017	5/11/2017	8/23/2017	9/22/2017	10/11/2017	4/6/2018	6/29/2018	9/26/2018	5/2/2019	10/16/2019	
			Baseline Events														
Boron	0.3676	NA	0.246	0.245 J	0.271 J	0.250 J	0.33 J	0.295 J	0.286 JB	0.268 J	0.320 J		0.249 J	0.299 J	0.309 JB	ND	D2, M4, U
Calcium	48.11	NA	41.1	42.1 B	42.3	47.6	41.5 B	41.1	45.1	40.6	41.8 B		46.6	41.6 B	46.1		44.4 D2
Chloride	6.95	NA	2.48 JB	2.52 J	2.93 JB F1	3.26 B F1	4.02 B	5.73 B	4.99 F1 B	5.28 F1 B	3.65 B		6.88 B F1	5.38 B	4.94		4.7
Fluoride	0.3622	4	ND J	ND J	ND J F1	ND J F1	ND JB	ND J	ND J F1	ND J F1	ND J		ND J	ND J	0.255 J		0.3
Sulfate	26.59	NA	12.8	13.2	15.9	18.8	23.6 B	25.7	22.3 B	16.6 B	14.2 F1		23.4	18.7 B	16.8 B		19
pH (Field Measurement)	8.034-6.483	NA	7.39	7.47	7.6	7.16	7.74	7.26	7.23	7.36	7.36	7.01	7.17	6.94	7.46		7.07
Total Dissolved Solids	310.7	NA	233	243	243	250	253	291	290	267	278		295	263	271		228
APPENDIX IV CONSTITUENTS																	
Antimony	0.0008951	0.006	ND	ND JB	ND JB	ND J	ND	ND	ND JB	ND JB	NA	ND JB	ND JB	NA	0.000760 JB		ND U
Arsenic	0.003938	0.01	ND	ND J	ND J	ND J	ND J	ND J	ND J	ND J	NA	ND JB	ND JB	NA	0.00116 J		0.0014
Barium	0.0908	2	ND J	ND J	ND J	ND J	ND J	ND J	ND J	ND J	NA	ND J	ND J	ND J	0.0824 J		0.062
Beryllium	0.0005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA			ND U
Cadmium	0.000076	0.005	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA			ND U
Chromium	0.00171	0.1	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND JB	ND JB	NA	0.00136 J		ND U
Cobalt	0.00239	0.006	ND J	ND J	ND J	ND J	ND J	ND JB	ND J	ND J	NA	ND J	ND J	NA	0.00158 J		ND U
Fluoride	0.3622	4	ND J	ND J	ND J F1	ND J F1	ND JB	ND J	ND J F1	ND J F1	NA	ND J	ND J	ND J	0.255 J		0.3
Lead	0.00064	0.015	ND J	ND JB	ND	ND J	ND	ND	ND	ND	NA	ND	ND	NA	0.0000730 J		ND U
Lithium	0.00994	0.04	ND J	ND	ND	ND	ND J	ND	ND	ND	NA	ND	ND	ND			0.008 J
Mercury	0.000135	0.002	ND	ND	ND	ND	ND	ND	ND	0.000135	ND	ND	NA	ND			ND U
Molybdenum	0.01745	0.1	0.0109	0.0185	0.0136	0.0118	0.0127	ND J	ND J	ND J	NA	ND J	ND J	ND J	0.00442 J		0.01
Radium 226	1.844 pCi/L	5 pCi/L	0.865	0.685	0.473	ND	0.921	0.662	0.795	0.642	NA	0.650	1.15	0.730	0.698		0.652
Radium 228																	-0.208
Selenium	0.00066	0.05	ND	ND	ND	ND J	ND	ND	ND	ND	NA	ND	NA	NA	ND		ND U
Thallium	0.000058	0.002	ND	ND J	ND J	ND	ND	ND	ND	ND	NA	ND	NA	NA	ND		ND U

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE													
			4/16/2020	9/24/2020	4/21/2021	9/29/2021	3/16/2022	6/07/2022	11/30/2022	6/29/2023	11/21/2023	6/24/2024	11/25/2024	6/4/2025	11/11/2025	
			Assessment													
Boron	0.3676	NA	0.34 M4	0.33 M2, M4	0.34	1.77 D1, M2	0.36	0.329		0.33	0.35	0.33	0.33	0.36 M1, M2	0.34	
Calcium	48.11	NA	45.7 D2, M2	41.8 D2, M1, M2	43.4 D1	27 D1, M2	46.2	40.5	43.1 D1, M1, M2	44.1 D1	39.4 D1	41.8	40.6	44.8 D1, M1, M2	42.5 D1	
Chloride	6.95	NA	4.1	3.3	4.9	6.5	4.7	3.16	2.8	2.6	3.0	3.0	2.9	2.6	2.4	
Fluoride	0.3622	4	0.3	0.3	0.3	0.5	0.29	0.26	0.3	0.2	0.3	0.3	0.3	0.3	0.2	
Sulfate	26.59	NA	15	12	15	34 D	19	12.6	11	10	11	11	9	9		
pH (Field Measurement)	8.034-6.483	NA	6.86	6.56	7.75	7.80	7.67	7.18	7.51	7.69 H3	7.18	7.08	7.91	7.62	7.33	
Total Dissolved Solids	310.7	NA	148	114	280	610	263	234	262	186	238	238	224	258	292	
APPENDIX IV CONSTITUENTS																
Antimony	0.0008951	0.006	<0.005	<0.005 M2	<0.005 U	<0.005 M2, U	<0.00051	ND	ND M3, U	<0.002 U	<0.002 U	<0.002 L1, V1, U	<0.002 U	<0.002 U	<0.002 U	
Arsenic	0.003938	0.01	0.0025	0.0015 M2	0.0026	<0.0010 M2, U	0.0022	0.00197 J	0.0037 M1	0.002	0.003	0.0024	0.0034	0.0027	0.0030	
Barium	0.0908	2	0.087	0.075 M3	0.082	0.074 M2	0.074	0.0736	0.079 M1	0.076	0.076	0.077	0.084	0.080	0.080	
Beryllium	0.0005	0.004	<0.0020 V1	<0.0020	<0.0020 U	<0.0020 M2, U	<0.00027	ND	ND M1, U	<0.0010 U	<0.0010 U	<0.0010 V1, U	<0.0010 U	<0.0010 U	<0.0010 U	
Cadmium	0.000076	0.005	<0.0010	<0.0010 M2	<0.0010 U	<0.0010 M2, U	<0.00022	ND	ND M1, U	<0.0001 U	<0.0001 U	<0.0001 V1, U	<0.0001 U	<0.0001 U	<0.0001 U	
Chromium	0.00171	0.1	<0.0020	<0.0020 M2	0.0007 J	<0.0020 M2, U	<0.0019 J	ND	ND M1, U	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U	
Cobalt	0.00239	0.006	<0.004	<0.004 M2	<0.004 U	<0.004 M2, U	0.0005	0.000311 J	ND M1, U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	
Fluoride	0.3622	4	0.3	0.3	0.3	0.5	0.292	0.26	0.3	0.2	0.3	0.3	0.3	0.3	0.2	
Lead	0.00064	0.015	<0.002	<0.002 M2	<0.002 U	<0.002 U	0.00047 J	ND	ND M1, U	<0.0005 U	0.0005 J	0.0005 V1, U	0.0005 U	ND U	<0.0005 U	
Lithium	0.00994	0.04	0.007 V1, J	0.008 J	0.008 J	0.03 M1, M2	0.0101	0.00823	0.008 M1, J	0.007 J	0.008 J, V1	0.008 J	0.007 J	0.007 J	0.007 J	
Mercury	0.000135	0.002	<0.0005	<0.0005 M2	<0.0005 U	<0.0005 M2, U	0.00025	ND	ND M1, M2, U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	
Molybdenum	0.01745	0.1	0.006 J	0.006 M2, J	0.005 J	<0.01 M2, U	0.0096	0.0122	0.01 M1	0.007 J	0.009 J	0.009 J	0.007 J	0.007 J	0.005 J	
Radium 226	1.844 pCi/L	5 pCi/L	1.83	0.968	0.703	0.912	0.531	0.610 U	1.130	1.81	0.562	0.677	1.950	0.670	1.09	
Radium 228																
Selenium	0.00066	0.05	<0.003	<0.003 M2	<0.003 U	<0.003 U	<0.00074	ND	ND M1, U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 V1, U	<0.001 U	<0.001 U
Thallium	0.000058	0.002	<0.0020	<0.0020 M2	<0.0020	<0.0020 M2, U	<0.00047	0.000299 J	ND M1, U	0.0001 J	<0.0001 U	<0.0001 U	<0.0001 U	<0.0001 U	<0.0001 U	

*All results listed in milligrams per liter (mg/L) unless otherwise noted by the Maximum Contaminant Level (MCL)

GWPS = Groundwater Protection Standard

NA = Not Analyzed

ND = Not Detected at or above Method Detection Limit

B = Compound was found in the blank and sample.

D1 = Sample required dilution due to high concentration of target analyte

D2 = Sample required dilution due to matrix interference

F1 = MS and/or MSD Recovery is outside acceptance limits.

H3 - Sample received and analyzed past holding time.

J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

pCi/L = picoCuries per Liter

M1 = Matrix spike recovery was high; the method control sample recovery was acceptable

M2 = Matrix spike recovery was low; the method control sample recovery was acceptable

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable

M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable

U = Target analyte was analyzed for, but was below detection limit

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample

BOLD - Exceeds GWPS

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY

Table A-2. MW-8 (down-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE														
			3/30/2016	5/31/2016	8/23/2016	10/18/2016	1/31/2017	5/11/2017	8/23/2017	9/22/2017	10/11/2017	5/2/2018	4/6/2018	6/29/2018	9/26/2018	5/2/2019	10/17/2019
Baseline Events																	
Boron	0.3676	NA	1.46	1.07	1.3	1.00	1.74	1.60	1.37	1.32	1.54	0.309		1.32	1.46	1.41	1.49
Calcium	48.11	NA	283	242	228	194	235	251	228	253	235	46.1		253	254	272	267
Chloride	6.95	NA	48.7	38.2	41.4	66.4	42.1	43.6	47.1	58.5	38.6	4.94		42.0	46.3	57.2	49.5
Fluoride	0.3622	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.255		ND	ND	0.370	0.4
Sulfate	26.59	NA	1100	1140	1120	1080	1220	1180	1110	1440	1040	16.8		1050	1180	1220	1240
pH (Field Measurement)	8.034-6.483	NA	7.13	7.14	7.37	7.06	7.50	7.10	7.11	7.10	7.15	7.46	6.97	7.09	6.93	7.25	7.04
Total Dissolved Solids	310.7	NA	1930	1980	1960	2030	2010	1990	2090	2030	2100	271		2060	1990	2090	2200
APPENDIX IV CONSTITUENTS																	
Antimony	0.0008951	0.006	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.000760	ND	ND	NA	0.000205	ND
Arsenic	0.003938	0.01	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.00116	ND	ND	NA	0.000438	ND
Barium	0.0908	2	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.0824	ND	ND	NA	0.0188	0.016
Beryllium	0.0005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND
Cadmium	0.000076	0.005	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND
Chromium	0.00171	0.1	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.00136	ND	ND	NA	0.00320	ND
Cobalt	0.00239	0.006	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.000158	ND	ND	NA	0.000141	ND
Fluoride	0.3622	4	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.255	ND	ND	NA	0.370	0.4
Lead	0.00064	0.015	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.0000730	ND	ND	NA	0.000104	ND
Lithium	0.00994	0.04	0.0314	0.035	0.0314	0.0324	0.0408	0.0377	0.0367	0.0375	NA	ND	0.0347	0.0368	0.0375	0.0370	0.03
Mercury	0.000135	0.002	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND
Molybdenum	0.01745	0.1	0.0138	0.0186	0.0157	0.0147	0.0173	0.0158	0.0175	0.0139	NA	0.00442	0.0147	0.0140	0.0149	0.0146	0.01
Radium 226																	0.914
Radium 228	1.844 pCi/L	5 pCi/L	1.98	1.32	1.36	1.36	1.92	1.12	1.48	1.4	NA	0.698	1.29	1.6	1.46	1.43	1.59
Selenium	0.00066	0.05	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	0.000634	ND
Thallium	0.000058	0.002	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	0.0000470	ND

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE													
			4/16/2020	9/24/2020	4/21/2021	9/29/2021	3/15/2022	6/7/2022	11/30/2022	6/29/2023	11/20/2023	6/24/2024	11/26/2024	6/4/2025	11/17/2025	
Assessment																
Boron	0.3676	NA	1.56	1.41	1.42	1.5	1.6	1.52	1.53	1.60	1.49	0.15	1.44	1.60	1.57	
Calcium	48.11	NA	292	257	281	267	260	281	276	251	251	297	261	329	272	
Chloride	6.95	NA	47.3	49.2	45.8	61.4	49	49.3	42.3	48.2	46.5	51.0	53.2	51.9	52.3	
Fluoride	0.3622	4	0.4	0.4	0.3	0.4	0.42	0.386	ND	0.4	0.4	0.4	0.4	0.4	0.4	
Sulfate	26.59	NA	1130	1400	1090	2320	1230	1240	1,330	1450	1600	1120	1220	1170	1170	
pH (Field Measurement)	8.034-6.483	NA	6.78	6.58	6.64	6.12	7.21	6.72	7.88	7.56	7.08	7.00	7.42	7.19	6.93	
Total Dissolved Solids	310.7	NA	1930	1940	2000	2090	2030	2010	2,140	2030	1780	1750	1410	2690	1640	
APPENDIX IV CONSTITUENTS																
Antimony	0.0008951	0.006	<0.005	<0.005	<0.005	<0.005	<0.00051	ND	ND	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Arsenic	0.003938	0.01	<0.0010	<0.0010	<0.0010	<0.0010	<0.00028	ND	ND	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Barium	0.0908	2	0.017	0.016	0.018	0.02	0.016	0.0165	0.0417	0.015	0.016	0.017	0.019	0.016	0.016	0.016
Beryllium	0.0005	0.004	<0.0020	<0.0020	<0.0020	<0.0020	<0.00027	ND	ND	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cadmium	0.000076	0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.00022	ND	ND	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	0.00171	0.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.0015	ND	ND	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cobalt	0.00239	0.006	<0.004	<0.004	<0.004	<0.004	<0.00026	ND	ND	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	0.3622	4	0.4	0.4	0.3	0.4	0.42	0.386	ND	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Lead	0.00064	0.015	<0.002	<0.002	<0.002	<0.002	<0.00017	ND	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Lithium	0.00994	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03
Mercury	0.000135	0.002	<0.0005	<0.0005	<0.0005	<0.0005	0.00019	ND	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	0.01745	0.1	0.01	0.01	0.01	0.01	0.013	0.0131	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Radium 226																
Radium 228	1.844 pCi/L	5 pCi/L	1.93	0.366	1.94	1.72	0.52	1.06	2.18	1.82	1.53	2.22	2.99	2.57		
Selenium	0.00066	0.05	<0.003	<0.003	<0.003	<0.003	<0.00074	ND	ND	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Thallium	0.000058	0.002	<0.0020	<0.0020	<0.0029	<0.0020	<0.00047	ND	ND	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

*All results listed in milligrams per liter (mg/L) unless otherwise noted by the Maximum Contaminant Level (MCL)

GWPS = Groundwater Protection Standard

NA = Not Analyzed

ND = Not Detected at or above Method Detection Limit

B = Compound was found in the blank and sample.

D1 = Sample required dilution due to high concentration of target analyte

D2 = Sample required dilution due to matrix interference

F1 = MS and/or MSD Recovery is outside acceptance limits.

H3 - Sample received and analyzed past holding time.

J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

pCi/L = picoCuries per Liter

M1 = Matrix spike recovery was high; the method control sample recovery was acceptable

M2 = Matrix spike recovery was low; the method control sample recovery was acceptable

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable

M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable

U = Target analyte was analyzed for, but was below detection limit

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample

BOLD - Exceeds GWPS

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY

Table A-3. MW-9 (down-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE														
			3/30/2016	5/31/2016	8/23/2016	10/18/2016	1/31/2017	5/11/2017	8/23/2017	9/22/2017	10/11/2017	5/2/2018	4/6/2018	6/29/2018	9/26/2018	5/2/2019	10/17/2019
			Baseline Events														
Boron	0.3676	NA	0.316	0.264 J	0.333 J	0.257 J	0.431 J	0.362 JB	0.101 JB	0.0844 J	0.0816 J	0.309 JB		0.239 J	0.0857 J	0.307 JB	ND D2, U
Calcium	48.11	NA	64.1	71.2 B	71.5	72.3	75.0 B	72.9	60.8	57.6	57.0 B	46.1		68.6	60.3 B	68.6	66.8 D2
Chloride	6.95	NA	26.5 B	30.9	36.6 B	32.6 B	42.4 B	38.0 B	6.40 B	7.14 B	5.83 B	4.94		31.2 B	6.93 B	21.8	17.6
Fluoride	0.3622	4	ND J	ND J	ND J	ND J	ND JB	ND J	ND J	ND J	ND J	0.255 J		ND J	ND J	0.223 J	0.2
Sulfate	26.59	NA	9.51	17.6	27.7	39.6	57.2 B	30.4	ND J	ND JB	ND J	16.8 B		ND J	0.481 JB	0.223 JB	ND U
pH (Field Measurement)	8.034-6.483	NA	7.32	7.27	7.55	7.13	7.64	7.31	7.04	7.04	7.04	7.46	7.13	7.00	6.69		7.22
Total Dissolved Solids	310.7	NA	363	389	403	409	465	435	303	308	316	271		399	293		392
APPENDIX IV CONSTITUENTS																	
Antimony	0.0008951	0.006	ND	ND JB	ND JB	ND J	ND	ND JB	ND JB	ND JB	NA	0.000760 B	ND JB	ND JB	NA	0.000192 JB	ND U
Arsenic	0.003938	0.01	ND	ND J	ND J	ND J	ND J	ND J	ND J	ND	NA	0.00116 J	ND JB	ND JB	NA	0.000563 J	ND U
Barium	0.0908	2	1.1	1.03	0.889	0.635	0.827	0.833	0.253	0.227	NA	0.0824 J	0.967	0.777	0.288	1.03	0.763
Beryllium	0.0005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND U
Cadmium	0.000076	0.005	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND U
Chromium	0.00171	0.1	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.00136 J	ND JB	ND JB	NA	0.00316	ND U
Cobalt	0.00239	0.006	ND	ND J	ND J	ND J	ND	ND	ND	ND	NA	0.000158 J	ND JB	ND J	NA	0.000055 J	ND U
Fluoride	0.3622	4	ND J	ND J	ND J	ND J	ND JB	ND J	ND J	ND J	NA	0.255 J	ND JB	ND J	ND J	0.223 J	0.2
Lead	0.00064	0.015	ND	ND JB	ND	ND J	ND	ND	ND	ND	NA	0.0000730 J	ND	ND	NA	0.000076 J	ND U
Lithium	0.00994	0.04	0.0120 J	0.0105 J	0.0102 J	0.0119 J	0.0179 J	0.0136 J	ND	ND	NA	ND	0.0108 JB	0.0112 J	ND	0.0141 J	0.009 J
Mercury	0.000135	0.002	ND	ND	ND	ND	ND	ND	ND JB	ND J	NA	ND	ND	NA	NA	ND	ND U
Molybdenum	0.01745	0.1	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.00442 J	ND	ND	ND	ND	ND U
Radium 226	1.844 pCi/L	5 pCi/L	2.87	2.84	2.91	1.38	2.11	2.53	1.28	1.26	NA	0.698	2.04	1.93	1.23	2.32	1.09
Radium 228																	
Selenium	0.00066	0.05	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND U
Thallium	0.000058	0.002	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND U

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	Date												
			4/16/2020	9/24/2020	4/21/2021	9/29/2021	3/15/2022	6/07/2022	6/29/2023	11/21/2023	6/24/2024	11/26/2024	6/5/2025	11/11/2025	
			Assessment												
Boron	0.3676	NA	0.32	0.22	0.23	<0.10 U	0.084 J	0.078 J	ND U	<0.10 U	<0.10 V1, U	<0.10 L1, U	<0.10 U	0.17	<0.10 U
Calcium	48.11	NA	71.2 D2	65.3 D2	66.9 D1	59.4 D1	61	62.4	60.5	62.3 D1	59.4 D1	63.1 D1	61.0 D1	69.5 D1	68.7 D1
Chloride	6.95	NA	22.8	19.9	22.5	7.2	6.7	6.6	6.7	6.1	6.5	6.6	6.9	13.9	6.9
Fluoride	0.3622	4	0.3	0.3	0.2	0.2	0.20	0.192	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Sulfate	26.59	NA	<1	<1	<1 U	<1 U	<0.35	ND	0.6 J	0.5 J	<0.5 U	0.5 J	<0.5 U	0.7 J	<0.5 U
pH (Field Measurement)	8.034-6.483	NA	7.04	6.67	7.12	6.23	7.05	6.53	7.74	7.45 H3	6.93	6.81	7.16	7.29	6.84
Total Dissolved Solids	310.7	NA	320	308	422	264	298	291 H	306	338	314	302	336	296	320
APPENDIX IV CONSTITUENTS															
Antimony	0.0008951	0.006	<0.005	<0.005	<0.005 U	<0.005 U	<0.00051	ND	ND U	<0.002 U	<0.002 U	<0.002 L1, V1, U	<0.002 U	<0.002 U	<0.002 U
Arsenic	0.003938	0.01	<0.0010	<0.0010	<0.0010 U	<0.0010 U	<0.00028	ND	ND U	<0.0004 U	<0.0004 U	<0.0004 U	<0.0004 U	<0.0004 U	<0.0004 U
Barium	0.0908	2	1.06 D1	0.730	0.782	0.248	0.26	0.258	0.253	0.245	0.251	0.259	0.251	0.391	0.255
Beryllium	0.0005	0.004	<0.0020 V1	<0.0020	<0.0020 U	<0.0020 U	<0.00027	ND	ND U	<0.0010 U	<0.0010 U	<0.0010 V1, U	<0.0010 U	<0.0010 U	<0.0010 U
Cadmium	0.000076	0.005	<0.0010	<0.0010	<0.0010 U	<0.0010 U	<0.00022	ND	ND U	<0.0001 U	<0.0001 U	<0.0001 V1, U	<0.0001 U	<0.0001 U	<0.0001 U
Chromium	0.00171	0.1	<0.0020	<0.0020	<0.0020 U	<0.0020 U	<0.0015	ND	0.0048	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U
Cobalt	0.00239	0.006	<0.004	<0.004	<0.004 U	<0.004 U	<0.00026	ND	ND U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U
Fluoride	0.3622	4	0.3	0.3	0.2	0.2	0.20	0.192	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Lead	0.00064	0.015	<0.002	<0.002	<0.002 U	<0.002 U	<0.00017	ND	ND U	<0.0005 U	<0.0005 U	<0.0005 V1, U	<0.0005 U	<0.0005 U	<0.0005 U
Lithium	0.00994	0.04	0.01 V1, J	0.009 J	0.01 J	0.005 J	0.0078	0.00673 J	0.006 J	0.006 J	0.006 J	0.006 V1, J	0.007 J	0.008 J	0.006 J
Mercury	0.000135	0.002	<0.0005	<0.0005	<0.0005 U	<0.0005 U	0.00022 H	ND	0.0002 J	<0.0002 Y2, U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U
Molybdenum	0.01745	0.1	<0.01	<0.01	<0.01 U	<0.01 U	<0.00061	ND	ND U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U
Radium 226	1.844 pCi/L	5 pCi/L	2.90	3.44	3.99	1.13	1.35	1.75	1.78	1.71	1.20	1.27	2.37	1.91	1.38
Radium 228															
Selenium	0.00066	0.05	<0.003	<0.003	<0.003 U	<0.003 U	<0.00074	ND	ND U	<0.001 U	<0.001 U	<0.001 U	<0.001 V1, U	<0.001 U	<0.001 U
Thallium	0.000058	0.002	<0.0020	<0.0020	<0.0020 U	<0.0020 U	<0.00047	0.000372 J	ND U	0.0001 J	<0.0001 U	<0.0001 V1, U	<0.0001 U	<0.0001 U	<0.0001 U

*All results listed in milligrams per liter (mg/L) unless otherwise noted by the Maximum Contaminant Level (MCL)

GWPS = Groundwater Protection Standard

NA = Not Analyzed

ND = Not Detected at or above Method Detection Limit

B = Compound was found in the blank and sample.

D1 = Sample required dilution due to high concentration of target analyte

D2 = Sample required dilution due to matrix interference

F1 = MS and/or MSD Recovery is outside acceptance limits.

H3 - Sample received and analyzed past holding time.

J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

pCi/L = picoCuries per Liter

M1 = Matrix spike recovery was high; the method control sample recovery was acceptable

M2 = Matrix spike recovery was low; the method control sample recovery was acceptable

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable

M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable

U = Target analyte was analyzed for, but was below detection limit

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample

BOLD - Exceeds GWPS

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY

Table A-4. MW-10 (down-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE															
			3/30/2016	5/31/2016	8/23/2016	10/18/2016	2/9/2017	5/11/2017	8/23/2017	9/22/2017	10/11/2017	5/2/2018	4/6/2018	6/29/2018	9/26/2018	5/2/2019	10/17/2019	
			Baseline Events													Assessment	Re-Sample	Assessment
Boron	0.3676	NA	0.416	0.336 J	0.460 J	0.489 J	0.540 JB	0.679 JB	0.560 JB	0.543 J	0.637 J	0.309 JB		0.419 J	0.464 J	0.498 JB	ND D2,U	
Calcium	48.11	NA	16.5	21.3 B	23	36	14.3 B	13.1	33.7	21.4	11.9 B	46.1		9.94	10.5 B	19.5	9.76 D2	
Chloride	6.95	NA	31.5 B	26.9	28.9 B	31.6 B	29.4 JB	29.1 B	32.3 B	29.7 B	25.8 B	4.94		26.7 B	27.9 B	26.6	25.7	
Fluoride	0.3622	4	ND J	ND J	ND J	ND J	ND	ND J	ND J	ND J	ND J	0.255 J		ND J	ND J	0.570 J	0.6	
Sulfate	26.59	NA	208 HB	144	152	144	152	145	177 B	152	147	16.8 B		129	138 B	114 B	80 D	
pH (Field Measurement)	8.034-6.483	NA	9.72	8.95	8.1	7.53	7.08	9.84	8.14	8.14	9.19	7.46	9.37	9.15	8.98	9.15	9.24	
Total Dissolved Solids	310.7	NA	644	532	558	602	679	763	758	763	728	271		721	673	642	568	
APPENDIX IV CONSTITUENTS																		
Antimony	0.0008951	0.006	ND	ND JB	ND JB	ND J	ND	ND JB	ND JB	ND JB	NA	0.0000760 B	ND JB	ND JB	NA	0.0000580 JB	ND U	
Arsenic	0.003938	0.01	ND J	ND J	ND J	ND J	ND JB	ND J	ND JB	ND J	NA	0.000116 J	ND JB	ND JB	NA	0.000254 J	0.0022	
Barium	0.0908	2	ND J	ND J	ND J	ND J	ND JB	ND J	ND JB	ND J	NA	0.0824 J	ND J	ND J	ND J	0.100 J	0.077	
Beryllium	0.0005	0.004	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND U	
Cadmium	0.000076	0.005	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND U	
Chromium	0.00171	0.1	ND J	ND J	ND J	ND	ND J	ND J	ND JB	ND	NA	0.00136 J	ND JB	ND JB	NA	0.00299 J	0.0006 J	
Cobalt	0.00239	0.006	ND	ND J	ND J	ND J	ND J	ND J	ND JB	ND J	NA	0.000158 J	ND J	ND J	NA	0.000685 J	ND U	
Fluoride	0.3622	4	ND J	ND J	ND J	ND J	ND J	ND J	ND J	ND J	NA	0.255 J	ND J	ND J	ND J	0.570 J	0.6	
Lead	0.00064	0.015	ND	ND JB	ND	ND J	ND J	ND J	ND J	ND	NA	0.0000730 J	ND J	ND J	NA	0.000671 J	ND U	
Lithium	0.00994	0.04	0.339	0.199	0.219	0.0736	0.481	0.607	0.204	0.345	NA	ND	0.694	0.630	0.570	0.574	0.51	
Mercury	0.000135	0.002	ND	ND	ND	ND	ND	ND	ND JB	ND	NA	ND	ND	NA	NA	ND	0.0002 J	
Molybdenum	0.01745	0.1	0.0170 J	0.0171	0.0141	ND J	0.0119	ND J	ND J	ND J	NA	0.00442 J	ND J	ND J	ND J	0.00797 J	0.007 J	
Radium 226	1.844 pCi/L	5 pCi/L	0.612	ND	0.715	ND	0.422	0.287	0.619	0.391	NA	0.698	0.512	0.683	0.704	0.205 U	0.458	
Radium 228																		0.379
Selenium	0.00066	0.05	ND	ND	ND	ND J	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND U	
Thallium	0.000058	0.002	ND	ND J	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND U	

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE													
			4/16/2020	9/24/2020	4/21/2021	9/29/2021	3/15/2022	6/7/2022	11/30/2022	6/29/2023	11/21/2023	6/24/2024	11/26/2024	6/2/2025	11/7/2025	
			Assessment													
Boron	0.3676	NA	0.54	0.51	0.54	0.54	0.55	0.534	0.53	0.52	0.56	0.52	0.51	0.56	0.52	
Calcium	48.11	NA	12.5 D2	8.80 D2	7.95 D1	8.25	15	11.5	8.56	8.67	9.16	8.85	10.6 D1	12.9 D1	10.7 D1	
Chloride	6.95	NA	21.5	18	21.4	20.7	18	16.7	17.8	16.2	17.2	15.5	15.8	14.6	14.5	
Fluoride	0.3622	4	0.5	0.5	0.5	0.5	0.62	0.54	0.6	0.5	0.5	0.5	0.5	0.5	0.5	
Sulfate	26.59	NA	58 D	62 D	52 D	61 D	41	32.3	30	25	24	19	18	12	11	
pH (Field Measurement)	8.034-6.483	NA	8.87	8.74	9.88	8.26	9.34	8.68	9.82	8.95 H3	9.12	9.07	9.95	9.47	9.13	
Total Dissolved Solids	310.7	NA	466	436	530	514	480	439 H	530	428	408	448	416	422	498	
APPENDIX IV CONSTITUENTS																
Antimony	0.0008951	0.006	<0.005	<0.005	<0.005 U	<0.005 U	<0.00051	ND	ND U	<0.002 U	<0.002 U	<0.002 L1,V1,U	<0.002 U	<0.002 U	<0.002 U	
Arsenic	0.003938	0.01	0.0019	0.0019	0.0018	0.0017	0.0019	0.0015 J	0.0016	0.0015	0.0016	0.0014	0.0012	0.0012	0.0011	
Barium	0.0908	2	0.093	0.084	0.089	0.096	0.13	0.126	0.129	0.14	0.165	0.163	0.200	0.208	0.201	
Beryllium	0.0005	0.004	<0.0020 V1	<0.0020	<0.0020 U	<0.0020 U	<0.00027	ND	ND U	<0.0010 U	<0.0010 U	<0.0010 V1,U	<0.0010 U	<0.0010 U	<0.0010 U	
Cadmium	0.000076	0.005	<0.0010	<0.0010	<0.0010 U	<0.0010 U	<0.00022	ND	ND U	<0.0001 U	<0.0001 U	<0.0001 V1,U	<0.0001 U	<0.0001 U	<0.0001 U	
Chromium	0.00171	0.1	<0.0020	0.0006 J	0.0007 J	0.0006 J	0.0016 J	ND	ND U	<0.0006 U	0.0006 J	0.0007 J	<0.0006 U	0.0014 J	0.0023	
Cobalt	0.00239	0.006	<0.004	<0.004	<0.004 U	<0.004 U	0.00068	0.000419 J	ND U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	
Fluoride	0.3622	4	0.5	0.5	0.5	0.5	0.62	0.54	0.6	0.5	0.5	0.5	0.5	0.5	0.5	
Lead	0.00064	0.015	<0.002	<0.002	<0.002 U	<0.002 U	0.00027 J	ND	ND U	<0.0005 U	<0.0005 U	<0.0005 V1,U	<0.0005 U	<0.0005 U	<0.0005 U	
Lithium	0.00994	0.04	0.49	0.56	0.57	0.49	0.55	0.486	0.5	0.52	0.54	0.60	0.58	0.52	0.63	
Mercury	0.000135	0.002	0.0002 J	0.0002 J	0.0003 J	0.0002 J	0.00019 J H	ND	0.0003 J	<0.0002 U	0.0002 J	0.0002 J	0.0002 J	<0.0002 U	<0.0002 J	
Molybdenum	0.01745	0.1	0.006 J	0.007 J	0.00545	0.007 J	0.0065	0.00545	0.0065	0.005 J	0.005 J	0.005 J	0.004 J	0.003 J	0.003 J	
Radium 226	1.844 pCi/L	5 pCi/L	1.24	0.594	0.769	0.692	0.826	0.895	0.856	1.910	0.210	0.669	0.865	0.619	1.89	
Radium 228																
Selenium	0.00066	0.05	<0.003	<0.003	<0.003 U	<0.003 U	<0.00074	ND	ND U	<0.001 U	<0.001 U	<0.001 U	<0.001 V1,U	<0.001 U	<0.001 U	
Thallium	0.000058	0.002	<0.0020	<0.0020	<0.0020 U	<0.0020 U	<0.00047	0.000667 J	ND U	<0.0001 U	<0.0001 U	<0.0001 V1,U	<0.0001 U	<0.0001 U	<0.0001 U	

*All results listed in milligrams per liter (mg/L) unless otherwise noted by the Maximum Contaminant Level (MCL)

GWPS = Groundwater Protection Standard

NA = Not Analyzed

ND = Not Detected at or above Method Detection Limit

B = Compound was found in the blank and sample.

D1 = Sample required dilution due to high concentration of target analyte

D2 = Sample required dilution due to matrix interference

F1 = MS and/or MSD Recovery is outside acceptance limits.

H3 - Sample received and analyzed past holding time.

J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

pCi/L = picoCuries per Liter

M1 = Matrix spike recovery was high; the method control sample recovery was acceptable

M2 = Matrix spike recovery was low; the method control sample recovery was acceptable

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable

M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable

U = Target analyte was analyzed for, but was below detection limit

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample

BOLD - Exceeds GWPS

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY

Table A-5. MW-110 (down-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE													
			3/29/2019	4/10/2019	10/24/2019	4/17/2020	10/1/2020	5/26/2021	10/1/2021	3/15/2022	6/7/2022	12/2/2022	6/30/2023	11/20/2023	6/24/2024	11/25/2024
Characterization																
Boron	0.3676	NA	0.484 JB	0.496 JB	ND D2, U	0.54 M4	0.53 D2, M1, M4	0.54	0.52	0.60	0.537	0.53	0.51 M2	0.56 M2	0.53	0.53
Calcium	48.11	NA	176 B	178	204 D1	181 D1, M2	162 D1, M2	163 D1	155 D1	150	143	151 D1	152 D1, M3	105 D1, M3	98.9 D1	92.3 D1
Chloride	6.95	NA	26.0	30.4 B	30.0	22.1	19.9	21.8	21.1	20	19.6	2.1	17.7	17.6 M2	18.4	18.2
Fluoride	0.3622	4	0.279 J	0.255 JB	0.3	0.3	0.3	0.3	0.3	0.36	0.326	0.3	0.3	0.3	0.4	0.4
Sulfate	26.59	NA	563	596 B	D M1	460 D	411 D	428 D	853 D	440	450	539 D	493 D	401 D, M1	241	210
pH (Field Measurement)	8.034-6.483	NA	7.25	7.50	6.84	7.17	7.56	7.75	6.69	7.19	6.87	7.28	7.68 H3	7.15	7.05	7.69
Total Dissolved Solids	310.7	NA	1170	1200	1270	1150	1060	1140	1090	930	934 B	1,020	1070	824	670	572
APPENDIX IV CONSTITUENTS																
Antimony	0.0008951	0.006	0.000240 JB	0.000204 JB	ND U	<0.005	<0.005 M4	<0.005 U	<0.005 U	<0.00051	ND	ND U	<0.002 U	<0.002 U	<0.002 L1, V1, U	<0.002 U
Arsenic	0.003938	0.01	0.00534	0.00238 J	ND U	0.0012	0.0004 J	<0.0010 U	<0.0010 U	0.0011	0.00198 J	ND U	<0.0004 U	0.0006 J	0.0006 J	0.0017
Barium	0.0908	2	0.118 J	0.107 JB	0.065	0.065	0.056 M1	0.055	0.049	0.059	0.0696	0.049	0.046	0.046	0.047	0.055
Beryllium	0.0005	0.004	0.000716 J	0.000314 J	ND U	<0.0020 M2	<0.0020 M4	<0.0020 U	<0.0020 U	<0.00027	ND	ND U	<0.0010 U	<0.0010 U	<0.0010 V1, U	<0.0010 U
Cadmium	0.00076	0.005	ND	ND	ND U	<0.0010	<0.0010	<0.0010 U	<0.0010 U	<0.00022	ND	ND U	<0.0001 U	<0.0001 U	<0.0001 V1, U	<0.0001 U
Chromium	0.00171	0.1	0.0180 B	0.0115	0.0010 J	0.0047	0.0016 J	0.0009 J	<0.0020 U	0.0035	0.00729	ND U	<0.0006 U	0.0028	0.0022	0.0067
Cobalt	0.00239	0.006	0.00911 B	0.00384 J	ND U	<0.004	<0.004 M4	<0.004 U	<0.004 U	0.0017	0.00359	ND U	<0.004 U	<0.004 U	<0.004 U	<0.004 U
Fluoride	0.3622	4	0.279 J	0.255 JB	0.3	0.3	0.3	0.3	0.3	0.36	0.326	0.3	0.3	0.3	0.4	0.4
Lead	0.00064	0.015	0.00661	0.00399 J	ND U	0.002	0.0008 J	<0.002 U	<0.002 U	0.0017	0.00328	ND U	<0.0005 U	0.001 J	0.001 V1, J	0.003
Lithium	0.00994	0.04	0.0299 J	0.0303 J	0.02	0.02	0.02 M4	0.02	0.02	0.0203	0.0217	0.01 J	0.01 J	0.01 J	0.01 V1, J	0.02
Mercury	0.000135	0.002	ND	ND	ND U	0.0002 J	<0.0005 M1, M4	<0.0005 U	<0.0005 U	<0.00013 H	ND	ND U	<0.0002 U	<0.0002 M1, Y2, U	<0.0002 U	<0.0002 U
Molybdenum	0.01745	0.1	0.00153 J	0.00120 J	ND U	<0.01 M4	<0.01 M4	<0.01 U	<0.01 U	<0.00061	0.00123	ND U	<0.002 U	<0.002 U	<0.002 U	<0.002 U
Radium 226	1.844 pCi/L	5 pCi/L	1.84	1.93	0.195	1.37	0.941	0.636	0.652	1.580	-0.901 U	1.09	1.25	0.811	0.742	2.46
Radium 228			0.727													
Selenium	0.00066	0.05	ND	ND	ND U	<0.003	<0.003 M4	<0.003 U	<0.003 U	<0.00074	ND	ND U	<0.001 U	<0.001 U	<0.001 U	<0.001 V1, U
Thallium	0.000058	0.002	0.000112 J	0.0000640 J	ND U	<0.0020	<0.0020	<0.0020 U	<0.0020 U	<0.00047	0.000569 J	ND U	0.0002 J	<0.0001 U	<0.0001 V1, U	<0.0001 U

*All results listed in milligrams per liter (mg/L) unless otherwise noted by the Maximum Contaminant Level (MCL)

GWPS = Groundwater Protection Standard

NA = Not Analyzed

ND = Not Detected at or above Method Detection Limit

B = Compound was found in the blank and sample.

D1 = Sample required dilution due to high concentration of target analyte

D2 = Sample required dilution due to matrix interference

F1 = MS and/or MSD Recovery is outside acceptance limits.

H3 - Sample received and analyzed past holding time.

J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

pCi/L = picoCuries per Liter

M1 = Matrix spike recovery was high; the method control sample recovery was acceptable

M2 = Matrix spike recovery was low; the method control sample recovery was acceptable

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable

M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable

U = Target analyte was analyzed for, but was below detection limit

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample

BOLD - Exceeds GWPS

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY

Table A-5. MW-110 (down-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE	
			6/4/25	11/7/25
Characterization				
Boron	0.3676	NA	0.58	0.55
Calcium	48.11	NA	117 D1	123 M3
Chloride	6.95	NA	17.7	17.7
Fluoride	0.3622	4	0.4	0.4
Sulfate	26.59	NA	245	330 D
pH (Field Measurement)	8.034-6.483	NA	7.38	7.05
Total Dissolved Solids	310.7	NA	310	924
APPENDIX IV CONSTITUENTS				
Antimony	0.0008951	0.006	<0.002 U	<0.002 U
Arsenic	0.003938	0.01	0.0010	0.00080 J
Barium	0.0908	2	0.058	0.055
Beryllium	0.0005	0.004	<0.0010 U	<0.0010 U
Cadmium	0.00076	0.005	<0.0001 U	<0.0001 U
Chromium	0.00171	0.1	0.0041	0.0031
Cobalt	0.00239	0.006	<0.004 U	<0.004 U
Fluoride	0.3622	4	0.4	0.4
Lead	0.00064	0.015	0.002	0.002
Lithium	0.00994	0.04	0.02	0.02
Mercury	0.000135	0.002	<0.0002 U	<0.0002 U
Molybdenum	0.01745	0.1	<0.002 U	<0.002 U
Radium 226	1.844 pCi/L	5 pCi/L	1.11	1.56
Radium 228				
Selenium	0.00066	0.05	<0.001 U	<0.001 U
Thallium	0.000058	0.002	<0.0001 U	<0.0001 U

*All results listed in milligrams per liter (mg/L) unless otherwise noted by the Maximum Contaminant Level (MCL)

GWPS = Groundwater Protection Standard

NA = Not Analyzed

ND = Not Detected at or above Method Detection Limit

B = Compound was found in the blank and sample.

D1 = Sample required dilution due to high concentration of target analyte

D2 = Sample required dilution due to matrix interference

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H3 - Sample received and analyzed past holding time.

J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

pCi/L = picoCuries per Liter

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M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable

U = Target analyte was analyzed for, but was below detection limit

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample

BOLD - Exceeds GWPS

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY

Table A-6. MW-111 (down-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE																
			3/16/2022	6/07/2022	12/02/2022	6/30/2023	11/20/2023	6/24/2024	11/25/2024	6/03/2025	11/06/2025								
Characterization																			
Boron	0.3676	NA	0.54	0.521	0.5	0.48	0.57	0.54	M2	0.53	0.58	0.56							
Calcium	48.11	NA	19	16.5	16	D1	20.4	D1	16.6	D1	17.9	D1	18.4	D1	19.4	D1	20.1	D1	
Chloride	6.95	NA	18	19.8	16.7		19.4	18.2	17.9		16.8	16.6	15.9						
Fluoride	0.3622	4	0.55	0.561	0.5		0.4	0.4	M1	0.4	0.4	0.4	0.4						
Sulfate	26.59	NA	6.7	2.86	0.9	J	5	2		0.7	J	<0.5	U	0.7	J	<0.5	U		
pH (Field Measurement)	8.034-6.483	NA	8.00	7.56	8.17		8.18	H3	7.94	7.84	8.45	7.89	7.80						
Total Dissolved Solids	310.7	NA	310	305	H	326	358	292	320	280	490	418							
APPENDIX IV CONSTITUENTS																			
Antimony	0.0008951	0.006	0.0018	J	ND	ND	U	<0.002	U	<0.002	U	<0.002	L1,M1,V1,U	<0.002	U	<0.002	U	<0.002	U
Arsenic	0.003938	0.01	0.0014	0.00106	J	0.0008	J	0.0007	J	0.0011	0.0004	J	<0.0010	U	0.0006	J	<0.0004	U	
Barium	0.0908	2	0.89	0.798	0.848		0.89	1.03	D1	1.07	D1,M3	D1	1.12	D1	1.10	D1			
Beryllium	0.0005	0.004	<0.00027	ND	ND	U	<0.0010	U	<0.0010	U	<0.0010	V1,U	<0.0010	U	<0.0010	U	<0.0010	U	
Cadmium	0.000076	0.005	<0.00022	ND	ND	U	<0.0001	U	<0.0001	U	<0.0001	V1,U	<0.0001	U	<0.0001	U	<0.0001	U	
Chromium	0.00171	0.1	<0.0015	ND	ND	U	<0.0006	U	<0.0006	U	<0.0006	U	<0.0006	U	<0.0006	U	<0.0006	U	
Cobalt	0.00239	0.006	0.00085	0.000236	J	ND	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U	<0.004	U
Fluoride	0.3622	4	0.55	0.561	0.5	0.4	0.4	0.4	M1	0.4	0.4	0.4	0.4						
Lead	0.00064	0.015	0.00054	J	ND	ND	U	<0.0005	U	<0.0005	U	<0.0005	V1,U	<0.0005	U	<0.0005	U	<0.0005	U
Lithium	0.00994	0.04	0.014	0.00994	0.008	J	0.008	J	0.008	J	0.008	V1,J	0.008	J	0.009	J	0.008	J	
Mercury	0.000135	0.002	0.00031	ND	0.0002	J	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Molybdenum	0.01745	0.1	0.0044	J	0.00527	0.003	J	0.003	J	0.002	J	<0.002	U	0.002	J	<0.002	U	<0.002	U
Radium 226	1.844 pCi/L	5 pCi/L	0.67	U	0.48	1.64	1.48	1.71	3.45	1.18	1.54	1.27							
Radium 228																			
Selenium	0.00066	0.05	<0.00074	ND	ND	U	<0.001	U	<0.001	U	<0.010	D2,U	<0.001	V1,U	<0.001	U	<0.001	U	
Thallium	0.000058	0.002	<0.00047	ND	ND	U	0.0001	J	<0.0001	U	<0.0001	V1,U	<0.0001	U	<0.0001	U	<0.0001	U	

*All results listed in milligrams per liter (mg/L) unless otherwise noted by the Maximum Contaminant Level (MCL)

GWPS = Groundwater Protection Standard

NA = Not Analyzed

ND = Not Detected at or above Method Detection Limit

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M4 = The analysis of the spike sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable

U = Target analyte was analyzed for, but was below detection limit

V1 = CCV recovery was above method acceptance limits. This target analyte not detected in the sample

BOLD - Exceeds GWPS

REID/HMPL CCR SURFACE IMPOUNDMENT - ANALYTICAL SUMMARY

Table A-7. MW-112 (down-gradient)

APPENDIX III CONSTITUENTS	Pred. Limit	GWPS	DATE											
			3/17/2022	6/07/2022	7/26/2022	12/02/2022	6/30/2023	11/20/2023	6/24/2024	11/25/2024	6/03/2025	11/06/2025		
			Characterization			Resample			Characterization					
Boron	0.3676	NA	0.39	0.331	NA	0.36	0.33	0.37	0.35	0.36	0.41	0.38		
Calcium	48.11	NA	29	30.7	NA	28.2 D1	30.2 D1	27.6 D1	30.6 D1	30.8 D1,M3	41.0 D1	37.4 D1		
Chloride	6.95	NA	8.4	9.5	NA	9.1	10.9	10.9	13.3	13.2	27.6	55.6		
Fluoride	0.3622	4	0.31	0.287	NA	0.3 M1	0.3	0.3 M1	0.3	0.3	0.3	0.3		
Sulfate	26.59	NA	12.4	14.7	NA	12 M1	24	24	30	33	96	139		
pH (Field Measurement)	8.034-6.483	NA	7.76	7.40	NA	7.80	7.98 H3	7.50	7.34	8.02	7.45	7.23		
Total Dissolved Solids	310.7	NA	288	275	NA	330	306	278	332	308	512	720		
APPENDIX IV CONSTITUENTS														
Antimony	0.0008951	0.006	0.00058 J	ND	NA	ND U	<0.002 U	<0.002 U	<0.002 L1,V1,U	<0.002 U	<0.002 U	<0.002 U		
Arsenic	0.003938	0.01	0.00089 J	0.00336 J	NA	0.0009 J	0.0014	0.0018	0.0014	0.0013	0.0019	0.0014		
Barium	0.0908	2	0.034	0.43	NA	0.316	0.319	0.331	0.352	0.329 M1, M2	0.419	0.290		
Beryllium	0.0005	0.004	<0.00027	0.00203	NA	ND U	<0.0010 U	<0.0010 U	<0.0010 V1,U	<0.0010 U	<0.0010 U	<0.0010 U		
Cadmium	0.000076	0.005	<0.00022	ND	NA	ND U	<0.0001 U	<0.0001 U	<0.0001 V1,U	<0.0001 U	<0.0001 U	<0.0001 U		
Chromium	0.00171	0.1	0.0024	0.0311	NA	ND U	<0.0006 U	0.0021	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U		
Cobalt	0.00239	0.006	0.002	0.0141	0.00297	ND U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U	<0.004 U		
Fluoride	0.3622	4	0.31	0.287	NA	0.3	0.3	0.3 M1	0.3	0.3	0.3	0.3		
Lead	0.00064	0.015	0.001	0.013	NA	ND U	<0.0005 U	0.0006 J	<0.0005 V1,U	<0.0005 U	<0.0005 U	<0.0005 U		
Lithium	0.00994	0.04	0.011	0.0319	NA	0.007 J	0.006 J	0.007 J	0.007 V1,J	0.007 J	0.01 J	0.009 J		
Mercury	0.000135	0.002	<0.00013	ND	NA	0.0003 J	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U		
Molybdenum	0.01745	0.1	0.0062	0.00605	NA	0.005 J	0.005 J	0.006 J	0.006 J	0.005 J	0.005 J	0.005 J		
Radium 226	1.844 pCi/L	5 pCi/L	0.71 U	2.56	NA	1.2	1.69	0.565	1.090	1.860	1.38	0.616		
Radium 228														
Selenium	0.00066	0.05	<0.00074	ND	NA	ND U	<0.001 U	<0.001 U	<0.001 U	<0.001 V1,U	<0.001 U	<0.001 U		
Thallium	0.000058	0.002	<0.00047	0.000277 J	NA	ND U	0.0001 J	<0.0001 U	<0.0001 V1,U	<0.0001 U	<0.0001 U	<0.0001 U		

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BOLD - Exceeds GWPS

APPENDIX B
Analytical Data Packages



Certificate of Analysis 5061684

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 06/30/2025 15:32

Project Name: HMPL Surface Impoundment Characterization Wells Workorder: 5061684

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 06/05/2025 16:55.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville - 825 Industrial Road, Madisonville, KY 42431

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5061684-01	MW-110/	Groundwater	06/04/2025 10:17	06/05/2025 16:55	Hunter Mizell
5061684-02	MW-111/	Groundwater	06/03/2025 15:42	06/05/2025 16:55	Hunter Mizell
5061684-03	MW-112/	Groundwater	06/03/2025 14:24	06/05/2025 16:55	Hunter Mizell
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
5061684-01	Field Conductance	942			
	Field pH	7.38			
5061684-02	Field Conductance	499			
	Field pH	7.89			
5061684-03	Field Conductance	708			
	Field pH	7.45			



ANALYTICAL RESULTS

Lab Sample ID: **5061684-01**
 Description: **MW-110**

Sample Collection Date Time: 06/04/2025 10:17
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Arsenic	0.0010		mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Barium	0.058		mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Boron	0.58		mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:56	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Calcium	117	D1	mg/L	50.0	25.0	SW846 6010 B	06/09/2025 08:56	06/12/2025 21:40	MRWD
Chromium	0.0041		mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Lead	0.002		mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Lithium	0.02		mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:16	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.37	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	310		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	17.7		mg/L	0.5	0.4	SW846 9056	06/07/2025 01:05	06/07/2025 01:05	CDD
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	06/07/2025 01:05	06/07/2025 01:05	CDD
Sulfate	245		mg/L	1	0.5	SW846 9056	06/07/2025 01:05	06/07/2025 01:05	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5061684-02**
 Description: **MW-111**

Sample Collection Date Time: 06/03/2025 15:42
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Arsenic	0.0006	J	mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Barium	1.12	D1	mg/L	0.040	0.010	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:23	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Boron	0.58		mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:59	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Calcium	19.4	D1	mg/L	5.00	2.50	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:21	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Lithium	0.009	J	mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:20	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.91	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	490		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	16.6		mg/L	0.5	0.4	SW846 9056	06/07/2025 01:50	06/07/2025 01:50	CDD
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	06/07/2025 01:50	06/07/2025 01:50	CDD
Sulfate	0.7	J	mg/L	1	0.5	SW846 9056	06/07/2025 01:50	06/07/2025 01:50	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5061684-03**
 Description: **MW-112**

Sample Collection Date Time: 06/03/2025 14:24
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Arsenic	0.0019		mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Barium	0.419		mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Boron	0.41		mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 23:12	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Calcium	41.0	D1	mg/L	5.00	2.50	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:33	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Lithium	0.01	J	mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Molybdenum	0.005	J	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:36	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.81	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	512		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	27.6		mg/L	0.5	0.4	SW846 9056	06/07/2025 02:34	06/07/2025 02:34	CDD
Fluoride	0.3		mg/L	0.2	0.2	SW846 9056	06/07/2025 02:34	06/07/2025 02:34	CDD
Sulfate	96		mg/L	1	0.5	SW846 9056	06/07/2025 02:34	06/07/2025 02:34	CDD



Notes for work order 5061684

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- D2 Sample required dilution due to matrix interference.
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- M1 Matrix spike recovery was high; the method control sample recovery was acceptable.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0683 - EPA 200.2

Blank (BEF0683-BLK1)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 21:05

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U

Blank (BEF0683-BLK2)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 15:33

Molybdenum	ND	0.01	mg/L							U
Antimony	ND	0.005	mg/L							U
Mercury	ND	0.0005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U

LCS (BEF0683-BS1)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 21:17

Boron	0.13	0.10	mg/L	0.125		107	85-115			
Calcium	6.74	0.50	mg/L	6.25		108	85-115			

LCS (BEF0683-BS2)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 15:35

Mercury	0.0024	0.0005	mg/L	0.00250		96.8	85-115			
Molybdenum	0.06	0.01	mg/L	0.0625		99.8	85-115			
Antimony	0.064	0.005	mg/L	0.0625		102	85-115			
Arsenic	0.0628	0.0010	mg/L	0.0625		100	85-115			
Barium	0.063	0.004	mg/L	0.0625		101	85-115			
Beryllium	0.0624	0.0020	mg/L	0.0625		99.9	85-115			
Cadmium	0.0631	0.0010	mg/L	0.0625		101	85-115			
Chromium	0.0621	0.0020	mg/L	0.0625		99.4	85-115			
Cobalt	0.061	0.004	mg/L	0.0625		98.2	85-115			
Lead	0.063	0.002	mg/L	0.0625		100	85-115			
Lithium	0.06	0.02	mg/L	0.0625		95.1	85-115			
Selenium	0.063	0.003	mg/L	0.0625		100	85-115			
Thallium	0.0636	0.0020	mg/L	0.0625		102	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0683 - EPA 200.2

Matrix Spike (BEF0683-MS1) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 23:18

Boron	ND	10.0	mg/L	0.125	ND		80-120			D2, M2, U
Calcium	49.1	50.0	mg/L	6.25	44.8	68.1	80-120			D2, M2, J

Matrix Spike (BEF0683-MS2) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 16:43

Mercury	0.0024	0.0050	mg/L	0.00250	ND	98.0	80-120			D2, J
Molybdenum	0.07	0.10	mg/L	0.0625	ND	106	80-120			D2, J
Antimony	0.061	0.050	mg/L	0.0625	ND	97.3	80-120			D2
Arsenic	0.0624	0.0100	mg/L	0.0625	ND	99.8	80-120			D2
Barium	0.135	0.040	mg/L	0.0625	0.080	87.4	80-120			D2
Beryllium	0.0586	0.0200	mg/L	0.0625	ND	93.7	80-120			D2
Cadmium	0.0601	0.0100	mg/L	0.0625	ND	96.2	80-120			D2
Chromium	0.0594	0.0200	mg/L	0.0625	ND	95.0	80-120			D2
Cobalt	0.060	0.040	mg/L	0.0625	ND	95.5	80-120			D2
Lead	0.061	0.020	mg/L	0.0625	ND	97.8	80-120			D2
Lithium	0.07	0.20	mg/L	0.0625	ND	109	80-120			D2, J
Selenium	0.060	0.030	mg/L	0.0625	ND	95.3	80-120			D2
Thallium	0.0629	0.0200	mg/L	0.0625	ND	101	80-120			D2

Matrix Spike Dup (BEF0683-MSD1) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 23:21

Boron	ND	10.0	mg/L	0.125	ND		80-120		20	D2, M2, U
Calcium	54.6	50.0	mg/L	6.25	44.8	158	80-120	10.8	20	D2, M1

Matrix Spike Dup (BEF0683-MSD2) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 16:46

Antimony	0.066	0.050	mg/L	0.0625	ND	106	80-120	8.43	20	D2
Molybdenum	0.07	0.10	mg/L	0.0625	ND	115	80-120	7.58	20	D2, J
Mercury	0.0027	0.0050	mg/L	0.00250	ND	108	80-120	9.71	20	D2, J
Arsenic	0.0672	0.0100	mg/L	0.0625	ND	108	80-120	7.41	20	D2
Barium	0.145	0.040	mg/L	0.0625	0.080	104	80-120	7.26	20	D2
Beryllium	0.0662	0.0200	mg/L	0.0625	ND	106	80-120	12.3	20	D2
Cadmium	0.0657	0.0100	mg/L	0.0625	ND	105	80-120	8.83	20	D2
Chromium	0.0639	0.0200	mg/L	0.0625	ND	102	80-120	7.33	20	D2
Cobalt	0.065	0.040	mg/L	0.0625	ND	104	80-120	8.09	20	D2
Lead	0.067	0.020	mg/L	0.0625	ND	107	80-120	9.43	20	D2
Lithium	0.07	0.20	mg/L	0.0625	ND	117	80-120	6.75	20	D2, J
Selenium	0.065	0.030	mg/L	0.0625	ND	104	80-120	8.75	20	D2
Thallium	0.0671	0.0200	mg/L	0.0625	ND	107	80-120	6.53	20	D2



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0683 - EPA 200.2

Post Spike (BEF0683-PS1) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 23:24

Boron	748		ug/L	125	358	312	75-125			D2, M1
Calcium	51700		ug/L	6250	44800	110	75-125			D2

Post Spike (BEF0683-PS2) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 16:48

Antimony	62.0		ug/L	62.5	0.109	99.0	75-125			D2
Molybdenum	69.9		ug/L	62.5	6.86	101	75-125			D2
Mercury	2.51		ug/L	2.50	0.0250	99.4	75-125			D2
Arsenic	66.6		ug/L	62.5	2.69	102	75-125			D2
Barium	140		ug/L	62.5	80.1	95.3	75-125			D2
Beryllium	62.8		ug/L	62.5	-0.115	100	75-125			D2
Cadmium	62.9		ug/L	62.5	0.0280	101	75-125			D2
Chromium	61.6		ug/L	62.5	0.335	98.1	75-125			D2
Cobalt	61.2		ug/L	62.5	0.069	97.9	75-125			D2
Lead	63.9		ug/L	62.5	0.057	102	75-115			D2
Lithium	69.4		ug/L	62.5	7.38	99.2	75-125			D2
Selenium	62.4		ug/L	62.5	0.036	99.7	75-125			D2
Thallium	65.0		ug/L	62.5	0.0120	104	75-125			D2



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEF0255 - Default Prep Micro										
LCS (BEF0255-BS1)										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	5.03		Std. Units	5.00		101	98.8-101.2			
LCS (BEF0255-BS2)										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	5.05		Std. Units	5.00		101	98.8-101.2			
Duplicate (BEF0255-DUP1) Source: 5061683-04										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	8.75	0.10	Std. Units		8.74			0.114	10	H3
Duplicate (BEF0255-DUP2) Source: 5061684-03										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	7.84	0.10	Std. Units		7.81			0.383	10	H3
Batch BEF0864 - Default Prep Wet Chem										
Blank (BEF0864-BLK1)										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	ND	25	mg/L							U
LCS (BEF0864-BS1)										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	87		mg/L	90.0		96.7	80-120			
Duplicate (BEF0864-DUP1) Source: 5061683-01										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	268	50	mg/L		258			3.80	10	
Duplicate (BEF0864-DUP2) Source: 5063454-01										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	452	50	mg/L		462			2.19	10	



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting		Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		Limit	Units							

Batch BEF0704 - Default Prep IC

Blank (BEF0704-BLK1)

Prepared: 6/7/2025 7:25, Analyzed: 6/7/2025 7:25

Chloride	ND	0.5	mg/L							U
Fluoride	ND	0.2	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEF0704-BS1)

Prepared: 6/7/2025 7:02, Analyzed: 6/7/2025 7:02

Fluoride	5.1		mg/L	5.00		101	90-110			
Chloride	12.2		mg/L	12.5		97.8	90-110			
Sulfate	24		mg/L	25.0		95.8	90-110			

Matrix Spike (BEF0704-MS1)

Source: 5041050-01

Prepared: 6/7/2025 5:33, Analyzed: 6/7/2025 5:33

Chloride	192		mg/L	125	71.1	96.5	75-125			D
Fluoride	48.6		mg/L	50.0	0.08	97.1	75-125			D
Sulfate	239		mg/L	250	3	94.3	75-125			D

Matrix Spike (BEF0704-MS2)

Source: 5041051-01

Prepared: 6/7/2025 6:18, Analyzed: 6/7/2025 6:18

Chloride	982		mg/L	125	899	66.1	75-125			D, M2
Fluoride	51.6		mg/L	50.0	0.1	103	75-125			D
Sulfate	289		mg/L	250	36	101	75-125			D

Matrix Spike Dup (BEF0704-MSD1)

Source: 5041050-01

Prepared: 6/7/2025 5:55, Analyzed: 6/7/2025 5:55

Chloride	194		mg/L	125	71.1	98.6	75-125	1.38	15	D
Fluoride	49.7		mg/L	50.0	0.08	99.2	75-125	2.20	15	D
Sulfate	245		mg/L	250	3	96.5	75-125	2.27	15	D

Matrix Spike Dup (BEF0704-MSD2)

Source: 5041051-01

Prepared: 6/7/2025 6:40, Analyzed: 6/7/2025 6:40

Fluoride	55.3		mg/L	50.0	0.1	110	75-125	6.84	15	D
Chloride	962		mg/L	125	899	50.7	75-125	1.98	15	D, M2
Sulfate	311		mg/L	250	36	110	75-125	7.28	15	D

Certified Analyses included in this Report

Analyte	Certifications
2540 C-2015 in Water	
Total Dissolved Solids	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
SM 4500-H+ B-2011 in Water	
pH (Lab)	KY Drinking Water Mdv (00030) TN Drinking Water (02819)
SW846 6010 B in Water	
Calcium	VA NELAC MDV (460210)



Sample Acceptance Checklist for Work Order 5061684

Shipped By: Client

Temperature: 5.40° Celcius

Condition

Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

**Project: HMPL Surface Impoundment
 Characterization Wells**

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5061684 Sample ID#	*required information* Date (mm/dd/yy): 06/05/25 04	Collection Time (24 hr): 1017	Bottle and Preservative Plastic 500mL pH<2 w/HNO3	Containers 1	Sample Description MW-110	Composite g / c	Sample Analysis Requested Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
5061684-01 A	06/05/25 04	1017	Plastic 500mL pH<2 w/HNO3	1	MW-110	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020

Preservation Check: pH: ✓

5061684-01 B 06/05/25 1017 Plastic 1L 1 MW-110 g / c Fluoride 9056 TDS Sulfate 9056 pH
(Lab) Chloride 9056

5061684-01 C 06/05/25 1017 Plastic 1L pH<2 w/HNO3 1 MW-110 g / c Radium 226 (sub)
Rad 226 Sub

Preservation Check: pH: ✓

5061684-01 D 06/05/25 1017 Plastic 1L pH<2 w/HNO3 1 MW-110 g / c Radium 228 (sub)
Rad 228 Sub

Preservation Check: pH: ✓

5061684-01 E 06/05/25 1017 Plastic 1L pH<2 w/HNO3 1 MW-110 g / c Radium 228 (sub)
Rad 228 Sub

Preservation Check: pH: ✓

Preservation Check Performed by: Auel pH Paper Lot #: 213724

Field data collected by: Hunter M. Hill Date (mm/dd/yy) 06/05/25 Time (24 hr) 1017
 pH 7.35 Cond (umho) 0.42 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: 06/02/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment
 Characterization Wells

Phone: (270) 844-5659
 PWS ID#: _____
 State: KY

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___
 Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____
 Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061684-01 F	<u>06/02/25</u> <u>ai</u>	<u>1017</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW-110	g / c	Radium Total (sub)
			Preservation Check: pH: <u>✓</u>				
5061684-02 A	<u>06/03/25</u>	<u>1542</u>	Plastic 500mL pH<2 w/HNO3	1	MW-111	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: <u>✓</u>				
5061684-02 B	<u>06/03/25</u>	<u>1542</u>	Plastic 1L	1	MW-111	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5061684-02 C	<u>06/03/25</u>	<u>1542</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW-111	g / c	Radium 226 (sub)
			Preservation Check: pH: <u>✓</u>				
5061684-02 D	<u>06/03/25</u>	<u>1542</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-111	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				

Preservation Check Performed by: [Signature] pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 06/03/25 Time (24 hr) 1542
 pH 7.89 Cond (umho) 0.499 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: **06/02/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment
 Characterization Wells

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder #	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061684-02 E	06/02/25	1542	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-111	g / c	Radium 228 (sub)
				Preservation Check: pH: <u>✓</u>			
5061684-02 F	06/02/25	1542	Plastic 1L pH<2 w/HNO3 Sub	1	MW-111	g / c	Radium Total (sub)
				Preservation Check: pH: <u>✓</u>			
5061684-03 A	06/02/25	1424	Plastic 500mL pH<2 w/HNO3	1	MW-112	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6020 Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
				Preservation Check: pH: <u>✓</u>			
5061684-03 B	06/02/25	1424	Plastic 1L	1	MW-112	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5061684-03 C	06/02/25	1424	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW-112	g / c	Radium 226 (sub)
				Preservation Check: pH: <u>✓</u>			

Preservation Check Performed by: all pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: **06/02/2025**



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **HMPL Surface Impoundment**
 Characterization Wells

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes No

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes No

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____
 Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061684-03 D	<u>06/02/25</u>	<u>1424</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-112	g/c	Radium 228 (sub)
			Preservation Check: pH: _____	<input checked="" type="checkbox"/>			
5061684-03 E	<u>06/03/25</u>	<u>1424</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-112	g/c	Radium 228 (sub)
			Preservation Check: pH: _____	<input checked="" type="checkbox"/>			
5061684-03 F	<u>06/02/25</u>	<u>1424</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW-112	g/c	Radium Total (sub)
			Preservation Check: pH: _____	<input checked="" type="checkbox"/>			

Thermometer Serial Number
230753815
240381205
 Temperature 5.4°C

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 06/02/25 Time (24 hr) 1424

pH 7.45 Cond (umho) 0.708 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

PACE- Check here if trip charge applied to associated COC



June 30, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5061684
Pace Project No.: 30786760

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on June 11, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa A. Wilson
theresa.wilson@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 5061684
 Pace Project No.: 30786760

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 5061684
Pace Project No.: 30786760

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30786760001	5061684-01	Water	06/04/25 10:17	06/11/25 09:55
30786760002	5061684-02	Water	06/03/25 15:42	06/11/25 09:55
30786760003	5061684-03	Water	06/03/25 14:24	06/11/25 09:55

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 5061684
 Pace Project No.: 30786760

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30786760001	5061684-01	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30786760002	5061684-02	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30786760003	5061684-03	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5061684
 Pace Project No.: 30786760

Sample: 5061684-01 Lab ID: 30786760001 Collected: 06/04/25 10:17 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.219 ± 0.872 (1.57) C:NA T:93%	pCi/L	06/27/25 17:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.892 ± 0.374 (0.573) C:83% T:89%	pCi/L	06/26/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.11 ± 1.25 (2.14)	pCi/L	06/30/25 15:09	7440-14-4	

Sample: 5061684-02 Lab ID: 30786760002 Collected: 06/03/25 15:42 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.687 ± 0.699 (1.13) C:NA T:94%	pCi/L	06/27/25 17:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.857 ± 0.377 (0.598) C:79% T:93%	pCi/L	06/26/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.54 ± 1.08 (1.73)	pCi/L	06/30/25 15:09	7440-14-4	

Sample: 5061684-03 Lab ID: 30786760003 Collected: 06/03/25 14:24 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.313 ± 0.780 (1.38) C:NA T:95%	pCi/L	06/27/25 17:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.07 ± 0.442 (0.694) C:79% T:89%	pCi/L	06/26/25 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.38 ± 1.22 (2.07)	pCi/L	06/30/25 15:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5061684
 Pace Project No.: 30786760

QC Batch: 752749	Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0	Analysis Description: 904.0 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30786760001, 30786760002, 30786760003

METHOD BLANK: 3667616 Matrix: Water
 Associated Lab Samples: 30786760001, 30786760002, 30786760003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.752 ± 0.432 (0.801) C:80% T:88%	pCi/L	06/26/25 11:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5061684
 Pace Project No.: 30786760

QC Batch: 752747 Analysis Method: EPA 903.1
 QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
 Laboratory: Pace Analytical Services - Greensburg
 Associated Lab Samples: 30786760001, 30786760002, 30786760003

METHOD BLANK: 3667613 Matrix: Water
 Associated Lab Samples: 30786760001, 30786760002, 30786760003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.216 ± 0.225 (0.318) C:NA T:94%	pCi/L	06/27/25 16:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5061684
Pace Project No.: 30786760

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5061684
 Pace Project No.: 30786760

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30786760001	5061684-01	EPA 903.1	752747		
30786760002	5061684-02	EPA 903.1	752747		
30786760003	5061684-03	EPA 903.1	752747		
30786760001	5061684-01	EPA 904.0	752749		
30786760002	5061684-02	EPA 904.0	752749		
30786760003	5061684-03	EPA 904.0	752749		
30786760001	5061684-01	Total Radium Calculation	755191		
30786760002	5061684-02	Total Radium Calculation	755191		
30786760003	5061684-03	Total Radium Calculation	755191		

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SUBCONTRACT ORDER
Pace Analytical Services, LLC Ken
5061684

WO#: 30786760



SENDING LABORATORY:

Pace Analytical Services, LLC Kentucky
PO BOX 907
Madisonville, KY 42431
Phone: (270) 821-7375
Fax: -
Project Manager: Rob Whittington

RECEIVING LABORATORY:

Pace Analytical Services LLC Greensburg PA
1638 Rosey Town Rd Suite 2,3,4
Greensburg, PA 15601
Phone :(724) 850-5615
Fax:

Received by Pace Greensburg
Therm ID 24 Corr Factor +/- 0.0
Receipt Temp 3.3
Corrected Temp 3.3
Correct Preservation Y/N

ps 6/11/25

Analysis Expires Laboratory ID Comments

Sample ID: 5061684-01 Water Sampled:06/04/2025 10:17 Specific Method
Radium Total (sub) Ground 12/01/2025 10:17 EPA 904.0 Radium Sum C 001
Radium 228 (sub) 12/01/2025 10:17 EPA 904.0 Radium Sum C
Radium 226 (sub) 12/01/2025 10:17 EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5061684-02 Water Sampled:06/03/2025 15:42 Specific Method
Radium Total (sub) Ground 11/30/2025 15:42 EPA 904.0 Radium Sum C
Radium 228 (sub) 11/30/2025 15:42 EPA 904.0 Radium Sum C
Radium 226 (sub) 11/30/2025 15:42 EPA 903.1 002

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5061684-03 Water Sampled:06/03/2025 14:24 Specific Method
Radium Total (sub) Ground 11/30/2025 14:24 EPA 904.0 Radium Sum C
Radium 228 (sub) 11/30/2025 14:24 EPA 904.0 Radium Sum C
Radium 226 (sub) 11/30/2025 14:24 EPA 903.1 003

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Released By [Signature] Date 6-10-25 Received By [Signature] Date 6/11/25 9:55

Released By _____ Date _____ Received By _____ Date _____



DC#_Title: ENV-FRM-GBUR-0088 v07_Samp' Greensburg

Effective Date: 01/04/2024

WO#: 30786760

PM: TAW

Due Date: 07/02/25

CLIENT: PACE_44_MVKY

Client Name: Pace Madisonville

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Initial / Date

Tracking Number: 1Z 067 Y57 01 1406 5404

Examined By: LB 6/11/25

Custody Seal on Cooler/Box Present: Yes No

Seals Intact: Yes No

Thermometer Used: 24 Type of Ice: We Blue None

Labeled By: LB 6/11/25

Temped By: PS 6/11/25

Cooler Temperature: Observed Temp 3.3 °C Correction Factor: 0.0 °C Final Temp: 3.3 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 1003241	D.P.D. Residual Chlorine Lot #
Chain of Custody Present	X				1.
Chain of Custody Filled Out: -Were client corrections present on COC	X				2.
Chain of Custody Relinquished	X				3. No relinquish time
Sampler Name & Signature on COC:		X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X				5. Difficult to read dates/times Groundwater on Cal and bottles.
Samples Arrived within Hold Time:	X				6.
Short Hold Time Analysis (<72hr remaining):		X			7.
Rush Turn Around Time Requested:		X			8.
Sufficient Volume:	X				9.
Correct Containers Used: -Pace Containers Used	X				10.
Containers Intact:	X				11.
Orthophosphate field filtered:			X		12.
Hex Cr Aqueous samples field filtered:			X		13.
Organic Samples checked for dichlorination			X		14.
Filtered volume received for dissolved tests:			X		15.
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	X				16.
All containers meet method preservation requirements:	X			Initial when completed LB	Date/Time of Preservation
8260C/D: Headspace in VOA Vials (> 6mm)			X		17.
624.1: Headspace in VOA Vials (0mm)			X		18.
Radon: Headspace in RAD Vials (0mm)			X		19.
Trip Blank Present:			X		Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed PS	Date: 6/11/25 Survey Meter SN: 25014380
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680



Certificate of Analysis 5061683

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 06/30/2025 15:41

Project Name: HMPL Surface Impoundment	Workorder: 5061683
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Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 06/05/2025 16:55.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville - 825 Industrial Road, Madisonville, KY 42431

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5061683-01	MW7/	Groundwater	06/04/2025 14:22	06/05/2025 16:55	Hunter Mizell
5061683-02	MW8/	Groundwater	06/04/2025 11:45	06/05/2025 16:55	Hunter Mizell
5061683-03	MW9/	Groundwater	06/05/2025 14:55	06/05/2025 16:55	Hunter Mizell
5061683-04	MW10/	Groundwater	06/02/2025 12:36	06/05/2025 16:55	Hunter Mizell
5061683-05	DUPLICATE/	Groundwater	06/05/2025 00:00	06/05/2025 16:55	Hunter Mizell
5061683-06	FIELD BLANK/	Water	06/05/2025 13:05	06/05/2025 16:55	Hunter Mizell

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
5061683-01	Field Conductance	397
	Field pH	7.62
5061683-02	Field Conductance	2490
	Field pH	7.19
5061683-03	Field Conductance	494
	Field pH	7.29
5061683-04	Field Conductance	686
	Field pH	9.47



ANALYTICAL RESULTS

Lab Sample ID: **5061683-01**
 Description: **MW7**

Sample Collection Date Time: 06/04/2025 14:22
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Arsenic	0.0027		mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Barium	0.080		mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Boron	0.36	M1, M2	mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:37	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Calcium	44.8	D1, M1, M2	mg/L	5.00	2.50	SW846 6010 B	06/09/2025 08:56	06/12/2025 21:59	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Lithium	0.007	J	mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Molybdenum	0.007	J	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:37	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.63	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	258		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00	-				EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	2.6		mg/L	0.5	0.4	SW846 9056	06/06/2025 22:06	06/06/2025 22:06	CDD
Fluoride	0.3		mg/L	0.2	0.2	SW846 9056	06/06/2025 22:06	06/06/2025 22:06	CDD
Sulfate	9		mg/L	1	0.5	SW846 9056	06/06/2025 22:06	06/06/2025 22:06	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5061683-02**
 Description: **MW8**

Sample Collection Date Time: 06/04/2025 11:45
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Barium	0.016		mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Boron	1.60	D1	mg/L	1.00	1.00	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:02	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Calcium	329	D1	mg/L	50.0	25.0	SW846 6010 B	06/09/2025 08:56	06/12/2025 21:24	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Lithium	0.03		mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Molybdenum	0.01		mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:42	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.26	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	2690		mg/L	250	250	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	51.9		mg/L	0.5	0.4	SW846 9056	06/06/2025 14:30	06/06/2025 14:30	CDD
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	06/06/2025 14:30	06/06/2025 14:30	CDD
Sulfate	1170	D	mg/L	20	10	SW846 9056	06/06/2025 14:52	06/06/2025 14:52	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5061683-03**
 Description: **MW9**

Sample Collection Date Time: 06/05/2025 14:55
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Barium	0.391		mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Boron	0.17		mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:43	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Calcium	69.5	D1	mg/L	5.00	2.50	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:05	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Lithium	0.008	J	mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 15:46	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.27	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	296		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	13.9		mg/L	0.5	0.4	SW846 9056	06/06/2025 23:35	06/06/2025 23:35	CDD
Fluoride	0.2		mg/L	0.2	0.2	SW846 9056	06/06/2025 23:35	06/06/2025 23:35	CDD
Sulfate	0.7	J	mg/L	1	0.5	SW846 9056	06/06/2025 23:35	06/06/2025 23:35	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5061683-04**
 Description: **MW10**

Sample Collection Date Time: 06/02/2025 12:36
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Arsenic	0.0012		mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Barium	0.208		mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Boron	0.56		mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:46	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Calcium	12.9	D1	mg/L	5.00	2.50	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:08	MRWD
Chromium	0.0014	J	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Lithium	0.52		mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Molybdenum	0.003	J	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:05	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	8.74	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	422		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	14.6		mg/L	0.5	0.4	SW846 9056	06/07/2025 00:20	06/07/2025 00:20	CDD
Fluoride	0.5		mg/L	0.2	0.2	SW846 9056	06/07/2025 00:20	06/07/2025 00:20	CDD
Sulfate	12		mg/L	1	0.5	SW846 9056	06/07/2025 00:20	06/07/2025 00:20	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5061683-05**
 Description: **DUPLICATE**

Sample Collection Date Time: 06/05/2025 00:00
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Arsenic	0.0012		mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Barium	0.195		mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Boron	0.56		mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:49	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Calcium	10.6	D1	mg/L	5.00	2.50	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:11	MRWD
Chromium	0.0018	J	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Lithium	0.59		mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Molybdenum	0.003	J	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:07	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	8.66	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	412		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	15.4		mg/L	0.5	0.4	SW846 9056	06/06/2025 15:13	06/06/2025 15:13	CDD
Fluoride	0.5		mg/L	0.2	0.2	SW846 9056	06/06/2025 15:13	06/06/2025 15:13	CDD
Sulfate	14		mg/L	1	0.5	SW846 9056	06/06/2025 15:13	06/06/2025 15:13	CDD



ANALYTICAL RESULTS

Lab Sample ID: **5061683-06**
 Description: **FIELD BLANK**

Sample Collection Date Time: 06/05/2025 13:05
 Sample Received Date Time: 06/05/2025 16:55

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Barium	0.003	J	mg/L	0.004	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Boron	ND	u	mg/L	0.10	0.10	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:53	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Calcium	ND	u	mg/L	0.50	0.25	SW846 6010 B	06/09/2025 08:56	06/12/2025 22:53	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Lithium	ND	u	mg/L	0.02	0.005	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	06/09/2025 08:56	06/12/2025 16:11	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	5.95	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	06/06/2025 08:30	06/06/2025 15:23	AED
Total Dissolved Solids	654		mg/L	50	50	2540 C-2015	06/09/2025 15:46	06/09/2025 15:46	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	06/30/2025 15:08	06/30/2025 15:09	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	ND	u	mg/L	0.5	0.4	SW846 9056	06/06/2025 15:56	06/06/2025 15:56	CDD
Fluoride	ND	u	mg/L	0.2	0.2	SW846 9056	06/06/2025 15:56	06/06/2025 15:56	CDD
Sulfate	ND	u	mg/L	1	0.5	SW846 9056	06/06/2025 15:56	06/06/2025 15:56	CDD



Notes for work order 5061683

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
 - Results contained in this report are only representative of the samples received.
 - PACE does not provide interpretation of these results unless otherwise stated .
 - All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
 - All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
 - Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
 - The Chain of Custody document is included as part of this report.
 - All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
- Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- D2 Sample required dilution due to matrix interference.
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- M1 Matrix spike recovery was high; the method control sample recovery was acceptable.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0683 - EPA 200.2

Blank (BEF0683-BLK1)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 21:05

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U

Blank (BEF0683-BLK2)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 15:33

Molybdenum	ND	0.01	mg/L							U
Mercury	ND	0.0005	mg/L							U
Antimony	ND	0.005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U

LCS (BEF0683-BS1)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 21:17

Boron	0.13	0.10	mg/L	0.125		107	85-115			
Calcium	6.74	0.50	mg/L	6.25		108	85-115			

LCS (BEF0683-BS2)

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 15:35

Antimony	0.064	0.005	mg/L	0.0625		102	85-115			
Mercury	0.0024	0.0005	mg/L	0.00250		96.8	85-115			
Molybdenum	0.06	0.01	mg/L	0.0625		99.8	85-115			
Arsenic	0.0628	0.0010	mg/L	0.0625		100	85-115			
Barium	0.063	0.004	mg/L	0.0625		101	85-115			
Beryllium	0.0624	0.0020	mg/L	0.0625		99.9	85-115			
Cadmium	0.0631	0.0010	mg/L	0.0625		101	85-115			
Chromium	0.0621	0.0020	mg/L	0.0625		99.4	85-115			
Cobalt	0.061	0.004	mg/L	0.0625		98.2	85-115			
Lead	0.063	0.002	mg/L	0.0625		100	85-115			
Lithium	0.06	0.02	mg/L	0.0625		95.1	85-115			
Selenium	0.063	0.003	mg/L	0.0625		100	85-115			
Thallium	0.0636	0.0020	mg/L	0.0625		102	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0683 - EPA 200.2

Matrix Spike (BEF0683-MS1) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 23:18

Boron	ND	10.0	mg/L	0.125	ND		80-120			D2, M2, U
Calcium	49.1	50.0	mg/L	6.25	44.8	68.1	80-120			D2, M2, J

Matrix Spike (BEF0683-MS2) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 16:43

Mercury	0.0024	0.0050	mg/L	0.00250	ND	98.0	80-120			D2, J
Molybdenum	0.07	0.10	mg/L	0.0625	ND	106	80-120			D2, J
Antimony	0.061	0.050	mg/L	0.0625	ND	97.3	80-120			D2
Arsenic	0.0624	0.0100	mg/L	0.0625	ND	99.8	80-120			D2
Barium	0.135	0.040	mg/L	0.0625	0.080	87.4	80-120			D2
Beryllium	0.0586	0.0200	mg/L	0.0625	ND	93.7	80-120			D2
Cadmium	0.0601	0.0100	mg/L	0.0625	ND	96.2	80-120			D2
Chromium	0.0594	0.0200	mg/L	0.0625	ND	95.0	80-120			D2
Cobalt	0.060	0.040	mg/L	0.0625	ND	95.5	80-120			D2
Lead	0.061	0.020	mg/L	0.0625	ND	97.8	80-120			D2
Lithium	0.07	0.20	mg/L	0.0625	ND	109	80-120			D2, J
Selenium	0.060	0.030	mg/L	0.0625	ND	95.3	80-120			D2
Thallium	0.0629	0.0200	mg/L	0.0625	ND	101	80-120			D2

Matrix Spike Dup (BEF0683-MSD1) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 23:21

Boron	ND	10.0	mg/L	0.125	ND		80-120		20	D2, M2, U
Calcium	54.6	50.0	mg/L	6.25	44.8	158	80-120	10.8	20	D2, M1

Matrix Spike Dup (BEF0683-MSD2) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 16:46

Antimony	0.066	0.050	mg/L	0.0625	ND	106	80-120	8.43	20	D2
Molybdenum	0.07	0.10	mg/L	0.0625	ND	115	80-120	7.58	20	D2, J
Mercury	0.0027	0.0050	mg/L	0.00250	ND	108	80-120	9.71	20	D2, J
Arsenic	0.0672	0.0100	mg/L	0.0625	ND	108	80-120	7.41	20	D2
Barium	0.145	0.040	mg/L	0.0625	0.080	104	80-120	7.26	20	D2
Beryllium	0.0662	0.0200	mg/L	0.0625	ND	106	80-120	12.3	20	D2
Cadmium	0.0657	0.0100	mg/L	0.0625	ND	105	80-120	8.83	20	D2
Chromium	0.0639	0.0200	mg/L	0.0625	ND	102	80-120	7.33	20	D2
Cobalt	0.065	0.040	mg/L	0.0625	ND	104	80-120	8.09	20	D2
Lead	0.067	0.020	mg/L	0.0625	ND	107	80-120	9.43	20	D2
Lithium	0.07	0.20	mg/L	0.0625	ND	117	80-120	6.75	20	D2, J
Selenium	0.065	0.030	mg/L	0.0625	ND	104	80-120	8.75	20	D2
Thallium	0.0671	0.0200	mg/L	0.0625	ND	107	80-120	6.53	20	D2



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0683 - EPA 200.2

Post Spike (BEF0683-PS1) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 23:24

Boron	748		ug/L	125	358	312	75-125			D2, M1
Calcium	51700		ug/L	6250	44800	110	75-125			D2

Post Spike (BEF0683-PS2) Source: 5061683-01

Prepared: 6/9/2025 8:56, Analyzed: 6/12/2025 16:48

Molybdenum	69.9		ug/L	62.5	6.86	101	75-125			D2
Mercury	2.51		ug/L	2.50	0.0250	99.4	75-125			D2
Antimony	62.0		ug/L	62.5	0.109	99.0	75-125			D2
Arsenic	66.6		ug/L	62.5	2.69	102	75-125			D2
Barium	140		ug/L	62.5	80.1	95.3	75-125			D2
Beryllium	62.8		ug/L	62.5	-0.115	100	75-125			D2
Cadmium	62.9		ug/L	62.5	0.0280	101	75-125			D2
Chromium	61.6		ug/L	62.5	0.335	98.1	75-125			D2
Cobalt	61.2		ug/L	62.5	0.069	97.9	75-125			D2
Lead	63.9		ug/L	62.5	0.057	102	75-115			D2
Lithium	69.4		ug/L	62.5	7.38	99.2	75-125			D2
Selenium	62.4		ug/L	62.5	0.036	99.7	75-125			D2
Thallium	65.0		ug/L	62.5	0.0120	104	75-125			D2



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEF0255 - Default Prep Micro										
LCS (BEF0255-BS1)										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	5.03		Std. Units	5.00		101	98.8-101.2			
LCS (BEF0255-BS2)										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	5.05		Std. Units	5.00		101	98.8-101.2			
Duplicate (BEF0255-DUP1) Source: 5061683-04										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	8.75	0.10	Std. Units		8.74			0.114	10	H3
Duplicate (BEF0255-DUP2) Source: 5061684-03										
Prepared: 6/6/2025 8:30, Analyzed: 6/6/2025 15:23										
pH (Lab)	7.84	0.10	Std. Units		7.81			0.383	10	H3
Batch BEF0864 - Default Prep Wet Chem										
Blank (BEF0864-BLK1)										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	ND	25	mg/L							U
LCS (BEF0864-BS1)										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	87		mg/L	90.0		96.7	80-120			
Duplicate (BEF0864-DUP1) Source: 5061683-01										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	268	50	mg/L		258			3.80	10	
Duplicate (BEF0864-DUP2) Source: 5063454-01										
Prepared: 6/9/2025 15:46, Analyzed: 6/9/2025 15:46										
Total Dissolved Solids	452	50	mg/L		462			2.19	10	



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0704 - Default Prep IC

Blank (BEF0704-BLK1)

Prepared: 6/7/2025 7:25, Analyzed: 6/7/2025 7:25

Chloride	ND	0.5	mg/L							U
Fluoride	ND	0.2	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEF0704-BS1)

Prepared: 6/7/2025 7:02, Analyzed: 6/7/2025 7:02

Chloride	12.2		mg/L	12.5		97.8	90-110			
Fluoride	5.1		mg/L	5.00		101	90-110			
Sulfate	24		mg/L	25.0		95.8	90-110			

Matrix Spike (BEF0704-MS1) Source: 5041050-01

Prepared: 6/7/2025 5:33, Analyzed: 6/7/2025 5:33

Fluoride	48.6		mg/L	50.0	0.08	97.1	75-125			D
Chloride	192		mg/L	125	71.1	96.5	75-125			D
Sulfate	239		mg/L	250	3	94.3	75-125			D

Matrix Spike (BEF0704-MS2) Source: 5041051-01

Prepared: 6/7/2025 6:18, Analyzed: 6/7/2025 6:18

Chloride	982		mg/L	125	899	66.1	75-125			D, M2
Fluoride	51.6		mg/L	50.0	0.1	103	75-125			D
Sulfate	289		mg/L	250	36	101	75-125			D

Matrix Spike Dup (BEF0704-MSD1) Source: 5041050-01

Prepared: 6/7/2025 5:55, Analyzed: 6/7/2025 5:55

Fluoride	49.7		mg/L	50.0	0.08	99.2	75-125	2.20	15	D
Chloride	194		mg/L	125	71.1	98.6	75-125	1.38	15	D
Sulfate	245		mg/L	250	3	96.5	75-125	2.27	15	D

Matrix Spike Dup (BEF0704-MSD2) Source: 5041051-01

Prepared: 6/7/2025 6:40, Analyzed: 6/7/2025 6:40

Fluoride	55.3		mg/L	50.0	0.1	110	75-125	6.84	15	D
Chloride	962		mg/L	125	899	50.7	75-125	1.98	15	D, M2
Sulfate	311		mg/L	250	36	110	75-125	7.28	15	D



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEF0714 - Default Prep IC

Blank (BEF0714-BLK1)

Prepared: 6/6/2025 20:14, Analyzed: 6/6/2025 20:14

Fluoride	ND	0.2	mg/L							U
Chloride	ND	0.5	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEF0714-BS1)

Prepared: 6/6/2025 19:53, Analyzed: 6/6/2025 19:53

Fluoride	5.2		mg/L	5.00		104	90-110			
Chloride	12.9		mg/L	12.5		103	90-110			
Sulfate	26		mg/L	25.0		103	90-110			

Matrix Spike (BEF0714-MS1)

Source: 5061024-01

Prepared: 6/6/2025 19:10, Analyzed: 6/6/2025 19:10

Chloride	13.2		mg/L	12.5	0.3	103	75-125			
Fluoride	5.3		mg/L	5.00	0.07	105	75-125			
Sulfate	29		mg/L	25.0	3	106	75-125			

Matrix Spike Dup (BEF0714-MSD1)

Source: 5061024-01

Prepared: 6/6/2025 19:31, Analyzed: 6/6/2025 19:31

Chloride	13.8		mg/L	12.5	0.3	108	75-125	4.52	15	
Fluoride	5.6		mg/L	5.00	0.07	110	75-125	4.84	15	
Sulfate	31		mg/L	25.0	3	112	75-125	5.17	15	

Certified Analyses included in this Report

Analyte	Certifications
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2540 C-2015 in Water

Total Dissolved Solids KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV

SM 4500-H+ B-2011 in Water

pH (Lab) KY Drinking Water Mdv (00030) TN Drinking Water (02819)

SW846 6010 B in Water

Calcium VA NELAC MDV (460210)



Sample Acceptance Checklist for Work Order 5061683

Shipped By: Pace Analytical Services LL

Temperature: 5.40° Celcius

Condition

Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5061683 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-01 A	<u>06/04/25</u>	<u>1422</u>	Plastic 500mL pH<2 w/HNO3	1	MW7	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
				Preservation Check: pH : <u>✓</u>			
5061683-01 B	<u>06/04/25</u>	<u>1427</u>	Plastic 1L	1	MW7	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056 Radium 226 (sub)
5061683-01 C	<u>06/04/25</u>	<u>1428</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW7	g / c	Radium 228 (sub)
				Preservation Check: pH : <u>✓</u>			
5061683-01 D	<u>06/04/25</u>	<u>1428</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW7	g / c	Radium 228 (sub)
				Preservation Check: pH : <u>✓</u>			
5061683-01 E	<u>06/04/25</u>	<u>1428</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW7	g / c	Radium 228 (sub)
				Preservation Check: pH : <u>✓</u>			

Preservation Check Performed by: Arc pH Paper Lot #: 213724

Field data collected by: Hunter Miller Date (mm/dd/yy) 06/02/25 Time (24 hr) 1420

pH 7.62 Cond (umho) 2397 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station

Project: HMPL Surface Impoundment

Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature]

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5061683 Sample ID#	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-01 F	<u>06/04/25</u>	<u>1430</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW7	g / c	Radium Total (sub)
			Preservation Check: pH: _____	✓			
5061683-02 A	<u>06/04/25</u>	<u>1145</u>	Plastic 500mL pH<2 w/HNO3	1	MW8	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: _____	✓			
5061683-02 B	<u>06/04/25</u>	<u>1145</u>	Plastic 1L	1	MW8	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5061683-02 C	<u>06/04/25</u>	<u>1145</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW8	g / c	Radium 226 (sub)
			Preservation Check: pH: _____	✓			
5061683-02 D	<u>06/04/25</u>	<u>1145</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW8	g / c	Radium 228 (sub)
			Preservation Check: pH: _____	✓			

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 06/04/25 Time (24 hr) 1145

pH 7.19 Cond (µmho) 2.44 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: **06/02/2025**



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **HMPL Surface Impoundment**

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5061683 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-02 E	<u>06/02/25</u>	<u>1145</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW8	g / c	Radium 228 (sub)
			Preservation Check: pH : <u> ✓ </u>				
5061683-02 F	<u>06/04/25</u>	<u>1145</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW8	g / c	Radium Total (sub)
			Preservation Check: pH : _____				
5061683-03 A	<u>06/05/25</u>	<u>1455</u>	Plastic 500mL pH<2 w/HNO3	1	MW9	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH : <u> ✓ </u>				
5061683-03 B	<u>06/05/25</u>	<u>1455</u>	Plastic 1L	1	MW9	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5061683-03 C	<u>06/05/25</u>	<u>1455</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW9	g / c	Radium 226 (sub)
			Preservation Check: pH : _____				

Preservation Check Performed by: [Signature] pH Paper Lot #: 213724

Field data collected by: Hester Will Date (mm/dd/yy) 06/05/25 Time (24 hr) 1455

pH 7.29 Cond (umho) 2.444 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-03 D	<u>06/05/25</u>	<u>1455</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW9	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5061683-03 E	<u>06/05/25</u>	<u>1455</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW9	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>✓</u>				
5061683-03 F	<u>06/05/25</u>	<u>1455</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW9	g / c	Radium Total (sub)
			Preservation Check: pH: <u>✓</u>				
5061683-04 A	<u>06/05/25</u>	<u>1236</u>	Plastic 500mL pH<2 w/HNO3	1	MW10	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: <u>✓</u>				
5061683-04 B	<u>06/05/25</u>	<u>1236</u>	Plastic 1L	1	MW10	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056

Preservation Check Performed by: [Signature] pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5061683 Sample ID#	*required information* Date (mm/dd/yy):	*required information* Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-04 C	<u>06/05/25</u>	<u>1236</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW10	g / c	Radium 226 (sub)
			Preservation Check: pH :	<input checked="" type="checkbox"/>			
5061683-04 D	<u>06/05/25</u>	<u>1236</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW10	g / c	Radium 228 (sub)
			Preservation Check: pH :	<input checked="" type="checkbox"/>			
5061683-04 E	<u>06/05/25</u>	<u>1236</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW10	g / c	Radium 228 (sub)
			Preservation Check: pH :	<input checked="" type="checkbox"/>			
5061683-04 F	<u>06/05/25</u>	<u>1236</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW10	g / c	Radium Total (sub)
			Preservation Check: pH :	<input checked="" type="checkbox"/>			

Preservation Check Performed by: ACE

pH Paper Lot #: 213724

Field data collected by: Hunter Hill Date (mm/dd/yy) 06/05/25 Time (24 hr) 1236

pH 9.47 Cond (umho) 0.686 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 06-05-25

Time (24 hr) 1655

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5061683 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-05 A	<u>06/05/25</u>	<u>1655</u>	Plastic 500mL pH<2 w/HNO3	1	DUPLICATE	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
Preservation Check: pH : _____							
5061683-05 B	<u>06/05/25</u>	<u>1655</u>	Plastic 1L	1	DUPLICATE	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056 Radium 226 (sub)
5061683-05 C	<u>06/05/25</u>		Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	DUPLICATE	g / c	Radium 226 (sub)
Preservation Check: pH : _____							
5061683-05 D	<u>06/05/25</u>		Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
Preservation Check: pH : _____							
5061683-05 E	<u>06/05/25</u>		Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
Preservation Check: pH : _____							

Preservation Check Performed by: all pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 06-05-25 Time (24 hr) 1655

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy)	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-05 F	<u>06/05/25</u>		Plastic 1L pH<2 w/HNO3 Sub	1	DUPLICATE	g / c	Radium Total (sub)
			Preservation Check: pH: <u>/</u>				
5061683-06 A	<u>06/05/25</u>	<u>1305</u>	Plastic 500mL pH<2 w/HNO3	1	FIELD BLANK	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: <u>/</u>				
5061683-06 B	<u>06/05/25</u>	<u>1305</u>	Plastic 1L	1	FIELD BLANK	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5061683-06 C	<u>06/05/25</u>	<u>1305</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	FIELD BLANK	g / c	Radium 226 (sub)
			Preservation Check: pH: <u>/</u>				
5061683-06 D	<u>06/05/25</u>	<u>1305</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature] [Signature] 06-05-25 1055

Chain of Custody

Scheduled for: 06/02/2025



**Client: Big Rivers Electric Corporation
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
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Project: HMPL Surface Impoundment

Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature]

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5061683-06 E	<u>06/05/25</u>	<u>1305</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
			Preservation Check: pH: <input checked="" type="checkbox"/>				
5061683-06 F	<u>06/05/25</u>	<u>1305</u>	Plastic 1L pH<2 w/HNO3 Sub	1	FIELD BLANK	g / c	Radium Total (sub)
			Preservation Check: pH: _____				

Thermometer Serial Number
 230753815
 240381205
 Temperature 5.4°C

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213424

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature] [Signature] 06-05-25 1655



June 30, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5061683
Pace Project No.: 30786755

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on June 11, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa A. Wilson
theresa.wilson@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: 5061683
 Pace Project No.: 30786755

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 5061683
Pace Project No.: 30786755

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30786755001	5061683-01	Water	06/04/25 14:22	06/11/25 09:55
30786755002	5061683-02	Water	06/04/25 11:45	06/11/25 09:55
30786755003	5061683-03	Water	06/05/25 14:55	06/11/25 09:55
30786755004	5061683-04	Water	06/02/25 12:36	06/11/25 09:55
30786755005	5061683-05	Water	06/05/25 12:36	06/11/25 09:55
30786755006	5061683-06	Water	06/05/25 13:05	06/11/25 09:55

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 5061683
 Pace Project No.: 30786755

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30786755001	5061683-01	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30786755002	5061683-02	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30786755003	5061683-03	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30786755004	5061683-04	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30786755005	5061683-05	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30786755006	5061683-06	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5061683
 Pace Project No.: 30786755

Sample: 5061683-01 Lab ID: 30786755001 Collected: 06/04/25 14:22 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.456 ± 0.779 (1.60) C:NA T:95%	pCi/L	06/27/25 16:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.670 ± 0.421 (0.807) C:82% T:92%	pCi/L	06/26/25 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.670 ± 1.20 (2.41)	pCi/L	06/30/25 15:09	7440-14-4	

Sample: 5061683-02 Lab ID: 30786755002 Collected: 06/04/25 11:45 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.16 ± 0.913 (1.40) C:NA T:94%	pCi/L	06/27/25 16:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.83 ± 0.609 (0.882) C:81% T:89%	pCi/L	06/26/25 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.99 ± 1.52 (2.28)	pCi/L	06/30/25 15:09	7440-14-4	

Sample: 5061683-03 Lab ID: 30786755003 Collected: 06/05/25 14:55 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.16 ± 0.841 (1.27) C:NA T:93%	pCi/L	06/27/25 16:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.750 ± 0.428 (0.798) C:79% T:94%	pCi/L	06/26/25 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.91 ± 1.27 (2.07)	pCi/L	06/30/25 15:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5061683
 Pace Project No.: 30786755

Sample: 5061683-04 Lab ID: 30786755004 Collected: 06/02/25 12:36 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.261 ± 0.799 (1.53) C:NA T:101%	pCi/L	06/27/25 16:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.619 ± 0.410 (0.791) C:80% T:95%	pCi/L	06/26/25 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.619 ± 1.21 (2.32)	pCi/L	06/30/25 15:09	7440-14-4	

Sample: 5061683-05 Lab ID: 30786755005 Collected: 06/05/25 12:36 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.104 ± 0.679 (1.25) C:NA T:96%	pCi/L	06/27/25 16:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.694 ± 0.431 (0.813) C:75% T:95%	pCi/L	06/26/25 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.798 ± 1.11 (2.06)	pCi/L	06/30/25 15:09	7440-14-4	

Sample: 5061683-06 Lab ID: 30786755006 Collected: 06/05/25 13:05 Received: 06/11/25 09:55 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • Samplers name and signature not listed on COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.0515 ± 0.580 (1.13) C:NA T:99%	pCi/L	06/27/25 16:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	-0.106 ± 0.383 (0.928) C:77% T:89%	pCi/L	06/26/25 14:56	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.000 ± 0.963 (2.06)	pCi/L	06/30/25 15:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5061683
 Pace Project No.: 30786755

QC Batch: 752749	Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0	Analysis Description: 904.0 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30786755001, 30786755002, 30786755003, 30786755004, 30786755005, 30786755006

METHOD BLANK: 3667616 Matrix: Water

Associated Lab Samples: 30786755001, 30786755002, 30786755003, 30786755004, 30786755005, 30786755006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.752 ± 0.432 (0.801) C:80% T:88%	pCi/L	06/26/25 11:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5061683
 Pace Project No.: 30786755

QC Batch: 752747	Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1	Analysis Description: 903.1 Radium-226
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30786755001, 30786755002, 30786755003, 30786755004, 30786755005, 30786755006

METHOD BLANK: 3667613 Matrix: Water

Associated Lab Samples: 30786755001, 30786755002, 30786755003, 30786755004, 30786755005, 30786755006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.216 ± 0.225 (0.318) C:NA T:94%	pCi/L	06/27/25 16:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5061683
 Pace Project No.: 30786755

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
 ND - Not Detected at or above adjusted reporting limit.
 TNTC - Too Numerous To Count
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
 MDL - Adjusted Method Detection Limit.
 PQL - Practical Quantitation Limit.
 RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
 S - Surrogate
 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
 Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
 LCS(D) - Laboratory Control Sample (Duplicate)
 MS(D) - Matrix Spike (Duplicate)
 DUP - Sample Duplicate
 RPD - Relative Percent Difference
 NC - Not Calculable.
 SG - Silica Gel - Clean-Up
 U - Indicates the compound was analyzed for, but not detected.
 N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
 Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
 Act - Activity
 Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.
 Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.
 (MDC) - Minimum Detectable Concentration
 Trac - Tracer Recovery (%)
 Carr - Carrier Recovery (%)
 Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
 TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 30786755004
 [1] Date on containers is 6/5

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5061683
 Pace Project No.: 30786755

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30786755001	5061683-01	EPA 903.1	752747		
30786755002	5061683-02	EPA 903.1	752747		
30786755003	5061683-03	EPA 903.1	752747		
30786755004	5061683-04	EPA 903.1	752747		
30786755005	5061683-05	EPA 903.1	752747		
30786755006	5061683-06	EPA 903.1	752747		
30786755001	5061683-01	EPA 904.0	752749		
30786755002	5061683-02	EPA 904.0	752749		
30786755003	5061683-03	EPA 904.0	752749		
30786755004	5061683-04	EPA 904.0	752749		
30786755005	5061683-05	EPA 904.0	752749		
30786755006	5061683-06	EPA 904.0	752749		
30786755001	5061683-01	Total Radium Calculation	755191		
30786755002	5061683-02	Total Radium Calculation	755191		
30786755003	5061683-03	Total Radium Calculation	755191		
30786755004	5061683-04	Total Radium Calculation	755191		
30786755005	5061683-05	Total Radium Calculation	755191		
30786755006	5061683-06	Total Radium Calculation	755191		

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

WO#: 30786755

Pace Analytical Services, LLC Ke
5061683



SENDING LABORATORY:

Pace Analytical Services, LLC Kentucky
PO BOX 907
Madisonville, KY 42431
Phone: (270) 821-7375
Fax: -
Project Manager: Rob Whittington

RECEIVING LABORATORY:

Pace Analytical Services LLC Greensburg PA
1638 Rosey Town Rd Suite 2,3,4
Greensburg, PA 15601
Phone :(724) 850-5615
Fax:

Received by Pace Greensburg
Therm ID 24 Corr Factor +/- 0.10
Receipt Temp 3.7/2.9
Corrected Temp 3.7/2.9
Correct Preservation 0/N
ps 6/11/25

Analysis	Expires	Laboratory ID	Comments
Sample ID: 5061683-01	Water	Sampled:06/04/2025 14:22	Specific Method
Radium 228 (sub)	Ground	12/01/2025 14:22	EPA 904.0 Radium Sum C
Radium 226 (sub)		12/01/2025 14:22	EPA 903.1
Radium Total (sub)		12/01/2025 14:22	EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5061683-02	Water	Sampled:06/04/2025 11:45	Specific Method
Radium Total (sub)	Ground	12/01/2025 11:45	EPA 904.0 Radium Sum C
Radium 228 (sub)		12/01/2025 11:45	EPA 904.0 Radium Sum C
Radium 226 (sub)		12/01/2025 11:45	EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5061683-03	Water	Sampled:06/05/2025 14:55	Specific Method
Radium 226 (sub)	Ground	12/02/2025 14:55	EPA 903.1
Radium Total (sub)		12/02/2025 14:55	EPA 904.0 Radium Sum C
Radium 228 (sub)		12/02/2025 14:55	EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Released By Hun Da Date 6/10/25 Received By Ryler Date 6/11/25 9:55

Released By _____ Date _____ Received By _____ Date _____

SUBCONTRACT ORD

WO#: 30786755

Pace Analytical Services, LLC
5061683

PM: TAW

Due Date: 07/02/25

CLIENT: PACE_44_MVKY

Analysis	Expires	Laboratory ID	Comments
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Sample ID: 5061683-04	Water	Sampled:06/02/2025 12:36	Specific Method
Radium 226 (sub)	Ground	11/29/2025 12:36	EPA 903.1
Radium Total (sub)		11/29/2025 12:36	EPA 904.0 Radium Sum C
Radium 228 (sub)		11/29/2025 12:36	EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5061683-05	Water	Sampled:06/05/2025 12:36	Specific Method
Radium 226 (sub)	Ground	12/02/2025 12:36	EPA 903.1
Radium Total (sub)		12/02/2025 12:36	EPA 904.0 Radium Sum C
Radium 228 (sub)		12/02/2025 12:36	EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Sample ID: 5061683-06	Water	Sampled:06/05/2025 13:05	Specific Method
Radium Total (sub)	Ground	12/02/2025 13:05	EPA 904.0 Radium Sum C
Radium 228 (sub)		12/02/2025 13:05	EPA 904.0 Radium Sum C
Radium 226 (sub)		12/02/2025 13:05	EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER 0

Released By V. De Date 6-10-25 Received By Ryler Date 6/11/25 9:55

Released By _____ Date _____ Received By _____ Date _____



DC#_Title: ENV-FRM-GBUR-0088 v07_Sampl
Greensburg

WO#: 30786755

Effective Date: 01/04/2024

PM: TAW Due Date: 07/02/25
CLIENT: PACE_44_MVKY

Client Name: Pace-Madisonville

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking Number: 1Z 067 Y57 01 1557 8194

Initial / Date

Examined By: VB 6/1/25

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No
Thermometer Used: 24 Type of Ice: (We) Blue None

Labeled By: VB 6/1/25

Temped By: PS 6/1/25

Cooler Temperature: Observed Temp 3.7 °C Correction Factor: 0.0 °C Final Temp: 3.7 °C
Temp should be above freezing to 6°C 2.9 ps 6/1/25 2.2 2.9

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				10043241	
Chain of Custody Present	X			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	X			2.	
Chain of Custody Relinquished	X			3. No relinquish time	
Sampler Name & Signature on COC:		X		4.	
Sample Labels match COC: -Includes date/time/ID Matrix: WT		X		5. GS on COC bottles. No time on CAS bottles.	
Samples Arrived within Hold Time:	X			6.	Groundwater on Col and bottles
Short Hold Time Analysis (<72hr remaining):		X		7.	
Rush Turn Around Time Requested:		X		8.	
Sufficient Volume:	X			9.	
Correct Containers Used: -Pace Containers Used	X			10.	
Containers Intact:	X			11.	
Orthophosphate field filtered:			X	12.	
Hex Cr Aqueous samples field filtered:			X	13.	
Organic Samples checked for dichlorination			X	14.	
Filtered volume received for dissolved tests:			X	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	X			16.	
All containers meet method preservation requirements:	X			Initial when completed Lot# of added Preservative	Date/Time of Preservation
8260C/D: Headspace in VOA Vials (> 6mm)			X	17.	
624.1: Headspace in VOA Vials (0mm)			X	18.	
Radon: Headspace in RAD Vials (0mm)			X	19.	
Trip Blank Present:			X	Trip blank custody seal present? YES or NO	
Rad Samples Screened <.05 mrem/hr.	/			Initial when completed Date: PS 6/1/25	Survey Meter SN: 25014380
Comments: Cooler #2 tracking number: 1Z 067 Y57 01 1406 5414					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.
Qualtrax ID: 55680



Certificate of Analysis 5105009

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 12/10/2025 15:37

Project Name: HMPL Surface Impoundment Characterization Wells Workorder: 5105009

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 11/12/2025 09:28.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5105009-01	MW-110/	Groundwater	11/07/2025 09:25	11/12/2025 9:28	Client
5105009-02	MW-111/	Groundwater	11/06/2025 16:10	11/12/2025 9:28	CLIENT
5105009-03	MW-112/	Groundwater	11/06/2025 14:47	11/12/2025 9:28	Client
<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>			
5105009-01	Field Conductance	1100			
	Field pH	7.05			
5105009-02	Field Conductance	534			
	Field pH	7.80			
5105009-03	Field Conductance	1040			
	Field pH	7.23			



ANALYTICAL RESULTS

Lab Sample ID: **5105009-01**
 Description: **MW-110**

Sample Collection Date Time: 11/07/2025 09:25
 Sample Received Date Time: 11/12/2025 09:28

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Arsenic	0.0008	J	mg/L	0.0010	0.0004	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Barium	0.055		mg/L	0.004	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:28	HJS
Boron	0.55		mg/L	0.10	0.10	SW846 6010 B	11/13/2025 10:40	11/13/2025 20:25	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Calcium	132	D1	mg/L	50.0	25.0	SW846 6010 B	11/13/2025 10:40	11/14/2025 12:32	MRWD
Calcium	123	M3	mg/L	0.50	0.25	SW846 6010 B	11/21/2025 10:16	11/21/2025 21:55	MRWD
Chromium	0.0031		mg/L	0.0020	0.0006	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Lead	0.002		mg/L	0.002	0.0005	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Lithium	0.02		mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:28	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:50	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.75	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/14/2025 10:00	11/14/2025 14:54	JEP
Total Dissolved Solids	924		mg/L	100	100	2540 C-2015	11/13/2025 18:24	11/13/2025 18:24	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/10/2025 15:30	12/10/2025 15:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/10/2025 15:30	12/10/2025 15:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/10/2025 15:30	12/10/2025 15:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	17.7		mg/L	0.5	0.4	SW846 9056	11/12/2025 14:20	11/12/2025 14:20	DSB1
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	11/12/2025 14:20	11/12/2025 14:20	DSB1
Sulfate	330	D	mg/L	10	5	SW846 9056	11/14/2025 02:38	11/14/2025 02:38	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105009-02**
 Description: **MW-111**

Sample Collection Date Time: 11/06/2025 16:10
 Sample Received Date Time: 11/12/2025 09:28

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Barium	1.10	D1	mg/L	0.040	0.010	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:57	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:30	HJS
Boron	0.56		mg/L	0.10	0.10	SW846 6010 B	11/13/2025 10:40	11/13/2025 20:44	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Calcium	20.1	D1	mg/L	5.00	2.50	SW846 6010 B	11/13/2025 10:40	11/13/2025 20:31	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Lithium	0.008	J	mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:30	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:55	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	8.31	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/14/2025 10:00	11/14/2025 14:54	JEP
Total Dissolved Solids	418		mg/L	50	50	2540 C-2015	11/13/2025 18:24	11/13/2025 18:24	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/10/2025 15:30	12/10/2025 15:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/10/2025 15:30	12/10/2025 15:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/10/2025 15:30	12/10/2025 15:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	15.9		mg/L	0.5	0.4	SW846 9056	11/12/2025 14:41	11/12/2025 14:41	DSB1
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	11/12/2025 14:41	11/12/2025 14:41	DSB1
Sulfate	ND	u	mg/L	1	0.5	SW846 9056	11/12/2025 14:41	11/12/2025 14:41	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105009-03**
 Description: **MW-112**

Sample Collection Date Time: 11/06/2025 14:47
 Sample Received Date Time: 11/12/2025 09:28

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Arsenic	0.0014		mg/L	0.0010	0.0004	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Barium	0.290		mg/L	0.004	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:32	HJS
Boron	0.38		mg/L	0.10	0.10	SW846 6010 B	11/13/2025 10:40	11/13/2025 20:47	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Calcium	37.4	D1	mg/L	5.00	2.50	SW846 6010 B	11/13/2025 10:40	11/13/2025 20:50	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Lithium	0.009	J	mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:32	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Molybdenum	0.005	J	mg/L	0.01	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 19:59	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	8.13	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/14/2025 10:00	11/14/2025 14:54	JEP
Total Dissolved Solids	720		mg/L	50	50	2540 C-2015	11/13/2025 18:24	11/13/2025 18:24	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/10/2025 15:30	12/10/2025 15:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/10/2025 15:30	12/10/2025 15:30	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/10/2025 15:30	12/10/2025 15:30	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	55.6		mg/L	0.5	0.4	SW846 9056	11/12/2025 15:03	11/12/2025 15:03	DSB1
Fluoride	0.3		mg/L	0.2	0.2	SW846 9056	11/12/2025 15:03	11/12/2025 15:03	DSB1
Sulfate	139		mg/L	1	0.5	SW846 9056	11/12/2025 15:03	11/12/2025 15:03	DSB1



Notes for work order 5105009

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- E Concentration exceeds calibration range
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- L2 The associated blank spike recovery was below method acceptance limits.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- M3 The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Notes
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Batch BEK1238 - EPA 200.2

Blank (BEK1238-BLK1)

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 20:12

Boron	ND	0.10	mg/L						U
Calcium	ND	0.50	mg/L						U

Blank (BEK1238-BLK2)

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 19:46

Molybdenum	ND	0.01	mg/L						U
Mercury	ND	0.0005	mg/L						U
Antimony	ND	0.005	mg/L						U
Arsenic	ND	0.0010	mg/L						U
Barium	ND	0.004	mg/L						U
Beryllium	ND	0.0020	mg/L						U
Cadmium	ND	0.0010	mg/L						U
Chromium	ND	0.0020	mg/L						U
Cobalt	ND	0.004	mg/L						U
Lead	ND	0.002	mg/L						U
Lithium	ND	0.02	mg/L						U
Selenium	ND	0.003	mg/L						U
Thallium	ND	0.0020	mg/L						U

Blank (BEK1238-BLK3)

Prepared: 11/13/2025 10:40, Analyzed: 11/20/2025 11:39

Beryllium	ND	0.0020	mg/L						U
Chromium	ND	0.0020	mg/L						U
Lithium	ND	0.02	mg/L						U

LCS (BEK1238-BS1)

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 20:15

Boron	0.12	0.10	mg/L	0.125		92.3	85-115		
Calcium	6.21	0.50	mg/L	6.25		99.3	85-115		

LCS (BEK1238-BS2)

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 19:48

Mercury	0.0025	0.0005	mg/L	0.00250		101	85-115		
Molybdenum	0.06	0.01	mg/L	0.0625		97.4	85-115		
Antimony	0.058	0.005	mg/L	0.0625		93.1	85-115		
Arsenic	0.0597	0.0010	mg/L	0.0625		95.6	85-115		
Barium	0.058	0.004	mg/L	0.0625		92.1	85-115		
Beryllium	0.0483	0.0020	mg/L	0.0625		77.2	85-115		L2
Cadmium	0.0562	0.0010	mg/L	0.0625		89.9	85-115		
Chromium	0.0584	0.0020	mg/L	0.0625		93.5	85-115		
Cobalt	0.057	0.004	mg/L	0.0625		91.1	85-115		
Lead	0.058	0.002	mg/L	0.0625		93.5	85-115		
Lithium	0.05	0.02	mg/L	0.0625		73.5	85-115		L2
Selenium	0.057	0.003	mg/L	0.0625		91.0	85-115		
Thallium	0.0599	0.0020	mg/L	0.0625		95.9	85-115		



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1238 - EPA 200.2

LCS (BEK1238-BS3)

Prepared: 11/13/2025 10:40, Analyzed: 11/20/2025 11:42

Beryllium	0.0492	0.0020	mg/L	0.0625		78.7	85-115			L2
Chromium	0.0600	0.0020	mg/L	0.0625		96.0	85-115			
Lithium	0.05	0.02	mg/L	0.0625		78.6	85-115			L2

Matrix Spike (BEK1238-MS1) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 21:38

Boron	0.12	0.10	mg/L	0.125	ND	95.9	80-120			
Calcium	6.34	0.50	mg/L	6.25	ND	101	80-120			

Matrix Spike (BEK1238-MS2) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 20:50

Antimony	0.060	0.005	mg/L	0.0625	ND	96.4	80-120			
Molybdenum	0.06	0.01	mg/L	0.0625	ND	99.4	80-120			
Mercury	0.0028	0.0005	mg/L	0.00250	ND	110	80-120			
Arsenic	0.0606	0.0010	mg/L	0.0625	ND	97.0	80-120			
Barium	0.059	0.004	mg/L	0.0625	ND	94.5	80-120			
Beryllium	0.0469	0.0020	mg/L	0.0625	ND	75.1	80-120			M2
Cadmium	0.0577	0.0010	mg/L	0.0625	ND	92.3	80-120			
Chromium	0.0590	0.0020	mg/L	0.0625	ND	94.3	80-120			
Cobalt	0.057	0.004	mg/L	0.0625	ND	91.5	80-120			
Lead	0.061	0.002	mg/L	0.0625	ND	97.1	80-120			
Lithium	0.05	0.02	mg/L	0.0625	ND	72.7	80-120			M2
Selenium	0.057	0.003	mg/L	0.0625	ND	91.4	80-120			
Thallium	0.0608	0.0020	mg/L	0.0625	ND	97.3	80-120			

Matrix Spike Dup (BEK1238-MSD1) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 21:41

Boron	0.12	0.10	mg/L	0.125	ND	96.8	80-120	0.930	20	
Calcium	6.31	0.50	mg/L	6.25	ND	101	80-120	0.461	20	

Matrix Spike Dup (BEK1238-MSD2) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 20:52

Molybdenum	0.06	0.01	mg/L	0.0625	ND	98.2	80-120	1.21	20	
Mercury	0.0026	0.0005	mg/L	0.00250	ND	104	80-120	5.94	20	
Antimony	0.060	0.005	mg/L	0.0625	ND	96.1	80-120	0.298	20	
Arsenic	0.0610	0.0010	mg/L	0.0625	ND	97.6	80-120	0.682	20	
Barium	0.059	0.004	mg/L	0.0625	ND	94.3	80-120	0.133	20	
Beryllium	0.0471	0.0020	mg/L	0.0625	ND	75.4	80-120	0.426	20	M2
Cadmium	0.0576	0.0010	mg/L	0.0625	ND	92.2	80-120	0.0901	20	
Chromium	0.0591	0.0020	mg/L	0.0625	ND	94.6	80-120	0.230	20	
Cobalt	0.057	0.004	mg/L	0.0625	ND	91.5	80-120	0.0960	20	
Lead	0.060	0.002	mg/L	0.0625	ND	95.8	80-120	1.33	20	
Lithium	0.05	0.02	mg/L	0.0625	ND	72.4	80-120	0.416	20	M2
Selenium	0.058	0.003	mg/L	0.0625	ND	92.2	80-120	0.879	20	
Thallium	0.0603	0.0020	mg/L	0.0625	ND	96.4	80-120	0.873	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1238 - EPA 200.2

Post Spike (BEK1238-PS1) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 21:44

Boron	121		ug/L	125	-0.88	96.8	75-125			
Calcium	6390		ug/L	6250	48.7	102	75-125			

Post Spike (BEK1238-PS2) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 20:54

Molybdenum	62.1		ug/L	62.5	0.01	99.4	75-125			
Antimony	58.5		ug/L	62.5	0.028	93.5	75-125			
Mercury	2.66		ug/L	2.50	0.0144	106	75-125			
Arsenic	61.2		ug/L	62.5	0.0059	97.9	75-125			
Barium	60.1		ug/L	62.5	0.046	96.0	75-125			
Beryllium	46.7		ug/L	62.5	-0.0079	74.7	75-125			M2
Cadmium	58.4		ug/L	62.5	0.0025	93.4	75-125			
Chromium	60.2		ug/L	62.5	0.340	95.8	75-125			
Cobalt	58.3		ug/L	62.5	-0.001	93.3	75-125			
Lead	61.0		ug/L	62.5	0.282	97.1	75-115			
Lithium	45.4		ug/L	62.5	0.43	71.9	75-125			M2
Selenium	59.1		ug/L	62.5	0.003	94.5	75-125			
Thallium	60.9		ug/L	62.5	0.0029	97.4	75-125			

Batch BEK2136 - EPA 200.2

Blank (BEK2136-BLK1)

Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 16:08

Beryllium	ND	0.0020	mg/L							U
Lithium	ND	0.02	mg/L							U

Blank (BEK2136-BLK2)

Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 21:49

Calcium	ND	0.50	mg/L							U
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Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2136 - EPA 200.2										
LCS (BEK2136-BS1)										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 16:11										
Beryllium	0.0562	0.0020	mg/L	0.0625		89.9	85-115			
Lithium	0.06	0.02	mg/L	0.0625		89.3	85-115			
LCS (BEK2136-BS2)										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 21:52										
Calcium	6.55	0.50	mg/L	6.25		105	85-115			
Matrix Spike (BEK2136-MS1) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 16:57										
Beryllium	0.0495	0.0020	mg/L	0.0625	ND	79.2	80-120			M2
Lithium	0.06	0.02	mg/L	0.0625	0.02	77.2	80-120			M2
Matrix Spike (BEK2136-MS2) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:02										
Beryllium	0.0537	0.0020	mg/L	0.0625	ND	85.9	80-120			
Lithium	0.05	0.02	mg/L	0.0625	ND	87.3	80-120			
Matrix Spike (BEK2136-MS3) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:36										
Calcium	125	0.50	mg/L	6.25	123	36.3	80-120			M3
Matrix Spike (BEK2136-MS4) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:43										
Calcium	69.8	0.50	mg/L	6.25	67.7	33.2	80-120			M3
Matrix Spike Dup (BEK2136-MSD1) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:00										
Beryllium	0.0489	0.0020	mg/L	0.0625	ND	78.2	80-120	1.27	20	M2
Lithium	0.06	0.02	mg/L	0.0625	0.02	78.4	80-120	1.16	20	M2
Matrix Spike Dup (BEK2136-MSD2) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:04										
Beryllium	0.0527	0.0020	mg/L	0.0625	ND	84.3	80-120	1.93	20	
Lithium	0.05	0.02	mg/L	0.0625	ND	85.8	80-120	1.77	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2136 - EPA 200.2										
Matrix Spike Dup (BEK2136-MSD3) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:39										
Calcium	136	0.50	mg/L	6.25	123	205	80-120	8.07	20	M3
Matrix Spike Dup (BEK2136-MSD4) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:55										
Calcium	73.2	0.50	mg/L	6.25	67.7	87.4	80-120	4.74	20	
Post Spike (BEK2136-PS1) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:06										
Beryllium	47.4		ug/L	62.5	0.206	75.6	75-125			
Lithium	62.4		ug/L	62.5	15.7	74.6	75-125			
Post Spike (BEK2136-PS2) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:58										
Calcium	130000		ug/L	6250	123000	119	75-125			



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch BEK0963 - Default Prep Micro

LCS (BEK0963-BS1)

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	4.99		Std. Units	5.00		99.8	98.8-101.2			
----------	------	--	------------	------	--	------	------------	--	--	--

LCS (BEK0963-BS2)

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	5.05		Std. Units	5.00		101	98.8-101.2			
----------	------	--	------------	------	--	-----	------------	--	--	--

Duplicate (BEK0963-DUP1) Source: 5112868-01

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	9.64	0.10	Std. Units		9.63			0.104	10	H3
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Duplicate (BEK0963-DUP2) Source: 5111985-01

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	8.15	0.10	Std. Units		8.14			0.123	10	H3
----------	------	------	------------	--	------	--	--	-------	----	----

Batch BEK1334 - Default Prep Wet Chem

Blank (BEK1334-BLK1)

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	ND	25	mg/L							U
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LCS (BEK1334-BS1)

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	995		mg/L	1000		99.5	80-120			
------------------------	-----	--	------	------	--	------	--------	--	--	--

Duplicate (BEK1334-DUP1) Source: 5105009-01

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	912	100	mg/L		924			1.31	10	
------------------------	-----	-----	------	--	-----	--	--	------	----	--

Duplicate (BEK1334-DUP2) Source: 5113867-01

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	260	50	mg/L		268			3.03	10	
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Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	------------	---------	-------

Batch BEK1074 - Default Prep IC

Blank (BEK1074-BLK1)

Prepared: 11/12/2025 23:38, Analyzed: 11/12/2025 23:38

Chloride	ND	0.5	mg/L						U
Fluoride	ND	0.2	mg/L						U
Sulfate	ND	1	mg/L						U

LCS (BEK1074-BS1)

Prepared: 11/12/2025 23:17, Analyzed: 11/12/2025 23:17

Fluoride	5.1		mg/L	5.00		103	90-110		
Chloride	12.2		mg/L	12.5		97.7	90-110		
Sulfate	24		mg/L	25.0		97.8	90-110		

Matrix Spike (BEK1074-MS1) Source: 5113382-01

Prepared: 11/12/2025 21:51, Analyzed: 11/12/2025 21:51

Chloride	11.9		mg/L	12.5	0.2	94.0	75-125		
Fluoride	5.0		mg/L	5.00	0.0	101	75-125		
Sulfate	24		mg/L	25.0	0.3	94.2	75-125		

Matrix Spike (BEK1074-MS2) Source: 5113382-02

Prepared: 11/12/2025 22:34, Analyzed: 11/12/2025 22:34

Chloride	12.1		mg/L	12.5	4.4	62.1	75-125		M2
Fluoride	5.1		mg/L	5.00	0.0	102	75-125		
Sulfate	24		mg/L	25.0	0.3	96.5	75-125		

Matrix Spike Dup (BEK1074-MSD1) Source: 5113382-01

Prepared: 11/12/2025 22:12, Analyzed: 11/12/2025 22:12

Chloride	12.2		mg/L	12.5	0.2	95.9	75-125	2.05	15
Fluoride	5.1		mg/L	5.00	0.0	103	75-125	2.03	15
Sulfate	24		mg/L	25.0	0.3	96.5	75-125	2.40	15

Matrix Spike Dup (BEK1074-MSD2) Source: 5113382-02

Prepared: 11/12/2025 22:55, Analyzed: 11/12/2025 22:55

Chloride	12.0		mg/L	12.5	4.4	61.0	75-125	1.17	15	M2
Fluoride	5.0		mg/L	5.00	0.0	101	75-125	1.44	15	
Sulfate	24		mg/L	25.0	0.3	94.5	75-125	1.98	15	

Certified Analyses included in this Report

Analyte	Certifications
2540 C-2015 in Water	
Total Dissolved Solids	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
SM 4500-H+ B-2011 in Water	
pH (Lab)	KY Drinking Water Mdv (00030) TN Drinking Water (02819)
SW846 6010 B in Water	
Calcium	VA NELAC MDV (460210)



Sample Acceptance Checklist for Work Order 5105009

Shipped By: Client

Temperature: 5.70° Celcius

Condition

Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Pace Analytical Services LLC Kentucky
 825 Industrial Road
 P O: Box 907
 Madisonville, KY 42431

Chain of Custody

Scheduled for: 10/23/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment
 Characterization Wells

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#:

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY	*required information*		Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
Workorder # 5105009 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):					
5105009-01 A	<u>11/7/25</u>	<u>0925</u>	Plastic 500mL pH<2 w/HNO3	1	MW-110	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: <u>/</u>				
5105009-01 B	<u>11/7/25</u>	<u>0925</u>	Plastic 1L	1	MW-110	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105009-01 C	<u>11/7/25</u>	<u>0925</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW-110	g / c	Radium 226 (sub)
			Preservation Check: pH: <u>/</u>				
5105009-01 D	<u>11/7/25</u>	<u>0925</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-110	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				
5105009-01 E	<u>11/7/25</u>	<u>0925</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-110	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				

Preservation Check Performed by: KLS pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 11/7/25 Time (24 hr) 0925

pH 7.05 Cond (uS/cm) 110 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/12/25</u>	Time (24 hr) <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____

Pace Analytical Services LLC Kentucky
 825 Industrial Road
 P.O. Box 907
 Madisonville, KY 42431

Chain of Custody

Scheduled for: **10/23/2025**



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment
 Characterization Wells

Phone: (270) 844-5659
 PWS ID#: _____
 State: ky

PO#: _____
 Quote#: _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy): Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105009-01 F	<u>11/7/25</u> <u>0935</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW-110	g / c	Radium Total (sub)
		Preservation Check: pH: <u>/</u>				
5105009-02 A	<u>11/6/25</u> <u>1610</u>	Plastic 500mL pH<2 w/HNO3	1	MW-111	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6020 Cadmium Tot 6020 Calcium Tot 60108 Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
		Preservation Check: pH: <u>/</u>				
5105009-02 B	<u>11/6/25</u> <u>1610</u>	Plastic 1L	1	MW-111	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105009-02 C	<u>11/6/25</u> <u>1610</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW-111	g / c	Radium 226 (sub)
		Preservation Check: pH: <u>/</u>				
5105009-02 D	<u>11/6/25</u> <u>1610</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-111	g / c	Radium 228 (sub)
		Preservation Check: pH: <u>/</u>				

Preservation Check Performed by: KLS pH Paper Lot #: 23724

Field data collected by: [Signature] Date (mm/dd/yy) 11/6/25 Time (24 hr) 1610

pH 7.84 Cond (umho) 0.534 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/12/25</u>	Time (24 hr) <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: 10/23/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
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 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment
 Characterization Wells

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#:

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105009 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105009-02 E	<u>11/6/25</u>	<u>1610</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-111	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				
5105009-02 F	<u>11/6/25</u>	<u>1610</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW-111	g / c	Radium Total (sub)
			Preservation Check: pH: <u>/</u>				
5105009-03 A	<u>11/6/25</u>	<u>1447</u>	Plastic 500mL pH<2 w/HNO3	1	MW-112	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calc um: Tct 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: <u>/</u>				
5105009-03 B	<u>11/6/25</u>	<u>1447</u>	Plastic 1L	1	MW-112	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105009-03 C	<u>11/6/25</u>	<u>1447</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-112	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				

Preservation Check Performed by: KLS pH Paper Lot #: 215724

Field data collected by: [Signature] Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 11/12/25 Time (24 hr) 0923



PACE- Check here if trip charge applied to associated COC

Printed: 10/20/2025 9:21:06AM

Pace Analytical Services LLC Kentucky
 825 Industrial Road
 P.O. Box 907
 Madisonville, KY 42431

Chain of Custody

Scheduled for: 10/23/2025



Client: Big Rivers Electric Corporation
 Reid/Green Station

Report To:
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 Stacy Shelton
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 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment
 Characterization Wells

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp (oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY	*required information*		Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
Workorder # 5105009 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):					
5105009-03 D	<u>11/6/25</u>	<u>1447</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-112	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				
5105009-03 E	<u>11/6/25</u>	<u>1447</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW-112	g / c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				
5105009-03 F	<u>11/6/25</u>	<u>1447</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW-112	g / c	Radium Total (sub)
			Preservation Check: pH: <u>/</u>				

Thermometer Serial Number:
230753815
240381205
 Temperature 5.7 °C

Preservation Check Performed by: KLS pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 11/6/25 Time (24 hr) 1447

pH 7.83 Cond (umho) 1.04 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by (Signature): <u>[Signature]</u>	Received by (Signature): <u>[Signature]</u>	Date (mm/dd/yy): <u>11/6/25</u>	Time (24 hr): <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____



December 04, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5105009
Pace Project No.: 30828005

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mariah Barlow
mariah.barlow@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: 5105009
 Pace Project No.: 30828005

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 5105009
Pace Project No.: 30828005

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30828005001	5105009-01	Water	11/07/25 09:25	11/20/25 09:45
30828005002	5105009-02	Water	11/06/25 16:10	11/20/25 09:45
30828005003	5105009-03	Water	11/06/25 14:47	11/20/25 09:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 5105009
 Pace Project No.: 30828005

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30828005001	5105009-01	EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30828005002	5105009-02	EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30828005003	5105009-03	EPA 903.1	DSO	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105009
 Pace Project No.: 30828005

Sample: 5105009-01 Lab ID: **30828005001** Collected: 11/07/25 09:25 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.230 ± 0.358 (0.620) C:NA T:97%	pCi/L	12/03/25 11:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.33 ± 0.499 (0.731) C:80% T:77%	pCi/L	12/01/25 12:13	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.56 ± 0.857 (1.35)	pCi/L	12/04/25 11:39	7440-14-4	

Sample: 5105009-02 Lab ID: **30828005002** Collected: 11/06/25 16:10 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.356 ± 0.467 (0.778) C:NA T:88%	pCi/L	12/03/25 11:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.917 ± 0.427 (0.726) C:78% T:86%	pCi/L	12/01/25 12:13	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.27 ± 0.894 (1.50)	pCi/L	12/04/25 11:39	7440-14-4	

Sample: 5105009-03 Lab ID: **30828005003** Collected: 11/06/25 14:47 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.000 ± 0.317 (0.670) C:NA T:98%	pCi/L	12/03/25 12:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.616 ± 0.357 (0.654) C:80% T:91%	pCi/L	12/01/25 12:13	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.616 ± 0.674 (1.32)	pCi/L	12/04/25 11:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105009
 Pace Project No.: 30828005

QC Batch: 786141	Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1	Analysis Description: 903.1 Radium-226
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30828005001, 30828005002, 30828005003

METHOD BLANK: 3835588 Matrix: Water
 Associated Lab Samples: 30828005001, 30828005002, 30828005003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.242 (0.525) C:NA T:96%	pCi/L	12/03/25 11:36	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105009
 Pace Project No.: 30828005

QC Batch: 786142	Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0	Analysis Description: 904.0 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30828005001, 30828005002, 30828005003

METHOD BLANK: 3835589 Matrix: Water

Associated Lab Samples: 30828005001, 30828005002, 30828005003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.383 ± 0.333 (0.668) C:79% T:87%	pCi/L	12/01/25 12:11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5105009
Pace Project No.: 30828005

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5105009
 Pace Project No.: 30828005

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30828005001	5105009-01	EPA 903.1	786141		
30828005002	5105009-02	EPA 903.1	786141		
30828005003	5105009-03	EPA 903.1	786141		
30828005001	5105009-01	EPA 904.0	786142		
30828005002	5105009-02	EPA 904.0	786142		
30828005003	5105009-03	EPA 904.0	786142		
30828005001	5105009-01	Total Radium Calculation	787552		
30828005002	5105009-02	Total Radium Calculation	787552		
30828005003	5105009-03	Total Radium Calculation	787552		

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

Pace Analytical Services, LLC Ken
5105009

WO# : 30828005



30828005

SENDING LABORATORY:

Pace Analytical Services, LLC Kentucky
PO BOX 907
Madisonville, KY 42431
Phone: (270) 821-7375
Fax: -
Project Manager: Rob Whittington

RECEIVING LAB:

Pace Analytical Services LLC Greensburg PA
1638 Rosey Town Rd Suite 2,3,4
Greensburg, PA 15601
Phone : (724) 850-5615
Fax:

Received by Pace Greensburg
Therm ID 216 Corr Factor +/- 0.1
Receipt Temp 10.9
Corrected Temp 10.8
Correct Preservation X/N

Analysis Expires Laboratory ID Comments

Sample ID: 5105009-01 Water Sampled: 11/07/2025 09:25 Specific Method 001
Radium Total (sub) 05/06/2026 09:25 EPA 904.0 Radium Sum C
Radium 228 (sub) 05/06/2026 09:25 EPA 904.0 Radium Sum C
Radium 226 (sub) 05/06/2026 09:25 EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⓪

Sample ID: 5105009-02 Water Sampled: 11/07/2025 16:10 Specific Method 002
Radium Total (sub) 05/06/2026 16:10 EPA 904.0 Radium Sum C
Radium 228 (sub) 05/06/2026 16:10 EPA 904.0 Radium Sum C
Radium 226 (sub) 05/06/2026 16:10 EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⓪

Sample ID: 5105009-03 Water Sampled: 11/06/2025 14:47 Specific Method 003
Radium Total (sub) 05/05/2026 14:47 EPA 904.0 Radium Sum C
Radium 228 (sub) 05/05/2026 14:47 EPA 904.0 Radium Sum C
Radium 226 (sub) 05/05/2026 14:47 EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⓪

Released By [Signature] Date 11-18-25 Received By Kevin Sutt Date 11/20/25 945

Released By _____ Date _____ Received By _____ Date _____



DC#_Title: ENV-FRM-GBUR-0088 v09_Sample Condition Upon Receipt
Greensburg

Effective Date: 06/24/2025

WO#: 30828005

PM: MAB

Due Date: 12/15/25

CLIENT: PACE_44_MVKY

Client Name: Pace-KY

Project

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Initial / Date

Tracking Number: 120674570115904586

Examined By: PS 11/21/25

Custody Seal on Cooler/Box Present: Yes No

Seals Intact: Yes No

Therm. Used: 26 Type of Ice: Wet Blue None Melted

Labeled By: PS 11/21/25

Temped By: PS 11/20/25

Cooler Temp: Observed Temp 10.9 °C Correction Factor: -0.1 °C

Final Temp: 10.8 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				10PAN21251	
Chain of Custody Present	/			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	/			2.	
Chain of Custody Relinquished	/			3.	
Sampler Name & Signature on COC:		/		4.	
Sample Labels match COC: -Includes date/time/ID Matrix:		/		5.	
Samples Arrived within Hold Time:		/		6.	- sample cool bottles difficult to read times
Short Hold Time Analysis (<72hr remaining):		/		7.	- NO year on bottle sample dates
Rush Turn Around Time Requested:		/		8.	- date on sample cool bottles = 11/6.
Sufficient Volume:	/			9.	
Correct Containers Used: -Pace Containers Used	/			10.	
Containers Intact:	/			11.	
Orthophosphate field filtered:			/	12.	
Hex Cr Aqueous samples field filtered:			/	13.	
Organic Samples checked for dechlorination			/	14.	
Filtered volume received for dissolved tests: Cr6+, Orthophosphate, DOC, Metals			/	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, TOX, LL Hg, Radon, non-aqueous matrix	/			16.	
All containers meet method preservation requirements:	/			Initial when completed	Date/Time of Preservation
				PS	
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			/	17.	
624.1: Headspace in VOA Vials (0mm)			/	18.	
Radon: Headspace in RAD Vials (0mm)			/	19.	
Trip Blank Present:			/	Trip blank custody seal present? YES or NO	
Rad Samples Screened <.05 mrem/hr.	/			Initial when completed	Date: 11/20/25 Survey Meter SN: 25014380
ES					
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.



Certificate of Analysis 5105010

Stacy Shelton
Big Rivers Electric Corporation Reid/Green Station
PO Box 24
Henderson, KY 42419

Customer ID: 44-102032
Report Printed: 12/18/2025 12:03

Project Name: HMPL Surface Impoundment

Workorder: 5105010

Dear Stacy Shelton

Enclosed are the analytical results for samples received by the laboratory 11/12/2025 09:28.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY
#E871136 Englewood, OH

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Rob Whittington, Project Manager



SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
5105010-01	MW7/	Groundwater	11/11/2025 15:00	11/12/2025 9:28	Client
5105010-02	MW8/	Groundwater	11/17/2025 15:45	11/18/2025 12:34	Hunter Mizell
5105010-03	MW9/	Groundwater	11/11/2025 17:30	11/12/2025 9:28	
5105010-04	MW10/	Groundwater	11/07/2025 15:27	11/12/2025 9:28	Client
5105010-05	DUPLICATE/	Groundwater	11/17/2025 16:40	11/17/2025 12:34	Hunter Mizell
5105010-06	FIELD BLANK/	Water	11/11/2025 17:45	11/12/2025 9:28	Client

<u>LabNumber</u>	<u>Measurement</u>	<u>Value</u>
5105010-01	Field Conductance	423
	Field pH	7.33
5105010-03	Field Conductance	497
	Field pH	6.84
5105010-04	Field Flow (MGD)	710
	Field pH	9.13



ANALYTICAL RESULTS

Lab Sample ID: **5105010-01**
 Description: **MW7**

Sample Collection Date Time: 11/11/2025 15:00
 Sample Received Date Time: 11/12/2025 09:28

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Arsenic	0.0030		mg/L	0.0010	0.0004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Barium	0.080		mg/L	0.004	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:35	HJS
Boron	0.34		mg/L	0.10	0.10	SW846 6010 B	11/13/2025 10:40	11/13/2025 20:54	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Calcium	42.5	D1	mg/L	5.00	2.50	SW846 6010 B	11/13/2025 10:40	11/13/2025 20:57	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Lithium	0.007	J	mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:35	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Molybdenum	0.005	J	mg/L	0.01	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:17	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	8.18	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/14/2025 10:00	11/14/2025 14:54	JEP
Total Dissolved Solids	292		mg/L	50	50	2540 C-2015	11/13/2025 18:24	11/13/2025 18:24	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	2.4		mg/L	0.5	0.4	SW846 9056	11/12/2025 15:24	11/12/2025 15:24	DSB1
Fluoride	0.2		mg/L	0.2	0.2	SW846 9056	11/12/2025 15:24	11/12/2025 15:24	DSB1
Sulfate	9		mg/L	1	0.5	SW846 9056	11/12/2025 15:24	11/12/2025 15:24	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105010-02**
 Description: **MW8**

Sample Collection Date Time: 11/17/2025 15:45
 Sample Received Date Time: 11/18/2025 12:34

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Barium	0.016		mg/L	0.004	0.001	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:37	HJS
Boron	1.57	D1, M2	mg/L	1.00	1.00	SW846 6010 B	11/19/2025 09:03	11/20/2025 12:39	DMH
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Calcium	272	D2	mg/L	50.0	25.0	SW846 6010 B	11/21/2025 10:16	11/24/2025 11:57	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Lithium	0.03		mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:37	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Molybdenum	0.01	M1	mg/L	0.01	0.002	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS
Selenium	ND	D2, U	mg/L	0.030	0.010	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:24	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:22	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.32	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/18/2025 13:09	11/18/2025 15:35	AED
Total Dissolved Solids	1640		mg/L	250	250	2540 C-2015	11/19/2025 16:59	11/19/2025 16:59	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	52.3		mg/L	0.5	0.4	SW846 9056	11/18/2025 15:25	11/18/2025 15:25	DSB1
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	11/18/2025 15:25	11/18/2025 15:25	DSB1
Sulfate	1170	D	mg/L	10	5	SW846 9056	11/18/2025 15:49	11/18/2025 15:49	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105010-03**
 Description: **MW9**

Sample Collection Date Time: 11/11/2025 17:30
 Sample Received Date Time: 11/12/2025 09:28

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Barium	0.255		mg/L	0.004	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:39	HJS
Boron	ND	u	mg/L	0.10	0.10	SW846 6010 B	11/13/2025 10:40	11/13/2025 21:00	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Calcium	68.7	D1	mg/L	5.00	2.50	SW846 6010 B	11/13/2025 10:40	11/13/2025 21:03	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Lithium	0.006	J	mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:39	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:19	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	8.09	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/14/2025 10:00	11/14/2025 14:54	JEP
Total Dissolved Solids	320		mg/L	50	50	2540 C-2015	11/13/2025 18:24	11/13/2025 18:24	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	6.9		mg/L	0.5	0.4	SW846 9056	11/12/2025 15:45	11/12/2025 15:45	DSB1
Fluoride	0.2		mg/L	0.2	0.2	SW846 9056	11/12/2025 15:45	11/12/2025 15:45	DSB1
Sulfate	ND	u	mg/L	1	0.5	SW846 9056	11/12/2025 15:45	11/12/2025 15:45	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105010-04**
 Description: **MW10**

Sample Collection Date Time: 11/07/2025 15:27
 Sample Received Date Time: 11/12/2025 09:28

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Arsenic	0.0011		mg/L	0.0010	0.0004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Barium	0.201		mg/L	0.004	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:41	HJS
Boron	0.52		mg/L	0.10	0.10	SW846 6010 B	11/13/2025 10:40	11/13/2025 21:06	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Calcium	10.7	D1	mg/L	5.00	2.50	SW846 6010 B	11/13/2025 10:40	11/13/2025 21:09	MRWD
Chromium	0.0023		mg/L	0.0020	0.0006	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Lithium	0.63		mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:41	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Molybdenum	0.003	J	mg/L	0.01	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:23	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	9.20	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/14/2025 10:00	11/14/2025 14:54	JEP
Total Dissolved Solids	498		mg/L	50	50	2540 C-2015	11/13/2025 18:24	11/13/2025 18:24	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	14.5		mg/L	0.5	0.4	SW846 9056	11/12/2025 16:07	11/12/2025 16:07	DSB1
Fluoride	0.5		mg/L	0.2	0.2	SW846 9056	11/12/2025 16:07	11/12/2025 16:07	DSB1
Sulfate	11		mg/L	1	0.5	SW846 9056	11/12/2025 16:07	11/12/2025 16:07	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105010-05**
 Description: **DUPLICATE**

Sample Collection Date Time: 11/17/2025 16:40
 Sample Received Date Time: 11/17/2025 12:34

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Barium	0.015		mg/L	0.004	0.001	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Beryllium	ND	u	mg/L	0.0020	0.0010	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:43	HJS
Boron	1.49	D1	mg/L	1.00	1.00	SW846 6010 B	11/19/2025 09:03	11/20/2025 12:46	DMH
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Calcium	289	D2	mg/L	50.0	25.0	SW846 6010 B	11/21/2025 10:16	11/21/2025 21:58	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Lithium	0.03		mg/L	0.02	0.005	SW846-6020 A	11/21/2025 10:16	11/22/2025 11:43	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Molybdenum	0.01		mg/L	0.01	0.002	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS
Selenium	ND	D2, u	mg/L	0.030	0.010	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:28	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/19/2025 09:03	11/19/2025 18:26	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	7.37	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/18/2025 13:09	11/18/2025 15:35	AED
Total Dissolved Solids	1740		mg/L	250	250	2540 C-2015	11/19/2025 16:59	11/19/2025 16:59	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00		-			EPA 903.1	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00		-			EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	52.4		mg/L	0.5	0.4	SW846 9056	11/18/2025 16:36	11/18/2025 16:36	DSB1
Fluoride	0.4		mg/L	0.2	0.2	SW846 9056	11/18/2025 16:36	11/18/2025 16:36	DSB1
Sulfate	1160	D	mg/L	10	5	SW846 9056	11/18/2025 16:59	11/18/2025 16:59	DSB1



ANALYTICAL RESULTS

Lab Sample ID: **5105010-06**
 Description: **FIELD BLANK**

Sample Collection Date Time: 11/11/2025 17:45
 Sample Received Date Time: 11/12/2025 09:28

Metals by SW846 6000 Series Methods Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Antimony	ND	u	mg/L	0.005	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Arsenic	ND	u	mg/L	0.0010	0.0004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Barium	ND	u	mg/L	0.004	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Boron	ND	u	mg/L	0.10	0.10	SW846 6010 B	11/13/2025 10:40	11/13/2025 21:22	MRWD
Cadmium	ND	u	mg/L	0.0010	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Calcium	ND	u	mg/L	0.50	0.25	SW846 6010 B	11/13/2025 10:40	11/13/2025 21:22	MRWD
Chromium	ND	u	mg/L	0.0020	0.0006	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Cobalt	ND	u	mg/L	0.004	0.004	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Lead	ND	u	mg/L	0.002	0.0005	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Mercury	ND	u	mg/L	0.0005	0.0002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Molybdenum	ND	u	mg/L	0.01	0.002	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Selenium	ND	u	mg/L	0.003	0.001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS
Thallium	ND	u	mg/L	0.0020	0.0001	SW846-6020 A	11/13/2025 10:40	11/19/2025 20:28	HJS

Conventional Chemistry Analyses Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
pH (Lab)	6.15	H3	Std. Units	0.10	0.10	SM 4500-H+ B-2011	11/14/2025 10:00	11/14/2025 14:54	JEP
Total Dissolved Solids	ND	G1, U	mg/L	50	50	2540 C-2015	11/13/2025 18:24	11/13/2025 18:24	HAG

Subcontracted Analyses

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
See Attached Subcontract Report	0.00	-				EPA 903.1	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW
See Attached Subcontract Report	0.00	-				EPA 904.0 Radium Sum Calc	12/17/2025 10:29	12/17/2025 10:35	RCW

Ion Chromatography Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Chloride	ND	u	mg/L	0.5	0.4	SW846 9056	11/12/2025 16:28	11/12/2025 16:28	DSB1
Fluoride	ND	u	mg/L	0.2	0.2	SW846 9056	11/12/2025 16:28	11/12/2025 16:28	DSB1
Sulfate	ND	u	mg/L	1	0.5	SW846 9056	11/12/2025 16:28	11/12/2025 16:28	DSB1



Notes for work order 5105010

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- D1 Sample required dilution due to high concentration of target analyte.
- D2 Sample required dilution due to matrix interference.
- E Concentration exceeds calibration range
- G1 Residue yield was less than the method required 2.5mg.
- H3 Sample received and analyzed past holding time.
- J Estimated value.
- L2 The associated blank spike recovery was below method acceptance limits.
- M1 Matrix spike recovery was high; the method control sample recovery was acceptable.
- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- M3 The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The method control sample recovery was acceptable.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1238 - EPA 200.2

Blank (BEK1238-BLK1)

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 20:12

Boron	ND	0.10	mg/L							U
Calcium	ND	0.50	mg/L							U

Blank (BEK1238-BLK2)

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 19:46

Mercury	ND	0.0005	mg/L							U
Molybdenum	ND	0.01	mg/L							U
Antimony	ND	0.005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U

Blank (BEK1238-BLK3)

Prepared: 11/13/2025 10:40, Analyzed: 11/20/2025 11:39

Beryllium	ND	0.0020	mg/L							U
Chromium	ND	0.0020	mg/L							U
Lithium	ND	0.02	mg/L							U

LCS (BEK1238-BS1)

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 20:15

Boron	0.12	0.10	mg/L	0.125		92.3	85-115			
Calcium	6.21	0.50	mg/L	6.25		99.3	85-115			

LCS (BEK1238-BS2)

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 19:48

Mercury	0.0025	0.0005	mg/L	0.00250		101	85-115			
Antimony	0.058	0.005	mg/L	0.0625		93.1	85-115			
Molybdenum	0.06	0.01	mg/L	0.0625		97.4	85-115			
Arsenic	0.0597	0.0010	mg/L	0.0625		95.6	85-115			
Barium	0.058	0.004	mg/L	0.0625		92.1	85-115			
Beryllium	0.0483	0.0020	mg/L	0.0625		77.2	85-115			L2
Cadmium	0.0562	0.0010	mg/L	0.0625		89.9	85-115			
Chromium	0.0584	0.0020	mg/L	0.0625		93.5	85-115			
Cobalt	0.057	0.004	mg/L	0.0625		91.1	85-115			
Lead	0.058	0.002	mg/L	0.0625		93.5	85-115			
Lithium	0.05	0.02	mg/L	0.0625		73.5	85-115			L2
Selenium	0.057	0.003	mg/L	0.0625		91.0	85-115			
Thallium	0.0599	0.0020	mg/L	0.0625		95.9	85-115			



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1238 - EPA 200.2

LCS (BEK1238-BS3)

Prepared: 11/13/2025 10:40, Analyzed: 11/20/2025 11:42

Beryllium	0.0492	0.0020	mg/L	0.0625		78.7	85-115			L2
Chromium	0.0600	0.0020	mg/L	0.0625		96.0	85-115			
Lithium	0.05	0.02	mg/L	0.0625		78.6	85-115			L2

Matrix Spike (BEK1238-MS1) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 21:38

Boron	0.12	0.10	mg/L	0.125	ND	95.9	80-120			
Calcium	6.34	0.50	mg/L	6.25	ND	101	80-120			

Matrix Spike (BEK1238-MS2) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 20:50

Molybdenum	0.06	0.01	mg/L	0.0625	ND	99.4	80-120			
Mercury	0.0028	0.0005	mg/L	0.00250	ND	110	80-120			
Antimony	0.060	0.005	mg/L	0.0625	ND	96.4	80-120			
Arsenic	0.0606	0.0010	mg/L	0.0625	ND	97.0	80-120			
Barium	0.059	0.004	mg/L	0.0625	ND	94.5	80-120			
Beryllium	0.0469	0.0020	mg/L	0.0625	ND	75.1	80-120			M2
Cadmium	0.0577	0.0010	mg/L	0.0625	ND	92.3	80-120			
Chromium	0.0590	0.0020	mg/L	0.0625	ND	94.3	80-120			
Cobalt	0.057	0.004	mg/L	0.0625	ND	91.5	80-120			
Lead	0.061	0.002	mg/L	0.0625	ND	97.1	80-120			
Lithium	0.05	0.02	mg/L	0.0625	ND	72.7	80-120			M2
Selenium	0.057	0.003	mg/L	0.0625	ND	91.4	80-120			
Thallium	0.0608	0.0020	mg/L	0.0625	ND	97.3	80-120			

Matrix Spike Dup (BEK1238-MSD1) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 21:41

Boron	0.12	0.10	mg/L	0.125	ND	96.8	80-120	0.930	20	
Calcium	6.31	0.50	mg/L	6.25	ND	101	80-120	0.461	20	

Matrix Spike Dup (BEK1238-MSD2) Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 20:52

Molybdenum	0.06	0.01	mg/L	0.0625	ND	98.2	80-120	1.21	20	
Antimony	0.060	0.005	mg/L	0.0625	ND	96.1	80-120	0.298	20	
Mercury	0.0026	0.0005	mg/L	0.00250	ND	104	80-120	5.94	20	
Arsenic	0.0610	0.0010	mg/L	0.0625	ND	97.6	80-120	0.682	20	
Barium	0.059	0.004	mg/L	0.0625	ND	94.3	80-120	0.133	20	
Beryllium	0.0471	0.0020	mg/L	0.0625	ND	75.4	80-120	0.426	20	M2
Cadmium	0.0576	0.0010	mg/L	0.0625	ND	92.2	80-120	0.0901	20	
Chromium	0.0591	0.0020	mg/L	0.0625	ND	94.6	80-120	0.230	20	
Cobalt	0.057	0.004	mg/L	0.0625	ND	91.5	80-120	0.0960	20	
Lead	0.060	0.002	mg/L	0.0625	ND	95.8	80-120	1.33	20	
Lithium	0.05	0.02	mg/L	0.0625	ND	72.4	80-120	0.416	20	M2
Selenium	0.058	0.003	mg/L	0.0625	ND	92.2	80-120	0.879	20	
Thallium	0.0603	0.0020	mg/L	0.0625	ND	96.4	80-120	0.873	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1238 - EPA 200.2

Post Spike (BEK1238-PS1)

Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/13/2025 21:44

Boron	121		ug/L	125	-0.88	96.8	75-125			
Calcium	6390		ug/L	6250	48.7	102	75-125			

Post Spike (BEK1238-PS2)

Source: 5105010-06

Prepared: 11/13/2025 10:40, Analyzed: 11/19/2025 20:54

Mercury	2.66		ug/L	2.50	0.0144	106	75-125			
Antimony	58.5		ug/L	62.5	0.028	93.5	75-125			
Molybdenum	62.1		ug/L	62.5	0.01	99.4	75-125			
Arsenic	61.2		ug/L	62.5	0.0059	97.9	75-125			
Barium	60.1		ug/L	62.5	0.046	96.0	75-125			
Beryllium	46.7		ug/L	62.5	-0.0079	74.7	75-125			M2
Cadmium	58.4		ug/L	62.5	0.0025	93.4	75-125			
Chromium	60.2		ug/L	62.5	0.340	95.8	75-125			
Cobalt	58.3		ug/L	62.5	-0.001	93.3	75-125			
Lead	61.0		ug/L	62.5	0.282	97.1	75-115			
Lithium	45.4		ug/L	62.5	0.43	71.9	75-125			M2
Selenium	59.1		ug/L	62.5	0.003	94.5	75-125			
Thallium	60.9		ug/L	62.5	0.0029	97.4	75-125			

Batch BEK1785 - EPA 200.2

Blank (BEK1785-BLK1)

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 18:17

Antimony	ND	0.005	mg/L							U
Molybdenum	ND	0.01	mg/L							U
Mercury	ND	0.0005	mg/L							U
Arsenic	ND	0.0010	mg/L							U
Barium	ND	0.004	mg/L							U
Beryllium	ND	0.0020	mg/L							U
Cadmium	ND	0.0010	mg/L							U
Chromium	ND	0.0020	mg/L							U
Cobalt	ND	0.004	mg/L							U
Lead	ND	0.002	mg/L							U
Lithium	ND	0.02	mg/L							U
Selenium	ND	0.003	mg/L							U
Thallium	ND	0.0020	mg/L							U



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
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Batch BEK1785 - EPA 200.2

Blank (BEK1785-BLK2)

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 20:14

Boron	ND	0.10	mg/L					U
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Blank (BEK1785-BLK3)

Prepared: 11/19/2025 9:03, Analyzed: 11/20/2025 12:33

Boron	ND	0.10	mg/L					U
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Blank (BEK1785-BLK4)

Prepared: 11/19/2025 9:03, Analyzed: 11/20/2025 12:17

Beryllium	ND	0.0020	mg/L					U
Lithium	ND	0.02	mg/L					U

LCS (BEK1785-BS1)

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 18:19

Mercury	0.0025	0.0005	mg/L	0.00250		102	85-115	
Molybdenum	0.06	0.01	mg/L	0.0625		104	85-115	
Antimony	0.062	0.005	mg/L	0.0625		99.0	85-115	
Arsenic	0.0634	0.0010	mg/L	0.0625		101	85-115	
Barium	0.060	0.004	mg/L	0.0625		96.1	85-115	
Beryllium	0.0455	0.0020	mg/L	0.0625		72.9	85-115	L2
Cadmium	0.0596	0.0010	mg/L	0.0625		95.4	85-115	
Chromium	0.0612	0.0020	mg/L	0.0625		98.0	85-115	
Cobalt	0.059	0.004	mg/L	0.0625		95.2	85-115	
Lead	0.062	0.002	mg/L	0.0625		99.0	85-115	
Lithium	0.04	0.02	mg/L	0.0625		69.3	85-115	L2
Selenium	0.060	0.003	mg/L	0.0625		95.4	85-115	
Thallium	0.0628	0.0020	mg/L	0.0625		100	85-115	

LCS (BEK1785-BS2)

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 20:18

Boron	0.13	0.10	mg/L	0.125		103	85-115	
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LCS (BEK1785-BS3)

Prepared: 11/19/2025 9:03, Analyzed: 11/20/2025 12:36

Boron	0.13	0.10	mg/L	0.125		101	85-115	
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Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1785 - EPA 200.2

LCS (BEK1785-BS4)

Prepared: 11/19/2025 9:03, Analyzed: 11/20/2025 12:19

Beryllium	0.0524	0.0020	mg/L	0.0625		83.9	85-115			L2
Lithium	0.05	0.02	mg/L	0.0625		84.5	85-115			L2

Matrix Spike (BEK1785-MS1) Source: 5105010-02

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 19:26

Antimony	0.061	0.050	mg/L	0.0625	ND	97.9	80-120			D2
Molybdenum	0.07	0.10	mg/L	0.0625	ND	119	80-120			D2, J
Mercury	0.0026	0.0050	mg/L	0.00250	ND	102	80-120			D2, J
Arsenic	0.0638	0.0100	mg/L	0.0625	ND	102	80-120			D2
Barium	0.073	0.040	mg/L	0.0625	0.016	91.4	80-120			D2
Beryllium	0.0467	0.0200	mg/L	0.0625	ND	74.7	80-120			D2, M2
Cadmium	0.0578	0.0100	mg/L	0.0625	ND	92.5	80-120			D2
Chromium	0.0612	0.0200	mg/L	0.0625	ND	97.9	80-120			D2
Cobalt	0.058	0.040	mg/L	0.0625	ND	92.7	80-120			D2
Lead	0.059	0.020	mg/L	0.0625	ND	95.1	80-120			D2
Lithium	0.07	0.20	mg/L	0.0625	ND	111	80-120			D2, J
Selenium	0.059	0.030	mg/L	0.0625	ND	93.8	80-120			D2
Thallium	0.0633	0.0200	mg/L	0.0625	ND	101	80-120			D2

Matrix Spike (BEK1785-MS2) Source: 5105010-02

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 22:18

Boron	ND	10.0	mg/L	0.125	ND		80-120			D2, M2, U
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Matrix Spike Dup (BEK1785-MSD1) Source: 5105010-02

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 19:28

Molybdenum	0.08	0.10	mg/L	0.0625	ND	128	80-120	8.00	20	D2, M1, J
Mercury	0.0027	0.0050	mg/L	0.00250	ND	106	80-120	3.83	20	D2, J
Antimony	0.064	0.050	mg/L	0.0625	ND	102	80-120	3.84	20	D2
Arsenic	0.0660	0.0100	mg/L	0.0625	ND	106	80-120	3.37	20	D2
Barium	0.078	0.040	mg/L	0.0625	0.016	99.4	80-120	6.64	20	D2
Beryllium	0.0483	0.0200	mg/L	0.0625	ND	77.3	80-120	3.49	20	D2, M2
Cadmium	0.0605	0.0100	mg/L	0.0625	ND	96.8	80-120	4.61	20	D2
Chromium	0.0631	0.0200	mg/L	0.0625	ND	101	80-120	3.12	20	D2
Cobalt	0.061	0.040	mg/L	0.0625	ND	97.1	80-120	4.71	20	D2
Lead	0.061	0.020	mg/L	0.0625	ND	97.9	80-120	2.91	20	D2
Lithium	0.07	0.20	mg/L	0.0625	ND	118	80-120	6.06	20	D2, J
Selenium	0.062	0.030	mg/L	0.0625	ND	99.1	80-120	5.53	20	D2
Thallium	0.0650	0.0200	mg/L	0.0625	ND	104	80-120	2.68	20	D2



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1785 - EPA 200.2

Matrix Spike Dup (BEK1785-MSD2) Source: 5105010-02

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 22:21

Boron	ND	10.0	mg/L	0.125	ND		80-120		20	D2, M2, U
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Post Spike (BEK1785-PS1) Source: 5105010-02

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 19:31

Mercury	2.75		ug/L	2.50	0.0388	108	75-125			D2
Antimony	57.0		ug/L	62.5	0.190	90.9	75-125			D2
Molybdenum	75.9		ug/L	62.5	12.9	101	75-125			D2
Arsenic	62.8		ug/L	62.5	0.0542	100	75-125			D2
Barium	74.6		ug/L	62.5	15.9	93.9	75-125			D2
Beryllium	46.1		ug/L	62.5	0.0368	73.7	75-125			D2, M2
Cadmium	56.9		ug/L	62.5	0.0177	91.0	75-125			D2
Chromium	60.8		ug/L	62.5	0.388	96.7	75-125			D2
Cobalt	58.0		ug/L	62.5	0.009	92.8	75-125			D2
Lead	59.4		ug/L	62.5	-0.022	95.1	75-115			D2
Lithium	70.3		ug/L	62.5	26.9	69.4	75-125			D2
Selenium	59.8		ug/L	62.5	0.316	95.1	75-125			D2
Thallium	63.0		ug/L	62.5	0.0111	101	75-125			D2

Post Spike (BEK1785-PS2) Source: 5105010-02

Prepared: 11/19/2025 9:03, Analyzed: 11/19/2025 22:24

Boron	1440		ug/L	125	1570	NR	75-125			D2, M2
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Batch BEK2136 - EPA 200.2

Blank (BEK2136-BLK1)

Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 16:08

Beryllium	ND	0.0020	mg/L							U
Lithium	ND	0.02	mg/L							U

Blank (BEK2136-BLK2)

Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 21:49

Calcium	ND	0.50	mg/L							U
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Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2136 - EPA 200.2										
LCS (BEK2136-BS1)										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 16:11										
Beryllium	0.0562	0.0020	mg/L	0.0625		89.9	85-115			
Lithium	0.06	0.02	mg/L	0.0625		89.3	85-115			
LCS (BEK2136-BS2)										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 21:52										
Calcium	6.55	0.50	mg/L	6.25		105	85-115			
Matrix Spike (BEK2136-MS1) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 16:57										
Beryllium	0.0495	0.0020	mg/L	0.0625	ND	79.2	80-120			M2
Lithium	0.06	0.02	mg/L	0.0625	0.02	77.2	80-120			M2
Matrix Spike (BEK2136-MS2) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:02										
Beryllium	0.0537	0.0020	mg/L	0.0625	ND	85.9	80-120			
Lithium	0.05	0.02	mg/L	0.0625	ND	87.3	80-120			
Matrix Spike (BEK2136-MS3) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:36										
Calcium	125	0.50	mg/L	6.25	123	36.3	80-120			M3
Matrix Spike (BEK2136-MS4) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:43										
Calcium	69.8	0.50	mg/L	6.25	67.7	33.2	80-120			M3
Matrix Spike Dup (BEK2136-MSD1) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:00										
Beryllium	0.0489	0.0020	mg/L	0.0625	ND	78.2	80-120	1.27	20	M2
Lithium	0.06	0.02	mg/L	0.0625	0.02	78.4	80-120	1.16	20	M2
Matrix Spike Dup (BEK2136-MSD2) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:04										
Beryllium	0.0527	0.0020	mg/L	0.0625	ND	84.3	80-120	1.93	20	
Lithium	0.05	0.02	mg/L	0.0625	ND	85.8	80-120	1.77	20	



Metals by SW846 6000 Series Methods Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEK2136 - EPA 200.2										
Matrix Spike Dup (BEK2136-MSD3) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:39										
Calcium	136	0.50	mg/L	6.25	123	205	80-120	8.07	20	M3
Matrix Spike Dup (BEK2136-MSD4) Source: 5113867-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:55										
Calcium	73.2	0.50	mg/L	6.25	67.7	87.4	80-120	4.74	20	
Post Spike (BEK2136-PS1) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 17:06										
Beryllium	47.4		ug/L	62.5	0.206	75.6	75-125			
Lithium	62.4		ug/L	62.5	15.7	74.6	75-125			
Post Spike (BEK2136-PS2) Source: 5105009-01RE1										
Prepared: 11/21/2025 10:16, Analyzed: 11/21/2025 22:58										
Calcium	130000		ug/L	6250	123000	119	75-125			



Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK0963 - Default Prep Micro

LCS (BEK0963-BS1)

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	4.99		Std. Units	5.00		99.8	98.8-101.2			
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LCS (BEK0963-BS2)

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	5.05		Std. Units	5.00		101	98.8-101.2			
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Duplicate (BEK0963-DUP1) Source: 5112868-01

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	9.64	0.10	Std. Units		9.63			0.104	10	H3
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Duplicate (BEK0963-DUP2) Source: 5111985-01

Prepared: 11/14/2025 10:00, Analyzed: 11/14/2025 14:54

pH (Lab)	8.15	0.10	Std. Units		8.14			0.123	10	H3
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Batch BEK1334 - Default Prep Wet Chem

Blank (BEK1334-BLK1)

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	ND	25	mg/L							U
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LCS (BEK1334-BS1)

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	995		mg/L	1000		99.5	80-120			
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Duplicate (BEK1334-DUP1) Source: 5105009-01

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	912	100	mg/L		924			1.31	10	
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Duplicate (BEK1334-DUP2) Source: 5113867-01

Prepared: 11/13/2025 18:24, Analyzed: 11/13/2025 18:24

Total Dissolved Solids	260	50	mg/L		268			3.03	10	
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Batch BEK1472 - Default Prep Micro

LCS (BEK1472-BS1)

Prepared: 11/18/2025 13:09, Analyzed: 11/18/2025 15:35

pH (Lab)	5.00		Std. Units	5.00		100	98.8-101.2			
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Conventional Chemistry Analyses Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1472 - Default Prep Micro

Duplicate (BEK1472-DUP1)

Source: 5114138-03

Prepared: 11/18/2025 13:09, Analyzed: 11/18/2025 15:35

pH (Lab)	8.36	0.10	Std. Units		8.35			0.120	10	H3
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Batch BEK1908 - Default Prep Wet Chem

Blank (BEK1908-BLK1)

Prepared: 11/19/2025 16:59, Analyzed: 11/19/2025 16:59

Total Dissolved Solids	ND	25	mg/L							U
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LCS (BEK1908-BS1)

Prepared: 11/19/2025 16:59, Analyzed: 11/19/2025 16:59

Total Dissolved Solids	994		mg/L	1000		99.4	80-120			
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Duplicate (BEK1908-DUP1)

Source: 5103380-01

Prepared: 11/19/2025 16:59, Analyzed: 11/19/2025 16:59

Total Dissolved Solids	466	50	mg/L		456			2.17	10	
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Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1074 - Default Prep IC

Blank (BEK1074-BLK1)

Prepared: 11/12/2025 23:38, Analyzed: 11/12/2025 23:38

Fluoride	ND	0.2	mg/L							U
Chloride	ND	0.5	mg/L							U
Sulfate	ND	1	mg/L							U

LCS (BEK1074-BS1)

Prepared: 11/12/2025 23:17, Analyzed: 11/12/2025 23:17

Fluoride	5.1		mg/L	5.00		103	90-110			
Chloride	12.2		mg/L	12.5		97.7	90-110			
Sulfate	24		mg/L	25.0		97.8	90-110			

Matrix Spike (BEK1074-MS1) Source: 5113382-01

Prepared: 11/12/2025 21:51, Analyzed: 11/12/2025 21:51

Fluoride	5.0		mg/L	5.00	0.0	101	75-125			
Chloride	11.9		mg/L	12.5	0.2	94.0	75-125			
Sulfate	24		mg/L	25.0	0.3	94.2	75-125			

Matrix Spike (BEK1074-MS2) Source: 5113382-02

Prepared: 11/12/2025 22:34, Analyzed: 11/12/2025 22:34

Fluoride	5.1		mg/L	5.00	0.0	102	75-125			
Chloride	12.1		mg/L	12.5	4.4	62.1	75-125			M2
Sulfate	24		mg/L	25.0	0.3	96.5	75-125			

Matrix Spike Dup (BEK1074-MSD1) Source: 5113382-01

Prepared: 11/12/2025 22:12, Analyzed: 11/12/2025 22:12

Fluoride	5.1		mg/L	5.00	0.0	103	75-125	2.03	15	
Chloride	12.2		mg/L	12.5	0.2	95.9	75-125	2.05	15	
Sulfate	24		mg/L	25.0	0.3	96.5	75-125	2.40	15	

Matrix Spike Dup (BEK1074-MSD2) Source: 5113382-02

Prepared: 11/12/2025 22:55, Analyzed: 11/12/2025 22:55

Fluoride	5.0		mg/L	5.00	0.0	101	75-125	1.44	15	
Chloride	12.0		mg/L	12.5	4.4	61.0	75-125	1.17	15	M2
Sulfate	24		mg/L	25.0	0.3	94.5	75-125	1.98	15	



Ion Chromatography Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BEK1680 - Default Prep IC

Blank (BEK1680-BLK1)

Prepared: 11/18/2025 15:02, Analyzed: 11/18/2025 15:02

Chloride	ND	0.5	mg/L							U
Fluoride	ND	0.2	mg/L							U
Sulfate	0.5	1	mg/L							J

LCS (BEK1680-BS1)

Prepared: 11/18/2025 14:38, Analyzed: 11/18/2025 14:38

Fluoride	5.1		mg/L	5.00		102	90-110			
Chloride	12.5		mg/L	12.5		100	90-110			
Sulfate	25		mg/L	25.0		101	90-110			

Matrix Spike (BEK1680-MS1) Source: 5114350-01

Prepared: 11/18/2025 13:52, Analyzed: 11/18/2025 13:52

Chloride	12.0		mg/L	12.5	0.2	94.1	75-125			
Fluoride	5.0		mg/L	5.00	0.0	99.2	75-125			
Sulfate	24		mg/L	25.0	0	95.9	75-125			

Matrix Spike (BEK1680-MS2) Source: 5114350-03

Prepared: 11/19/2025 0:49, Analyzed: 11/19/2025 0:49

Fluoride	5.1		mg/L	5.00	0.0	102	75-125			
Chloride	12.3		mg/L	12.5	0.2	96.8	75-125			
Sulfate	25		mg/L	25.0	0	98.7	75-125			

Matrix Spike Dup (BEK1680-MSD1) Source: 5114350-01

Prepared: 11/18/2025 14:15, Analyzed: 11/18/2025 14:15

Fluoride	5.0		mg/L	5.00	0.0	99.7	75-125	0.422	15	
Chloride	12.0		mg/L	12.5	0.2	94.5	75-125	0.483	15	
Sulfate	24		mg/L	25.0	0	96.3	75-125	0.350	15	

Matrix Spike Dup (BEK1680-MSD2) Source: 5114350-03

Prepared: 11/19/2025 1:13, Analyzed: 11/19/2025 1:13

Chloride	12.3		mg/L	12.5	0.2	96.7	75-125	0.187	15	
Fluoride	5.1		mg/L	5.00	0.0	102	75-125	0.0197	15	
Sulfate	25		mg/L	25.0	0	99.0	75-125	0.304	15	

Certified Analyses included in this Report

Analyte	Certifications
2540 C-2015 in Water	
Total Dissolved Solids	KY Drinking Water Mdv (00030) VA NELAC MDV (460210) KY Wastewater Mdv (00030) TN Drinking Water (02819) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431 MS Drinking Water MADV
SM 4500-H+ B-2011 in Water	
pH (Lab)	KY Drinking Water Mdv (00030) TN Drinking Water (02819)
SW846 6010 B in Water	
Calcium	VA NELAC MDV (460210)



Sample Acceptance Checklist for Work Order 5105010

Shipped By: Client

Temperature: 5.70° Celcius

Condition

Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input checked="" type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Chain of Custody

Scheduled for: 10/23/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105010 Sample ID#	*required information* Date (mm/dd/yy):	*required information* Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-01 A	<u>11/11/25</u>	<u>1500</u>	Plastic 500mL pH<2 w/HNO3	1	MW7	g / c	Arsenic Tot 6020 Barium Tct 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH : <u>/</u>				
5105010-01 B	<u>11/11/25</u>	<u>1500</u>	Plastic 1L	1	MW7	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056 Radium 226 (sub)
5105010-01 C	<u>11/11/25</u>	<u>1500</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW7	g / c	Radium 226 (sub)
			Preservation Check: pH : <u>/</u>				
5105010-01 D	<u>11/11/25</u>	<u>1500</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW7	g / c	Radium 228 (sub)
			Preservation Check: pH : <u>/</u>				
5105010-01 E	<u>11/11/25</u>	<u>1500</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW7	g / c	Radium 228 (sub)
			Preservation Check: pH : <u>/</u>				

Preservation Check Performed by: KJS pH Paper Lot #: 213724

Field data collected by: Hunter Smith Date (mm/dd/yy) 11/11/25 Time (24 hr) 1500
 pH 7.33 Cond (umho) 0.483 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by (Signature): <u>[Signature]</u>	Received by (Signature): <u>[Signature]</u>	Date (mm/dd/yy): <u>11/11/25</u>	Time (24 hr): <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: **10/23/2025**



Client: **Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

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 PO Box 24
 Henderson, KY 42419

Project: **HMPL Surface Impoundment**

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-01 F	<u>11/11/25</u>	<u>1500</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW7	g / c	Radium Total (sub)
Preservation Check: pH: <u>/</u>							
5105010-02 A			Plastic 500mL pH<2 w/HNO3	1	MW8	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
Preservation Check: pH: _____							
5105010-02 B			Plastic 1L	1	MW8	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105010-02 C			Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW8	g / c	Radium 226 (sub)
Preservation Check: pH: _____							
5105010-02 D			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW8	g / c	Radium 228 (sub)
Preservation Check: pH: _____							

Preservation Check Performed by: KLS pH Paper Lot #: 235724

Field data collected by: Hunter m 2011 Date (mm/dd/yy) _____ Time (24 hr) _____

CH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/12/25</u>	Time (24 hr) <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: 10/23/2025



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Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder #	Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010 Sample ID#							
5105010-C2 E			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW8	g / c	Radium 228 (sub)
			Preservation Check: pH: _____				
5105010-0-02 F			Plastic 1L pH<2 w/HNO3 Sub	1	MW8	g / c	Radium Total (sub)
			Preservation Check: pH: <u>/</u>				
5105010-0-03 A	<u>11/11/25</u>	<u>1730</u>	Plastic 500mL pH<2 w/HNO3	1	MW9	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 601CB Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: <u>/</u>				
5105010-03 B	<u>11/11/25</u>	<u>1730</u>	Plastic 1L	1	MW9	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105010-03 C	<u>11/11/25</u>	<u>1730</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW9	g / c	Radium 226 (sub)
			Preservation Check: pH: <u>/</u>				

Preservation Check Performed by: KCS pH Paper Lot #: 213724

Field data collected by: Hunter [Signature] Date (mm/dd/yy) 11/11/25 Time (24 hr) 1730 mw-9
 pH 6.84 Cond (umho) 0.497 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/12/25</u>	Time (24 hr) <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: **10/23/2025**



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 Station
 Stacy Shelton
 PO Box 24
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 PO Box 24
 Henderson, KY 42419

Project: **HMPL Surface Impoundment**

Phone: (270) 844-5659
 PWS ID#:
 State: Ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	*required information* Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-03 D	<u>11/11/25</u>	<u>1730</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW9	g / c	Radium 228 (sub)
			Preservation Check: pH :	/			
5105010-03 E	<u>11/11/25</u>	<u>1730</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW9	g / c	Radium 228 (sub)
			Preservation Check: pH :	/			
5105010-03 F	<u>11/11/25</u>	<u>1730</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW9	g / c	Radium Total (sub)
			Preservation Check: pH :	/			
5105010-04 A	<u>11/7/25</u>	<u>1507</u>	Plastic 500mL pH<2 w/HNO3	1	MW10	g / c	Arsenic Tot 6020 Barium Tct 5020 Beryllium Tot 6020 Boron Tot 6010E Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tct 6020 Selenium Tot 6020
			Preservation Check: pH :	/			
5105010-04 B	<u>11/7/25</u>	<u>1507</u>	Plastic 1L	1	MW10	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056

Preservation Check Performed by: [Signature] pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date (mm/dd/yy) 11/12/25 Time (24 hr) 0903

Chain of Custody

Scheduled for: **10/23/2025**



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **HMPL Surface Impoundment**

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	*required information* Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-04 C	<u>11/7/25</u>	<u>1507</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW10	g / c	Radium 226 (sub)
			Preservation Check: pH :	/			
5105010-04 D	<u>11/7/25</u>	<u>1507</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW10	g / c	Radium 228 (sub)
			Preservation Check: pH :	/			
5105010-04 E	<u>11/7/25</u>	<u>1507</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW10	g / c	Radium 228 (sub)
			Preservation Check: pH :	/			
5105010-04 F	<u>11/7/25</u>	<u>1507</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW10	g / c	Radium Total (sub)
			Preservation Check: pH :	/			

Preservation Check Performed by: [Signature]

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) 11/7/25 Time (24 hr) 1507

pH 9.13 Cond (uS/cm) 0.710 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature]

[Signature]

11/12/25

0928

Chain of Custody

Scheduled for: 10/23/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] ***required information***

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-05 F			Plastic 1L pH<2 w/HNO3 Sub	1	DUPLICATE	g / c	Radium Total (sub)
Preservation Check: pH: <u>/</u>							
5105010-06 A	<u>11/11/25</u>	<u>1745</u>	Plastic 500mL pH<2 w/HNO3	1	FIELD BLANK	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
Preservation Check: pH: <u>/</u>							
5105010-06 B	<u>11/11/25</u>	<u>1745</u>	Plastic 1L	1	FIELD BLANK	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105010-06 C	<u>11/11/25</u>	<u>1745</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	FIELD BLANK	g / c	Radium 226 (sub)
Preservation Check: pH: <u>/</u>							
5105010-06 D	<u>11/11/25</u>	<u>1745</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
Preservation Check: pH: <u>/</u>							

Preservation Check Performed by: KLJ

pH Paper Lot #: 213724

Field data collected by: Hunter A. Hill Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

[Signature]

Received by: (Signature)

[Signature]

Date (mm/dd/yy)

11/12/25

Time (24 hr)

0928

Chain of Custody

Scheduled for: 10/23/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

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 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: KY

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105010 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-06 E	<u>11/12/25</u>	<u>1745</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g/c	Radium 228 (sub)
			Preservation Check: pH: <u>/</u>				
5105010-06 F	<u>11/12/25</u>	<u>1745</u>	Plastic 1L pH<2 w/HNO3 Sub	1	FIELD BLANK	g/c	Radium Total (sub)
			Preservation Check: pH: <u>/</u>				

Thermometer Serial Number

230753815
240381205
 Temperature 57°C

Preservation Check Performed by: KLS

pH Paper Lot #: 213724

Field data collected by: [Signature] Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature]

[Signature]

11/12/25

0908

Chain of Custody

Scheduled for: 11/12/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
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 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105010 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite:	Sample Analysis Requested
5105010-01 F			Plastic 1L pH<2 w/HNO3 Sub	1	MW7	g / c	Radium Total (sub)
			Preservation Check: pH: /				
5105010-02 A	11-17-25	1545	Plastic 500mL pH<2 w/HNO3	1	MW8	g / c	Boron Tot 6010B Mercury Tot 6020 Beryllium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Arsenic Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Cadmium Tot 6020 Lead Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH: /				
5105010-02 B			Plastic 1L	1	MW8	g / c	Fluoride 9056 Chloride 9056 TDS Sulfate 9056 pH (Lab)
5105010-02 C			Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW8	g / c	Radium 226 (sub)
			Preservation Check: pH: /				
5105010-02 D			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW8	g / c	Radium 228 (sub)
			Preservation Check: pH: /				

Preservation Check Performed by: KLJ

pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-18-25

Time (24 hr) 1234

Chain of Custody

Scheduled for: 11/12/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

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 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

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Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105010 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-02 E	11-17-25	1545	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW8	g / c	Radium 228 (sub)
			Preservation Check: pH : /				
5105010-02 F			Plastic 1L pH<2 w/HNO3 Sub	1	MW8	g / c	Radium Total (sub)
			Preservation Check: pH : /				
5105010-03 A			Plastic 500mL pH<2 w/HNO3	1	MW9	g / c	Boron Tot 6010B Mercury Tot 6020 Beryllium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Arsenic Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Cadmium Tot 6020 Lead Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
			Preservation Check: pH : _____				
5105010-03 B			Plastic 1L	1	MW9	g / c	Fluoride 9056 Chloride 9056 TDS Sulfate 9056 pH (Lab)
5105010-03 C			Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW9	g / c	Radium 226 (sub)
			Preservation Check: pH : _____				

Preservation Check Performed by: KLJ pH Paper Lot #: 213724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by (Signature) _____ Received by (Signature) _____ Date (mm/dd/yy) 11-18-25 Time (24 hr) 1234

Chain of Custody

Scheduled for: 11/12/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105010 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-05 A	11-17-25	1640	Plastic 500mL pH<2 w/HNO3	1	DUPLICATE	g / c	Boron Tot 6010B Mercury Tot 6020 Beryllium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Arsenic Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Cadmium Tot 6020 Lead Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
5105010-05 B			Plastic 1L	1	DUPLICATE	g / c	Fluoride 9056 Chloride 9056 TDS Sulfate 9056 pH (Lab)
5105010-05 C			Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	DUPLICATE	g / c	Radium 226 (sub)
5105010-05 D			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
5105010-05 E			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)

Preservation Check: pH: /

Preservation Check: pH: /

Preservation Check: pH: /

Preservation Check: pH: /

Preservation Check Performed by: KLJ

pH Paper Lot #: 212724

Field data collected by: _____ Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) [Signature]

Received by: (Signature) [Signature]

Date (mm/dd/yy) 11-18-25

Time (24 hr) 1234

Chain of Custody

Scheduled for: 11/12/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

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 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#: _____
 State: _____

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): _____
 required information

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy)	Collection Time (24 hr)	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-05 F	11-17-25	1640	Plastic 1L pH<2 w/HNO3 Sub	1	DUPLICATE	g / c	Radium Total (sub)
Preservation Check: pH : <input checked="" type="checkbox"/>							
5105010-06 A			Plastic 500mL pH<2 w/HNO3	1	FIELD BLANK	g / c	Boron Tot 6010B Mercury Tot 6020 Beryllium Tot 6020 Calcium Tot 6010B Barium Tot 6020 Arsenic Tot 6020 Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Cadmium Tot 6020 Lead Tot 6020 Lithium Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
Preservation Check: pH : _____							
5105010-06 B			Plastic 1L	1	FIELD BLANK	g / c	Fluoride 9056 Chloride 9056 TDS Sulfate 9056 pH (Lab)
5105010-06 C			Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	FIELD BLANK	g / c	Radium 226 (sub)
Preservation Check: pH : _____							
5105010-06 D			Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)
Preservation Check: pH : _____							

Preservation Check Performed by: KLJ

pH Paper Lot #: 213724

Thermometer Serial Number
230753815
240381205

Field data collected by: _____	Date (mm/dd/yy) _____	Time (24 hr) _____
pH _____	Cond (umho) _____	Res Cl (mg/L) _____
Tot Cl (mg/L) _____	Free Cl (mg/L) _____	
Temp (oC) _____	or (oF) _____	Static Water Level _____
DO (mg/L) _____	Turb. (NTU) _____	
Flow: _____	<input type="checkbox"/> MGD	<input type="checkbox"/> CFS
	<input type="checkbox"/> g/min	<input type="checkbox"/> GPD

Relinquished by: (Signature) _____

Received by: (Signature) _____

Date (mm/dd/yy)
11-18-25

Time (24 hr)
1234

Chain of Custody

Scheduled for: 10/23/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659

PWS ID#:

State: ky

PO#: _____

Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

Samples Chlorinated? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp (oC) at end time below:

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105010 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-01F	<u>11/17/25</u>	<u>1520</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW7	g / c	Radium Total (sub)

Preservation Check: pH: _____

* 5105010-02 A	<u>11/17/25</u>	<u>1545</u>	Plastic 500mL pH<2 w/HNO3	1	MW8	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
----------------	-----------------	-------------	------------------------------	---	-----	-------	---

Preservation Check: pH: _____

* 5105010-02 B	<u>11/17/25</u>	<u>1545</u>	Plastic 1L	1	MW8	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
* 5105010-02 C	<u>11/17/25</u>	<u>1545</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW8	g / c	Radium 226 (sub)

Preservation Check: pH: _____

* 5105010-02 D	<u>11/17/25</u>	<u>1545</u>	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	MW8	g / c	Radium 228 (sub)
----------------	-----------------	-------------	---------------------------------------	---	-----	-------	------------------

Preservation Check: pH: _____

Preservation Check Performed by: _____ pH Paper Lot #: _____

Field data collected by: <u>Hunter N. 2011</u>	Date (mm/dd/yy) _____	Time (24 hr) _____
pH _____	Cond (umho) _____	Res Cl (mg/L) _____
Tot Cl (mg/L) _____	Free Cl (mg/L) _____	
Temp (oC) _____	or (oF) _____	Static Water Level _____
DO (mg/L) _____	Turb. (NTU) _____	
Flow: _____	<input type="checkbox"/> MGD	<input type="checkbox"/> CFS
	<input type="checkbox"/> g/min	<input type="checkbox"/> GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/12/25</u>	Time (24 hr) <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: 10/23/2025



Client: **Big Rivers Electric Corporation**
 Reid/Green Station

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: **HMPL Surface Impoundment**

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#:
 Quote#

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # 5105010 Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
* 5105010-02 E	<u>11/17/25</u>	<u>1545</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW8	g / c	Radium 228 (sub)
Preservation Check: pH: _____							
* 5105010-02 F	<u>11/17/25</u>	<u>1545</u>	Plastic 1L pH<2 w/HNO3 Sub	1	MW8	g / c	Radium Total (sub)
Preservation Check: pH: _____							
5105010-03 A	<u>11/11/25</u>	<u>1730</u>	Plastic 500mL pH<2 w/HNO3	1	MW9	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
Preservation Check: pH: _____							
5105010-03 B	<u>11/11/25</u>	<u>1730</u>	Plastic 1L	1	MW9	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105010-03 C	<u>11/11/25</u>	<u>1730</u>	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	MW9	g / c	Radium 226 (sub)
Preservation Check: pH: _____							

Preservation Check Performed by: _____

pH Paper Lot #: _____

Field data collected by: [Signature] Date (mm/dd/yy) 11/11/25 Time (24 hr) 1730 mw-9

pH 6.84 Cond (umho) 0.497 Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)

Received by: (Signature)

Date (mm/dd/yy)

Time (24 hr)

[Signature]

[Signature]

11/12/25

0928

PACE- Check here if trip charge applied to associated COC

Printed: 10/20/2025 9:21:15AM

Chain of Custody

Scheduled for: 10/23/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#: _____
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY

required information

Workorder # 5105010 Sample ID#	Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
* 5105010-05 A	<u>11/17/25</u>	_____	Plastic 500mL pH<2 w/HNO3	1	DUPLICATE	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
Preservation Check: pH : _____							
* 5105010-05 B	<u>11/17/25</u>	_____	Plastic 1L	1	DUPLICATE	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056 Radium 226 (sub)
* 5105010-05 C	<u>11/17/25</u>	_____	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
Preservation Check: pH : _____							
* 5105010-05 D	<u>11/17/25</u>	_____	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
Preservation Check: pH : _____							
* 5105010-05 E	<u>11/17/25</u>	_____	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	DUPLICATE	g / c	Radium 228 (sub)
Preservation Check: pH : _____							

Preservation Check Performed by: _____

pH Paper Lot #: _____

Field data collected by: Huger Mizell Date (mm/dd/yy) _____ Time (24 hr) _____

pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____

Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____

Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature)	Received by: (Signature)	Date (mm/dd/yy)	Time (24 hr)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Chain of Custody

Scheduled for: 10/23/2025



**Client: Big Rivers Electric Corporation
 Reid/Green Station**

Report To:
 Big Rivers Electric Corporation Reid/Green
 Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Invoice To:
 Big Rivers Electric Corporation Reid/Green Station
 Stacy Shelton
 PO Box 24
 Henderson, KY 42419

Project: HMPL Surface Impoundment

Phone: (270) 844-5659
 PWS ID#:
 State: ky

PO#: _____
 Quote# _____

Please Print Legibly

Collected by (Signature): [Signature] *required information*

Compliance Monitoring? Yes ___ No ___

*For composite samples please indicate begin time, end time and temp(oC) at end time below:

Samples Chlorinated? Yes ___ No ___

Influent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____
 Effluent: Start Date _____ Start time _____ End Date _____ End Time _____ Temp (oC) _____

LAB USE ONLY Workorder # Sample ID#	*required information* Date (mm/dd/yy):	Collection Time (24 hr):	Bottle and Preservative	Containers	Sample Description	Composite	Sample Analysis Requested
5105010-05 F	11/17/25		Plastic 1L pH<2 w/HNO3 Sub	1	DUPLICATE	g / c	Radium Total (sub)
5105010-06 A	11/11/25	1745	Plastic 500mL pH<2 w/HNO3	1	FIELD BLANK	g / c	Arsenic Tot 6020 Barium Tot 6020 Beryllium Tot 6020 Boron Tot 6010B Cadmium Tot 6020 Calcium Tot 6010B Chromium Tot 6020 Cobalt Tot 6020 Antimony Tot 6020 Lithium Tot 6020 Thallium Tot 6020 Mercury Tot 6020 Molybdenum Tot 6020 Selenium Tot 6020
5105010-06 B	11/11/25	1745	Plastic 1L	1	FIELD BLANK	g / c	Fluoride 9056 TDS Sulfate 9056 pH (Lab) Chloride 9056
5105010-06 C	11/11/25	1745	Plastic 1L pH<2 w/HNO3 Rad 226 Sub	1	FIELD BLANK	g / c	Radium 226 (sub)
5105010-06 D	11/11/25	1745	Plastic 1L pH<2 w/HNO3 Rad 228 Sub	1	FIELD BLANK	g / c	Radium 228 (sub)

Preservation Check: pH: _____

Preservation Check: pH: _____

Preservation Check: pH: _____

Preservation Check Performed by: _____

pH Paper Lot #: _____

Thermometer Serial Number
 230753815
 240381205
 Temperature 3.0C

Field data collected by: Munter Date (mm/dd/yy) _____ Time (24 hr) _____
 pH _____ Cond (umho) _____ Res Cl (mg/L) _____ Tot Cl (mg/L) _____ Free Cl (mg/L) _____
 Temp (oC) _____ or (oF) _____ Static Water Level _____ DO (mg/L) _____ Turb. (NTU) _____
 Flow: _____ MGD CFS g/min GPD

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date (mm/dd/yy) <u>11/12/25</u>	Time (24 hr) <u>0928</u>
_____	_____	_____	_____
_____	_____	_____	_____

PACE- Check here if trip charge applied to associated COC

Printed: 10/20/2025 9:21:15AM



December 15, 2025

Rob Whittington
Pace Analytical Madisonville
825 Industrial Rd
Madisonville, KY 42431

RE: Project: 5105010
Pace Project No.: 30828007

Dear Rob Whittington:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mariah Barlow
mariah.barlow@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Mark Demoss, Pace Analytical Madisonville



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 5105010
 Pace Project No.: 30828007

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 ANABISO/IEC 17025:2017 Rad Cert#: L24170
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 2950
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA010
 Louisiana DEQ/TNI Certification #: 04086
 Maine Certification #: 2023021
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572023-03
 New Hampshire/TNI Certification #: 297622
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-015
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: TN02867
 Texas/TNI Certification #: T104704188-22-18
 Utah/TNI Certification #: PA014572223-14
 USDA Soil Permit #: 525-23-67-77263
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHHR Certification #: 9964C
 Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 5105010
Pace Project No.: 30828007

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30828007001	5105010-01	Water	11/11/25 15:00	11/20/25 09:45
30828007002	5105010-02	Water	11/11/25 15:45	11/20/25 09:45
30828007003	5105010-03	Water	11/11/25 17:30	11/20/25 09:45
30828007004	5105010-04	Water	11/07/25 15:27	11/20/25 09:45
30828007005	5105010-05	Water	11/11/25 16:40	11/20/25 09:45
30828007006	5105010-06	Water	11/11/25 17:45	11/20/25 09:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 5105010
 Pace Project No.: 30828007

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30828007001	5105010-01	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30828007002	5105010-02	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30828007003	5105010-03	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30828007004	5105010-04	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30828007005	5105010-05	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30828007006	5105010-06	EPA 903.1	TMY	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105010
 Pace Project No.: 30828007

Sample: 5105010-01 Lab ID: 30828007001 Collected: 11/11/25 15:00 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.554 ± 0.618 (1.01) C:NA T:89%	pCi/L	12/12/25 13:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.539 ± 0.385 (0.751) C:85% T:86%	pCi/L	12/12/25 15:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.09 ± 1.00 (1.76)	pCi/L	12/15/25 16:10	7440-14-4	

Sample: 5105010-02 Lab ID: 30828007002 Collected: 11/11/25 15:45 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.541 ± 0.403 (0.530) C:NA T:104%	pCi/L	12/12/25 13:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	2.03 ± 0.684 (0.969) C:84% T:75%	pCi/L	12/12/25 15:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.57 ± 1.09 (1.50)	pCi/L	12/15/25 16:10	7440-14-4	

Sample: 5105010-03 Lab ID: 30828007003 Collected: 11/11/25 17:30 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.482 ± 0.528 (0.849) C:NA T:92%	pCi/L	12/12/25 13:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.896 ± 0.389 (0.625) C:83% T:94%	pCi/L	12/12/25 15:22	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.38 ± 0.917 (1.47)	pCi/L	12/15/25 16:10	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 5105010
 Pace Project No.: 30828007

Sample: 5105010-04 Lab ID: **30828007004** Collected: 11/07/25 15:27 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.521 ± 0.616 (1.02) C:NA T:95%	pCi/L	12/12/25 13:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.33 ± 0.472 (0.657) C:84% T:87%	pCi/L	12/12/25 15:22	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.85 ± 1.09 (1.68)	pCi/L	12/15/25 16:10	7440-14-4	

Sample: 5105010-05 Lab ID: **30828007005** Collected: 11/11/25 16:40 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.614 ± 0.589 (0.927) C:NA T:97%	pCi/L	12/12/25 13:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.28 ± 0.572 (0.948) C:75% T:75%	pCi/L	12/12/25 15:22	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.89 ± 1.16 (1.88)	pCi/L	12/15/25 16:10	7440-14-4	

Sample: 5105010-06 Lab ID: **30828007006** Collected: 11/11/25 17:45 Received: 11/20/25 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Comments: • The sampler's name and/or signature was not listed on the client COC; client notified via SAF.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.232 ± 0.323 (0.818) C:NA T:89%	pCi/L	12/12/25 13:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.649 ± 0.483 (0.948) C:79% T:77%	pCi/L	12/12/25 15:16	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.649 ± 0.806 (1.77)	pCi/L	12/15/25 16:10	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105010
 Pace Project No.: 30828007

QC Batch: 785823	Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1	Analysis Description: 903.1 Radium-226
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30828007001, 30828007002, 30828007003, 30828007004, 30828007005, 30828007006

METHOD BLANK: 3834411 Matrix: Water

Associated Lab Samples: 30828007001, 30828007002, 30828007003, 30828007004, 30828007005, 30828007006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.305 ± 0.284 (0.374) C:NA T:84%	pCi/L	12/12/25 13:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 5105010
 Pace Project No.: 30828007

QC Batch: 785825	Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0	Analysis Description: 904.0 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30828007001, 30828007002, 30828007003, 30828007004, 30828007005, 30828007006

METHOD BLANK: 3834415 Matrix: Water

Associated Lab Samples: 30828007001, 30828007002, 30828007003, 30828007004, 30828007005, 30828007006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.888 ± 0.537 (0.990) C:71% T:74%	pCi/L	12/12/25 14:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5105010
Pace Project No.: 30828007

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5105010
 Pace Project No.: 30828007

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30828007001	5105010-01	EPA 903.1	785823		
30828007002	5105010-02	EPA 903.1	785823		
30828007003	5105010-03	EPA 903.1	785823		
30828007004	5105010-04	EPA 903.1	785823		
30828007005	5105010-05	EPA 903.1	785823		
30828007006	5105010-06	EPA 903.1	785823		
30828007001	5105010-01	EPA 904.0	785825		
30828007002	5105010-02	EPA 904.0	785825		
30828007003	5105010-03	EPA 904.0	785825		
30828007004	5105010-04	EPA 904.0	785825		
30828007005	5105010-05	EPA 904.0	785825		
30828007006	5105010-06	EPA 904.0	785825		
30828007001	5105010-01	Total Radium Calculation	789668		
30828007002	5105010-02	Total Radium Calculation	789668		
30828007003	5105010-03	Total Radium Calculation	789668		
30828007004	5105010-04	Total Radium Calculation	789668		
30828007005	5105010-05	Total Radium Calculation	789668		
30828007006	5105010-06	Total Radium Calculation	789668		

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

Pace Analytical Services, LLC K
5105010

WO#: 30828007



30828007

SENDING LABORATORY:

Pace Analytical Services, LLC Kentucky
PO BOX 907
Madisonville, KY 42431
Phone: (270) 821-7375
Fax: -
Project Manager: Rob Whittington

RECEIVING I

Pace Analytical Services LLC Greensburg PA
1638 Rosey Town Rd Suite 2,3,4
Greensburg, PA 15601
Phone : (724) 850-5615
Fax:

Received by Pace Greensburg
Therm ID 26 Corr Factor +/- 0.1
Receipt Temp 11.3
Corrected Temp 11.2
Correct Preservation Y/N

Analysis Expires Laboratory ID Comments

Sample ID: 5105010-01 Water Sampled: 11/11/2025 15:00 Specific Method 001
Radium 228 (sub) 05/10/2026 15:00 EPA 904.0 Radium Sum C
Radium Total (sub) 05/10/2026 15:00 EPA 904.0 Radium Sum C
Radium 226 (sub) 05/10/2026 15:00 EPA 903.1

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⓪

Sample ID: 5105010-02 Water Sampled: 11/17/2025 15:45 Specific Method TEMP 3.0
Radium 226 (sub) 05/16/2026 15:45 EPA 903.1
Radium 228 (sub) 05/16/2026 15:45 EPA 904.0 Radium Sum C
Radium Total (sub) 05/16/2026 15:45 EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⓪

Sample ID: 5105010-03 Water Sampled: 11/11/2025 17:30 Specific Method
Radium Total (sub) 05/10/2026 17:30 EPA 904.0 Radium Sum C
Radium 226 (sub) 05/10/2026 17:30 EPA 903.1
Radium 228 (sub) 05/10/2026 17:30 EPA 904.0 Radium Sum C

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⓪

Released By [Signature] Date 11-18-25 Received By [Signature] Date 11/20/25 9:45

Released By _____ Date _____ Received By _____ Date _____

SUBCONTRACT ORDER
Pace Analytical Services, LLC Kentucky
5105010

Analysis	Expires	Laboratory ID	Comments
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Sample ID: 5105010-04	Water	Sampled:11/11/2025 15:27	Specific Method	004
Radium 228 (sub)		05/10/2026 15:27	EPA 904.0 Radium Sum C	
Radium Total (sub)		05/10/2026 15:27	EPA 904.0 Radium Sum C	
Radium 226 (sub)		05/10/2026 15:27	EPA 903.1	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙

Sample ID: 5105010-05	Water	Sampled:11/17/2025 16:40	Specific Method	TEMP 3.0
Radium 226 (sub)		05/16/2026 16:40	EPA 903.1	
Radium 228 (sub)		05/16/2026 16:40	EPA 904.0 Radium Sum C	005
Radium Total (sub)		05/16/2026 16:40	EPA 904.0 Radium Sum C	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙

Sample ID: 5105010-06	Water	Sampled:11/11/2025 17:45	Specific Method	
Radium Total (sub)		05/10/2026 17:45	EPA 904.0 Radium Sum C	
Radium 226 (sub)		05/10/2026 17:45	EPA 903.1	006
Radium 228 (sub)		05/10/2026 17:45	EPA 904.0 Radium Sum C	

SAMPLE STATE OF ORIGIN KY RUSH MULTIPLIER ⊙

WO# : 30828007
 PM: MAB Due Date: 12/15/25
 CLIENT: PACE_44_MVKY

Released By KMP Date 11-18-25 Received By R Date 11/20/25 9:45

Released By _____ Date _____ Received By _____ Date _____

Pace
ANALYTICAL SERVICES

DC#_Title: ENV-FRM-GBUR-0088 v09_Sample Condition Upon Receipt
Greensburg

Effective Date: 06/24/2025

Client Name: Pace-KY Project

WO#: 30828007

PM: MAB Due Date: 12/15/25
CLIENT: PACE_44_MVKY

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 120674570123707542 Initial / Date

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Therm. Used: 26 Type of Ice: Wet Blue None Melted

Cooler Temp: Observed Temp 11.3 °C Correction Factor: -0.1 °C Final Temp: 11.2 °C

Temp should be above freezing to 6°C

Examined By: PS 11/21/25

Labeled By: PS 11/21/25

Temped By: PS 11/20/25

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
Chain of Custody Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 PANZ1251	
Chain of Custody Filled Out: -Were client corrections present on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Chain of Custody Relinquished	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Correct Containers Used: -Pace Containers Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Orthophosphate field filtered:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Hex Cr Aqueous samples field filtered:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Organic Samples checked for dechlorination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Filtered volume received for dissolved tests: Cr6+, Orthophosphate, DOC, Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, TOX, LL Hg, Radon, non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
All containers meet method preservation requirements:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>PS</u>	Date/Time of Preservation
8260C/D: Headspace in VOA Vials (> 6mm)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lot# of added Preservative	
624.1: Headspace in VOA Vials (0mm)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Radon: Headspace in RAD Vials (0mm)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>PS</u>	Date: <u>11/20/25</u> Survey Meter SN: <u>25014380</u>
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

