

2024 Annual Groundwater Monitoring and Corrective Action Report

for Compliance with the Coal Combustion
Residuals (CCR) Rule

Gibbons Creek Steam Electric Station

*Gibbons Creek Environmental Redevelopment
Group, LLC*

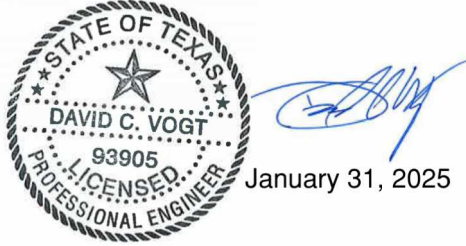


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Table of Abbreviations and Acronyms

Abbreviation	Definition
AMSL	Above Mean Sea Level
AP	Ash Ponds
ASD	Alternate Source Demonstration
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
cm/s	centimeters per second
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
ERCOT	Electric Reliability Council of Texas
GCERG	Gibbons Creek Environmental Redevelopment Group, LLC.
GCSSES	Gibbons Creek Steam Electric Station
GWPS	Groundwater Protection Standard
LCL	Lower Confidence Limit
LLDPE	Low-Linear Density Polyethylene
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RCL	Recompacted Clay Liner
RL	Reporting Limit
RPD	Relative Percent Difference
SFL	Site F Landfill
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
SSP	Scrubber Sludge Pond
TAC	Texas Administrative Code
TCEQ	Texas Commission of Environmental Quality
TMPA	Texas Municipal Power Agency

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Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance – Gibbons Creek Steam Electric Station

§ 257.90(e)(6) A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:		Site F Landfill, Scrubber Sludge Pond, Ash Ponds
§257.90(e)(6)(i)	At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.	Assessment Monitoring Program
§257.90(e)(6)(ii)	At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.	Assessment Monitoring Program
§257.90(e)(6)(iii)	If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e):	Yes
§257.90(e)(6)(iii)(A)	Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase. Note: Site F Landfill – Shallow, Site F Landfill – Deep, Scrubber Sludge Pond and Ash Ponds monitoring networks were all monitored under the Assessment Monitoring program during the 2024 calendar year; therefore, Appendix IV constituents with statistically significant increases over background have been included in addition to Appendix III constituents. The summarized statistically significant increases (SSIs) noted in the adjacent column are documented for the December 2024 semiannual monitoring event. * - Constituents had elevated laboratory method detection limits (MDLs) which exceeded the background threshold value during the December 2024 monitoring event. These constituents are identified as potential SSIs. Additional details are provided in Section 6.2 of this report.	Site F Landfill - Shallow SFL MW-2 - Boron, pH SFL MW-3 - Boron, Lead, Thallium SFL MW-5 - Boron, pH MNW-15 - Boron, Beryllium, Cadmium, Cobalt, Selenium Site F Landfill - Deep SFL MW-4 - Boron, Calcium, Chloride, TDS, *Fluoride SFL MW-7 - Boron, Calcium, Chloride, TDS Scrubber Sludge Pond & Ash Ponds SSP MW-2 - Calcium, Chloride, pH, TDS, Beryllium, *Cadmium, Cobalt, *Fluoride, Selenium SSP MW-3 - Boron, pH, Beryllium, Cadmium, *Chromium, Cobalt, *Fluoride, Radium 226+228, Selenium, Thallium SSP MW-4 - Chromium, *Cobalt, Molybdenum, Radium 226+228 AP MW-1D - Boron, Arsenic, Cobalt, Fluoride, Molybdenum AP MW-3 - Boron, pH, Beryllium, Cadmium, Cobalt, Mercury AP MW-4 - Boron, *Chromium AP MW-5 - Boron, pH, Sulfate, Arsenic, Beryllium, Cadmium, *Chromium, Cobalt, Fluoride, Mercury, Selenium, Thallium



Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance – Gibbons Creek Steam Electric Station			
§ 257.90(e)(6) A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:		Site F Landfill, Scrubber Sludge Pond, Ash Ponds	
§257.90(e)(6)(iii)(B)	Provide the date when the assessment monitoring program was initiated for the CCR unit.		March 2018
§257.90(e)(6)(iv)	If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following:	Yes – Alternate Source Demonstration (ASD) provided as part of both the 2019 and 2021 Annual Groundwater Monitoring & Corrective Action Annual Reports. ASD updated and submitted September 29, 2023, recommending the Site F Landfill monitoring network being split into a shallow and deep monitoring network in addition to evaluation of area geochemical characteristics.	
§257.90(e)(6)(iv)(A)	Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase.	Site F Landfill - Shallow MNW-15 • Cadmium, Cobalt Site F Landfill - Deep None Scrubber Sludge Pond & Ash Ponds SSP MW-2 • Beryllium, Cobalt • Beryllium, Cadmium, Cobalt, Radium 226+228, Thallium AP MW-3 • Cobalt • AP MW-5 • Arsenic, Beryllium, Cadmium, Cobalt, Thallium	
§257.90(e)(6)(iv)(B)	Provide the date when the assessment of corrective measures was initiated for the CCR unit.	N/A – Currently monitored under assessment monitoring.	
§257.90(e)(6)(iv)(C)	Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.	N/A – Currently monitored under assessment monitoring.	
§257.90(e)(6)(iv)(D)	Provide the date when the assessment of corrective measures was completed for the CCR unit.	N/A – Currently monitored under assessment monitoring.	
§257.90(e)(6)(v)	Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection.	N/A – Currently monitored under assessment monitoring.	
§257.90(e)(6)(vi)	Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.	N/A – Currently monitored under assessment monitoring.	

1 Introduction

On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residual (CCR) under Subtitle D of the Resource Conservation and Recovery Act. The CCR rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257. The rule – effective on October 19, 2015 – applies to electric utilities and independent power producers that fall within North American Industry Codes System code 221112, and facilities that produce or store CCR materials in surface impoundments or landfills [EPA, 2015]. The CCR rule defines a set of requirements for the disposal and handling of CCR within units (defined as either landfills or surface impoundments).

The former Gibbons Creek Steam Electric Station (GCSES or Site) is the site of a former coal-fired power generation facility located in Anderson, Texas (**Figure 0**). The Texas Municipal Power Agency (TMPA) operated GCSES between 1982 and 2019. The Gibbons Creek Environmental Redevelopment Group, LLC (GCERG) acquired the TMPA property in 2021. At the GCSES, one CCR landfill identified as the Site F Landfill (SFL), and two CCR surface impoundments, the Scrubber Sludge Pond (SSP) and Ash Ponds (AP), are subject to the regulations under 40 CFR §257 Subpart D and Texas Commission of Environmental Quality's (TCEQ) Title 30, Texas Administrative Code (30 TAC), Chapter 352. On June 1, 2021, the EPA signed a Federal Register notice approving of the state permit program for the management of CCR in the state of Texas. The locations of the CCR units are shown on **Figure 1** and **Figure 2**.

In accordance with 40 CFR §257.91 and TCEQ TAC 30 Chapter 352, TMPA installed a groundwater monitoring system around both the SFL and the SSP/AP CCR units. GCERG has continued implementation of the federal CCR Rule groundwater monitoring program, as required by 40 CFR §257.90-95, as a continuation of the TMPA monitoring program.

2 Facility Description

The GCSES is located at 12824 FM 244 Road, Anderson, Texas 77830. The GCSES was a single unit, 470-megawatt, coal-fired power plant. The GCSES initially operated by burning lignite from the adjacent Gibbons Creek Lignite Mine in 1982. In 1996, the GCSES converted to Powder River Basin coal and the lignite mine was closed. The GCSES was retired from the Electric Reliability Council of Texas (ERCOT) System on October 30, 2019. The Site was obtained by GCERG in 2021.

The APs were clean closed in 2022. The APs were an unlined, interconnected, three-cell impoundment area which was separated by earthen dikes, constructed in 1977 to 1978 as part of the original GCSES construction. These ponds were approximately 260 ft wide, 1,800 ft long and 20 ft deep. The top of the perimeter berms/dikes were at an elevation of approximately 270 feet above mean sea level (AMSL). See **Figure 2** for location of the former APs.

The SSP was clean closed in 2022. The former SSP is located to the west of the APs and was a single impoundment constructed from 1977 to 1978. A liner was added to the bottom of the pond in 1983. The pond measurements were approximately 260 feet and 350 feet wide and 615 feet and 635 feet long (measured at the bottom of the impoundment). See **Figure 2** for location of the former SSP.

GCERG has completed the clean closure process of the SSP & AP CCR units by dewatering and removing all CCR material and soil material beneath the CCR units. The CCR clean closure is documented in the Closure Completion CCR Surface Impoundments, submitted on June 2, 2022 [HDR, 2022b]. The CCR material removed from the SSP/AP CCR units was placed within the SFL CCR unit. In addition, the SFL Pond 3 was backfilled and closed, all stormwater control ditches around the area of the coal pile and coal pile runoff pond have been excavated, and the coal pile itself has been removed. Excavated materials were dewatered and placed within the SFL CCR unit.

The SFL, located northeast of the decommissioned power generating plant and constructed in 1990, is approximately 114 acres in area and received solid CCR generated by the GCSSES. The SFL CCR unit was closed with the following capping system:

- 6-inches of erosion layer;
- Underlain by 18-inches of infiltration layer;
- Underlain by a geocomposite;
- Underlain by a 40-mil low-linear density polyethylene (LLDPE) geomembrane layer;
- Underlain by 2-feet of recompacted clay liner (RCL) with a hydraulic conductivity of 1×10^{-5} centimeters per second (cm/sec) or slower;
- Underlain by 1-foot of intermediate cover.

Capping system construction activities associated with the SFL CCR unit were completed October 9, 2024

3 Hydrogeology

3.1 GCSSES Area Hydrogeology

Geologically, the GCSSES is located on an outcrop of the middle member of the Wellborn Formation of the Jackson-Yegua Group of the Tertiary-aged System. The Wellborn Formation is described as fine to very fine quartz sand interbedded with brown, lignitic clay and lignite, with abundant fossil wood and imprints of marine megafossils. Moving south of the GCSSES Site, the Manning Formation overlies the Wellborn Formation. The Manning Formation is a lignite-bearing formation which is described as a fine to medium-grained, lignitic, quartz sand, interbedded with sandy, lignitic clay, and lignite, with abundant fossil wood. The Manning Formation has well developed lignite seams. The Gibbons Creek Lignite Mine was located in the Manning Formation located approximately two miles south of GCSSES. Quaternary-aged alluvium and terrace deposits are present in the Brazos River, Navasota River, and Gibbons Creek valleys [Horbaczewski, 2011].

The geological formation of the GCSSES area is based on the cyclothem model in which the sea transgressed over land and then regressed. Sedimentary rock was stacked over time in a pattern that was indicative of the presence and absence of the sea. This depositional process is described in more detail in the Field Guidebook Minesoil and Acid Seep Workshop document for the Gibbons Creek Lignite Mine [Horbaczewski, 2011]. The GCSSES area is located in the Texas Coastal Plain region which was developed by this depositional process.

Lignite mining has been conducted in eastern and east-central Texas along the lignite belt depositional area. This lignite belt follows the Tertiary-aged coastal region. The GCSES Site is located in the lignite belt region.

Borings conducted at the site indicate a subsurface stratigraphy consisting of stratified, heterogeneous layers of clays, silts, and sands. The clay and silt intervals consisted of high plasticity material. Silty sand intervals generally consisted of fine, poorly graded sands with occasional high plasticity clay and silt lenses. Occasional sandstone layers were detected in select borings across the Site. Lignite and lignitic clay seams have been identified in soil borings at the Site. Bedrock material is sandstone [ERM, 2005].

The topography of the GCSES and locations of the CCR units are generally flat with surface elevation decreasing from north to south and southwest. Surface water drainage is generally to the south and southwest. Gibbons Creek Reservoir is located immediately adjacent to the GCSES and CCR units on the east and south sides. The reservoir was established as a cooling pond for the GCSES. Impoundment of Gibbons Creek Reservoir began in spring 1981. Discharge from the reservoir feeds into Gibbons Creek which is a tributary of the Navasota River which is a tributary of the Brazos River.

The uppermost groundwater at GCSES CCR units ranges from approximately 220 to 250 feet AMSL. The uppermost groundwater aquifer at the Site is considered confined to semi-confined due to the stratified nature of the sedimentary sediments and influences of weathering and erosion. General groundwater flow direction at the Site is from the northwest to southeast. The groundwater flow generally follows topography with the flow towards the Gibbons Creek Reservoir and the Gibbons Creek valley.

3.2 GCSES Area Geochemistry – Pyrite and pH

As noted in the 2019 Alternative Source Demonstration (ASD) [Wood, 2019] and 2023 ASD [HDR, 2023] the elevated concentrations of constituents of concern were primarily related to the low pH measured in the groundwater samples. The low pH was attributed to the weathering of naturally present pyrite in sediments at the site. The presence of pyrite at and in the general area of GCSES is attributed to the geological formation of the region. Marine environments promote the formation of pyrite. Anoxic conditions can develop in marine sediments as organic material (i.e., buried coastal vegetation due to sea transgression) is broken down by bacteria. For this process to occur, electron acceptors are used by the bacteria. The consumption of electron acceptors generally follows the following order:

1. Aerobic processes
2. Nitrate reduction processes
3. Manganese reduction processes
4. Iron reduction processes
5. Sulfate reduction processes
6. Methane generation processes

Iron and sulfate are relatively high in seawater and the solubility product of iron sulfides is extremely low [Horbaczewski, 2011]. Thus, if ferrous iron and sulfide ions, which are products of

iron reduction and sulfate reduction processes, respectively, are in close proximity, iron sulfide will precipitate. This process eventually forms pyrite (iron disulfide). Framboidal pyrite is commonly found in coastal sediments or sedimentary sediments formed from marine sediments. Framboidal pyrite is present in Texas lignite formations. Pyrite was noted on select boring logs from site monitoring wells [AFWEI, 2017].

When the process is reversed and pyrite is exposed to an aerobic state, it is oxidized. This oxidation forms ferrous iron and sulfuric acid in aqueous solutions. This release of sulfuric acid can cause acidification of natural waters. The pyrite that is present in the Jackson-Yegua Formation located at the Site provides sulfide constituents that can be oxidized. Natural acid seeps have been observed in the general area of the Site as a result of dissolution of pyrite in lignite [Horbaczewski, 2007]. Based on data obtained from the United States Department of Agriculture (USDA) Natural Resources Conservation Service's (NRCS's) Web Soil Survey database, shallow soil sediments at the Site generally are acidic with pH measurements in the range from 3.5 to 6.5. Shallow groundwater in unconfined or semiconfined aquifers that is in contact with lignite and has a positive oxidation-reduction potential (ORP) generally exhibit a low pH. This has been observed in shallow screened monitoring wells at the Site. Generally, groundwater from deeper screen interval elevations, which are confined to semi-confined (approximately 209.8 to 249.7 feet AMSL), had relatively higher pH and lower ORP, while groundwater from shallow screen interval elevations which are semi-confined to unconfined (approximately 230.3 to 269.0 feet AMSL) had relatively lower pH and higher ORP [HDR, 2023].

4 Monitoring Well Network

The CCR Rule requires, at a minimum, one upgradient and three downgradient monitoring wells per CCR unit to be completed in the uppermost aquifer. Section 40 CFR §257.90 of the Rule states that the operator: "...may install a multiunit groundwater monitoring system instead of separate groundwater monitoring systems for each CCR unit." In addition, the Rule states that downgradient monitoring wells should be installed to: "accurately represent the quality of groundwater passing the waste boundary of the CCR unit. The downgradient monitoring system must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer."

Based on the 2023 ASD, it was recommended that the monitoring network for the SFL be modified into a system that monitored both shallow and deep groundwater. The 2023 Annual Groundwater Monitoring and Corrective Action Report (AGWMCAR) initially split the existing monitoring network into shallow and deep monitoring systems. Due to the limited number of monitoring wells, a sufficient number of downgradient monitoring wells was not available at the time of reporting for the 2023 AGWMCAR. Following a discussion between TCEQ, GCERG, and HDR on April 3, 2024, an updated CCR Groundwater Monitoring System certification was prepared and submitted for review and comment by TCEQ. In an e-mail dated May 10, 2024, TCEQ indicated they had concerns about the revised monitoring system for the SFL CCR unit. TCEQ requested additional stratigraphic data from the site to verify aspects of the 2023 ASD as well as installing an additional upgradient monitoring well to assess background groundwater quality. TCEQ also indicated concern about proper spacing and proximity of downgradient monitoring wells relative to SFL. In response to TCEQ's concerns, a workplan dated October 22, 2024, was submitted which detailed additional monitoring well installations at upgradient and

downgradient locations relative to the SFL CCR unit as well as having those monitoring instruments being screened in multiple subsurface intervals for shallow and deep groundwater sample collection. The workplan also detailed additional hydrogeological assessment activities to provide supporting data for the 2023 ASD. In an e-mail dated December 5, 2024, TCEQ requested additional information related to the October 22, 2024, workplan. Additional information related to TCEQ's inquiry is being prepared and will be submitted for their review and comment. The services noted in the October 22, 2024, workplan are tentatively scheduled to be initiated in the first quarter of 2025.

In addition to modifying the groundwater monitoring system for the SFL CCR unit, the groundwater monitoring system for the SSP and APs CCR units is also proposed to be updated based on details noted in the October 22, 2024, workplan.

The monitoring network systems discussed in **Section 4.1** (Site F Landfill) and **Section 4.2** (Scrubber Sludge Ponds / Ash Ponds) describe the monitoring system that was utilized during the 2024 calendar year. This includes splitting the SFL monitoring network into shallow and deep monitoring systems in accordance with what was recommended in the 2023 ASD and was reported on in the 2023 AGWMCAR. With the implementation of the October 22, 2024, workplan, the monitoring well networks at the SFL and SSP/AP CCR units will be modified for the 2025 calendar year and correct deficiencies that were identified by TCEQ for the 2023 and 2024 monitoring periods.

4.1 Site F Landfill

The SFL CCR unit monitoring well network (as shown on **Figure 1**) consists of both monitoring wells and piezometers installed by Amec Foster Wheeler in 2016 and 2017, and wells installed by Black and Veatch in 1988.

The SFL monitoring network has historically consisted of the following wells:

- Background Well: MNW-18
- Compliance Wells: SFL MW-2, SFL MW-3, SFL MW-4, SFL MW-5, SFL MW-6, SFL MW-7, and MNW-15
- Piezometers: MNW-11, MNW-16, and MNW-17

During the 2023 ASD [HDR, 2023], a review of boring logs at the Site and interpretation of historic monitoring data determined that multiple groundwater units are being monitored at the Site. Compound this with differences in pH and ORP of the shallow groundwater versus deeper monitored groundwater; background and compliance monitoring wells were deemed to not be monitoring the same groundwater unit.

For the Site F Landfill, monitoring well MNW-18 has historically been considered the upgradient / background monitoring well used for the SFL CCR unit. The screen interval for monitoring well MNW-18 is across a confined portion of the aquifer. Compliance and water level only monitoring wells that are in the same aquifer unit as MNW-18 are MNW-11, MNW-16, MNW-17, SFL MW-4, and SFL MW-7. These monitoring wells had pH measurements that averaged greater than or equal to 6.2 and ORP, if data was available, averaged less than or equal to 22.1 millivolts (mV). The monitored groundwater at these wells was less oxidized and pH was less likely to be impacted by weathered pyrite.

Monitoring wells SFL MW-2, SFL MW-3, SFL MW-5, SFL MW-6, and MNW-15 monitor the shallower groundwater at the Site F Landfill. Based on the 2023 ASD, these monitoring wells had pH measurements that averaged less than or equal to 6.2 and ORP averaged greater than or equal to 209.4 mV. The oxidized groundwater at these monitoring wells has lower pH due to the weathering of pyrite at the Site.

Based on the differences in chemistry measured at the SFL CCR unit, the monitoring network was refined to accurately monitor downgradient groundwater relative to the CCR unit. For the deeper monitoring network, groundwater generally flows south to southwest, and MNW-18 is still an upgradient monitoring point relative to the CCR unit. For the shallow monitoring network, groundwater generally flows south to southeast and monitoring well SFL MW-6 is generally upgradient to the CCR unit.

The shallow monitoring well network includes:

- Background Well: SFL MW-6
- SFL Landfill-Shallow Compliance Wells: SFL MW-2, SFL MW-3, SFL MW-5 and MNW-15

The deep monitoring well network includes:

- Background Well: MNW-18
- SFL Landfill-Deep Compliance Wells: SFL MW-4, SFL MW-7
- Piezometers: MNW-11, MNW-16, MNW-17

4.2 Scrubber Sludge Pond / Ash Ponds

The SSP/AP CCR unit monitoring well networks (as shown on **Figure 2**) consist of both monitoring wells and piezometers. The piezometers are used for water level data collection only, groundwater quality samples are only collected from monitoring wells. The monitoring well network includes:

- Background Well: SSP/AP MW-1 (used as background for both AP CCR unit and SSP CCR unit networks)
- Scrubber Sludge Pond Compliance Wells: SSP MW-2, SSP MW-3 and SSP MW-4
- Ash Ponds Compliance Wells: AP MW-1D, AP MW-3, AP MW-4 and AP MW-5
- Piezometers: SSP MW-1, AP MW-1, AP MW-6, AP MW-2, AP PZ-1, AP PZ-2, AP PZ-3 and AP PZ-4

5 Groundwater Monitoring

TMPA initiated sample collection for background monitoring in June 2016 and completed the eighth round of background sampling, as required by the CCR Rule, in August 2017. In accordance with 40 CFR §257.94(b), one round of detection monitoring was completed in October 2017. A statistical evaluation of the groundwater quality data set for Appendix III constituents resulting from detection monitoring in accordance with 40 CFR § 257.94 was completed in January 2018. The data set used in the evaluation resulted from the collection and laboratory analysis of eight independent samples from background and downgradient wells in accordance with 40 CFR § 257.94(b). The statistical evaluation was completed using the prediction limit method outlined in 40 CFR § 257.93(f)(3) for the monitoring data obtained at the SFL CCR unit and the SSP/AP CCR units. The statistical evaluation concluded initial statistically

significant increases (SSIs) over background levels for Appendix III constituents at the SFL CCR unit and the SSP/AP CCR units [Wood, 2019]. Based upon the results of the statistical evaluation, an assessment monitoring program was implemented in March 2018.

The first two initial rounds of the assessment monitoring program were conducted in March 2018 and June 2018. Groundwater samples were collected from monitoring wells at the SFL CCR unit and the SSP/AP CCR units. During the initial assessment monitoring sampling event (March 2018), the groundwater samples were analyzed for all Appendix III and Appendix IV constituents. During the second assessment monitoring sampling event (June 2018), the groundwater samples were analyzed for all Appendix III constituents and those Appendix IV constituents that were detected at each CCR unit during the March 2018 monitoring event.

Assessment monitoring was continued in 2019, at which point multiple statistically significant levels (SSLs) of Appendix IV constituents were determined to be above their respective groundwater protection standard (GWPS) [Wood, 2020]. As part of the 2019 AGWMCAR, an ASD was submitted [Wood, 2020]. This ASD describes the natural conditions in and around the Site, as well as the impact of naturally occurring lignite within the area of the Site and its impact on the groundwater system. As documented in the 2019 ASD evaluation, potential SSLs identified for Appendix IV constituents are attributed to an alternate source under the CCR rule; therefore, no corrective action measures were required and groundwater monitoring under the assessment monitoring program was continued.

Assessment monitoring continued with both semiannual sampling events within both 2021 and 2022. Multiple Appendix IV constituents were observed as SSLs during 2021 and 2022. These constituents were discussed in an expansion of the 2019 ASD and were deemed to share the same applicability as those 2019 ASD constituents. A new ASD was developed and submitted to TCEQ during September 2023 as discussed in **Section 4**. The 2024 reporting period consisted of two rounds of semiannual groundwater sampling for assessment monitoring on the existing monitoring well networks. **Table 1** provides the well identification number, well gradient or use, the dates the samples were collected, and whether the sample was required by the CCR Rule for the background sampling, detection monitoring, or assessment monitoring programs.

Table 1. Dates of groundwater samples collected for each well in 2024 and the required monitoring programs for the GCSSES facility (40 CFR §257.90(e)(3))

Monitoring Well I.D.	Well Location	Dates Monitored	CCR Rule Monitoring Purpose
AP MW-1	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
AP MW-1D	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
AP MW-2	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
AP MW-3	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
AP MW-4	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
AP MW-5	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
AP MW-6	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
AP PZ-1	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
AP PZ-2	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
AP PZ-3	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
AP PZ-4	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
SSP/AP MW-1	Background/Upgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SSP MW-1	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
SSP MW-2	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SSP MW-3	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SSP MW-4	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SFL MW-2	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SFL MW-3	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SFL MW-4	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SFL MW-5	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SFL MW-6	Background/Upgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
SFL MW-7	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
MNW-11	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
MNW-15	Downgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring
MNW-16	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
MNW-17	Water Level Only	August 28-30, 2024 December 11-12, 2024	Water Level Monitoring
MNW-18	Background/Upgradient	August 28-30, 2024 December 11-12, 2024	Assessment Monitoring

5.1 Water Levels and Sample Collection

Water levels were collected at each well following the Groundwater Monitoring Plan [AFWEI, 2017]. Water levels were measured before well purging began. Wells were purged until field parameters (pH, turbidity, conductivity, dissolved oxygen, temperature, and oxidation reduction potential) stabilized. Purging and sampling was conducted using either a peristaltic pump and dedicated tubing or submersible bladder pump with disposal bladder and disposable tubing, depending on the depth of water. The results of field measurements were recorded on field data forms (**Appendix B**), which are maintained as part of the field records. After field parameters stabilized, samples were collected and analyzed for the parameters listed in **Table 2**. Two rounds of assessment monitoring samples were collected from each well in 2024 (August and December). For quality control, field duplicate samples were collected during each sampling event. During the August 2024 semiannual compliance monitoring event, a duplicate sample, AP MW-3 DUP-1, was collected from monitoring well AP MW-3. During the December 2024 semiannual compliance monitoring event, duplicate samples SSP MW-2 FD and SFL MW-7 FD were collected from monitoring wells SSP MW-2 and SFL MW-7, respectively. Groundwater samples for each 2024 semiannual compliance monitoring event was submitted under chain of custody procedures to Eurofins Environment Testing Laboratory in Dallas, Texas.

5.2 Analytical Testing

Samples were obtained for semiannual assessment monitoring in August 2024 and December 2024 and were analyzed for each Appendix III and Appendix IV parameter, as listed in **Table 2**.

Table 2. Constituents of Interest

Appendix III Constituents	Appendix IV Constituents	
Boron	Antimony	Lead
Calcium	Arsenic	Lithium
Chloride	Barium	Mercury
Fluoride	Beryllium	Molybdenum
pH ¹	Cadmium	Selenium
Sulfate	Chromium	Thallium
Total Dissolved Solids (TDS)	Cobalt	Radium 226 and 228-Combined
	Fluoride	

Note: ¹ pH measured with field instrument during sampling.

5.3 Data Validation and Data Management

Data validation was conducted to eliminate data that did not meet validation criteria and designate a data qualifier for any data quality limitation discovered. All samples and quality control were reviewed and evaluated, and no samples were rejected with the exception of monitored constituents that had elevated reporting limits (RLs) and method detection limits (MDLs) that exceeded background threshold values (BTVs). Additional discussion on the well-constituent pairs with elevated RLs and MDLs that exceeded BTVs is included in **Section 6.2**.

Laboratory qualifiers were evaluated to determine whether data was acceptable for further analysis. The following qualifiers were noted for some parameters in the Eurofins' laboratory report but did not impact the use of data for further analysis.

- H – Sample was prepped or analyzed beyond the specified holding time.
 - The holding time for laboratory analysis for pH is 15 minutes. The pH water quality parameter is measured in the field during purging activities. The pH value measured in the field is used in data and statistical analysis. The laboratory pH value is used as a backup reference for data evaluation.
 - During the August 2024 semiannual compliance monitoring event, the holding times for chloride, fluoride, mercury, sulfate, and TDS were exceeded for each site monitoring well sample. The August 2024 data was compared to historical concentrations to evaluate for outliers. The August 2024 data for these constituents were comparable to other recent monitoring events. Based on this analysis, the August 2024 data for these constituents were not excluded from the statistical database.
- 4 – MS, MSD: The analysis present in the original sample is 4 times the matrix spike concentration; therefore, control limits are not acceptable.
- J – Result is less than the RL but greater than or equal to the laboratory MDL and the concentration is an approximate value. Detections with J-flags are not considered as statistically significant results during analysis.
- U – Result is less than the sample detection limit.

According to the *Practical Guide for Ground-Water Sampling*: “Duplicate sample values which differ by less than $\pm 50\%$ relative percent difference indicates good error control” [Barcelona, 1985]. The relative percent differences (RPDs) for each constituent detected above the MDL for each duplicate pair during the August and December 2024 compliance monitoring events are summarized on **Table 3**. Each RPD value for the duplicate pairs for each 2024 semiannual compliance monitoring event was below the recommended 50 percent which indicates good error control.

Table 3. RPD Summary

August 2024 Compliance Monitoring Event				
Constituent	Units	AP MW-3	AP MW-3 DUP-1	RPD (%)
Barium	mg/L	0.0215	0.0224	4.1
Beryllium	mg/L	0.00295 J	0.00304 J	3.0
Boron	mg/L	4.53	4.72	4.1
Cadmium	mg/L	0.00349 J	0.00356 J	2.0
Calcium	mg/L	145	149	2.7
Chloride	mg/L	153	153	0.0
Cobalt	mg/L	0.0332	0.0340	2.4
Fluoride	mg/L	0.112 J	0.112 J	0.0
Mercury	mg/L	0.00177	0.00189	6.6
Radium 226 + 228	pCi/L	2.33	1.60	37.2
Sulfate	mg/L	667	665	0.3
Total Dissolved Solids	mg/L	1,230	1,250	1.6
December 2024 Compliance Monitoring Event				
Constituent	Units	SSP MW-2	SSP MW-2 FD	RPD (%)
Barium	mg/L	0.0185 J	0.0199 J	7.3
Beryllium	mg/L	0.0449	0.0488	8.3
Boron	mg/L	0.493	0.529	7.1
Calcium	mg/L	831	731	12.8
Chloride	mg/L	2,380	2,380	0.0
Cobalt	mg/L	0.0481	0.0533	10.3
Lithium	mg/L	0.154	0.144	6.7
Radium 226 + 228	pCi/L	2.99	2.99	0.0
Selenium	mg/L	0.0297	0.0319	7.1
Sulfate	mg/L	2,320	2,320	0.0
Total Dissolved Solids	mg/L	9,720	11,100	13.3
Constituent	Units	SFL MW-7	SFL MW-7 FD	RPD (%)
Barium	mg/L	0.0421	0.0415	1.4
Boron	mg/L	1.15	1.01	13.0
Calcium	mg/L	564	495	13.0
Chloride	mg/L	2,880	2,910	1.0
Radium 226 + 228	pCi/L	3.01	3.06	1.7
Sulfate	mg/L	908	917	1.0
Total Dissolved Solids	mg/L	7,020	6,360	9.9

NOTES:

J = J-flagged; 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

6 Monitoring Results

6.1 Water Levels and Groundwater Flow Direction

Site groundwater elevations at the monitoring wells are provided in **Table 6** for the August and December 2024 semiannual compliance monitoring events. Potentiometric surface maps (**Appendix A - Figures 1A-1D** and **Figure 2A-2B**) were developed based on water levels measured in August 2024 and December 2024. The maps display the groundwater elevations at the monitoring wells/piezometers and the groundwater contours for both the SFL (shallow and deep) and the SSP/AP CCR units for both August 2024 and December 2024. Groundwater elevation ranges for the SFL CCR (Shallow), SFL CCR (Deep), and SSP/AP CCR units are provided below in **Table 3**, **Table 4** and **Table 5**, respectively. Note that groundwater elevation ranges include compliance monitoring wells and piezometers.

Table 4. Site F Landfill (Shallow) – Groundwater Elevation Ranges

Sampling Event	Minimum Elevation (feet AMSL)	Maximum Elevation (feet AMSL)
August 2024	249.77 (MNW-15)	268.76 (SFL MW-6)
December 2024	248.89 (MNW-15)	268.66 (SFL MW-6)

Table 5. Site F Landfill (Deep) – Groundwater Elevation Ranges

Sampling Event	Minimum Elevation (feet AMSL)	Maximum Elevation (feet AMSL)
August 2024	247.38 (MNW-11)	262.00 (MNW-18)
December 2024	246.73 (MNW-16)	260.65 (MNW-18)

Table 6. Scrubber Sludge Pond & Ash Ponds – Groundwater Elevation Ranges

Sampling Event	Minimum Elevation (feet AMSL)	Maximum Elevation (feet AMSL)
August 2024	253.21 (AP PZ-3)	263.80 (SSP MW-1)
December 2024	252.04 (AP PZ-3)	262.93 (SSP MW-1)

Based on the variations in chemistry measured at the SFL CCR unit monitoring wells that monitor deeper groundwater versus shallower groundwater, the monitoring network was refined as part of the 2023 ASD to accurately monitor downgradient groundwater quality relative to the SFL CCR unit. For the deeper monitoring network, groundwater generally flows south to southwest, and MNW-18 is still an upgradient monitoring point relative to the SFL CCR unit. For the shallow monitoring network, groundwater generally flows south to southeast and monitoring well SFL MW-6 is generally upgradient to the SFL CCR unit.

Groundwater in the area of the SSP/AP CCR units continued to display a groundwater divide between the SSP CCR unit and the AP CCR unit for both the August 2024 and December 2024 sampling events. Based on the August 2024 and December 2024 groundwater sampling events, the general groundwater flow patterns observed are consistent with historical observations for the SSP CCR unit (flow to the south-southwest) and the AP CCR unit (flow to the east).

Table 7. Groundwater Elevations Measured in 2024

Well ID	TOC Elevation (ft AMSL)	Groundwater Elevation (ft AMSL) August 28-30, 2024	Groundwater Elevation (ft AMSL) December 11-12, 2024
AP PZ-1 ¹	265.67	257.19	255.07
AP PZ-2 ¹	274.91	255.88	253.88
AP PZ-3 ¹	259.11	253.21	252.04
AP PZ-4 ¹	273.65	260.32	261.44
AP MW-1 ¹	271.56	256.44	255.39
AP MW-1D	272.04	255.86	254.75
AP MW-2 ¹	274.97	262.82	261.35
AP MW-3	274.68	261.83	260.25
AP MW-4	274.16	259.71	258.69
AP MW-5	274.13	259.00	257.84
AP MW-6 ¹	277.78	259.87	259.27
SSP/AP MW-1	272.53	262.23	262.02
SSP MW-1 ¹	281.18	263.80	262.93
SSP MW-2	283.66	259.16	257.97
SSP MW-3	283.97	255.35	254.11
SSP MW-4	283.86	258.86	257.99
SFL MW-2	268.31	258.49	257.51
SFL MW-3	275.00	256.35	256.15
SFL MW-4	269.53	254.31	253.39
SFL MW-5	276.25	261.63	260.63
SFL MW-6	286.66	268.76	268.66
SFL MW-7	264.63	248.10	247.53
MNW-11 ¹	267.95	247.38	247.82
MNW-15	257.33	249.77	248.89
MNW-16 ¹	263.19	247.61	246.73
MNW-17 ¹	293.72	258.72	256.37
MNW-18	270.76	262.00	260.65

NOTES:

¹ Wells are Water Level Only and are not sampled as part of the CCR monitoring networks.

6.2 Water Quality

During the August and December 2024 semiannual compliance monitoring events, assessment monitoring samples were collected from the existing monitoring network wells for both the SFL CCR unit (shallow and deep) and the SSP/AP CCR units. All samples were analyzed for each Appendix III and Appendix IV constituent. Water quality data tables are included in **Appendix C** and laboratory reports are provided in **Appendix D**. In accordance with 40 CFR §257.95(e), downgradient well concentrations from the semiannual compliance monitoring events were compared against background values, and some concentrations were found to be above their

respective background values. In accordance with 40 CFR §257.95(f), detected Appendix IV concentrations in downgradient wells were compared against their respective GWPS. To determine if an exceedance of a GWPS was observed at a SSL, the 95% lower confidence limit (LCL) was calculated for each of the downgradient wells for each of the Appendix IV constituents. The data set used to calculate the LCL included the most recent eight (8) Appendix IV results from samples collected at each specific well.

Due to dilutions of some groundwater sample aliquots by the laboratory, some constituents for the August and December 2024 semiannual compliance monitoring events had RLs and/or MDLs that exceeded their respective BTV, which is used for identifying SSIs. Some well-constituent pairs also had their GWPS exceeded by the elevated laboratory RLs or MDLs. The potential impact from these elevated reporting and method detection limits are discussed further in **Section 6.2.1**, **Section 6.2.2**, and **Section 6.2.3**.

6.2.1 Site F Landfill CCR Unit – Shallow

The following section provides the comparison of August 2024 and December 2024 results to background for determination of SSIs and the LCLs compared to GWPS for determination of SSLs for the SFL CCR Unit – Shallow monitoring system. For comparison of the most recent results (August 2024 and December 2024) to background, see **Table 7** and **Table 9**. For comparison of LCLs to GWPS, see **Table 8** and **Table 10**.

Table 8. Evaluation for SSIs over Background – August 2024 (Site F Landfill - Shallow)

	BTV	Units	SFL MW-2	SFL MW-3	SFL MW-5	MNW-15	SFL MW-6
<i>Appendix III Constituents – Analytical Detections</i>							
Boron	0.62	mg/L	0.555	<u>4.87</u>	<u>6.65</u>	<u>10.3</u>	0.406
Calcium	1,510	mg/L	935	614	905	332	1,250
Chloride	4,070	mg/L	3,490	847	3,020	678	<u>6,170</u>
Fluoride*	1.16	mg/L	<1.00	0.241J	<0.500	0.927J	<1.00
pH	**3.5-4.46***	SU	<u>5.83</u>	3.77	4.18	3.55	4.02
Sulfate	2,890	mg/L	1,860	2,540	2,390	1,440	2,420
TDS	14,400	mg/L	9,530	5,070	9,280	3,770	13,100
<i>Appendix IV Constituents – Analytical Detections</i>							
Antimony	0.00108	mg/L	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375
Arsenic	0.0431	mg/L	<0.00345	<0.00345	<0.00345	0.00665J	0.0202
Barium	0.0826	mg/L	0.0292	0.0138J	0.0191J	0.0170J	0.0730
Beryllium	0.0933	mg/L	0.00546J	0.0322	0.0128	0.0847	0.0728
Cadmium	0.0144	mg/L	0.00208J	0.00464J	0.00460J	<u>0.0267</u>	0.00697J
Chromium	0.011	mg/L	<0.00280	<0.00280	<0.00280	<u>0.0146J</u>	0.00620J
Cobalt	0.136	mg/L	0.0316	0.0520	0.0525	<u>0.308</u>	<u>0.150</u>
Lead	0.0171	mg/L	0.00184J	0.0168	<0.00184	<0.00184	0.0141
Lithium	1.34	mg/L	0.231	0.0983	0.533	<0.0174	0.490
Mercury	0.00158	mg/L	0.0000860J	0.000228	0.000114J	<0.0000706	0.000222
Molybdenum	0.00061	mg/L	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128
Radium 226+228	32.6	pCi/L	8.01	4.10	13.4	0.511	16.0
Selenium	0.0525	mg/L	0.00450J	0.0167	0.0126	0.0467	<u>0.0885</u>
Thallium	0.00552	mg/L	<0.000925	0.00511J	0.00129J	<0.000925	0.00415J

NOTES:

SFL MW-6 is the background well for the Site F Landfill CCR Unit - Shallow. The results shown for SFL MW-6 are the results from the August 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSI over background. BTV's updated following the June 2023 sampling event.

Values that are in **red** indicate a MDL that is above the BTV.

J qualifier indicates that the detection is an estimated concentration above the laboratory's MDL and below the laboratory's RL. J flag concentrations are not considered statistically significant detections.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CRF Part 257)

** Indicates the lower bound of the range is the lower prediction limit (LPL).

*** Indicates the upper bound is the upper prediction limit (UPL).

As shown in **Table 7**, results of the August 2024 sampling event indicated seven (7) SSIs for the SFL CCR Unit - Shallow for boron, pH, cadmium, chromium, and cobalt in various downgradient wells. During the August 2024 compliance monitoring event, elevated RLs and MDLs were reported by the laboratory for select constituents. The MDLs for antimony and molybdenum were higher than the currently established BTVs. Historically, nearly all antimony and molybdenum concentrations at the monitoring wells listed in **Table 7** have been below laboratory RLs and/or MDLs. The few detected values for antimony, which were all J-flagged, are below the BTV listed in **Table 7**. The few detected values for molybdenum, which were all J-flagged, did exceed the BTV, however, they were not considered statistically significant and did not indicate an SSI. The current molybdenum BTV is set at the MDL that was reported for

SFL MW-6 during the June 2023 sampling event. Based on this analysis, it is assumed antimony and molybdenum concentrations during the August 2024 compliance monitoring event would not have exceeded the BTV, and that an SSI would not have been identified for these constituents. These elevated MDLs have been marked as outliers in the database in order to avoid influencing descriptive statistics at these monitoring wells and to not influence the BTV values during the next background update.

Table 9. Evaluation for SSLs over GWPS – August 2024 (Site F Landfill - Shallow)

	GWPS ^[1]	Units	SFL MW-2	SFL MW-3	SFL MW-5	MNW-15	SFL MW-6
<i>Appendix IV Constituents – Lower Confidence Levels</i>							
Antimony	0.006	mg/L	0.000967	0.000506	0.000967	0.000506	0.000967
Arsenic	0.0431 ^[2]	mg/L	0.001442	0.00297	0.001399	0.006229	0.009894
Barium	2	mg/L	0.02127	0.013	0.01663	0.01624	0.03188
Beryllium	0.0933 ^[2]	mg/L	0.001586	0.03014	0.00906	0.08027	0.04454
Cadmium	0.0144 ^[2]	mg/L	0.0009546	0.004973	0.003872	0.03154	0.003544
Chromium	0.1	mg/L	0.00153	0.00153	0.00153	0.00153	0.002476
Cobalt	0.136 ^[2]	mg/L	0.01176	0.0518	0.04564	0.3109	0.1046
Fluoride	4	mg/L	0.19	0.3428	0.08482	0.5312	0.4911
Lead	0.0171 ^[2]	mg/L	0.0003813	0.01535	0.0005002	0.000376	0.005837
Lithium	1.34 ^[2]	mg/L	0.4068	0.2406	0.5798	0.08439	0.5108
Mercury	0.002	mg/L	0.000086	0.0005937	0.000114	0.0000706	0.00013
Molybdenum	0.1	mg/L	0.00061	0.00061	0.00061	0.00061	0.00061
Radium 226+228	32.6 ^[2]	pCi/L	6.76	3.292	11.05	0.2154	12.76
Selenium	0.0525 ^[2]	mg/L	0.000739	0.0005798	0.000739	0.000739	0.000739
Thallium	0.00552 ^[2]	mg/L	0.0006204	0.005233	0.001096	0.0006432	0.003381

NOTES:

SFL MW-6 is the background well for the Site F Landfill CCR Unit - Shallow. The results shown for SFL MW-6 are the results from the August 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

As shown in **Table 8**, results of the August 2024 sampling event indicated two (2) SSLs for the SFL CCR Unit - Shallow for cadmium and cobalt in downgradient monitoring well MNW-15. The SSLs were previously detected SSLs. These SSLs were discussed in the 2019 ASD completed by Wood Environment & Infrastructure Solutions, Inc. (Wood) as part of the 2019 AGWMCAR [Wood, 2020] and within the 2023 ASD completed by HDR [HDR, 2023].

Table 10. Evaluation for SSIs over Background – December 2024 (Site F Landfill - Shallow)

	BTV	Units	SFL MW-2	SFL MW-3	SFL MW-5	MNW-15	SFL MW-6
<i>Appendix III Constituents – Analytical Detections</i>							
Boron	0.62	mg/L	<u>0.759</u>	<u>4.31</u>	<u>4.54</u>	<u>9.78</u>	<u>0.690</u>
Calcium	1,510	mg/L	548	436	639	243	1,030
Chloride	4,070	mg/L	2,380	759	2,660	648	<u>7,750</u>
Fluoride*	1.16	mg/L	<1.00	<0.500	<1.00	<0.500	<1.00
pH	**3.5-4.46***	SU	<u>6.49</u>	3.81	<u>4.51</u>	3.54	3.75
Sulfate	2,890	mg/L	1,490	2,430	2,230	1,500	2,570
TDS	14,400	mg/L	6,230	6,070	6,410	4,440	<u>15,000</u>
<i>Appendix IV Constituents – Analytical Detections</i>							
Antimony	0.00108	mg/L	<u><0.00750</u>	<u><0.00750</u>	<u><0.00750</u>	<u><0.00750</u>	<u><0.00750</u>
Arsenic	0.0431	mg/L	<0.00690	<0.00690	<0.00690	0.00911J	0.0301J
Barium	0.0826	mg/L	0.0244J	0.0148J	0.0219J	0.0179J	0.0690
Beryllium	0.0933	mg/L	<0.00271	0.0354	0.0126J	<u>0.0958</u>	<u>0.116</u>
Cadmium	0.0144	mg/L	<0.00240	0.00573J	0.00480J	<u>0.0331</u>	0.00697J
Chromium	0.011	mg/L	<0.00560	<0.00560	<0.00560	<0.00560	<u>0.0509</u>
Cobalt	0.136	mg/L	0.0148J	0.0621	0.0553	<u>0.346</u>	<u>0.225</u>
Lead	0.0171	mg/L	<0.00367	<u>0.0196J</u>	<0.00367	<0.00367	<u>0.0173J</u>
Lithium	1.34	mg/L	<0.0174	<0.0174	0.129	<0.0174	0.271
Mercury	0.00158	mg/L	<0.0000706	0.000277	0.0000790J	<0.0000706	0.000109J
Molybdenum	0.00061	mg/L	<u><0.00255</u>	<u><0.00255</u>	<u><0.00255</u>	<u><0.00255</u>	<u><0.00255</u>
Radium 226+228	32.6	pCi/L	7.99	3.92	11.6	-0.00880	20.6
Selenium	0.0525	mg/L	<0.00590	0.0251	0.0177J	<u>0.0647</u>	<u>0.171</u>
Thallium	0.00552	mg/L	<0.00415	<u>0.00596J</u>	<0.00415	<0.00415	<u>0.00616J</u>

NOTES:

SFL MW-6 is the background well for the Site F Landfill CCR Unit - Shallow. The results shown for SFL MW-6 are the results from the December 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSI over background. BTV's updated following the June 2023 sampling event.

Values that are in **red** indicate a MDL that is above the BTV.

Values that are in **red** and **double underlined** indicate MDLs that are above the well-constituent GWPS.

J qualifier indicates that the detection is an estimated concentration above the laboratory's MDL and below the laboratory's RL. J flag concentrations are not considered statistically significant detections.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257)

** Indicates the lower bound of the range is the lower prediction limit (LPL).

*** Indicates the upper bound is the upper prediction limit (UPL).

As shown in **Table 9**, results of the December 2024 sampling event indicated 12 SSIs for the SFL CCR Unit - Shallow for boron, pH, beryllium, cadmium, cobalt, lead, selenium, and thallium at various downgradient wells. During the December 2024 compliance monitoring event, elevated RLs and MDLs were reported by the laboratory for select constituents. The MDLs for antimony and molybdenum were higher than the currently established BTVs. The December 2024 MDLs for antimony were also above the GWPS for these monitoring wells. Historically, nearly all antimony and molybdenum concentrations at the monitoring wells listed in **Table 9** have been below laboratory RLs and/or MDLs. The few detected values for antimony, which were all J-flagged, are below the BTV listed in **Table 9**. The few detected values for

molybdenum, which were all J-flagged, did exceed the BTV, however, they were not considered statistically significant and did not indicate an SSI. The current molybdenum BTV is set at the MDL that was reported for SFL MW-6 during the June 2023 sampling event. Based on this analysis, it is assumed antimony and molybdenum concentrations during the December 2024 compliance monitoring event would not have exceeded the BTV, and that an SSI would not have been identified for these constituents. These elevated MDLs have been marked as outliers in the database in order to avoid influencing descriptive statistics at these monitoring wells and to not influence the BTV values during the next background update.

Table 11. Evaluation for SSLs over GWPS – December 2024 (Site F Landfill - Shallow)

	GWPS ^[1]	Units	SFL MW-2	SFL MW-3	SFL MW-5	MNW-15	SFL MW-6
<i>Appendix IV Constituents – Lower Confidence Levels</i>							
Antimony	0.006	mg/L	0.000967	0.000506	0.000967	0.000506	0.000967
Arsenic	0.0431 ^[2]	mg/L	0.00147	0.00297	0.0015	0.006407	0.01416
Barium	2	mg/L	0.02111	0.013	0.01656	0.01627	0.03606
Beryllium	0.0933 ^[2]	mg/L	0.001073	0.02994	0.009018	0.08006	0.04694
Cadmium	0.0144 ^[2]	mg/L	0.0009373	0.004979	0.003969	0.03069	0.003292
Chromium	0.1	mg/L	0.00153	0.00153	0.00153	0.00153	0.003569
Cobalt	0.136 ^[2]	mg/L	0.01087	0.05195	0.04555	0.3152	0.1148
Fluoride	4	mg/L	0.19	0.3404	0.08482	0.4004	0.4911
Lead	0.0171 ^[2]	mg/L	0.000118	0.01556	0.000434	0.000376	0.005893
Lithium	1.34 ^[2]	mg/L	0.3443	0.1937	0.441	0.06254	0.3571
Mercury	0.002	mg/L	0.0000706	0.0003531	0.000079	0.0000706	0.000109
Molybdenum	0.1	mg/L	0.00061	0.00061	0.00061	0.00061	0.00061
Radium 226+228	32.6 ^[2]	pCi/L	6.76	3.346	11.07	0.525	13.28
Selenium	0.0525 ^[2]	mg/L	0.000739	0.0001699	0.000739	0.0004147	0.000739
Thallium	0.00552 ^[2]	mg/L	0.0006204	0.005287	0.001096	0.0006432	0.005476

NOTES:

SFL MW-6 is the background well for the Site F Landfill CCR Unit - Shallow. The results shown for SFL MW-6 are the results from the December 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

As shown in **Table 10**, results of the December 2024 sampling event indicated two (2) SSLs for the SFL CCR Unit – Shallow for cadmium and cobalt in downgradient monitoring well MNW-15. The SSLs were previously detected SSLs. These SSLs were discussed in the 2019 ASD completed by Wood as part of the 2019 AGWMCAR [Wood, 2020] and within the 2023 ASD completed by HDR [HDR, 2023].

6.2.2 Site F Landfill CCR Unit – Deep

The following section provides the comparison of August 2024 and December 2024 results to background for determination of SSIs and the LCLs compared to GWPS for determination of SSLs for the SFL CCR Unit – Deep monitoring system. For comparison of the most recent results (August 2024 and December 2024) to background, see **Table 11** and **Table 13**. For comparison of LCLs to GWPS, see **Table 12** and **Table 14**.

Table 12. Evaluation for SSIs over Background – August 2024 (Site F Landfill - Deep)

	BTV	Units	SFL MW-4	SFL MW-7	MNW-18
<i>Appendix III Constituents – Analytical Detections</i>					
Boron	0.598	mg/L	<u>0.646</u>	<u>0.877</u>	0.395
Calcium	538	mg/L	<u>763</u>	473	178
Chloride	650	mg/L	<u>1,830</u>	<u>2,280</u>	270
Fluoride*	0.25	mg/L	<0.500 [^]	<0.500	<0.500
pH	**6.01-7.67***	SU	6.58	6.75	7.50
Sulfate	2,980	mg/L	2,080	651	848
TDS	4,920	mg/L	<u>6,100</u>	<u>5,020</u>	2,090
<i>Appendix IV Constituents – Analytical Detections</i>					
Antimony	0.002	mg/L	<0.00375	<0.00375	<0.00375
Arsenic	0.00282	mg/L	<0.00345	<0.00345	<0.00345
Barium	0.06	mg/L	0.0291	0.0472	<0.00671
Beryllium	0.000274	mg/L	<0.00136	<0.00136	<0.00136
Cadmium	0.000217	mg/L	<0.00120	<0.00120	<0.00120
Chromium	0.00617	mg/L	<0.00280	<0.00280	<0.00280
Cobalt	0.00226	mg/L	<0.00178	<0.00178	<0.00178
Lead	0.01	mg/L	<0.00184	<0.00184	<0.00184
Lithium	0.543	mg/L	0.209	0.284	0.185
Mercury	0.00013	mg/L	<0.0000706	<0.0000706	<0.0000706
Molybdenum	0.00061	mg/L	<0.00128	<0.00128	<0.00128
Radium 226+228	9.82	pCi/L	1.21	1.43	-0.0407
Selenium	0.01	mg/L	<0.00295	<0.00295	<0.00295

NOTES:

MNW-18 is the background well for the Site F Landfill CCR Unit - Deep. The results shown for MNW-18 are the results from the August 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSI over background. BTV's updated following the June 2023 sampling event.

Values that are in **red** indicate a MDL that is above the BTV.

J qualifier indicates that the detection is an estimated concentration above the laboratory's MDL and below the laboratory's RL. J flag concentrations are not considered statistically significant detections.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257)

** Indicates the lower bound of the range is the lower prediction limit (LPL).

*** Indicates the upper bound is the upper prediction limit (UPL).

[^] Indicates a potential SSI could have been identified had the MDL been lower and based on a review of historical data.

As shown in **Table 11**, results of the August 2024 sampling event indicated seven (7) SSIs for the SFL CCR Unit - Deep for boron, calcium, chloride, and TDS in various downgradient wells. During the August 2024 compliance monitoring event, elevated RLs and MDLs were reported by the laboratory for select constituents. The MDLs for antimony, arsenic, beryllium, cadmium,

fluoride, and molybdenum were higher than the currently established BTVs. Historically, nearly all antimony, arsenic, beryllium, cadmium, and molybdenum concentrations at the monitoring wells listed in **Table 11** have been below laboratory RLs and/or MDLs. The few detected values for antimony, which were all J-flagged, are below the BTV listed in **Table 11**. The few detected values for arsenic are below the current BTV listed in **Table 11**. For beryllium, a concentration has not been detected above laboratory RLs or MDLs since groundwater sampling commenced in 2016 at these monitoring wells. For cadmium, one J-flagged concentration was reported for monitoring well SFL MW-7 (0.000250 J milligrams per liter [mg/L]) for the September 2022 compliance monitoring event that was above the current BTV. However, the remaining cadmium concentrations at monitoring wells SFL MW-4 and SFL MW-7 were below laboratory RLs and MDLs. The few detected values for molybdenum, which were all J-flagged, did exceed the BTV, however, they were not considered statistically significant and did not indicate an SSI. The current molybdenum BTV is set at the MDL that was reported for MNW-18 during the June 2023 sampling event. Based on this analysis, it is assumed antimony, arsenic, beryllium, cadmium, and molybdenum concentrations during the August 2024 compliance monitoring event would not have exceeded the BTV, and that an SSI would not have been identified for these constituents.

For fluoride, most reported concentrations have been below laboratory RLs and MDLs with some reported detections that were either below the BTV or identified as outliers. However, a few past fluoride concentrations measured in samples collected from monitoring well SFL MW-4 were above the current BTV. It is possible the true concentration measured at monitoring well SFL MW-4 during the August 2024 compliance monitoring event could have been above the BTV and been identified as an SSI. Thus, fluoride measured at monitoring well SFL MW-4 is identified as a potential SSI for the August 2024 compliance monitoring event.

These elevated MDLs for the August 2024 compliance monitoring event have been marked as outliers in the database in order to avoid influencing descriptive statistics at these monitoring wells and to not influence the BTV values during the next background update.

Table 13. Evaluation for SSLs over GWPS – August 2024 (Site F Landfill - Deep)

	GWPS ^[1]	Units	SFL MW-4	SFL MW-7	MNW-18
<i>Appendix IV Constituents – Lower Confidence Levels</i>					
Antimony	0.006	mg/L	0.000534	0.000506	0.0014
Arsenic	0.01	mg/L	0.0005679	0.000282	0.001011
Barium	2	mg/L	0.02218	0.03272	0.003355
Beryllium	0.004	mg/L	0.000274	0.000274	0.000184
Cadmium	0.005	mg/L	0.000217	0.000217	0.000217
Chromium	0.1	mg/L	0.00153	0.00153	0.00153
Cobalt	0.006	mg/L	0.000261	0.000261	0.000261
Fluoride	4	mg/L	0.0824	0.0599	0.1109
Lead	0.015	mg/L	0.000167	0.000167	0.000167
Lithium	<u>0.543</u> ^[2]	mg/L	0.114	0.3341	0.1962
Mercury	0.002	mg/L	0.0000706	0.0000706	0.0000706
Molybdenum	0.1	mg/L	0.0009428	0.00061	0.00061
Radium 226+228	<u>9.82</u> ^[2]	pCi/L	0.7387	0.2575	1.772
Selenium	0.05	mg/L	0.000739	0.000739	0.000739
Thallium	0.002	mg/L	0.000472	0.000472	0.000472

NOTES:

MNW-18 is the background well for the Site F Landfill CCR Unit - Deep. The results shown for MNW-18 are the results from the August 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTv) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

As shown in **Table 12**, the August 2024 sampling event resulted in no SSLs for the SFL CCR Unit – Deep.

Table 14. Evaluation for SSIs over Background – December 2024 (Site F Landfill - Deep)

	BTV	Units	SFL MW-4	SFL MW-7	MNW-18
<i>Appendix III Constituents – Analytical Detections</i>					
Boron	0.598	mg/L	<u>0.727</u>	<u>1.15</u>	0.312
Calcium	538	mg/L	<u>545</u>	<u>564</u>	122
Chloride	650	mg/L	<u>1,570</u>	<u>2,880</u>	433
Fluoride*	0.25	mg/L	<1.00 [^]	<1.00	<0.500
pH	**6.01-7.67***	SU	6.21	6.39	7.01
Sulfate	2,980	mg/L	2,610	908	1,260
TDS	4,920	mg/L	<u>7,660</u>	<u>7,020</u>	3,760
<i>Appendix IV Constituents – Analytical Detections</i>					
Antimony	0.002	mg/L	< <u>0.00750</u>	< <u>0.00750</u>	< <u>0.00750</u>
Arsenic	0.00282	mg/L	<0.00690	<0.00690	<0.00690
Barium	0.06	mg/L	0.0175J	0.0421	0.0191J
Beryllium	0.000274	mg/L	<0.00271	<0.00271	<0.00271
Cadmium	0.000217	mg/L	<0.00240	<0.00240	<0.00240
Chromium	0.00617	mg/L	<0.00560	<0.00560	<0.00560
Cobalt	0.00226	mg/L	<0.00355	<0.00355	<0.00355
Lead	0.01	mg/L	<0.00367	<0.00367	<0.00367
Lithium	0.543	mg/L	<0.0868	<0.0174	0.154
Mercury	0.00013	mg/L	<0.0000706	<0.0000706	<0.0000706
Molybdenum	0.00061	mg/L	<0.00255	<0.00255	<0.00255
Radium 226+228	9.82	pCi/L	1.53	3.01	2.85
Selenium	0.01	mg/L	<0.00590	<0.00590	<0.00590
Thallium	0.002	mg/L	< <u>0.00415</u>	< <u>0.00415</u>	< <u>0.00415</u>

NOTES:

MNW-18 is the background well for the Site F Landfill CCR Unit - Shallow. The results shown for MNW-18 are the results from the December 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSI over background. BTV's updated following the June 2023 sampling event.

Values that are in **red** indicate a MDL that is above the BTV.

Values that are in **red** and **double underlined** indicate MDLs that are above the well-constituent GWPS.

J qualifier indicates that the detection is an estimated concentration above the laboratory's MDL and below the laboratory's RL. J flag concentrations are not considered statistically significant detections.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257)

** Indicates the lower bound of the range is the lower prediction limit (LPL).

*** Indicates the upper bound is the upper prediction limit (UPL).

As shown in **Table 13**, results of the December 2024 sampling event indicated eight (8) SSIs for the SFL CCR Unit - Deep for boron, calcium, chloride and TDS in various downgradient wells. During the December 2024 compliance monitoring event, elevated RLs and MDLs were reported by the laboratory for select constituents. The MDLs for antimony, arsenic, beryllium, cadmium, cobalt, fluoride, molybdenum, and thallium were higher than the currently established BTVs. The December 2024 MDLs for antimony and thallium were also above the GWPS for these monitoring wells. Historically, nearly all antimony, arsenic, beryllium, cadmium, cobalt, molybdenum, and thallium concentrations at the monitoring wells listed in **Table 13** have been below laboratory RLs and/or MDLs. The few detected values for antimony, which were all J-flagged, are below the BTV listed in **Table 13**. The few detected values for arsenic are below

the current BTV listed in **Table 13**. For beryllium, a concentration has not been detected above laboratory RLs or MDLs since groundwater sampling commenced in 2016 at these monitoring wells. For cadmium, one J-flagged concentration was reported for monitoring well SFL MW-7 (0.000250 J milligrams per liter [mg/L]) for the September 2022 compliance monitoring event that was above the current BTV. However, the remaining sample cadmium concentrations at monitoring wells SFL MW-4 and SFL MW-7 were below laboratory RLs and MDLs. There was only one detected cobalt concentration that was J-flagged and wasn't an outlier. This cobalt concentration was below the current BTV value listed on **Table 13**. The few detected values for molybdenum, which were all J-flagged, did exceed the BTV, however, they were not considered statistically significant and did not indicate an SSI. The current molybdenum BTV is set at the MDL that was reported for MNW-18 during the June 2023 sampling event. For thallium, a concentration has not been detected above laboratory RLs and MDLs with the exception of one (SFL MW-4, 0.00600 mg/L) which was identified as an outlier in the database. Based on this analysis, it is assumed antimony, arsenic, beryllium, cadmium, cobalt, molybdenum, and thallium concentrations during the December 2024 compliance monitoring event would not have exceeded the BTV, and that an SSI would not have been identified for these constituents.

For fluoride, most reported concentrations have been below laboratory RLs and MDLs with some reported detections that were either below the BTV or identified as outliers. However, a few past fluoride concentrations measured in samples collected from monitoring well SFL MW-4 were above the current BTV. It is possible the true concentration measured at monitoring well SFL MW-4 during the December 2024 could have been above the BTV and been identified as an SSI. Thus, fluoride measured at monitoring well SFL MW-4 is identified as a potential SSI for the December 2024 compliance monitoring event.

These elevated MDLs for the December 2024 compliance monitoring event have been marked as outliers in the database in order to avoid influencing descriptive statistics at these monitoring wells and to not influence the BTV values during the next background update.

Table 15. Evaluation for SSLs over GWPS – December 2024 (Site F Landfill - Deep)

	GWPS ^[1]	Units	SFL MW-4	SFL MW-7	MNW-18
<i>Appendix IV Constituents – Lower Confidence Levels</i>					
Antimony	0.006	mg/L	0.000534	0.000506	0.0014
Arsenic	0.01	mg/L	0.0005679	0.000282	0.001011
Barium	2	mg/L	0.02036	0.03367	0.003355
Beryllium	0.004	mg/L	0.000274	0.000274	0.000184
Cadmium	0.005	mg/L	0.000217	0.000217	0.000217
Chromium	0.1	mg/L	0.00153	0.00153	0.00153
Cobalt	0.006	mg/L	0.000261	0.000261	0.000261
Fluoride	4	mg/L	0.0824	0.0599	0.1109
Lead	0.015	mg/L	0.000167	0.000167	0.000167
Lithium	0.543 ^[2]	mg/L	0.05738	0.2783	0.1693
Mercury	0.002	mg/L	0.0000706	0.0000706	0.0000706
Molybdenum	0.1	mg/L	0.0009428	0.00061	0.00061
Radium 226+228	9.82 ^[2]	pCi/L	0.7724	1.873	0.2575
Selenium	0.05	mg/L	0.000739	0.000739	0.000739
Thallium	0.002	mg/L	0.000472	0.000472	0.000472

NOTES:

MNW-18 is the background well for the Site F Landfill CCR Unit - Deep. The results shown for MNW-18 are the results from the December 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

As shown in **Table 14**, the December 2024 sampling event resulted in no SSLs for the SFL CCR Unit – Deep.

6.2.3 Scrubber Sludge Pond CCR Unit & Ash Ponds CCR Unit

The following section provides the comparison of August 2024 and December 2024 results to background for determination of SSIs and the LCL compared to GWPS for determination of SSLs for the SSP CCR Unit and APs CCR Unit. For comparison of most recent results (August 2024 and December 2024) to background, see **Table 15** and **Table 17**. For comparison of LCLs to GWPS, see **Table 16** and **Table 18**.

Table 16. Evaluation for SSIs over Background – August 2024 (Scrubber and Ash Ponds)

	BTV	Units	SSP MW-2	SSP MW-3	SSP MW-4	AP MW-1D	AP MW-3	AP MW-4	AP MW-5	SSP/AP MW-1
<i>Appendix III Constituents – Analytical Detections</i>										
Boron	1.41	mg/L	0.558	<u>2.76</u>	<u>2.19</u>	<u>4.14</u>	<u>4.53</u>	1.13	<u>3.54</u>	0.742
Calcium	745	mg/L	<u>920</u>	659	555	50.1	145	400	582	649
Chloride	1,750	mg/L	<u>2,370</u>	1,480	420	74.3	153	1,050	555	1,640
Fluoride*	0.5	mg/L	<1.00	<u>0.563J</u>	<0.500	<u>1.13</u>	0.112J	<0.500	<u>2.62</u>	<0.500
pH	**5.25-6.32***	SU	<u>4.35</u>	<u>5.09</u>	6.10	<u>6.38</u>	<u>5.11</u>	<u>6.63</u>	<u>3.34</u>	5.86
Sulfate	3,300	mg/L	2,390	2,270	2,220	288	667	1,080	2,810	<u>3,760</u>
TDS	8,340	mg/L	7,850	5,710	3,870	943	1,230	3,040	5,390	7,510
<i>Appendix IV (Constituents – Analytical Detections)</i>										
Antimony	0.00157	mg/L	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<u>0.0245</u>
Arsenic	0.01	mg/L	0.00465J	0.00670J	<0.00345	<u>0.0140J</u>	<0.00345	<0.00345	<u>0.0139J</u>	<0.00345
Barium	0.19	mg/L	0.0205	0.0244	0.0271	0.0134J	0.0215	0.0207	0.00978J	0.0245
Beryllium	0.002	mg/L	<u>0.0532</u>	<u>0.0904</u>	<0.00136	<0.00136	<u>0.00295J</u>	<0.00136	<u>0.103</u>	<0.00136
Cadmium	0.000217	mg/L	<u>0.00140J</u>	<u>0.0589</u>	<0.00120	<0.00120	<u>0.00349J</u>	<0.00120	<u>0.0113</u>	<0.00120
Chromium	0.00248	mg/L	<0.00280	<u>0.00355J</u>	<0.00280^	<0.00280	<0.00280	<u>0.0793</u>	<u>0.0116J</u>	<0.00280
Cobalt	0.00174	mg/L	<u>0.0574</u>	<u>0.445</u>	<0.00178^	<0.00178^	<u>0.0332</u>	<0.00178	<u>0.205</u>	<0.00178
Lead	0.0106	mg/L	<0.00184	0.00438J	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184
Lithium	1.69	mg/L	0.481	0.289	0.757	<0.0174	<0.0174	0.749	0.414	1.40
Mercury	0.00013	mg/L	<0.0000706	<u>0.000469</u>	<0.0000706	<0.0000706	<u>0.00177</u>	<0.0000706	<u>0.000160J</u>	<0.0000706
Molybdenum	0.00199	mg/L	<0.00128	<0.00128	<0.00128	<u>0.0352</u>	<0.00128	<u>0.0366</u>	<0.00128	<u>0.00321J</u>
Radium 226+228	3.9	pCi/L	2.58	<u>29.0</u>	0.0164	0.769	2.33	1.64	2.09	1.35
Selenium	0.000739	mg/L	<u>0.0261</u>	<u>0.0221</u>	<0.00295	<0.00295	<0.00295	<0.00295	<u>0.0870</u>	<0.00295
Thallium	0.000472	mg/L	<0.000925	<u>0.00778J</u>	<0.000925	<0.000925	<0.000925	<0.000925	<u>0.00277J</u>	<0.000925

NOTES:

SSP/AP MW-1 is the background well for the Scrubber Sludge Pond CCR Unit and the Ash Ponds CCR Unit. The results shown for SSP/AP MW-1 are the results from the August 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSI over background. BTV's updated following the June 2023 sampling event.

Values that are in **red** indicate a MDL that is above the BTV.

J qualifier indicates that the detection is an estimated concentration above the laboratory's MDL and below the laboratory's RL. J flag concentrations are not considered statistically significant detections.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257)

** Indicates the lower bound of the range is the lower prediction limit (LPL).

*** Indicates the upper bound is the upper prediction limit (UPL).

^ Indicates a potential SSI could have been identified had the MDL been lower and based on a review of historical data.

As shown in **Table 15**, results of the August 2024 sampling event indicated 44 SSIs for the SSP & AP CCR Units for boron, calcium, chloride, fluoride, pH, arsenic, beryllium, cadmium, chromium, cobalt, mercury, molybdenum, radium 226+228, selenium, and thallium in various

downgradient wells. During the August 2024 compliance monitoring event, elevated RLs and MDLs were reported by the laboratory for select constituents. The MDLs for antimony, cadmium, chromium, cobalt, fluoride, selenium, and thallium for certain well-constituent pairs were higher than the currently established BTVs. Historically, nearly all antimony, cadmium, selenium, and thallium concentrations at the monitoring wells listed in **Table 15** have been below laboratory RLs and/or MDLs. The few detected values for antimony, which were all J-flagged, are below the BTV listed in **Table 15**. For wells with laboratory RLs and MDLs of cadmium above the BTV (SSP MW-4, AP MW-1D, and AP MW-4), the only previous detections, which were each J-flagged, occurred in groundwater samples collected from monitoring well AP MW-1D. Each J-flagged cadmium concentration from AP MW-1D did exceed the BTV, however, they were not considered statistically significant and did not indicate an SSI. The current BTV for cadmium is set at the MDL that was reported for SSP/AP MW-1 during the June 2023 sampling event. The few historical detected values for selenium in monitoring wells SSP MW-4, AP MW-1D, AP MW-3, and AP MW-4, which were all J-flagged, did exceed the BTV, however, they were not considered statistically significant and did not indicate an SSI. The current BTV for selenium is set at the MDL that was reported for SSP/AP MW-1 during the June 2023 sampling event. For thallium, most concentrations were qualified as J-flagged for monitoring wells SSP MW-2, SSP MW-4, AP MW-1D, AP MW-3, and AP MW-4 with the exception of concentrations measured in 2019 at monitoring well SSP MW-2. These concentrations measured in 2019 at SSP MW-2 were above the current BTV for thallium. Since 2019, thallium concentrations at SSP MW-2 have been J-flagged or below MDLs. It is assumed these low or non-detect concentrations would continue at SSP MW-2. Thus, it is assumed thallium concentrations at SSP MW-2, SSP MW-4, AP MW-1D, AP MW-3, and AP MW-4 would be below the BTV during the August 2024 compliance monitoring event and an SSI would not be identified. Based on this analysis, it is assumed antimony, cadmium, selenium, and thallium concentrations during the August 2024 compliance monitoring event would not have exceeded the BTV, and that an SSI would not have been identified for these constituents.

For wells with laboratory RLs and MDLs of chromium above the BTV (SSP MW-2, SSP MW-4, AP MW-1D, and AP MW-3), historical concentrations above the BTV have been identified for samples collected from monitoring well SSP MW-4. Due to these historical SSIs, it is possible that the true concentration in the groundwater sample collected at monitoring well SSP MW-4 during the August 2024 monitoring event could be identified as an SSI. Thus, chromium measured at monitoring well SSP MW-4 is identified as a potential SSI for the August 2024 compliance monitoring event.

For wells with laboratory RLs and MDLs of cobalt above the BTV (SSP MW-4, AP MW-1D, and AP MW-4), historical concentrations have been detected above the BTV in samples collected from monitoring wells SSP MW-4 and AP MW-1D. Due to these historical SSIs, it is possible that the true concentration in the groundwater samples collected during the August 2024 monitoring event could be identified as an SSI for wells SSP MW-4 and SP MW-1D. Thus, cobalt measured at monitoring wells SSP MW-4 and SP MW-1D have been identified as potential SSIs for the August 2024 compliance monitoring event.

For fluoride at monitoring well SSP MW-2, most reported concentrations have been below laboratory RLs and MDLs with some reported detections that were either below the BTV or identified as outliers. However, a few past fluoride concentrations were above the current BTV.

It is possible the true concentration measured at monitoring well SSP MW-2 during the August 2024 monitoring event could have been above the BTV and been identified as an SSI. Thus, fluoride measured at monitoring well SSP MW-2 is identified as a potential SSI for the August 2024 compliance monitoring event.

These elevated MDLs for the August 2024 compliance monitoring event have been marked as outliers in the database in order to avoid influencing descriptive statistics at these monitoring wells and to not influence the BTV values during the next background update.

Table 17. Evaluation for SSLs over GWPS – August 2024 (Scrubber Sludge and Ash Ponds)

	GWPS ^[1]	Units	SSP MW-2	SSP MW-3	SSP MW-4	AP MW-1D	AP MW-3	AP MW-4	AP MW-5	SSP/AP MW-1
<i>Appendix IV Constituents – Lower Confidence Levels</i>										
Antimony	0.006	mg/L	0.000506	0.000506	0.000415	0.000506	0.000506	0.000506	0.000506	0.0005227
Arsenic	0.01	mg/L	0.004646	0.00631	0.0003732	0.008472	0.00109	0.0002525	0.009552	0.001431
Barium	2	mg/L	0.017	0.02152	0.01948	0.0127	0.02007	0.01297	0.00978	0.0245
Beryllium	0.004	mg/L	<u>0.04689</u>	<u>0.0905</u>	0.000274	0.000274	0.002521	0.000204	<u>0.05949</u>	0.0004673
Cadmium	0.005	mg/L	0.0007775	<u>0.05692</u>	0.000217	0.0002726	0.003463	0.000217	<u>0.006489</u>	0.000217
Chromium	0.1	mg/L	0.00153	0.001514	0.00176	0.00153	0.00153	0.00153	0.00153	0.00153
Cobalt	0.006	mg/L	<u>0.04622</u>	<u>0.4622</u>	0.000261	<u>0.006081</u>	<u>0.02702</u>	0.000261	<u>0.1333</u>	0.000261
Fluoride	4	mg/L	0.2346	0.3863	0.0444	0.6453	0.054	0.0488	1.408	0.04439
Lead	0.015	mg/L	0.0004217	0.003247	0.000161	0.000167	0.0001282	0.000167	0.00184	0.0002489
Lithium	1.69 ^[2]	mg/L	0.5535	0.4428	0.5333	0.01876	0.03668	0.3204	0.3832	1.15
Mercury	0.002	mg/L	0.0000706	0.0001392	0.0000706	0.0000706	0.0004444	0.0000706	0.0002744	0.0000706
Molybdenum	0.1	mg/L	0.00061	0.00061	0.0008972	0.02591	0.00061	0.00061	0.00061	0.0005618
Radium 226+228	5	pCi/L	2.358	<u>28.28</u>	1.648	0.6734	1.37	0.5673	1.168	0.887
Selenium	0.05	mg/L	0.000739	0.000739	0.000739	0.00154	0.000739	0.000739	0.000739	0.000739
Thallium	0.002	mg/L	0.000472	<u>0.007311</u>	0.000472	0.00031	0.000267	0.000172	<u>0.002125</u>	0.000206

NOTES:

SSP/AP MW-1 is the background well for both the Scrubber Sludge Pond CCR Unit and the Ash Ponds CCR Unit. The results shown for SSP/AP MW-1 are the results from the August 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

As shown in **Table 16**, results of the August 2024 sampling event indicated 13 SSLs for the SSP & AP CCR Units for beryllium, cadmium, cobalt, radium 226+228, and thallium in various downgradient wells. These SSLs were discussed in the 2019 ASD completed by Wood as part of the 2019 AGWMCAR [Wood, 2020] and within the 2023 ASD completed by HDR [HDR, 2023].

Table 18. Evaluation for SSIs over Background – December 2024 (Scrubber and Ash Ponds)

	BTV	Units	SSP MW-2	SSP MW-3	SSP MW-4	AP MW-1D	AP MW-3	AP MW-4	AP MW-5	SSP/AP MW-1
Appendix III Constituents – Analytical Detections										
Boron	1.41	mg/L	0.493	4.07	1.35	4.50	4.65	2.63	3.38	1.00
Calcium	745	mg/L	831	603	411	54.6	137	457	548	448
Chloride	1,750	mg/L	2,380	1,390	1,150	88.8	140	446	631	1,570
Fluoride*	0.5	mg/L	<1.00^	<1.00^	<0.500	0.744	<0.100	<0.500	2.79	<1.00
pH	**5.25-6.32***	SU	4.78	4.73	6.16	6.15	5.08	5.71	3.53	5.73
Sulfate	3,300	mg/L	2,320	2,510	1,250	366	644	2,280	3,580	3,400
TDS	8,340	mg/L	9,720	4,560	5,700	1,060	1,780	4,400	5,760	7,640
Appendix IV (Constituents – Analytical Detections)										
Antimony	0.00157	mg/L	<0.00750	<0.00750	<0.00375	<0.00375	<0.00375	<0.00750	<0.00375	<0.00750
Arsenic	0.01	mg/L	<0.00690	0.00714J	<0.00345	0.0121J	<0.00345	<0.00690	0.0210	<0.00690
Barium	0.19	mg/L	0.0185J	0.0184J	0.0195J	0.0108J	0.0211	0.0183J	0.0102J	0.0296J
Beryllium	0.002	mg/L	0.0449	0.0977	<0.00136	<0.00136	0.00269J	<0.00271	0.115	<0.00271
Cadmium	0.000217	mg/L	<0.00240^	0.0476	<0.00120	<0.00120	0.00383J	<0.00240	0.0120	<0.00240
Chromium	0.00248	mg/L	<0.00560	<0.00560^	0.0111J	<0.00280	<0.00280	<0.00560^	<0.00280^	<0.00560
Cobalt	0.00174	mg/L	0.0481	0.461	<0.00178^	0.00898J	0.0370	<0.00355	0.232	<0.00355
Lead	0.0106	mg/L	<0.00367	0.00454J	<0.00184	<0.00184	<0.00184	<0.00367	<0.00184	<0.00367
Lithium	1.69	mg/L	0.154	0.350	0.772	<0.0174	<0.174	0.517	0.263	1.51
Mercury	0.00013	mg/L	<0.0000706	<0.0000706	<0.0000706	<0.0000706	0.00140	<0.0000706	0.000883	<0.0000706
Molybdenum	0.00199	mg/L	<0.00255	<0.00255	0.0118	0.0337	<0.00128	<0.00255	<0.00128	<0.00255
Radium 226+228	3.9	pCi/L	2.99	34.0	4.74	1.67	3.42	1.20	1.31	1.14
Selenium	0.000739	mg/L	0.0297	0.0467	<0.00295	<0.00295	<0.00295	<0.00590	0.220	<0.00590
Thallium	0.000472	mg/L	<0.00415	0.00760J	<0.00208	<0.00208	<0.00208	<0.00415	0.00263J	<0.00415

NOTES:

SSP/AP MW-1 is the background well for the Scrubber Sludge Pond CCR Unit and the Ash Ponds CCR Unit. The results shown for SSP/AP MW-1 are the results from the December 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSI over background. BTV's updated following the June 2023 sampling event.

Values that are in **red** indicate a MDL that is above the BTV.

Values that are in **red** and **double underlined** indicate MDLs that are above the well-constituent GWPS.

J qualifier indicates that the detection is an estimated concentration above the laboratory's MDL and below the laboratory's RL. J flag concentrations are not considered statistically significant detections.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257)

** Indicates the lower bound of the range is the lower prediction limit (LPL).

*** Indicates the upper bound is the upper prediction limit (UPL).

^ Indicates a potential SSI could have been identified had the MDL been lower and based on a review of historical data.

As shown in **Table 17**, results of the December 2024 sampling event indicated 41 SSIs for the SSP & AP CCR Units for boron, calcium, chloride, pH, sulfate, TDS, arsenic, beryllium, cadmium, chromium, cobalt, fluoride, mercury, molybdenum, radium 226+228, selenium, and thallium in various downgradient wells. During the December 2024 compliance monitoring event, elevated RLs and MDLs were reported by the laboratory for select constituents. The MDLs for antimony, beryllium, cadmium, chromium, cobalt, fluoride, molybdenum, selenium, and thallium for certain well-constituent pairs were higher than the currently established BTVs. The December 2024 MDLs for antimony and thallium were also above the GWPS for select well-constituent pairs. Historically, nearly all antimony, beryllium, molybdenum, selenium, and

thallium concentrations at the monitoring wells listed in **Table 17** with elevated MDLs above BTVs have been below laboratory RLs and/or MDLs. The few detected values for antimony, which were all J-flagged, are below the BTV listed in **Table 17**. For beryllium at monitoring well AP MW-4, each concentration detected above the MDL is below the current BTV listed in **Table 17**. For molybdenum at monitoring wells SSP MW-2, SSP MW-3, and AP MW-4, each concentration detected above the MDL and was not identified as an outlier was below the current BTV listed in **Table 17**. The few historical detected values for selenium in monitoring wells SSP MW-4, AP MW-1D, AP MW-3, and AP MW-4, which were all J-flagged, did exceed the BTV, however, they were not considered statistically significant and did not indicate an SSI. The current BTV for selenium is set at the MDL that was reported for SSP/AP MW-1 during the June 2023 sampling event. For thallium, most concentrations were qualified as J-flagged for monitoring wells SSP MW-2, SSP MW-4, AP MW-1D, AP MW-3, and AP MW-4 with the exception of concentrations measured in 2019 at monitoring well SSP MW-2. These concentrations measured in 2019 at SSP MW-2 were above the current BTV for thallium. Since 2019, thallium concentrations at SSP MW-2 have been J-flagged or below MDLs. It is assumed these low or non-detect concentrations would continue at SSP MW-2. Thus, it is assumed thallium concentrations at SSP MW-2, SSP MW-4, AP MW-1D, AP MW-3, and AP MW-4 would be below the BTV during the December 2024 compliance monitoring event and an SSI would not be identified. Based on this analysis, it is assumed antimony, beryllium, molybdenum, selenium, and thallium concentrations during the December 2024 compliance monitoring event would not have exceeded the BTV, and that an SSI would not have been identified for these constituents.

For wells with laboratory RLs and MDLs of cadmium above the BTV (SSP MW-2, SSP MW-4, AP MW-1D, and AP MW-4), the only previous detections occurred in groundwater samples collected from monitoring wells SSP MW-2 and AP MW-1D. Each cadmium concentration from AP MW-1D has been J-flagged and was not considered statistically significant or identified as an SSI. For SSP MW-2, past detections have been identified as SSIs. Due to these historical SSIs, it is possible that the true concentration in the groundwater sample collected at monitoring well SSP MW-2 during the December 2024 compliance monitoring event could be identified as an SSI. Thus, cadmium measured at monitoring well SSP MW-2 is identified as a potential SSI for the December 2024 compliance monitoring event.

For wells with laboratory RLs and MDLs of chromium above the BTV (SSP MW-2, SSP MW-3, AP MW-1D, AP MW-3, AP MW-4, and AP MW-5), historical concentrations above the BTV have been identified for samples collected from monitoring wells SSP MW-3, AP MW-4, and AP MW-5. Due to these historical SSIs, it is possible that the true concentration in the groundwater samples collected at monitoring wells SSP MW-3, AP MW-4, and AP MW-5 during the December 2024 monitoring event could be identified as SSIs. Thus, chromium measured at monitoring wells SSP MW-3, AP MW-4, and AP MW-5 are identified as potential SSIs for the December 2024 compliance monitoring event.

For wells with laboratory RLs and MDLs of cobalt above the BTV (SSP MW-4 and AP MW-4), historical concentrations have been detected above the BTV in samples collected from monitoring well SSP MW-4. Due to these historical SSIs, it is possible that the true concentration in the groundwater samples collected during the December 2024 monitoring event could be identified as an SSI for well SSP MW-4. Thus, cobalt measured at monitoring

well SSP MW-4 has been identified as a potential SSI for the December 2024 compliance monitoring event.

For fluoride at monitoring wells SSP MW-2 and SSP MW-3, most reported concentrations have been below laboratory RLs and MDLs with some reported detections that were either below the BTV or identified as outliers. However, a few past fluoride concentrations were above the current BTV. It is possible the true concentration measured at monitoring wells SSP MW-2 and SSP MW-3 during the December 2024 monitoring event could have been above the BTV and been identified as an SSI. Thus, fluoride measured at monitoring wells SSP MW-2 and SSP MW-3 are identified as potential SSIs for the December 2024 compliance monitoring event.

These elevated MDLs for the December 2024 compliance monitoring event have been marked as outliers in the database in order to avoid influencing descriptive statistics at these monitoring wells and to not influence the BTV values during the next background update.

Table 19. Evaluation for SSLs over GWPS – December 2024 (Scrubber Sludge and Ash Ponds)

	GWPS ^[1]	Units	SSP MW-2	SSP MW-3	SSP MW-4	AP MW-1D	AP MW-3	AP MW-4	AP MW-5	SSP/AP MW-1
<i>Appendix IV Constituents – Lower Confidence Levels</i>										
Antimony	0.006	mg/L	0.000506	0.000506	0.000415	0.000506	0.000506	0.000506	0.000506	0.0005227
Arsenic	0.01	mg/L	0.004578	0.00631	0.0003425	0.009173	0.00109	0.000366	<u>0.01149</u>	0.001439
Barium	2	mg/L	0.017	0.02009	0.01927	0.01216	0.01992	0.0135	0.00978	0.0245
Beryllium	0.004	mg/L	<u>0.04455</u>	<u>0.08952</u>	0.000274	0.000274	0.002626	0.000204	<u>0.07463</u>	0.0005143
Cadmium	0.005	mg/L	0.000775	<u>0.0515</u>	0.000217	0.0002726	0.0034	0.000217	<u>0.007517</u>	0.000217
Chromium	0.1	mg/L	0.00153	0.001374	0.001547	0.00153	0.00153	0.00153	0.00153	0.00153
Cobalt	0.006	mg/L	<u>0.04577</u>	<u>0.4487</u>	0.000261	0.005448	<u>0.02714</u>	0.000261	<u>0.1535</u>	0.000261
Fluoride	4	mg/L	0.2346	0.3863	0.0444	0.6763	0.054	0.0488	1.68	0.04439
Lead	0.015	mg/L	0.0003838	0.003211	0.000161	0.000167	0.000167	0.000167	0.00184	0.0001712
Lithium	1.69 ^[2]	mg/L	0.3768	0.3906	0.5401	0.01836	0.0315	0.271	0.339	1.236
Mercury	0.002	mg/L	0.0000706	0.00007816	0.0000706	0.0000706	0.0007682	0.0000706	0.0002875	0.0000706
Molybdenum	0.1	mg/L	0.00061	0.00061	0.0005381	0.02973	0.00061	0.00061	0.00061	0.0005618
Radium 226+228	5	pCi/L	2.579	<u>28.51</u>	1.429	0.674	1.456	0.5756	1.31	0.8446
Selenium	0.05	mg/L	0.000739	0.000739	0.000739	0.00154	0.000739	0.000739	0.000739	0.000739
Thallium	0.002	mg/L	0.000472	<u>0.006927</u>	0.000472	0.00031	0.000267	0.000172	<u>0.002182</u>	0.000206

NOTES:

SSP/AP MW-1 is the background well for both the Scrubber Sludge Pond CCR Unit and the Ash Ponds CCR Unit. The results shown for SSP/AP MW-1 are the results from the December 2024 sampling event and are not compared against background.

Bold and underlined concentration indicates an SSL over the GWPS.

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the background threshold value (BTV) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

As shown in **Table 18**, results of the December 2024 sampling event indicated 13 SSLs for the SSP & AP CCR Units for arsenic, beryllium, cadmium, cobalt, radium 226+228, and thallium in various downgradient wells. These SSLs were discussed in the 2019 ASD completed by Wood as part of the 2019 AGWMCAR [Wood, 2020] and within the 2023 ASD completed by HDR [HDR, 2023].

7 Summary

The following observations are based on CCR Rule compliance groundwater monitoring program development during 2024 and planned activities during the 2025 monitoring period:

- CCR material removed from the SSP/AP CCR units, coal from the coal pile storage area, and excavated material from the coal pile stormwater runoff devices have been placed within the SFL CCR unit, which was closed as described in **Section 2**. The capping system construction activities associated with the SFL CCR unit were completed on October 9, 2024.
- Water levels were measured at all monitoring wells during the compliance monitoring events conducted in August 2024 and December 2024. Potentiometric surfaces were contoured for the SFL CCR unit (shallow and deep) and the SSP/AP CCR units for both August 2024 and December 2024. Potentiometric surface maps are provided in **Appendix A**.
- All 16 wells of the existing well network for both the SFL CCR unit (shallow and deep) and SSP/AP CCR units were sampled in August 2024 for the assessment monitoring event. Assessment monitoring data was statistically evaluated, and SSLs above the GWPS were observed at multiple monitoring wells as provided in **Table 8, Table 12** and **Table 16**.
- All 16 wells of the existing well network for both the SFL CCR unit (shallow and deep) and SSP/AP CCR units were sampled in December 2024 for the assessment monitoring event. Assessment monitoring data was statistically evaluated, and SSLs above the GWPS were observed at multiple monitoring wells as provided in **Table 10, Table 14** and **Table 18**.
- No new SSLs have been observed during the 2024 reporting period.
- The status of the GCSES at the end of 2024 is assessment monitoring. The next semiannual compliance sampling event at the SFL CCR unit (shallow and deep) and SSP/AP CCR units is anticipated to occur in spring 2025.
- GCERG is in the process of expanding the groundwater monitoring networks for the SFL CCR unit (shallow and deep) and SSP/AP CCR units as noted in **Section 4**. In addition to the monitoring network expansions, additional hydrogeological assessment work is being planned to gather information to further evaluate the ASD for the Site. Planning and coordination between GCERG and TCEQ is ongoing regarding the expanded well network and hydrogeological assessment work. Monitoring well installation and hydrogeological assessment activities are tentatively planned for early 2025.
- Pending concurrence from TCEQ, background groundwater sampling activities are proposed to be conducted at the newly installed monitoring wells for the SFL CCR unit (shallow and deep) and SSP/AP CCR units in accordance with the October 22, 2024 workplan.

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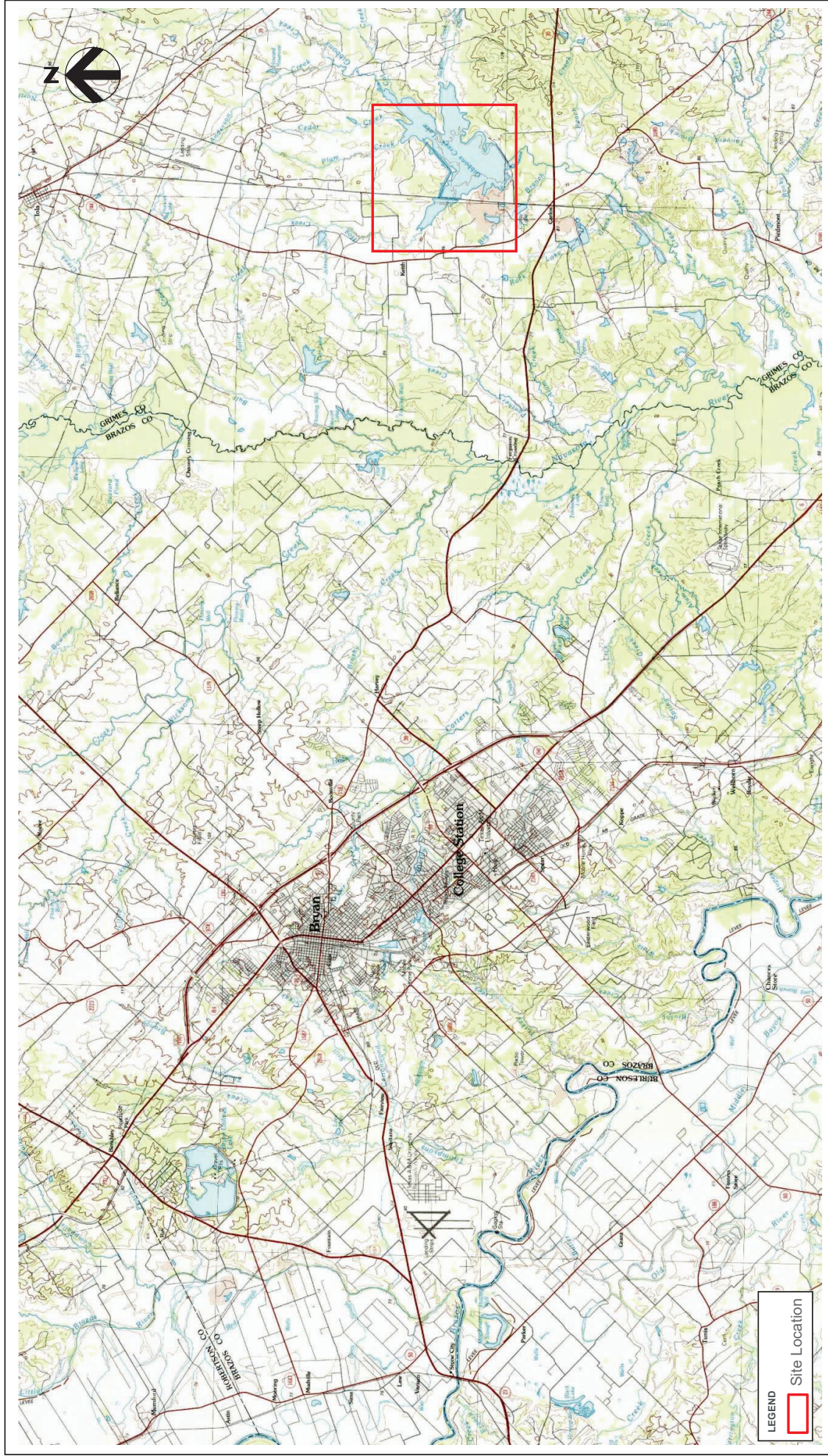


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Appendix A

Monitoring Networks & Potentiometric Surface Maps

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HDR

Firm Registration No. F-754

17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400



[Signature]

January 31, 2025



GIBBONS CREEK STEAM ELECTRIC STATION GC ENVIRONMENTAL REDEVELOPMENT GROUP SITE LOCATION MAP

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

DATE JANUARY 2025
FIGURE
FIGURE 0

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LEGEND:



MONITORING WELL

WASTE BOUNDARY

HDR

Firm Registration No. F-754

17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400



[Signature]
January 31, 2025



GIBBONS CREEK STEAM ELECTRIC STATION GCSES ENVIRONMENTAL REDEVELOPMENT GROUP MONITORING NETWORK - SITE F LANDFILL

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

DATE
JANUARY 2025
FIGURE
FIGURE 1

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LEGEND:

- MONITORING WELL
- WASTE BOUNDARY
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- FLOW DIRECTION

NOTES:

1. ALL ELEVATIONS RECORDED AS ABOVE MEAN SEA LEVEL.
2. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO WELLS SCREENED BELOW CONFINING LAYER.
3. WELLS USED FOR GENERATION OF CONTOURS ARE SCREENED ABOVE THE CONFINING LAYER. WELLS UTILIZED ARE:
 - SFL MW-2
 - SFL MW-3
 - SFL MW-5
 - SFL MW-6
 - MNW-15
4. GROUNDWATER CONTOURS ARE DEVELOPED IN CONJUNCTION WITH SURFACE WATER EVELVATIONS OF THE GIBBONS CREEK RESERVOIR. DATA OBTAINED FROM WATER DATA FOR TEXAS.ORG. SURFACE WATER ELEVATION = 246 FEET AMSL.



HDR

Firm Registration No. F-754

17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400



January 31, 2025



GIBBONS CREEK STEAM ELECTRIC STATION
GCSES ENVIRONMENTAL REDEVELOPMENT GROUP
SITE F LANDFILL - AUGUST 2024 CONTOUR MAP
SHALLOW

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

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LEGEND:

- MONITORING WELL
- WASTE BOUNDARY
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- FLOW DIRECTION

NOTES:

1. ALL ELEVATIONS RECORDED AS ABOVE MEAN SEA LEVEL.
2. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO WELLS SCREENED ABOVE CONFINING LAYER.
3. WELLS USED FOR GENERATION OF CONTOURS ARE SCREENED BELOW THE CONFINING LAYER. WELLS UTILIZED ARE:
 - SFL MW-4
 - SFL MW-7
 - MNW-11
 - MNW-16
 - MNW-17
 - MNW-18
4. GROUNDWATER CONTOURS ARE DEVELOPED IN CONJUNCTION WITH SURFACE WATER ELEVATIONS OF THE GIBBONS CREEK RESERVOIR. DATA OBTAINED FROM WATER DATA FOR TEXAS.ORG. SURFACE WATER ELEVATION = 246 FEET AMSL.



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GIBBONS CREEK STEAM ELECTRIC STATION
GCSES ENVIRONMENTAL REDEVELOPMENT GROUP
SITE F LANDFILL - AUGUST 2024 CONTOUR MAP
DEEP

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

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LEGEND:

- MONITORING WELL
- WASTE BOUNDARY
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- FLOW DIRECTION

NOTES:

1. ALL ELEVATIONS RECORDED AS ABOVE MEAN SEA LEVEL.
2. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO WELLS SCREENED BELOW CONFINING LAYER.
3. WELLS USED FOR GENERATION OF CONTOURS ARE SCREENED ABOVE THE CONFINING LAYER. WELLS UTILIZED ARE:
 - SFL MW-2
 - SFL MW-3
 - SFL MW-5
 - SFL MW-6
 - MNW-15
4. GROUNDWATER CONTOURS ARE DEVELOPED IN CONJUNCTION WITH SURFACE WATER EVELVATIONS OF THE GIBBONS CREEK RESERVOIR. DATA OBTAINED FROM WATER DATA FOR TEXAS.ORG. SURFACE WATER ELEVATION = 245 FEET AMSL.



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January 31, 2025



GIBBONS CREEK STEAM ELECTRIC STATION
GCSES ENVIRONMENTAL REDEVELOPMENT GROUP
SITE F LANDFILL - DECEMBER 2024 CONTOUR MAP - SHALLOW

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

DATE
JANUARY 2025
FIGURE
FIGURE 1C

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LEGEND:

- MONITORING WELL
- WASTE BOUNDARY
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- FLOW DIRECTION

NOTES:

1. ALL ELEVATIONS RECORDED AS ABOVE MEAN SEA LEVEL.
2. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO WELLS SCREENED ABOVE CONFINING LAYER.
3. WELLS USED FOR GENERATION OF CONTOURS ARE SCREENED BELOW THE CONFINING LAYER. WELLS UTILIZED ARE:
 - SFL MW-4
 - SFL MW-7
 - MNW-11
 - MNW-16
 - MNW-17
 - MNW-18
4. GROUNDWATER CONTOURS ARE DEVELOPED IN CONJUNCTION WITH SURFACE WATER ELEVATIONS OF THE GIBBONS CREEK RESERVOIR. DATA OBTAINED FROM WATER DATA FOR TEXAS ORG. SURFACE WATER ELEVATION = 245 FEET AMSL.



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January 31, 2025



GIBBONS CREEK STEAM ELECTRIC STATION
GCSES ENVIRONMENTAL REDEVELOPMENT GROUP
SITE F LANDFILL - DECEMBER 2024 CONTOUR MAP - DEEP

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

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LEGEND:



MONITORING WELL

POND BOUNDARIES

HDR

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[Signature]

January 31, 2025

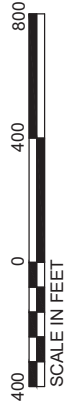
HDR

**GIBBONS CREEK STEAM ELECTRIC STATION
GCSES ENVIRONMENTAL REDEVELOPMENT GROUP
MONITORING NETWORK - ASH PONDS/SCRUBBER SLUDGE**

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

DATE
JANUARY 2025
FIGURE
FIGURE 2

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LEGEND:

- MONITORING WELL
- POND BOUNDARIES
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- FLOW DIRECTION

NOTES:

1. ALL ELEVATIONS RECORDED AS ABOVE MEAN SEA LEVEL.
2. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO ANOMALOUS VALUE COMPARED TO SURROUNDING WELLS.
3. GROUNDWATER CONTOURS ARE DEVELOPED IN CONJUNCTION WITH SURFACE WATER ELEVATIONS OF THE GIBBONS CREEK RESERVOIR. DATA OBTAINED FROM WATER DATA TEXAS.ORG. SURFACE WATER ELEVATION = 246 FEET AMSL.



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January 31, 2025

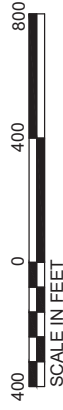


GIBBONS CREEK STEAM ELECTRIC STATION
GCSES ENVIRONMENTAL REDEVELOPMENT GROUP
ASH PONDS/SCRUBBER SLUDGE - AUGUST 2024 CONTOUR MAP

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

DATE
JANUARY 2025
FIGURE
FIGURE 2A

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LEGEND:

- MONITORING WELL
- POND BOUNDARIES
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- FLOW DIRECTION

NOTES:

1. ALL ELEVATIONS RECORDED AS ABOVE MEAN SEA LEVEL.
2. " * " DENOTES STATIC WATER LEVEL WAS NOT UTILIZED IN GENERATION OF GROUNDWATER CONTOUR MAP DUE TO ANOMALOUS VALUE COMPARED TO SURROUNDING WELLS.
3. GROUNDWATER CONTOURS ARE DEVELOPED IN CONJUNCTION WITH SURFACE WATER ELEVATIONS OF THE GIBBONS CREEK RESERVOIR. DATA OBTAINED FROM WATER DATA TEXAS.ORG. SURFACE WATER ELEVATION = 245 FEET AMSL.



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January 31, 2025



**GIBBONS CREEK STEAM ELECTRIC STATION
GCSES ENVIRONMENTAL REDEVELOPMENT GROUP
ASH PONDS/SCRUBBER SLUDGE - DECEMBER 2024 CONTOUR MAP**

2024 GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

DATE
JANUARY 2025
FIGURE
FIGURE 2B

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Appendix B

Field Forms

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Sampler:

Dave Vogel

Date:

8/28/24 - 8/30/24

Equipment:

Geotech 100'

Decontamination: Alconox with DI Rinse

Well	Water Level below TOC	Bottom of Casing	Previous Water Level Below TOC (11/14/2023)	Previous Water Level Below TOC (6/26/2023)	Notes
AP PZ-1	8.48		10.88	7.81	Water Level Only
AP PZ-2	19.03		21.31	18.31	Water Level Only
AP PZ-3	5.90		8.15	6.70	Water Level Only
AP PZ-4	13.73		13.83	14.45	Water Level Only
AP MW-1	15.12		18.22	17.22	Water Level Only
AP MW-10	16.18		19.18	18.08	
AP MW-2	12.15		14.07	11.29	Water Level Only
AP MW-3	12.85		15.62	13.66	
AP MW-4	14.45		17.17	16.25	
AP MW-5	15.13		18.38	17.51	
AP MW-6	17.91		19.70	19.10	Water Level Only
SSP/AP MW-1	10.30		11.13	11.26	
SSP MW-1	17.38	17.38	18.45	17.21	Water Level Only
SSP MW-2	24.50		25.48	23.80	
SSP MW-3	28.30		29.15	27.15	
SSP MW-4	25.00		25.89	25.21	
SFL MW-2	9.82		11.02	9.70	
SFL MW-3	18.65		18.19	17.72	
SFL MW-4	15.22		16.01	14.59	
SFL MW-5	14.62		15.78	14.43	
SFL MW-6	17.90		17.98	18.58	
SFL MW-7	16.53		16.06	14.06	
MNW-11	20.57		20.21	20.60	Water Level Only
MNW-15	7.56		6.91	4.83	
MNW-16	15.58		16.06	15.05	Water Level Only
MNW-17	35.00		34.63	34.63	Water Level Only
MNW-18	8.76		11.04	8.97	

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station	Sampler Name(s): Mattison Barickman and Emma Foley
MW Identification: SSP AP MW 1	Date/Time: 8/28 10:20
Sample Number: 1	PID Readings: N/A
Weather Conditions: Sunny 93°	
Wellhead Inspection:	

Visual Inspection:

1. Survey Mark Present:	<u>Yes / No</u>	5. Standing/Ponded Water:	<u>Yes / No</u>
2. Collision/Vandalism Damage:	<u>Yes / No</u>	6. Frost Heaving:	<u>Yes / No</u>
3. Casing Degradation:	<u>Yes / No</u>	7. Lock in Place:	<u>Yes / No</u>
4. Well Subsidence:	<u>Yes / No</u>		

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.])	<u>10.30</u>	7. Purge Rate (mL/min)	<u>100 mL/min → 300 mL/min</u>
2. Intake Depth (±0.01 ft.)	<u>42.0</u>	8. Water Level Measuring Equip.	<u>bestech</u>
3. Bottom of casing (±0.01 ft.)	<u>42.2</u>	9. Purge Equipment Used	<u>Peristaltic</u>
4. Casing Diameter (inches)	<u>2</u>	10. Dedicated? (Yes/No)	<u>Yes / No</u>
5. Actual Volume of Water Purged (mL)	<u>4,800</u>	11. Immiscible layer observed	<u>Yes / No</u>
6. Purge Water Characteristics:		12. Thickness of immiscible layer	<u>N/A</u>
Odor: <u>None</u>	Turbidity: <u>Low</u>	13. Drive Gas (Air/Nitrogen)	<u>AIR / NITROGEN / N/A</u>
Color: <u>Clear</u>			

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
10:26	100 mL	25.2	9132	102.4	4.12	1.42	5.97	11.45	
10:36	1,000	25.5	9166	102.5	3.99	1.07	5.97	11.70	
10:41	1,500	23.6	9128	102.7	3.58	136.7	5.96	12.70	
10:44	2,100	23.8	9120	102.7	3.46	133.2	5.97	13.32	
10:47	3,000	23.9	9121	102.5	3.42	102.5	5.97	13.80	
10:50	3,900	23.9	9120	102.6	3.41	7.63	5.94	14.18	
10:53	4,800	24.0	9120	102.6	2.72	7.62	5.86	14.50	

1. Well evacuated to dryness?	<u>Yes / No</u>	7. Time to recharge (min):	<u>N/A</u>	11. Decontamination Procedures:	
2. Sample Filtered?	<u>Yes / No</u>	8. Sample Time:	<u>10:55</u>	Alconox/DI Rinse	
3. Sampling Equip. Used	<u>Peristaltic</u>	9. Parameter/Container/Pres.	<u>See Attached COC</u>	12. Instrument type: YSI ProDSS	
4. Drive Gas (Air/Nitrogen)	<u>AIR / NITROGEN / N/A</u>			Calibration Date:	<u>LAB</u>
5. Sample Rate (mL/min)	<u>300</u>			Calibration Time:	<u>LAB</u>
6. Sample Appearance:				Std.	Reading
Turbidity	<u>Low</u>	10. Other Information:			Adjust.
Color	<u>Clear</u>			pH	
Odor	<u>None</u>			Conduct.	
				ORP	See attached Lab Form for Calibration Data
				D.O.	
				Turbidity	

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station	Sampler Name(s): Mattison Barickman and Emma Foley
MW Identification: SSP MW-3	Date/Time: 7/28 2:05
Sample Number: 3	PID Readings: N/A
Weather Conditions: Sunny 44°	
Wellhead Inspection:	

Visual Inspection:

1. Survey Mark Present:	Yes / No	5. Standing/Ponded Water:	Yes / No
2. Collision/Vandalism Damage:	Yes / No	6. Frost Heaving:	Yes / No
3. Casing Degradation:	Yes / No	7. Lock in Place:	Yes / No
4. Well Subsidence:	Yes / No		

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet (ft.))	28.30	7. Purge Rate (mL/min)	300
2. Intake Depth (±0.01 ft.)	45.20	8. Water Level Measuring Equip.	Geotech
3. Bottom of casing (±0.01 ft.)	48.20	9. Purge Equipment Used	Bladder
4. Casing Diameter (inches)	2	10. Dedicated? (Yes/No)	Yes / No
5. Actual Volume of Water Purged (mL)	4500	11. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:		12. Thickness of immiscible layer	N/A
Odor: None	Turbidity: clear	13. Drive Gas (Air/Nitrogen)	AIR / NITROGEN / N/A
Color: clear			

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
14:13	—	22.6	7468	24.3	3.64	17.88	5.18	28.69	
14:16	900	26.2	7951	114.6	1.23	203.17	4.76	29.02	
14:19	1800	24.7	7209	113.1	1.41	139.42	5.08	29.41	
14:22	2700	24.8	6619	110.9	1.92	163.61	5.16	29.65	
14:25	3600	25.1	6754	111.9	1.99	208.17	5.11	29.64	
14:28	4500	25.2	6849	113.9	1.60	220.41	5.09	29.78	

1. Well evacuated to dryness?	Yes / No	7. Time to recharge (min):	N/A	11. Decontamination Procedures:	Alconox/DI Rinse
2. Sample Filtered?	Yes / No	8. Sample Time:	24:30	12. Instrument type: YSI ProDSS	
3. Sampling Equip. Used	Bladder	9. Parameter/Container/Pres.	See Attached COC	Calibration Date:	LAB
4. Drive Gas (Air/Nitrogen)	AIR/NITROGEN/N/A			Calibration Time:	LAB
5. Sample Rate (mL/min)	300			Std.	Reading Adjust.
6. Sample Appearance:		10. Other Information:		pH	
Turbidity	clear			Conduct.	See attached Lab Form for Calibration Data
Color	None			ORP	
Odor	None			D.O.	
				Turbidity	

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: SSP MW-2
 Sample Number: 4
 Weather Conditions: Sunny 94
 Wellhead Inspection:
 Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 8/28 3:10
 PID Readings: N/A

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No
 5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.]): 24.50
 2. Intake Depth (±0.01 ft.): 43.9
 3. Bottom of casing (±0.01 ft.): 46.9
 4. Casing Diameter (inches): 2
 5. Actual Volume of Water Purged (mL): 4500
 6. Purge Water Characteristics:
 Odor: None
 Color: Clear
 Turbidity: Clear
 7. Purge Rate (mL/min): 300
 8. Water Level Measuring Equip.: Geotech
 9. Purge Equipment Used: Peristaltic
 10. Dedicated? (Yes/No): Yes / No
 11. Immiscible layer observed: Yes / No
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
15:11	—	24.8	9148	137.8	5.20	4.43	145.12	25.20	
15:14	900	23.6	9265	145.6	4.92	4.37	146.60	26.20	
15:17	1800	23.60	9257	148.2	5.01	4.35	145.60	27.01	
15:20	2700	23.7	9270	149.6	5.06	4.35	148.71	27.63	
15:23	3600	23.8	9056	151.2	5.13	4.35	163.72	28.49	
15:26	4500	23.9	9272	157.2	5.03	4.35	172.80	29.18	

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used: Peristaltic
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A
 5. Sample Rate (mL/min): 300
 6. Sample Appearance:
 Turbidity: Clear
 Color: Clear
 Odor: None
 7. Time to recharge (min): N/A
 8. Sample Time: 15:30
 9. Parameter/Container/Pres.: See Attached COC
 10. Other Information:
 11. Decontamination Procedures: Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity
 See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: AD MW-3
 Sample Number: 5
 Weather Conditions: Sunny 94
 Wellhead Inspection:

Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 9/28 16:00
 PID Readings: N/A

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No
 5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (± 0.01 feet [ft.]): 12.85
 2. Intake Depth (± 0.01 ft.): 20.4
 3. Bottom of casing (± 0.01 ft.): 43.4
 4. Casing Diameter (inches): 2
 5. Actual Volume of Water Purged (mL): 4500
 6. Purge Water Characteristics:
 Odor: None Turbidity: clear
 Color: clear
 7. Purge Rate (mL/min): 300
 8. Water Level Measuring Equip.: bestech
 9. Purge Equipment Used: Peristaltic
 10. Dedicated? (Yes/No): Yes / No
 11. Immiscible layer observed: Yes / No
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN (N/A)

Time	Volume Purged (mL)	Temp (°C)	Conductivity (μ S/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
16:05	—	26.0	1734	124.34	4.27	24.16	5.28	13.32	
16:08	900	25.7	1720	121.9	3.97	12.72	5.22	13.10	
16:11	1800	25.5	1711	123.7	3.80	42.23	5.20	13.48	
16:14	2700	25.4	1703	124.8	3.69	44.43	5.18	13.50	
16:17	3600	25.1	1695	126.1	3.53	16.12	5.15	13.52	
16:20	4500	25.2	1689	127.2	3.28	12.55	5.11	13.56	

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used: Peristaltic
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A
 5. Sample Rate (mL/min): 300
 6. Sample Appearance:
 Turbidity: clear
 Color: clear
 Odor: None
 7. Time to recharge (min): N/A
 8. Sample Time: 16:25
 9. Parameter/Container/Pres.: See Attached COC
 10. Other Information:
 11. Decontamination Procedures: Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity

DUP-1
 FB-1

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station	Sampler Name(s): Mattison Barickman and Emma Foley
MW Identification: <u>5FL MW06</u>	Date/Time: <u>8/29 8:15</u>
Sample Number: <u>6</u>	PID Readings: N/A
Weather Conditions: <u>Cloudy 79°</u>	
Wellhead Inspection:	

Visual Inspection:

1. Survey Mark Present:	<u>Yes / No</u>	5. Standing/Ponded Water:	<u>Yes / No</u>
2. Collision/Vandalism Damage:	<u>Yes / No</u>	6. Frost Heaving:	<u>Yes / No</u>
3. Casing Degradation:	<u>Yes / No</u>	7. Lock in Place:	<u>Yes / No</u>
4. Well Subsidence:	<u>Yes / No</u>		

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.])	<u>17.90</u>	7. Purge Rate (mL/min)	<u>300</u>
2. Intake Depth (±0.01 ft.)	<u>20.1</u>	8. Water Level Measuring Equip.	<u>Geotech</u>
3. Bottom of casing (±0.01 ft.)	<u>23.1</u>	9. Purge Equipment Used	<u>Peristaltic</u>
4. Casing Diameter (inches)	<u>2</u>	10. Dedicated? (Yes/No)	<u>Yes / No</u>
5. Actual Volume of Water Purged (mL)	<u>4500</u>	11. Immiscible layer observed	<u>Yes / No</u>
6. Purge Water Characteristics:		12. Thickness of immiscible layer	<u>N/A</u>
Odor <u>None</u>	Turbidity <u>Clear</u>	13. Drive Gas (Air/Nitrogen)	<u>AIR / NITROGEN / N/A</u>
Color <u>Clear</u>			

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
8:15	—	23.6	17505	162.9	2.38	26.08	3.76	18.52	
8:18	900	23.6	16853	162.0	1.47	9.89	3.95	19.77	
8:21	1800	23.6	16356	156.3	1.25	61.08	4.04	19.98	
8:24	2700	23.8	15713	150.8	1.24	66.48	4.02	19.40	
8:27	3600	23.8	15553	144.5	1.14	68.21	4.03	19.75	
8:30	4500	23.9	15276	140.3	0.97	48.36	4.02	20.13	

1. Well evacuated to dryness?	<u>Yes / No</u>	7. Time to recharge (min):	<u>N/A</u>	11. Decontamination Procedures:	
2. Sample Filtered?	<u>Yes / No</u>	8. Sample Time:	<u>8:35</u>	<u>Alconox/DI Rinse</u>	
3. Sampling Equip. Used	<u>Peristaltic</u>	9. Parameter/Container/Pres.	<u>See Attached COC</u>	12. Instrument type: YSI ProDSS	
4. Drive Gas (Air/Nitrogen)	<u>AIR / NITROGEN / N/A</u>			Calibration Date:	<u>LAB</u>
5. Sample Rate (mL/min)	<u>300</u>			Calibration Time:	<u>LAB</u>
6. Sample Appearance:				Std.	Reading
Turbidity	<u>Clear</u>	10. Other Information:			
Color	<u>Clear</u>				
Odor	<u>None</u>			pH	
				Conduct.	
				ORP	
				D.O.	
				Turbidity	

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: 3F2 MW 5
 Sample Number: 7
 Weather Conditions: Cloudy 80°F
 Wellhead Inspection:
 Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 8:29 855
 PID Readings: N/A

Visual Inspection:

- | | | | |
|--------------------------------|----------|---------------------------|----------|
| 1. Survey Mark Present: | Yes / No | 5. Standing/Ponded Water: | Yes / No |
| 2. Collision/Vandalism Damage: | Yes / No | 6. Frost Heaving: | Yes / No |
| 3. Casing Degradation: | Yes / No | 7. Lock in Place: | Yes / No |
| 4. Well Subsidence: | Yes / No | | |

Ground Water Measurements/Purge data:

- | | | | |
|--|------------------|-----------------------------------|----------------------|
| 1. Static Water Level (±0.01 feet [ft.]) | 141.62 | 7. Purge Rate (mL/min) | 300 |
| 2. Intake Depth (±0.01 ft.) | 21.3 | 8. Water Level Measuring Equip. | Geotech |
| 3. Bottom of casing (±0.01 ft.) | 24.3 | 9. Purge Equipment Used | Peristaltic |
| 4. Casing Diameter (Inches) | 2 | 10. Dedicated? (Yes/No) | Yes / No |
| 5. Actual Volume of Water Purged (mL) | 4500 | 11. Immiscible layer observed | Yes / No |
| 6. Purge Water Characteristics: | | 12. Thickness of immiscible layer | N/A |
| Odor: None | Turbidity: Clear | 13. Drive Gas (Air/Nitrogen) | AIR / NITROGEN / N/A |
| Color: Clear | | | |

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
8:56	—	23.1	10724	147.1	2.63	1.25	4.14	15.25	
8:59	900	23.5	10706	144.6	1.24	9.60	4.18	15.80	
9:02	1800	23.7	10708	143.6	1.10	26.45	4.18	16.22	
9:05	2700	23.6	10705	142.8	1.06	41.38	4.18	16.53	
9:08	3600	23.7	10702	142.4	1.05	54.55	4.18	16.75	
9:11	4500	23.7	10699	142.4	1.05	86.22	4.18	16.94	

- | | | | | | |
|-------------------------------|----------------------|------------------------------|------------------|---------------------------------|--|
| 1. Well evacuated to dryness? | Yes / No | 7. Time to recharge (min): | N/A | 11. Decontamination Procedures: | Alconox/DI Rinse |
| 2. Sample Filtered? | Yes / No | 8. Sample Time: | 9:15 | 12. Instrument type: YSI ProDSS | |
| 3. Sampling Equip. Used: | Peristaltic | 9. Parameter/Container/Pres. | See Attached COC | Calibration Date: | LAB |
| 4. Drive Gas (Air/Nitrogen) | AIR / NITROGEN / N/A | | | Calibration Time: | LAB |
| 5. Sample Rate (mL/min) | 300 | | | | |
| 6. Sample Appearance: | | 10. Other Information: | | Std. | Reading |
| Turbidity: | Clear | | | | Adjust. |
| Color: | Clear | | | pH | |
| Odor: | None | | | Conduct. | |
| | | | | ORP | See attached Lab Form for Calibration Data |
| | | | | D.O. | |
| | | | | Turbidity | |

HDR

Sampler Name(s): Mattison Barickman and Emma Foley

Date/Time: 8/29 9:30

PID Readings: N/A

Wellhead Inspection:

AIR / NITROGEN / N/A

10. Other Information:

Turbidity

HCR

Sampler Name(s): Mattison Barickman and Emma Foley

Date/Time: 8/29 10:10

PID Readings: N/A

Wellhead Inspection:

Color blue

2002

AIR / NITROGEN / N/A

None

10. Other Information:

Turbidity

See attached Lab Form for
Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station	Sampler Name(s): Mattison Barickman and Emma Foley
MW Identification: MW-15	Date/Time: 8/29 12:00
Sample Number: 12	PID Readings: N/A
Weather Conditions: Light rain 82°F	
Wellhead Inspection:	

Visual Inspection:

1. Survey Mark Present:	Yes / No	5. Standing/Ponded Water:	Yes / No
2. Collision/Vandalism Damage:	Yes / No	6. Frost Heaving:	Yes / No
3. Casing Degradation:	Yes / No	7. Lock in Place:	Yes / No
4. Well Subsidence:	Yes / No		

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.])	7.56	7. Purge Rate (mL/min)	300
2. Intake Depth (±0.01 ft.)	24.0	8. Water Level Measuring Equip.	Geotech
3. Bottom of casing (±0.01 ft.)	27.0	9. Purge Equipment Used	Peristaltic
4. Casing Diameter (inches)	2	10. Dedicated? (Yes/No)	Yes / No
5. Actual Volume of Water Purged (mL)	4500	11. Immiscible layer observed	Yes / No
6. Purge Water Characteristics:		12. Thickness of immiscible layer	N/A
Odor: None	Turbidity: Clear	13. Drive Gas (Air/Nitrogen)	AIR / NITROGEN / N/A
Color: Clear			

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
11:58	—	28.3	4330	162.9	1.86	8.29	3.61	8.00	
12:01	900	27.7	4209	125.3	1.06	48.73	3.65	8.12	
12:04	1800	26.8	4161	172.7	2.92	11.23	3.54	8.12	
12:07	2700	26.9	4145	172.9	0.79	185.43	3.55	8.08	
12:10	3600	27.0	4133	171.9	0.75	267.61	3.55	8.12	
12:13	4500	27.0	4116	171.5	0.71	212.71	3.55	8.02	

1. Well evacuated to dryness?	Yes / No	7. Time to recharge (min):	N/A	11. Decontamination Procedures:	Alconox/DI Rinse
2. Sample Filtered?	Yes / No	8. Sample Time:	12:18	12. Instrument type: YSI ProDSS	
3. Sampling Equip. Used	Peristaltic	9. Parameter/Container/Pres.	See Attached COC	Calibration Date:	LAB
4. Drive Gas (Air/Nitrogen)	AIR / NITROGEN / N/A			Calibration Time:	LAB
5. Sample Rate (mL/min)	300				
6. Sample Appearance:		10. Other Information:			
Turbidity	Clear				
Color	Clear				
Odor	None				

pH	
Conduct.	
ORP	
D.O.	
Turbidity	

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: MNW-18
 Sample Number: 13
 Weather Conditions: light rain 82°F
 Wellhead Inspection:

Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 8/29 1300
 PID Readings: N/A

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No
 5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.]): 8.76
 2. Intake Depth (±0.01 ft.): 48.0
 3. Bottom of casing (±0.01 ft.): 51.0
 4. Casing Diameter (inches): 4
 5. Actual Volume of Water Purged (mL): 4500
 6. Purge Water Characteristics:
 Odor: None Turbidity: clear
 Color: clear
 7. Purge Rate (mL/min): 300
 8. Water Level Measuring Equip.: Geotech
 9. Purge Equipment Used: Peristaltic
 10. Dedicated? (Yes/No): Yes / No
 11. Immiscible layer observed: Yes / No
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
1304	—	26.4	2775	125.3	2.63	1.84	7.07	8.93	
1307	900	24.2	2696	103.7	2.53	1.96	7.43	9.58	
1310	1800	24.1	2696	99.8	2.65	1.50	7.48	10.02	
1313	2700	24.0	2696	96.0	2.71	1.20	7.49	10.43	
1316	3600	24.0	2699	94.2	2.66	1.84	7.48	10.72	
1319	4500	24.1	2697	93.1	2.71	0.68	7.50	11.34	

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used: Peristaltic
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A
 5. Sample Rate (mL/min): 300
 6. Sample Appearance:
 Turbidity: clear
 Color: clear
 Odor: None
 7. Time to recharge (min): N/A
 8. Sample Time: 1324
 9. Parameter/Container/Pres.: See Attached COC
 10. Other Information:
 11. Decontamination Procedures: Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: AP MW 1D
 Sample Number: 14
 Weather Conditions: Light Rain 22°F
 Wellhead Inspection:

Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 8/29 1350
 PID Readings: N/A

Visual Inspection:

- | | | | |
|--------------------------------|-----------------|---------------------------|-----------------|
| 1. Survey Mark Present: | <u>Yes</u> / No | 5. Standing/Ponded Water: | Yes / <u>No</u> |
| 2. Collision/Vandalism Damage: | Yes / <u>No</u> | 6. Frost Heaving: | Yes / <u>No</u> |
| 3. Casing Degradation: | Yes / <u>No</u> | 7. Lock in Place: | <u>Yes</u> / No |
| 4. Well Subsidence: | Yes / <u>No</u> | | |

Ground Water Measurements/Purge data:

- | | | | |
|--|------------------------|-----------------------------------|-----------------------------|
| 1. Static Water Level (±0.01 feet [ft.]) | <u>16.18</u> | 7. Purge Rate (mL/min) | <u>300</u> |
| 2. Intake Depth (±0.01 ft.) | <u>40.0</u> | 8. Water Level Measuring Equip. | <u>Geotech</u> |
| 3. Bottom of casing (±0.01 ft.) | <u>43.0</u> | 9. Purge Equipment Used | <u>Peristaltic</u> |
| 4. Casing Diameter (inches) | | 10. Dedicated? (Yes/No) | Yes / <u>No</u> |
| 5. Actual Volume of Water Purged (mL) | <u>4500</u> | 11. Immiscible layer observed | Yes / <u>No</u> |
| 6. Purge Water Characteristics: | | 12. Thickness of immiscible layer | <u>N/A</u> |
| Odor <u>None</u> | Turbidity <u>clear</u> | 13. Drive Gas (Air/Nitrogen) | <u>AIR / NITROGEN / N/A</u> |
| Color <u>clear</u> | | | |

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
13:55	—	24.1	1112	20.6	3.63	1.37	6.31	16.65	
13:58	900	23.3	1075	83.1	1.65	0.14	6.16	16.82	
14:01	1800	23.2	1074	86.9	1.29	0.76	6.11	16.80	
14:04	2700	23.2	1073	88.4	1.09	1.37	6.10	16.80	
14:07	3600	23.1	1072	89.1	1.02	1.71	6.09	16.82	
14:10	4500	23.1	1072	90.0	1.48	12.36	6.38	16.81	

- | | | | | | | |
|-------------------------------|-----------------------------|------------------------------|--------------|---------------------------------|---------|---------|
| 1. Well evacuated to dryness? | Yes / <u>No</u> | 7. Time to recharge (min): | <u>N/A</u> | 11. Decontamination Procedures: | | |
| 2. Sample Filtered? | Yes / <u>No</u> | 8. Sample Time: | <u>14:14</u> | Alconox/DI Rinse | | |
| 3. Sampling Equip. Used | <u>Peristaltic</u> | 9. Parameter/Container/Pres. | | 12. Instrument type: YSI ProDSS | | |
| 4. Drive Gas (Air/Nitrogen) | <u>AIR / NITROGEN / N/A</u> | See Attached COC | | Calibration Date: | LAB | |
| 5. Sample Rate (mL/min) | <u>300</u> | | | Calibration Time: | LAB | |
| 6. Sample Appearance: | | | | Std. | Reading | Adjust. |
| Turbidity | <u>clear</u> | 10. Other Information: | | pH | | |
| Color | <u>clear</u> | | | Conduct. | | |
| Odor | <u>None</u> | | | ORP | | |
| | | | | D.O. | | |
| | | | | Turbidity | | |
- See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: AD MW-5
 Sample Number: 15
 Weather Conditions: Sunny 78°F
 Wellhead Inspection:
 Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 8/20/09
 PID Readings: N/A

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No
 5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.]): 15.13
 2. Intake Depth (±0.01 ft.): 40.1
 3. Bottom of casing (±0.01 ft.): 43.1
 4. Casing Diameter (inches):
 5. Actual Volume of Water Purged (mL): 4500
 6. Purge Water Characteristics:
 Odor: None Turbidity: Clear
 Color: Clear
 7. Purge Rate (mL/min): 300
 8. Water Level Measuring Equip.: Geotech
 9. Purge Equipment Used: Peristaltic
 10. Dedicated? (Yes/No): Yes / No
 11. Immiscible layer observed: Yes / No
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
9:14	—	23.6	4153	143.7	7.30	1.22	3.37	15.45	
9:17	900	23.1	4234	162.4	6.60	1.03	3.30	15.60	
9:20	1800	23.1	4233	167.3	6.54	0.84	3.30	15.65	
9:23	2700	23.1	4231	171.5	6.52	0.59	3.30	15.69	
9:26	3600	23.0	4244	175.1	6.46	0.60	3.31	15.71	
9:29	4500	23.1	4260	176.6	6.49	1.13	3.34	15.69	

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used: Peristaltic
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A
 5. Sample Rate (mL/min): 300
 6. Sample Appearance:
 Turbidity: Clear
 Color: Clear
 Odor: None
 7. Time to recharge (min): N/A
 8. Sample Time:
 9. Parameter/Container/Pres.:
 See Attached COC
 10. Other Information:
 11. Decontamination Procedures:
 Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity
 See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: AD MW-4
 Sample Number: 16
 Weather Conditions: Sunny 78°F
 Wellhead Inspection:

Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 8/30 9:45
 PID Readings: N/A

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No
 5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.]): 14.45
 2. Intake Depth (±0.01 ft.): 29.17
 3. Bottom of casing (±0.01 ft.): 52.8
 4. Casing Diameter (inches): 4.500
 5. Actual Volume of Water Purged (mL): 4500
 6. Purge Water Characteristics:
 Odor: None Turbidity: clear
 Color: clear
 7. Purge Rate (mL/min): 300
 8. Water Level Measuring Equip.: Geotech
 9. Purge Equipment Used: Peristaltic
 10. Dedicated? (Yes/No): Yes / No
 11. Immiscible layer observed: Yes / No
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN (N/A)

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	Notes
9:50	—	24.6	2032	102.6	6.32	2.42	6.22	14.88	
9:53	900	23.3	1828	92.0	5.11	11.43	6.57	15.20	
9:56	1800	23.1	1823	92.1	5.07	17.85	6.61	15.36	
9:59	2700	23.0	1821	89.2	5.10	42.57	6.83	15.47	
10:02	3600	22.9	1813	88.6	5.03	83.90	6.64	15.54	
10:05	4500	22.8	1814	88.4	5.03	104.71	6.63	15.60	

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used: Peristaltic
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN (N/A)
 5. Sample Rate (mL/min): 300
 6. Sample Appearance:
 Turbidity: clear
 Color: clear
 Odor: None
 7. Time to recharge (min): N/A
 8. Sample Time: 10:08
 9. Parameter/Container/Pres.: See Attached COC
 10. Other Information:
 11. Decontamination Procedures: Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity

See attached Lab Form for Calibration Data

FB 2



Calibrated at Geotech's Texas service center

1600 North I 35E Suite 114

Carrollton, TX 75006

(800) 276-5325 Fax (972) 245-8889

YSI Pro DSS Calibration Certificate

Unit Number 6970

Calibration Date 8/26/2024

Serial Number 19E103833

Technician Isaiah Lastra-Gonzales

Installed Probes

- ☒ Conductivity
 - ☒ PH/ORP
 - ☒ DO
 - ☒ TURB
- ☒ Display is clear, and free of damage
 - ☒ Cable and accessories are free of damage
 - ☒ Firmware version is up to date
 - Display Battery 100 % **Pass**
 - Cable Flex Test **Pass**

Cable Length	10M	pH/ORP Serial #	21F103192
Cable Lot #	23J106692	DO Probe Serial #	14L101394
Cond Probe Lot #	20D100889	Turb Probe Serial #	20G104737
Bath Temp	20.1 °C		
Meter Temp	20.1 °C		
Variance	0.00	Pass	

Cond

Calibration	Reading		Buffer Lot #	Exp. Date	
1.413 mS	1.413 mS	Pass	4GC0482	3/25	Pass

pH

Point Test	Calibration	Reading	mV	Sl. #	Buffer Lot #	Exp. Date	
2 Point	pH 7.00	pH 7.00	-29 mV		4GD0174	4/26	Pass
	pH 4.00	pH 4.00	138.7 mV	167.7	4GB1376	2/26	Pass

ORP

Calibration	Reading		Buffer Lot #	Exp. Date	
220 mV	220 mV	Pass	4GB1336	11/24	Pass

Turbidity

Zero	Reading	Variance		Cal	Reading	Variance		Buffer Lot #	Exp. Date	
0 ntu	0 ntu	0 ntu	Pass	124 ntu	124 ntu	0.0%	Pass	24E24011426	5/25	Pass

DO

Barometer	Calibration	Reading	Variance		Test Fluid
752.4 mmHg	99 %	99 %	0.0%	Pass	Water Saturated Air
Time	Min	Sec	Reading		Nitrogen Lot #
	1	43	1 %	Pass	

Geotech Environmental Equipment, Inc. takes pride in ensuring this instrument is tested to function as specified by the manufacturer and was calibrated in accordance to manufacturer specifications. All calibration standards used are NIST traceable. With the provided lot numbers we can provide NIST documents on request. Call us at (800) 833-7958 and we will be glad to help.

December 2024

H2R

Sampler: Mattison Barickman + Emma FoleyDate: 2024/12/10Equipment: WL Meter, ID 2346Decontamination: Aiconox with DI Rinse

Well	Water Level below TOC	Bottom of Casing	Previous Water Level Below TOC (8/28/2024)	Previous Water Level Below TOC (11/14/2023)	Notes
AP PZ-1	10.60	29.43	7.66	10.88	Water Level Only
AP PZ-2	21.03	43.36	20.45	21.31	Water Level Only Broken lock
AP PZ-3	11.10 12.21	43.09	9.55	8.15	Water Level Only Broken lock 7.07
AP PZ-4	12.21	45.31	16.22	13.83	Water Level Only ton of sed @ base
AP MW-1	16.17	23.11	20.99	18.22	Water Level Only need hammer
AP MW-1D	17.29	43.02	16.18	19.18	need hammer
AP MW-2	13.62	20.21	16.68	14.07	Water Level Only need hammer
AP MW-3	14.43	43.44	12.85	15.62	need hammer to open
AP MW-4	15.47	52.84	14.45	17.17	spider-y
AP MW-5	16.29	43.15	15.13	18.38	need hammer, lock broken
AP MW-6	18.51	47.49	22.17	19.70	Water Level Only hive; w/ taken from N
SSP/AP MW-1	10.51	43.22	10.30	11.13	missing lock, and will
SSP MW-1	18.25	31.86	17.73	18.45	Water Level Only
SSP MW-2	25.69	47.08	24.50	25.48	
SSP MW-3	29.54	48.36	28.30	29.15	
SSP MW-4	25.87	51.58	25.00	25.89	
SFL MW-2	10.80	23.78	9.82	11.02	unlocked
SFL MW-3	18.85	28.22	18.65	18.19	Sticky need ham.
SFL MW-4	16.14	42.43	15.22	16.01	
SFL MW-5	15.62	24.29	14.62	15.78	
SFL MW-6	19.00	23.13	17.90	17.98	Broken lock
SFL MW-7	17.10	58.22	16.53	16.06	broken stick up h
MNW-11	20.13	47.78	20.16	20.21	Water Level Only broken lock
MNW-15	8.44	27.27	7.56	6.91	ants
MNW-16	16.46	39.34	14.88	16.06	Water Level Only
MNW-17	37.35	50.26	29.55	34.63	Water Level Only very broken lock
MNW-18	10.11	31.04	8.76	11.04	4in

*felt like it

16 wells for samplin

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station

Sampler Name(s): Mattison Barickman and Emma Foley

MW Identification: MNW-15

Date/Time: 12-11-24 0916

Sample Number: ~~MNW-15~~ 2

PID Readings: N/A

Weather Conditions: clear, sunny 45°F

Wellhead Inspection: Good

Visual Inspection:

- Survey Mark Present:
- Collision/Vandalism Damage:
- Casing Degradation:
- Well Subsidence:

Yes / ☒ No
 Yes / ☒ No
 Yes / ☒ No (rust)
 Yes / ☒ No

5. Standing/Ponded Water:

Yes / ☒ No

6. Frost Heaving:

Yes / ☒ No

7. Lock In Place:

☒ / No broken

Ground Water Measurements/Purge data:

- Static Water Level (±0.01 feet [ft.])
- Intake Depth (±0.01 ft.)
- Bottom of casing (±0.01 ft.)
- Casing Diameter (inches)
- Actual Volume of Water Purged (mL)
- Purge Water Characteristics:

8.44
 25.00
 27.27
 4.2
 5400

7. Purge Rate (mL/min)

300

8. Water Level Measuring Equip.

WL meter, ID 2346

9. Purge Equipment Used

Peristaltic pump

10. Dedicated? (Yes/No)

Yes / ☒ No

11. Immiscible layer observed

Yes / ☒ No

12. Thickness of immiscible layer

N/A

13. Drive Gas (Air/Nitrogen)

AIR / NITROGEN / ☒ N/A

Odor: none Turbidity: low
 Color: clear, ants

0657 start pump

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
0900	400	21.7	3690	207.9	1.21	6.58	3.53	0.94	9.38	
0902	1900	22.6	3858	210.0	.48	16.98	3.52	1.06	9.50	
0903	2700	22.6	3869	210.6	.34	16.34	3.53	1.08	9.52	
0909	3650	22.6	3847	211.3	.29	13.67	3.54	1.09	9.53	
0911	4500	22.6	3834	211.6	.24	7.86	3.54	1.10	9.54	
0915	5400	22.6	3840	211.9	.22	6.10	3.54	1.11	9.55	
0916	sample									
0923	pump off									

1. Well evacuated to dryness?

Yes / No

2. Sample Filtered?

Yes / ☒ No

3. Sampling Equip. Used

peristaltic

4. Drive Gas (Air/Nitrogen)

AIR / NITROGEN / N/A

5. Sample Rate (mL/min)

300

6. Sample Appearance:

good

Turbidity

low

Color

clear

Odor

none

7. Time to recharge (min): N/A

8. Sample Time:

0916

9. Parameter/Container/Pres.

See Attached COC

10. Other Information:

11. Decontamination Procedures:

Alconox/DI Rinse

12. Instrument type: YSI ProDSS

Calibration Date:

LAB

Calibration Time:

LAB

Std. Reading Adjust.

pH

Conduct.

ORP

D.O.

Turbidity

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: ~~800 MW-7 (SPL)~~ 7
 Sample Number: 3 SPL MW-7
 Weather Conditions: Sunny 45°F
 Wellhead Inspection: Well Cap Broken

Sampler Name(s): Mattison Barickman and Emma Foley

Date/Time: 12-11-24 10:11

PID Readings: N/A

Visual Inspection:

1. Survey Mark Present:
 2. Collision/Vandalism Damage:
 3. Casing Degradation:
 4. Well Subsidence:

Yes / ☒ NoYes / ☒ No☒ Yes / NoYes / ☒ No

5. Standing/Ponded Water:

Yes / ☒ No

6. Frost Heaving:

Yes / ☒ No

7. Lock in Place:

☒ Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.])

17.10

2. Intake Depth (±0.01 ft.)

56.00

3. Bottom of casing (±0.01 ft.)

58.32

4. Casing Diameter (inches)

2

5. Actual Volume of Water Purged (ml)

4500

6. Purge Water Characteristics:

Odor

None

Turbidity

Low

Color

Clear

7. Purge Rate (mL/min)

300

8. Water Level Measuring Equip.

WL Meter, ID 2346

9. Purge Equipment Used

Peristaltic

10. Dedicated? (Yes/No)

Yes / ☒ No

11. Immiscible layer observed

Yes / ☒ No

12. Thickness of immiscible layer

N/A

13. Drive Gas (Air/Nitrogen)

AIR / NITROGEN / ☒ N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
0954	Start pump									
0957	900	22.0	6618	211.5	.99	2.73	6.54	1.11	18.21	
1000	1800	22.0	6906	212.1	.48	12.01	6.50	1.43	18.53	
1003	2700	21.9	8118	211.6	.36	1.38	6.41	1.57	18.67	
1006	3600	22.1	8577	211.6	.30	5.89	6.39	1.65	18.75	
1009	4500	22.1	9649	211.4	.27	5.92	6.39	1.66	18.76	
1011	Sample									
1014	dwp									
1039	pump off									

1. Well evacuated to dryness?

Yes / ☒ No

2. Sample Filtered?

Yes / ☒ No

3. Sampling Equip. Used

Peristaltic

4. Drive Gas (Air/Nitrogen)

AIR / NITROGEN / ☒ N/A

5. Sample Rate (mL/min)

300

6. Sample Appearance:

4000

Turbidity

Low

Color

Clear

Odor

None

7. Time to recharge (min):

1011

8. Sample Time:

9. Parameter/Container/Pres.

See Attached COC

10. Other Information:

Dwp taken

SPL MW-7 - FD

1014 12-11-24

11. Decontamination Procedures:

Alconox/DI Rinse

12. Instrument type: YSI ProDSS

Calibration Date:

LAB

Calibration Time:

LAB

Std. Reading Adjust.

pH

Conduct.

ORP

D.O.

Turbidity

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: SFL MW-3
 Sample Number: 4
 Weather Conditions: Sunny 45°F
 Wellhead Inspection: good

Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 12-11-24 1117
 PID Readings: N/A

Visual Inspection:

- | | | | |
|--------------------------------|---|---------------------------|---|
| 1. Survey Mark Present: | Yes / ☒ | 5. Standing/Ponded Water: | Yes / ☒ |
| 2. Collision/Vandalism Damage: | Yes / ☒ | 6. Frost Heaving: | Yes / ☒ |
| 3. Casing Degradation: | Yes / ☒ | 7. Lock in Place: | ☒ / No |
| 4. Well Subsidence: | Yes / ☒ | | |

Ground Water Measurements/Purge data:

- | | | | |
|--|----------------|-----------------------------------|--|
| 1. Static Water Level (±0.01 feet [ft.]) | 18.85 | 7. Purge Rate (mL/min) | 300 |
| 2. Intake Depth (±0.01 ft.) | 26.0 | 8. Water Level Measuring Equip. | WL meter, I 02346 |
| 3. Bottom of casing (±0.01 ft.) | 28.22 | 9. Purge Equipment Used | peristaltic |
| 4. Casing Diameter (inches) | 2 | 10. Dedicated? (Yes/No) | Yes / ☒ |
| 5. Actual Volume of Water Purged (mL) | 4500 | 11. Immiscible layer observed | Yes / ☒ |
| 6. Purge Water Characteristics: | | 12. Thickness of immiscible layer | N/A |
| Odor: none | Turbidity: low | 13. Drive Gas (Air/Nitrogen) | AIR / NITROGEN / ☒ |
| Color: very yellow clear | | | |

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1101	Start	pump								
1104	900	22.6	5460	213.9	0.75	13.94	3.92	0.84	19.61	
1107	1800	22.5	5436	210.6	0.42	14.92	3.85	0.90	19.75	
1110	2700	22.5	5426	211.5	0.33	8.53	3.83	0.93	19.78	
1113	3600	22.3	5404	211.5	0.28	7.67	3.82	0.96	19.81	
1116	4500	22.5	5413	211.4	0.25	3.77	3.91	0.97	19.92	
1117	Sample									
1131	Pump off									

- | | | | | | |
|-------------------------------|--|------------------------------|------|---------------------------------|--|
| 1. Well evacuated to dryness? | Yes / No | 7. Time to recharge (min): | | 11. Decontamination Procedures: | |
| 2. Sample Filtered? | Yes / ☒ | 8. Sample Time: | 1117 | Alconox/DI Rinse | |
| 3. Sampling Equip. Used | peristaltic | 9. Parameter/Container/Pres. | | 12. Instrument type: YSI ProDSS | |
| 4. Drive Gas (Air/Nitrogen) | AIR / NITROGEN / ☒ | See Attached COC | | Calibration Date: | LAB |
| 5. Sample Rate (mL/min) | 300 | | | Calibration Time: | LAB |
| 6. Sample Appearance: | good | | | Std. Reading Adjust. | |
| Turbidity | low | 10. Other Information: | | pH | |
| Color | very pale yellow | | | Conduct. | |
| Odor | none | | | ORP | See attached Lab Form for Calibration Data |
| | | | | D.O. | |
| | | | | Turbidity | |

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: SFEMW-4
 Sample Number: 5
 Weather Conditions: Sunny 45°F
 Wellhead Inspection: good

Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 12-11-24 1210
 PID Readings: N/A

Visual Inspection:

- | | | | |
|--------------------------------|--|---------------------------|--|
| 1. Survey Mark Present: | Yes / ☒ | 5. Standing/Ponded Water: | Yes / ☒ |
| 2. Collision/Vandalism Damage: | Yes / ☒ | 6. Frost Heaving: | Yes / ☒ |
| 3. Casing Degradation: | Yes / ☒ | 7. Lock in Place: | Yes / No |
| 4. Well Subsidence: | Yes / ☒ | | |

Ground Water Measurements/Purge data:

- | | | | |
|--|----------------------|-----------------------------------|--|
| 1. Static Water Level (±0.01 feet [ft.]) | <u>16.14</u> | 7. Purge Rate (mL/min) | <u>300</u> |
| 2. Intake Depth (±0.01 ft.) | <u>40.00</u> | 8. Water Level Measuring Equip. | <u>WL meter, ID 2346</u> |
| 3. Bottom of casing (±0.01 ft.) | <u>42.93</u> | 9. Purge Equipment Used | <u>peristaltic</u> |
| 4. Casing Diameter (inches) | <u>2</u> | 10. Dedicated? (Yes/No) | Yes / ☒ |
| 5. Actual Volume of Water Purged (mL) | <u>4500</u> | 11. Immiscible layer observed | Yes / ☒ |
| 6. Purge Water Characteristics: | | 12. Thickness of immiscible layer | <u>N/A</u> |
| Odor <u>none</u> | Turbidity <u>low</u> | 13. Drive Gas (Air/Nitrogen) | <u>AIR / NITROGEN / N/A</u> |
| Color <u>clear</u> | | | |

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1154	Start pump									
1157	1 200	22.6	7292	213.4	0.69	4.20	6.27	1.56	17.70	
1200	4 1800	22.5	7429	213.3	0.30	5.75	6.24	2.32	18.46	
1203	7 2700	22.5	7473	213.1	0.26	6.10	6.22	2.38	18.82	
1206	10 3600	22.5	7511	213.2	0.23	6.08	6.21	2.95	19.09	
1209	15 4500	22.5	7543	213.2	0.21	5.32	6.21	3.05	19.19	
1210	Sample									
1224	Stop pump									

- | | | | | | |
|-------------------------------|--|------------------------------|-------------------------|---------------------------------|--|
| 1. Well evacuated to dryness? | Yes / No | 7. Time to recharge (min): | | 11. Decontamination Procedures: | |
| 2. Sample Filtered? | Yes / ☒ | 8. Sample Time: | <u>1210</u> | Alconox/DI Rinse | |
| 3. Sampling Equip. Used | <u>peristaltic</u> | 9. Parameter/Container/Pres. | <u>See Attached COC</u> | 12. Instrument type: YSI ProDSS | |
| 4. Drive Gas (Air/Nitrogen) | <u>AIR / NITROGEN / N/A</u> | | | Calibration Date: | <u>LAB</u> |
| 5. Sample Rate (mL/min) | <u>300</u> | | | Calibration Time: | <u>LAB</u> |
| 6. Sample Appearance: | <u>good</u> | | | Std., Reading, Adjust. | |
| Turbidity | <u>low</u> | 10. Other Information: | | pH | |
| Color | <u>clear</u> | | | Conduct. | See attached Lab Form for Calibration Data |
| Odor | <u>none</u> | | | ORP | |
| | | | | D.O. | |
| | | | | Turbidity | |

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station

Sampler Name(s): Mattison Barickman and Emma Foley

MW Identification: SFL MW - 2

Date/Time: 12-11-24 1301

Sample Number: 6

PID Readings: N/A

Weather Conditions: Sunny 45°F

Wellhead Inspection: good

Visual Inspection:

1. Survey Mark Present: Yes / ☒
 2. Collision/Vandalism Damage: Yes / ☒
 3. Casing Degradation: Yes / ☒
 4. Well Subsidence: Yes / ☒

5. Standing/Ponded Water: Yes / ☒6. Frost Heaving: Yes / ☒7. Lock in Place: Yes / ☒ No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.])

10.80

2. Intake Depth (±0.01 ft.)

21.00

3. Bottom of casing (±0.01 ft.)

23.78

4. Casing Diameter (Inches)

2.00

5. Actual Volume of Water Purged (mL)

4500

6. Purge Water Characteristics:

Odor: none Turbidity: low

Color: clear

7. Purge Rate (mL/min)

300

8. Water Level Measuring Equip.

WL meter ID 2346

9. Purge Equipment Used

Peristaltic

10. Dedicated? (Yes/No)

Yes / ☒

11. Immiscible layer observed

Yes / ☒

12. Thickness of immiscible layer

N/A

13. Drive Gas (Air/Nitrogen)

AIR / NITROGEN / ☒

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1244	Start	Pump								
1247	900	23.1	7216	215.7	0.60	7.3	6.63	1.37	12.17	
1250	1800	23.1	7932	211.0	0.41	6.09	6.53	1.88	12.68	
1253	2700	23.1	7953	210.4	0.33	5.85	6.51	2.22	13.02	
1256	3600	23.0	7980	210.1	0.34	5.77	6.49	2.44	13.24	
1259	4500	23.2	8007	210.1	0.39	5.71	6.49	2.62	13.42	
1301	Sample									
1314	Stop Pump									

1. Well evacuated to dryness? Yes / No

Yes / ☒2. Sample Filtered? Yes / ☒Yes / ☒

3. Sampling Equip. Used

Peristaltic

4. Drive Gas (Air/Nitrogen)

AIR / NITROGEN / ☒

5. Sample Rate (mL/min)

300

6. Sample Appearance:

good

Turbidity

low

Color

clear

Odor

none

7. Time to recharge (min):

1301

8. Sample Time:

9. Parameter/Container/Pres.

See Attached COC

10. Other Information:

11. Decontamination Procedures:

Alconox/DI Rinse

12. Instrument type: YSI ProDSS

Calibration Date:

LAB

Calibration Time:

LAB

Std.

Reading

Adjust.

pH

Conduct.

ORP

D.O.

Turbidity

See attached Lab Form for Calibration Data

13.02
-10.80
2.22

13.17
-10.80
2.37

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station Sampler Name(s): Mattison Barickman and Emma Foley
 MW Identification: SFL-MW-6 Date/Time: 12-11-24 1443
 Sample Number: 8 PID Readings: N/A
 Weather Conditions: Sunny ~50°F
 Wellhead Inspection: good

Visual Inspection:

- | | | | |
|--------------------------------|-----------------|---------------------------|--------------------------------------|
| 1. Survey Mark Present: | Yes / <u>No</u> | 5. Standing/Ponded Water: | Yes / <u>No</u> |
| 2. Collision/Vandalism Damage: | Yes / <u>No</u> | 6. Frost Heaving: | Yes / <u>No</u> |
| 3. Casing Degradation: | Yes / <u>No</u> | 7. Lock in Place: | <u>Yes</u> / No → <u>broken lock</u> |
| 4. Well Subsidence: | Yes / <u>No</u> | | |

Ground Water Measurements/Purge data:

- | | | | |
|--|-----------------------|-----------------------------------|-----------------------------|
| 1. Static Water Level (±0.01 feet [ft.]) | <u>18.00</u> | 7. Purge Rate (mL/min) | <u>300</u> |
| 2. Intake Depth (±0.01 ft.) | <u>21.00</u> | 8. Water Level Measuring Equip. | <u>WL Meter, ID 2346</u> |
| 3. Bottom of casing (±0.01 ft.) | <u>23.13</u> | 9. Purge Equipment Used | <u>peristaltic</u> |
| 4. Casing Diameter (inches) | <u>2</u> | 10. Dedicated? (Yes/No) | Yes / <u>No</u> |
| 5. Actual Volume of Water Purged (mL) | <u>4500</u> | 11. Immiscible layer observed | Yes / <u>No</u> |
| 6. Purge Water Characteristics: | | 12. Thickness of immiscible layer | <u>N/A</u> |
| Odor: <u>none</u> | Turbidity: <u>low</u> | 13. Drive Gas (Air/Nitrogen) | <u>AIR / NITROGEN / N/A</u> |
| Color: <u>very pale yellow</u> | | | |

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1427	Start	PUMP								
1430	900	23.7	18190	211.5	0.59	2.64	3.88	0.78	18.78	
1433	1800	23.6	18035	212.5	0.56	1.75	3.93	1.17	19.17	
1436	2700	23.6	18265	214.0	0.44	5.65	3.87	1.58	19.58	
1439	3600	23.6	18446	214.2	0.31	6.75	3.79	1.96	19.96	
1442	4500	23.4	18492	214.5	0.27	6.30	3.75	2.35	20.35	
1443	COLLECT SAMPLE									
1532	PUMP OFF									

- | | | | | | | |
|-------------------------------|-----------------------------|------------------------------|-------------------------|---------------------------------|-------------------------|---------|
| 1. Well evacuated to dryness? | Yes / <u>No</u> | 7. Time to recharge (min): | | 11. Decontamination Procedures: | <u>Alconox/DI Rinse</u> | |
| 2. Sample Filtered? | Yes / <u>No</u> | 8. Sample Time: | <u>1443</u> | 12. Instrument type: YSI ProDSS | | |
| 3. Sampling Equip. Used | <u>PERISTALTIC</u> | 9. Parameter/Container/Pres. | <u>See Attached COC</u> | Calibration Date: | <u>LAB</u> | |
| 4. Drive Gas (Air/Nitrogen) | <u>AIR / NITROGEN / N/A</u> | | | Calibration Time: | <u>LAB</u> | |
| 5. Sample Rate (mL/min) | <u>300</u> | | | Std. | Reading | Adjust. |
| 6. Sample Appearance: | <u>good</u> | 10. Other Information: | | pH | | |
| Turbidity | <u>low</u> | | | Conduct. | | |
| Color | <u>very pale yellow</u> | | | ORP | | |
| Odor | <u>none</u> | | | D.O. | | |
| | | | | Turbidity | | |

Flow rate lowered to 75 mL/min during sampling to avoid purging well dry

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station

Sampler Name(s): Mattison Barickman and Emma Foley

MW Identification: SSP/AP MW-1

Date/Time: 12-11-24, 1651

Sample Number: 9

PID Readings: N/A

Weather Conditions: Sunny, 61°F

Wellhead Inspection: good

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No

5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

No Lock!

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.]): 10.51
 2. Intake Depth (±0.01 ft.): 41.00
 3. Bottom of casing (±0.01 ft.): 43.22
 4. Casing Diameter (inches): 2
 5. Actual Volume of Water Purged (mL): 8100
 6. Purge Water Characteristics:
 Odor: none Turbidity: > 10 NTU
 Color: clear

7. Purge Rate (mL/min): 300
 8. Water Level Measuring Equip.: WL Meter, ID2346
 9. Purge Equipment Used: peristaltic
 10. Dedicated? (Yes/No): Yes / No
 11. Immiscible layer observed: Yes / No
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN (N/A)

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1622	START PUMP									
1625	900	22.2	8467	210.9	1.02	6.05	5.95	1.43	11.94	
1628	1800	22.1	8443	210.5	0.41	8.42	5.81	2.43	12.94	
1631	2700	22.0	8452	210.3	0.33	11.35	5.78	3.09	13.00	
1634	3600	22.0	8456	210.3	0.30	13.36	5.77	3.38	13.81	
1637	4500	21.9	8466	210.1	0.27	14.03	5.77	3.79	14.30	Drawdown 3.79
1640	5400	22.0	8490	210.0	0.25	15.96	5.76	4.30	14.81	
1643	6300	22.0	8473	209.8	0.23	16.13	5.77	4.69	15.20	
1646	7200	22.0	8455	209.6	0.22	16.74	5.74	4.93	15.44	
1649	8100	22.0	8447	209.5	0.20	15.75	5.73	5.21	15.72	
1651	COLLECT SAMPLE									
1706	STOP PUMP									

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used: PERISTALTIC
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN (N/A)
 5. Sample Rate (mL/min): 300
 6. Sample Appearance: good
 Turbidity: > 10 NTU
 Color: clear
 Odor: none

7. Time to recharge (min):
 8. Sample Time: 1651
 9. Parameter/Container/Pres.: See Attached COC
 10. Other Information:

11. Decontamination Procedures:

Alconox/DI Rinse

12. Instrument type: YSI ProDSS

Calibration Date: LAB

Calibration Time: LAB

Std. Reading Adjust.

pH
 Conduct.
 ORP
 D.O.
 Turbidity
 See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: SSP MW-2
 Sample Number: 10
 Weather Conditions: sunny, 34°F
 Wellhead Inspection: good

Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 12-12-2024 0744
 PID Readings: N/A

Visual Inspection:

- Survey Mark Present:
- Collision/Vandalism Damage:
- Casing Degradation:
- Well Subsidence:

Yes / No
 Yes / No
 Yes / No
 Yes / No

- Standing/Ponded Water:
- Frost Heaving:
- Lock in Place:

Yes / No
 Yes / No
 Yes / No

Ground Water Measurements/Purge data:

- Static Water Level (±0.01 feet (ft.))
- Intake Depth (±0.01 ft.)
- Bottom of casing (±0.01 ft.)
- Casing Diameter (inches)
- Actual Volume of Water Purged (mL)
- Purge Water Characteristics:

Odor: none
 Color: clear

25.69
 45.00
 49.08
 2
 4500
 low

- Purge Rate (mL/min)
- Water Level Measuring Equip.
- Purge Equipment Used
- Dedicated? (Yes/No)
- Immiscible layer observed
- Thickness of immiscible layer
- Drive Gas (Air/Nitrogen)

300
 WL Meter ID 2346
 PERISTALTIC
 Yes / No
 Yes / No
 N/A
 AIR / NITROGEN N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
0728	START PUMP									
0731	900	19.4	9275	207.2	1.19	9.35	5.12	1.33	27.02	
0734	1800	20.0	9391	206.8	0.59	17.12	5.01	2.20	27.89	
0737	2700	19.9	9129	207.1	0.46	7.51	4.86	2.94	28.63	
0740	3600	19.8	9024	207.4	0.41	6.57	4.77	3.55	29.24	
0743	4500	19.8	8996	207.5	0.37	5.47	4.78	3.96	29.65	
0744	COLLECT SAMPLE									
0747	COLLECT FD									
0900	STOP PUMP									

- Well evacuated to dryness?
- Sample Filtered?
- Sampling Equip. Used
- Drive Gas (Air/Nitrogen)
- Sample Rate (mL/min)
- Sample Appearance:

Yes / No
 Yes / No
 PERISTALTIC
 AIR / NITROGEN / N/A
 300
 OK
 low
 clear
 none

- Time to recharge (min):

0744
 8. Sample Time:
 9. Parameter/Container/Pres.
 See Attached COC

- Other Information:

FD collected
 12-12-2024, 0744
 SSP MW-2-FD

- Decontamination Procedures:

Alconox/DI Rinse

- Instrument type: YSI ProDSS

Calibration Date: LAB

Calibration Time: LAB

Stand. Reading Adjust.

pH
 Conduct.
 ORP
 D.O.
 Turbidity

See attached Lab Form for Calibration Data

* dead ants in purge water

* flow rate decreased significantly when collecting FD

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station

Sampler Name(s): Mattison Barickman and Emma Foley

MW Identification: AP MW-4

Date/Time: 12-12-24 0934

Sample Number: 11

PID Readings: N/A

Weather Conditions: Sunny 35°F

Wellhead Inspection: good

Visual Inspection:

- Survey Mark Present:
- Collision/Vandalism Damage:
- Casing Degradation:
- Well Subsidence:

Yes / No
Yes / No
Yes / No
Yes / No

- Standing/Ponded Water:
- Frost Heaving:
- Lock in Place:

Yes / No
Yes / No
Yes / No

Ground Water Measurements/Purge data:

- Static Water Level (±0.01 feet [ft.])
- Intake Depth (±0.01 ft.)
- Bottom of casing (±0.01 ft.)
- Casing Diameter (inches)
- Actual Volume of Water Purged (mL)
- Purge Water Characteristics:

15.47
50.00
52.84
2
4500

- Purge Rate (mL/min)
- Water Level Measuring Equip.
- Purge Equipment Used
- Dedicated? (Yes/No)
- Immiscible layer observed
- Thickness of immiscible layer
- Drive Gas (Air/Nitrogen)

300
WL meter ID2346
Peristaltic
Yes / No
Yes / No
N/A
AIR / NITROGEN / N/A

Odor: none Turbidity: low
Color: clear

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
0918	Start pump									
0921	900	21.1	4367	206.7	0.76	4.91	5.70	1.04	16.51	
0924	1800	21.1	4363 4363	206.7	0.43	3.10	5.71	1.31	16.78	
0927	2700	21.2	4348	206.9	0.33	3.27	5.71	1.49	16.96	
0930	3600	21.2	4354	207.0	0.28	1.38	5.71	1.57	17.04	
0933	4500	21.1	4351	207.2	0.25	1.34	5.71	1.65	17.12	
0934	Sample									
0946	Stop pump									

- Well evacuated to dryness?

Yes / No

- Sample Filtered?

Yes / No

- Sampling Equip. Used

Peristaltic

- Drive Gas (Air/Nitrogen)

AIR / NITROGEN / N/A

- Sample Rate (mL/min)

300

- Sample Appearance:

good

Turbidity

low

Color

clear

Odor

none

- Time to recharge (min):

0934

- Sample Time:

See Attached COC

- Parameter/Container/Pres.

- Other Information:

- Decontamination Procedures:

Alconox/DI Rinse

- Instrument type: YSI ProDSS

Calibration Date: LAB

Calibration Time: LAB

Std. Reading Adjust.

pH

Conduct.

ORP

D.O.

Turbidity

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: APMW-5
 Sample Number: 12
 Weather Conditions: Sunny/wind 30°F
 Wellhead Inspection: good
 Sampler Name(s): Mattison Barickman and Emma Foley
 Date/Time: 12-12-24 1019
 PID Readings: N/A

Visual Inspection:

1. Survey Mark Present:
 2. Collision/Vandalism Damage:
 3. Casing Degradation:
 4. Well Subsidence:

Yes / No
 Yes / No
 Yes / No
 Yes / No

5. Standing/Ponded Water:
 6. Frost Heaving:
 7. Lock in Place:

Yes / No
 Yes / No
 Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet (ft.))
 2. Intake Depth (±0.01 ft.)
 3. Bottom of casing (±0.01 ft.)
 4. Casing Diameter (inches)
 5. Actual Volume of Water Purged (mL)
 6. Purge Water Characteristics:

Odor: none
 Color: clear
 Turbidity: low

1629
 41.00
 13.15
 2
 4500

7. Purge Rate (mL/min)
 8. Water Level Measuring Equip.
 9. Purge Equipment Used
 10. Dedicated? (Yes/No)
 11. Immiscible layer observed
 12. Thickness of immiscible layer
 13. Drive Gas (Air/Nitrogen)

300
 WL Meter ID 2346
 Peristaltic
 Yes / No
 Yes / No
 N/A
 AIR / NITROGEN / N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1002	Start Pump									
1005	~900	21.8	5487	211.3	0.50	3.77	3.76	0.69	16.98	5.67
1008	1800	21.8	5537	210.2	0.41	3.57	3.57	0.77	17.04	0.98
1011	2700	21.8	5557	210.4	0.32	3.54	3.54	0.80	17.04	0.87
1014	3600	21.8	5559	210.4	0.27	1.20	3.54	0.83	17.12	
1017	4500	21.7	5568	210.4	0.24	0.47	3.53	0.81	17.13	
1019	Sample									
1033	Stop Pump									
1037	Field Blank									

1. Well evacuated to dryness?
 2. Sample Filtered?
 3. Sampling Equip. Used
 4. Drive Gas (Air/Nitrogen)
 5. Sample Rate (mL/min)
 6. Sample Appearance:

Yes / No
 Yes / No
 Peristaltic
 AIR / NITROGEN / N/A
 300
 good
 low
 clear
 none

7. Time to recharge (min):
 8. Sample Time:
 9. Parameter/Container/Pres.
 See Attached COC

10. Other Information:
 took FB @ APMW-5
 12-12-24 1037

11. Decontamination Procedures:
 Alconox/DI Rinse

12. Instrument type: YSI ProDSS

Calibration Date: LAB
 Calibration Time: LAB

Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 Sampler Name(s): Mattison Barickman and Emma Foley
 MW Identification: AP MW-10
 Date/Time: 12-12-14 1114
 Sample Number: 13
 PID Readings: N/A
 Weather Conditions: Sunny 68°F
 Wellhead Inspection: Good

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No
 5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.]): 17.29
 2. Intake Depth (±0.01 ft.): 41.00
 3. Bottom of casing (±0.01 ft.): 43.02
 4. Casing Diameter (inches): 2
 5. Actual Volume of Water Purged (mL): 4500
 6. Purge Water Characteristics:
 Odor: none Turbidity: low
 Color: clear
 7. Purge Rate (mL/min): 300
 8. Water Level Measuring Equip.: WL meter E02346
 9. Purge Equipment Used: Peristaltic
 10. Dedicated? (Yes/No): Yes / No
 11. Immiscible layer observed: Yes / No
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1058	Start pump									
1101	900	22.0	1157	209.6	0.90	1.86	6.27	0.88	18.17	
1104	1800	21.7	1149	209.6	0.98	2.55	6.21	0.92	18.21	
1107	2700	21.9	1160	209.6	0.35	1.75	6.16	0.93	18.22	
1110	3600	21.7	1166	209.5	0.29	1.53	6.16	0.99	18.23	
1113	4500	21.7	1168	209.5	0.26	1.42	6.15	0.96	18.24	
1114	Sample									
1127	Stop pump									

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used: Peristaltic
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A
 5. Sample Rate (mL/min): 300
 6. Sample Appearance:
 Turbidity: low
 Color: clear
 Odor: none
 7. Time to recharge (min): 1114
 8. Sample Time: 1114
 9. Parameter/Container/Pres.: See Attached COC
 10. Other Information:
 11. Decontamination Procedures: Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 MW Identification: SSP MW-4
 Sample Number: 15
 Weather Conditions: Sunny/wind 68°F
 Wellhead Inspection: good

Sampler Name(s): Mattison Barickman and Emma Foley

Date/Time: 12-12-24 1312

PID Readings: N/A

Visual Inspection:

1. Survey Mark Present: Yes / No
 2. Collision/Vandalism Damage: Yes / No
 3. Casing Degradation: Yes / No
 4. Well Subsidence: Yes / No
 5. Standing/Ponded Water: Yes / No
 6. Frost Heaving: Yes / No
 7. Lock in Place: Yes / No

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet (ft.)) 25.87
 2. Intake Depth (±0.01 ft.) 49.5
 3. Bottom of casing (±0.01 ft.) 51.58
 4. Casing Diameter (inches) 2
 5. Actual Volume of Water Purged (mL) 5400
 6. Purge Water Characteristics:
 Odor none Turbidity low
 Color clear
 7. Purge Rate (mL/min) 300
 8. Water Level Measuring Equip. WL meter ID 2346
 9. Purge Equipment Used Low Flow Bladder
 10. Dedicated? (Yes/No) Yes / No
 11. Immiscible layer observed Yes / No
 12. Thickness of Immiscible layer N/A
 13. Drive Gas (Air/Nitrogen) Air / NITROGEN / N/A

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µS/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1247	start pump									
1255	966	22.02	5065	211.1	3.50	3.85	6.23	0.19	26.06	
1259	1800	22.3	5127	211.0	1.05	6.04	6.15	0.82	26.69	
1302	2700	22.4	5141	210.1	1.35	6.26	6.10	1.93	27.80	
1305	3600	22.3	5147	209.7	0.78	6.06	6.16	2.59	28.46	
1308	4500	22.3	5153	209.4	0.51	1.94	6.16	3.068	29.55	
1311	5400	22.3	5154	209.4	0.49	1.24	6.16	4.39	30.26	
1312	sample									
1325	stop pump									

1. Well evacuated to dryness? Yes / No
 2. Sample Filtered? Yes / No
 3. Sampling Equip. Used low Flow Bladder
 4. Drive Gas (Air/Nitrogen) Air / NITROGEN / N/A
 5. Sample Rate (mL/min) 300
 6. Sample Appearance:
 Turbidity good
 Color low
 Odor clear
 7. Time to recharge (min): 1312
 8. Sample Time: 1312
 9. Parameter/Container/Pres. See Attached COC
 10. Other information:
 11. Decontamination Procedures: Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity

See attached Lab Form for Calibration Data

Low Stress Groundwater Sampling Data Sheet



Facility Name: Gibbons Creek Steam Electric Station
 Sampler Name(s): Mattison Barickman and Emma Foley
 MW Identification: SSP MW-3
 Date/Time: 12-12-24 1500
 Sample Number: 16
 PID Readings: N/A
 Weather Conditions: sunny, windy 65°F
 Wellhead Inspection: good

Visual Inspection:

1. Survey Mark Present: Yes / ☒ No
 2. Collision/Vandalism Damage: Yes / ☒
 3. Casing Degradation: Yes / ☒
 4. Well Subsidence: Yes / ☒
 5. Standing/Ponded Water: Yes / ☒
 6. Frost Heaving: Yes / ☒
 7. Lock in Place: Yes / ☒

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.]): 29.54
 2. Intake Depth (±0.01 ft.): 46.00
 3. Bottom of casing (±0.01 ft.): 48.36
 4. Casing Diameter (inches): 2
 5. Actual Volume of Water Purged (ml): 5400
 6. Purge Water Characteristics:
 Odor: none
 Color: very pale yellow
 Turbidity: low
 7. Purge Rate (ml/min): 300
 8. Water Level Measuring Equip.: WL meter I 02346
 9. Purge Equipment Used: low flow bladder
 10. Dedicated? (Yes/No): Yes / ☒
 11. Immiscible layer observed: Yes / ☒
 12. Thickness of immiscible layer: N/A
 13. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A

Time	Volume Purged (ml)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown	WL	Notes
1439	Start pump									
1444	900	22.1	6553	209.6	2.67	7.63	4.66	0.93	30.47	
1447	1800	22.0	6292	208.1	0.92	16.63	4.68	1.51	31.5	
1450	2700	22.0	6643	209.0	0.66	17.97	4.92	1.76	31.30	
1453	3600	21.9	6614	208.9	0.66	16.80	4.84	1.94	31.48	
1456	4500	21.9	6742	208.9	0.62	16.09	4.74	1.96	31.50	
1459	5400	21.9	6771	209.0	0.54	16.22	4.73	2.00	13.50	
1500	sample									
1512	stop pump									

1. Well evacuated to dryness? Yes / ☒ No
 2. Sample Filtered? Yes / ☒
 3. Sampling Equip. Used: low flow pump
 4. Drive Gas (Air/Nitrogen): AIR / NITROGEN / N/A
 5. Sample Rate (ml/min): 300
 6. Sample Appearance:
 Turbidity: good
 Color: low
 Odor: very pale yellow
 none
 7. Time to recharge (min): 1500
 8. Sample Time: 1500
 9. Parameter/Container/Pres.: See Attached COC
 10. Other Information:
 11. Decontamination Procedures: Alconox/DI Rinse
 12. Instrument type: YSI ProDSS
 Calibration Date: LAB
 Calibration Time: LAB
 Std. Reading Adjust.
 pH
 Conduct.
 ORP
 D.O.
 Turbidity

See attached Lab Form for Calibration Data

Appendix C

Lab Results Summary Tables

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Sample Location: AP MW-1D			
Assessment Monitoring			
Initial A.M.			
Background			
Compliance Dates:			
Sample Dates:			
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Sample Location: Compliance Phase:			Background																			AP MW-3										Assessment Monitoring									
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Notes:
BTU - Background Threshold Value
HBL - Health-Based Level, Groundwater protection standard established for cobalt, lithium, and molybdenum under the Federal CFR rule 40 CFR Part 257.
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.
mg/L - milligrams per liter.
mV - millivolts
mg/L - milligrams per liter.
pCi/L - picocuries per liter.
SU - standard units, pH is a field parameter.
µS/cm - micro Siemens per centimeter
All metals were analyzed as total unless otherwise specified.

Sample Location: Compliance Phase:			AP MW-5																																			
Sample Dates:			Background												Initial A.M.												Assessment Monitoring											
Constituent	Unit	MCL/HBL	Site BTV	6/22/2016	8/24/2016	10/18/2016	12/21/2016	2/21/2017	5/4/2017	6/12/2017	8/24/2017	8/24/2017	12/18/2019	8/25/2019	11/5/2019	6/13/2018	3/21/2018	2/10/2021	7/12/2021	7/19/2022	12/13/2022	8/27/2023	11/14/2023	8/30/2024	12/12/2024													
Field Parameters																																						
pH	SU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Temperature	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Appendix III																																						
Boron	mg/L	N/A	1.41	3.3	3.4	3.33	3.66	3.32	3.39	3.38	3.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Calcium	mg/L	N/A	745	387	468	503	575	494	522	512	488	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Chloride	mg/L	N/A	1,750	410	469	451	460	480	472	479	473	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Fluoride	mg/L	4	0.5	1.5	1.6	1.3	1.2	1.2	1.2	1	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
pH, Field	SU	N/A	5.25-6.32	3.58	3.61	3.70	3.43	3.65	3.63	3.35	3.55	4.22	3.64	3.33	3.40	3.47	3.21	3.68	3.22	3.54	3.25	3.79	3.87	3.53	3.54	3.38												
Sulfate	mg/L	N/A	3,300	2,640	2,960	2,630	2,960	2,880	2,930	2,000	2,960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Total Dissolved Solids	mg/L	N/A	8,340	4,170	4,770	5,040	4,940	4,860	4,530	4,830	4,720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Appendix IV																																						
Antimony	mg/L	0.006	0.00157	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Arsenic	mg/L	0.01	0.02	<0.01	0.01	0.02	0.01	0.01	0.02	0.01	0.01	ND	ND	0.0168	0.00859	0.0085	0.0224	0.0122	0.0176	0.0206	0.0147	0.0206	0.0147	0.0234	0.0158J	0.0210												
Barium	mg/L	2	0.19	0.01	0.03	0.02	<0.01	0.04	0.02	0.02	0.01	ND	ND	-	-	-	-	0.0249	0.0556	0.0232	0.0128	0.0126	0.0101	0.0109	0.03978J	0.0102J												
Beryllium	mg/L	0.004	0.002	0.077	0.088	0.087	0.088	0.089	0.084	0.081	0.084	0.0935	0.0746	0.0778	0.06	0.0743	0.0492	0.052	0.0711	0.112	0.119	0.0945	0.11	0.103	0.115													
Cadmium	mg/L	0.005	0.000217	0.006	0.01	0.009	0.011	0.01	0.009	0.01	0.01	0.00843	0.00909	0.00985	0.00694	0.00979	0.00694	0.00523	0.00823	0.00859	0.0102	0.0115	0.0128	0.0113	0.0120													
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	-	-	ND	ND	0.00228	<0.00153	<0.00153	<0.00153	<0.00153	<0.00153	0.016J	<0.0280													
Cobalt	mg/L	0.006	0.00174	0.15	0.19	0.18	0.2	0.18	0.19	0.19	0.18	0.148	0.173	0.175	0.129	0.149	0.117	0.115	0.168	0.206	0.184	0.222	0.236	0.205	0.232													
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	-	-	0.00149	0.00632	0.00473	0.00235	0.00239	0.00239	0.00203	0.0019	<0.00184	<0.00184													
Lithium	mg/L	0.04	1.69	0.49	0.57	0.6	0.66	0.53	0.5	0.59	0.45	0.478	0.374	0.446	0.36	0.416	0.395	0.381	0.413	0.522	0.585	0.487	0.582	0.414	0.263													
Mercury	mg/L	0.002	0.00013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000241	0.000224	ND	ND	0.000878	0.736	0.000753	0.00643	0.00235	0.00262	0.000762	0.000369	0.000654	0.000160J													
Molybdenum	mg/L	0.1	0.00199	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	ND	ND	ND	ND	ND	<0.000610	<0.000610	<0.000610	<0.000610	<0.000610	<0.000610	<0.00128	<0.00128													
Radium-226/228	pCi/L	5.0	3.9	4.55	5.96	5.2	4.5	1.8	2.90	2.1	3.4	1.3	1.64	1.49	1.17	1.6	1.12	1.4	2.18	4.38	1.53	2.11	1.57	2.09	1.31													
Selenium	mg/L	0.05	0.000739	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	-	-	0.0533	ND	<0.00151	<0.00151	<0.000739	<0.000739	<0.000739	<0.000739	0.0870	0.220													
Thallium	mg/L	0.002	0.000472	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00221	-	-	-	-	-	0.00238	0.00224	0.00213	0.00212	0.00246	0.00266	0.00263	0.00277J													
Notes:																																						
BTV - Background Threshold Value																																						
HBL - Health-Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.																																						
ND - Not Detected																																						
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.																																						
mg/L - milligrams per liter.																																						
mV - millivolt																																						
pCi/L - picocuries per liter.																																						
SU - standard units, pH is a field parameter.																																						
µS/cm - micro Siemens per centimeter																																						
All metals were analyzed as total unless otherwise specified.																																						

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Sample Location			

Notes:
HBL - Health Based Level. Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal CCR rule 40 CFR Part 257.
J - Value is below the Reporting Limit and above the Method Detection Limit; therefore, value is estimated and not considered significant.
MCL - Maximum Contaminant Level. EPA Drinking Water Standards and Health Advisories, April 2012.
mg/L - milligrams per liter.
NTU - Nephelometric Turbidity Unit.
pCi/L - picocuries per liter. Field parameter.
µScm - micro Siemens per centimeter.
--- not analyzed.
All media were analyzed as total unless otherwise specified.

Constituent		Sample Location: Compliance Phase		Background																Initial A.M.		Assessment Monitoring																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Notes:
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All metals were analyzed as total unless otherwise specified.

Sample Location: SFL MW-3													
Compliance Phase:													
Sample Dates:													
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Background													
Compliance Phase:													
Sample Dates:													
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Notes:
BTV - Background Threshold Value
HBL - Health-Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.
mg/L - milligrams per liter.
mV - millivolts
mg/L - milligrams per liter.
pCi/L - picocuries per liter.
SU - standard units, pH is a field parameter.
µS/cm - micro siemens per centimeter
All metals were analyzed as total unless otherwise specified.

Compliance Phase		Background										Initial A.M.		Assessment Monitoring										Sample Location: SFL MW-5	
		Sample Dates		Sample Location		Sample Location		Sample Location		Sample Location		Sample Location		Sample Location		Sample Location		Sample Location							
Constituent	Unit	6/23/2016	8/25/2016	10/19/2016	12/21/2016	2/23/2017	5/3/2017	6/14/2017	8/23/2017	3/20/2018	6/8/2018	1/16/2019	6/26/2019	12/17/2019	6/16/2020	2/9/2021	7/13/2021	7/20/2022	12/12/2022	6/26/2023	1/11/2023	8/29/2024	12/11/2024		
Field Parameters		MCL/HBL	Site/STV																						
pH	SU	-	-	-	-	-	-	-	-	4.7	4.43	4.64	4.4	4.91	4.27	4.64	4.24	4.30	4.45	3.98	4.45	4.18	4.51		
Conductivity	µS/cm	-	-	-	-	-	-	-	-	1,140	1,160	1,150	1,070	1,170	1,110	8,540	10,864	10,698	10,393	10,650	10,279	10,699	4,730		
Turbidity	NTU	-	-	-	-	-	-	-	-	0.5	7.3	0	0	8.6	4.5	11.01	4.88	3.00	3.28	29.14	3.40	86.22	2.80		
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	0	0.69	3.03	2.97	0.74	0.41	0.19	0.00	0.70	0.31	0.14	0.36	1.05	0.64		
Temperature	°C	-	-	-	-	-	-	-	-	21.98	27.13	18.52	24.09	21.37	25.3	21.4	23.3	23.7	22.5	23.4	21.6	23.7	23.3		
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	367	388	359	363	308	356	353.9	400.4	408.9	138.8	360.1	369.1	142.4	210.8		
Appendix III																									
Boron	mg/L	N/A	0.62	3.5	3.93	2.88	3.97	4.18	4.12	-	4.42	6.04	6.04	-	5.35	4.34	5.1	2.8	4.42	5.56	4.53	6.65	4.54		
Calcium	mg/L	N/A	1,510	878	944	755	883	899	864	-	873	715	857	-	812	837	816	829	812	338	931	905	639		
Chloride	mg/L	N/A	4,070	2,990	3,070	3,160	3,040	3,180	3,190	-	3,010	2,880	3,180	-	3,000	2,340	2,930	2,890	2,690	2,800	2,650	3,020	2,660		
Fluoride	mg/L	4	1.16	0.2	0.2	0.2	0.2	0.2	0.2	ND	ND	5.69	ND	ND	ND	<0.260	0.342J	0.122	0.126	0.17	0.084J	<0.500	<1.00		
pH, Field	SU	N/A	3.5-4.46	5.05	4.48	5.1	4.49	4.44	4.58	4.67	4.43	4.64	4.44	4.91	4.27	4.64	4.24	4.30	4.45	3.98	4.45	4.18	4.51		
Sulfate	mg/L	N/A	2,860	2,150	2,100	2,170	2,120	2,220	2,240	-	2,290	2,070	2,100	-	2,190	1,720	2,330	2,250	2,010	2,380	2,180	2,390	2,230		
Total Dissolved Solids	mg/L	N/A	14,400	8,350	7,530	7,910	7,530	7,600	7,520	-	7,470	7,300	6,880	-	7,250	7,820	8,110	7,930	7,540	7,620	7,540	9,280	6,410		
Appendix IV																									
Antimony	mg/L	0.006	0.00108	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	<0.00378	<0.000378	<0.000906	0.00118J	<0.000967	<0.000967	<0.00375	<0.00750		
Arsenic	mg/L	0.01	0.0431	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.02234	0.00745	0.0033	0.00151	0.00157	0.0021	0.00176	0.00231	<0.00345	<0.00690		
Barium	mg/L	2	0.8926	0.04	0.08	0.03	0.03	0.02	0.02	ND	-	-	-	0.0209	0.0192	0.0212	0.0179	0.0166	0.0175	0.0172	0.0191J	0.0219J	0.0216J		
Beryllium	mg/L	0.004	0.9833	0.008	0.011	0.01	0.01	0.01	0.01	ND	0.00985	0.00885	0.0123	0.0101	0.0113	0.00918	0.0104	0.0103	0.00942	0.0111	0.00983J	0.0126J	0.0177J		
Calcium	mg/L	0.005	0.0144	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	ND	0.00538	0.00531	0.00511	0.00509	0.00441	0.0044	0.00327	0.00181J	<0.00153	<0.00153	<0.00260	<0.00660		
Chromium	mg/L	0.1	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	ND	-	ND	0.00241	0.00441	0.0044	0.00327	0.00181J	<0.00153	<0.00153	<0.00260	<0.00660		
Cobalt	mg/L	0.006	0.136	0.07	0.06	0.05	0.05	0.05	0.05	0.0388	0.0486	0.0492	0.0559	0.0512	0.045	0.0515	0.0493	0.0458	0.054	0.0455	0.0525	0.0563			
Lead	mg/L	0.015	0.0171	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	0.00459	0.00102	ND	0.000725J	0.000572J	0.000606J	0.000716J	0.000434J	<0.00184	<0.00367			
Lithium	mg/L	0.04	1.34	0.66	0.79	0.9	0.99	0.92	0.62	0.685	0.629	0.643	0.643	0.67	0.704	0.677	0.645	0.594	0.696	0.624	0.751	0.533	0.129		
Mercury	mg/L	0.002	0.00158	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130	0.000114J	0.0000790J	<0.00255		
Molybdenum	mg/L	0.1	0.00061	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	0.00180J	<0.000610	<0.000610	0.00103J	<0.000610	<0.000610	<0.00128	<0.00255		
Radium-226/228	pCi/L	5.0	32.6	7.52	25.6	11.5	8.7	11.9	9.9	11.6	12.3	12.1	11.3	12.1	11.5	13.5	13.6	12.3	9.46	14.3	14	13.4	11.6		
Selenium	mg/L	0.05	0.0525	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.00689	ND	<0.00151	<0.000739	<0.000739	<0.000739	<0.000739	<0.000739	0.0126	0.0177J		
Thallium	mg/L	0.002	0.00552	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	ND	ND	ND	ND	0.00115	0.00136	0.00118	0.00133	0.00115	0.00125	0.00128	0.000992J	0.00128J	<0.00415		

Notes:
HBL - Health Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal CCR rule 40 CFR Part 257.
J - Value is below the Reporting Limit, and above the Method Detection Limit, therefore, value is estimated and not considered significant.
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April, 2012.
mg - milligrams per liter.
mV - millivolts.
NTU - Nephelometric Turbidity Unit.
pCi/L - picocuries per liter. Field parameter.
µS/cm - micro Siemens per centimeter.
--- not analyzed.
All media were analyzed as total unless otherwise specified.

Sample Location:				Assessment Monitoring																						
Compliance Phase:				Initial A.M.																						
Sample Dates:				Background																						
				6/23/2016	8/25/2016	10/19/2016	12/21/2016	2/22/2017	5/3/2017	6/13/2017	8/23/2017	6/8/2018	11/5/2019	6/27/2019	12/17/2019	6/16/2020	2/9/2021	7/13/2021	12/12/2022	6/26/2023	11/15/2023	8/29/2024	12/11/2024			
Constituent	Unit	MCL/HBL	Site BTV																							
Field Parameters																										
pH		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Temperature	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Appendix III																										
Boron	mg/L	N/A	0.62	0.5	0.39	0.41	0.4	0.24	0.3	0.16	0.35	-	ND	ND	0.29	-	-	0.384	0.329	0.38	0.32	0.554	0.258	0.428	0.406	0.680
Calcium	mg/L	N/A	1,510	910	929	983	977	852	955	882	864	-	915	824	800	-	-	950	953	937	1,400	363	1,470	1,250	1,030	1,030
Chloride	mg/L	N/A	4,070	3,350	3,470	3,500	3,580	3,570	3,560	3,640	3,730	-	3,670	3,490	3,240	-	-	3,760	3,310	3,340	4,810	6,800	3,960	7,020	6,170	7,750
Fluoride	mg/L	4	1.16	0.7	0.8	0.8	0.8	0.9	0.8	0.7	0.7	-	ND	ND	8.72	ND	ND	ND	0.531J	0.527J	1.08	1.04	1.03	1.4	<1.00	<1.00
pH, Field	SU	N/A	3.5-4.46	4.4	3.84	4.15	3.82	4.21	3.99	3.99	3.98	-	3.94	4.07	3.91	4.16	-	3.9	3.82	3.76	3.70	3.89	3.82	4.11	4.02	3.75
Sulfate	mg/L	N/A	2,230	2,240	2,170	2,240	2,120	2,260	2,260	2,330	2,470	-	2,520	2,500	1,970	-	-	2,360	2,070	2,190	2,880	2,200	2,530	2,260	2,420	2,570
Total Dissolved Solids	mg/L	N/A	14,400	8,650	8,850	8,170	8,640	8,790	8,020	9,200	8,260	-	6,330	8,850	7,040	-	-	11,000	8,360	7,420	12,000	14,300	10,000	11,200	13,100	15,000
Appendix IV																										
Antimony	mg/L	0.006	0.00108	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	-	ND	-	-	-	ND	<0.00378	<0.000906	<0.000378	<0.000906	0.00108J	<0.000967	<0.000375	<0.007150	
Arsenic	mg/L	0.01	0.0431	0.02	0.01	<0.01	<0.01	0.01	0.02	<0.01	0.01	-	ND	-	-	-	0.02	0.01	0.0135	0.0125	0.0214	0.0351	0.0453	0.0202	0.0301J	
Barium	mg/L	2	0.8826	0.30	0.08	0.06	0.05	0.04	0.04	0.04	0.04	-	ND	-	-	-	0.0247	0.0309	0.0537	0.0376	0.039	0.0487	0.0356	0.051J	0.0730	0.0800
Beryllium	mg/L	0.004	0.0033	0.028	0.049	0.051	0.047	0.056	0.054	0.047	0.056	-	0.0599	0.0449	0.0418	0.0406	0.052	0.0503	0.0489	0.0463	0.0646	0.0533	0.0534	0.0964	0.0728	0.116
Calcium	mg/L	0.005	0.0144	0.007	0.01	0.011	0.011	0.011	0.013	0.011	0.012	-	0.00875	0.0042	0.0055	0.01	0.0116	0.0104	0.0057	0.0057	0.0104	0.0124	0.00497	0.00321	0.00213	0.00697J
Chromium	mg/L	0.1	0.011	0.01	<0.01	0.01	0.011	<0.01	<0.01	<0.01	<0.01	-	ND	-	-	-	0.00797	ND	0.00757	0.00551	0.00895	0.00593	0.00313	0.0154J	0.00620J	0.0569
Cobalt	mg/L	0.006	0.136	0.11	0.12	0.12	0.12	0.13	0.11	0.11	0.12	-	0.104	0.1	0.112	0.105	0.104	0.109	0.116	0.111	0.173	0.242	0.129	0.234	0.150	0.225
Lead	mg/L	0.015	0.0171	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	0.00549	0.0	0.0171	0.0115	0.0171	0.0115	0.015	0.0109	0.0109	0.0135	0.0109	0.00264	0.0141	0.0173J
Lithium	mg/L	0.04	1.34	0.55	0.8	0.88	0.93	0.74	0.72	0.69	0.56	-	0.739	0.597	0.619	0.683	0.64	0.709	0.614	0.64	0.889	1.34	0.644	1.43	0.490	0.271
Mercury	mg/L	0.002	0.00158	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	ND	ND	ND	ND	ND	ND	<0.000130	<0.000130	<0.000130	<0.000130	<0.000130	<0.000130	<0.000222	0.000100J
Molybdenum	mg/L	0.1	0.00061	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	ND	-	-	-	ND	ND	<0.000610	<0.000610	<0.000610	<0.000610	<0.000610	<0.000610	<0.00128	<0.00255
Radium-226/228	pCi/L	5.0	32.6	11.6	28.6	10.8	14.3	6.8	8.6	9	3.9	-	9.22	9.02	10.1	11.8	28.3	17.8	14.6	13.7	16.0	14.5	13.4	23.1	16.0	20.6
Selenium	mg/L	0.05	0.0525	<0.01	0.01	0.02	<0.01	0.01	0.01	<0.01	<0.01	-	ND	-	-	-	0.0525	ND	<0.00151	<0.00151	<0.00151	<0.000739	<0.000739	<0.000739	0.0085	0.171
Thallium	mg/L	0.002	0.00552	0.004	0.002	0.004	0.003	0.004	0.003	0.004	0.003	-	0.00322	0.00305	0.00315	0.00284	0.0041	0.00333	0.00339	0.00329	0.00495	0.00489	0.00475	0.00437	0.00616J	

Notes: (a) Ground Water Threshold Value

HBL - Health Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal CCR rule 40 CFR Part 257.

J - Value is below the Reporting Limit, and above the Method Detection Limit, therefore, value is estimated and not considered significant.

MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April, 2012.

mV - millivolt

NTU - Nephelometric Turbidity Unit.

pCi/L - picocuries per liter.

µS/cm - micro Siemens per centimeter.

mg/L - milligrams per liter.

--- not analyzed.

All media were analyzed as total unless otherwise specified.

Sample Location: Compliance Phase:				Background										Initial A.M.				SFL MW-7										Assessment Monitoring									
Sample Dates:				5/1/2017	5/31/2017	6/14/2017	6/28/2017	7/20/2017	8/23/2017	8/31/2017	9/7/2017	3/20/2018				6/1/2018	1/16/2019	6/26/2019	12/17/2019	6/16/2020	2/10/2021	7/13/2021	9/12/2022	12/12/2022	6/26/2023	11/15/2023	8/29/2024	12/11/2024									
Constituent	Unit	MCL/HBL	Site BTM																																		
Field Parameters																																					
pH	SU	-	-	-	-	-	-	-	-	-	-	6.5	6.33	6.69	6.8	6.7	6.01	6.64	6.34	6.58	6.45	6.43															
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	9,210	8,820	9,800	8,830	9,370	8,240	5,660	6,956	6,962	6,966	6,814															
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	0	7.6	0	0	20.3	0	2.43	2.26	7.20	1.39	0.82															
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	0.29	2.53	1.74	3.48	0.83	0.34	0.10	0.27	0.45	0.23	0.28															
Temperature	°C	-	-	-	-	-	-	-	-	-	-	20.43	28.91	18.84	23.25	18.8	25.31	19.5	23.0	28.2	22.2	24.1															
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-102	-42	19	18	-82	-43	-28.6	-9.9	-126.7	-84.6	246.1															
Appendix III																																					
Boron	mg/L	N/A	0.598	0.75	0.78	0.76	0.73	0.83	0.92	0.7	0.59	-	ND	ND	0.879	-	0.832	0.792	0.795	0.832	0.916	0.759															
Calcium	mg/L	N/A	538	678	654	662	620	684	693	628	613	-	591	523	588	-	643	400	395	475	451	431															
Chloride	mg/L	N/A	650	2,870	2,740	2,800	2,850	2,780	2,810	2,770	2,820	-	2,600	2,580	2,700	-	2,880	1,920	1,900	2,020	1,900	2,000															
Fluoride	mg/L	4	0.25	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	ND	ND	2.62	ND	ND	<0.130	0.190J	0.0956J	0.0881J	0.066J	0.066J															
pH, Field	SU	N/A	6.01-7.67	6.37	6.43	6.17	6.32	6.34	6.21	6.11	6.24	-	6.47	6.69	6.79	6.7	6.01	6.64	6.34	6.58	6.45	6.43															
Sulfate	mg/L	N/A	2,980	811	778	779	787	770	801	768	770	-	743	694	630	-	816	576	672	528	662	687															
Total Dissolved Solids	mg/L	N/A	4,920	7,260	6,810	6,460	6,020	6,640	6,230	6,050	6,810	-	6,840	6,090	5,410	-	5,830	4,430	4,200	4,120	4,160	4,440															
Appendix IV																																					
Antimony	mg/L	0.006	0.002	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	ND	ND	ND	ND	ND	0.000576J	<0.000378	0.000975J	<0.000506	<0.000867															
Arsenic	mg/L	0.01	0.0282	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	<0.000313	<0.000313	0.000479J	<0.000282	<0.00038J															
Barium	mg/L	2	0.06	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.04	ND	ND	ND	ND	ND	ND	0.0542	0.0476	0.102	0.053	0.0487															
Beryllium	mg/L	0.004	0.000274	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	<0.000182	<0.000274	<0.000274	<0.000274	<0.000274															
Cadmium	mg/L	0.005	0.000217	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	ND	ND	ND	ND	ND	ND	<0.000217	<0.000217	0.000250J	<0.000217	<0.000217															
Chromium	mg/L	0.1	0.00617	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	<0.00153	<0.00153	<0.00153	<0.00153	<0.00153															
Cobalt	mg/L	0.006	0.00226	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	ND	ND	ND	ND	ND	ND	<0.000261	<0.000261	<0.000261	<0.000261	<0.000261															
Cobalt	mg/L	0.015	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	0.000211J	<0.000128	0.000208J	<0.000167	<0.000376															
Lithium	mg/L	0.04	0.543	0.46	0.45	0.46	0.43	0.4	0.4	0.4	0.37	0.466	0.379	0.388	0.408	0.45	0.447	0.375	0.389	0.401	0.437	0.372															
Mercury	mg/L	0.002	0.00013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	<0.000130	<0.000130	<0.000130	<0.000130	<0.000130															
Molybdenum	mg/L	0.1	0.00061	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	ND	ND	ND	ND	ND	<0.000610	<0.000610	0.00073J	<0.000610	<0.000610															
Radium-226/228	pCi/L	5.0	9.82	1.9	4.4	2.3	2.6	2.8	3.4	1.4	2.9	1.98	2	2.36	2.2	1.96	1.99	2.56	2.77	1.98	3.14	2.62															
Selenium	mg/L	0.05	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	<0.00151	<0.00151	<0.000739	<0.000739	<0.000739															
Thallium	mg/L	0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	ND	ND	ND	ND	ND	ND	<0.000148	<0.000148	<0.000472	<0.000472	<0.000472															
Notes:																																					
BTM - Background Threshold Value																																					
HBL - Health-Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.																																					
J - Jurisdictional Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.																																					
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.																																					
mg/L - milligrams per liter.																																					
mV - millivolts																																					
pCi/L - picocuries per liter.																																					
SU - standard units, pH is a field parameter.																																					
µS/cm - micro Siemens per centimeter																																					
All metals were analyzed as total unless otherwise specified.																																					

SSSIAP MM-1 (UPGRADIENT)															
Sample Location:				Assessment Monitoring											
Compliance Phase:				Initial A.M.											
Sample Dates:				Background											
6/21/2016	8/23/2016	10/17/2016	12/20/2016	2/21/2017	5/3/2017	6/12/2017	8/23/2017	3/21/2018	6/9/2018	8/27/2019	12/18/2019	6/17/2020	2/9/2021	7/19/2021	12/13/2022
Site BTU															
Constituent	Unit	MCL/HBL	Site BTU												
Field Parameters															
pH	SU	-	-	-	-	-	-	5.7	5.73	5.87	6.0	6.06	5.42	5.77	5.60
Conductivity	µS/cm	-	-	-	-	-	-	9,270	7,720	8,970	8,880	9,010	8,310	7,389	8,918
Turbidity	NTU	-	-	-	-	-	-	48	413	19.9	0	48.1	20.9	141.70	170.11
Dissolved Oxygen	mg/L	-	-	-	-	-	-	0	0.52	2.95	3.67	0.62	0.08	0.04	0.00
Temperature	°C	-	-	-	-	-	-	23.3	26.4	18.99	23.97	19.69	27.81	20.0	22.0
Oxidation Reduction Potential	mV	-	-	-	-	-	-	15	18	57	76	32	107	71.1	-100.3
Appendix III															
Bromine	mg/L	N/A	1.41	1.10	1.00	0.93	0.83	-	ND	1.43	0.81	-	0.8	0.69	0.757
Calcium	mg/L	N/A	745	659	683	673	685	-	ND	553	559	-	643	687	519
Chloride	mg/L	N/A	1,750	1,390	1,460	1,540	1,500	-	1,480	1,500	1,640	-	1,730	1,520	1,460
Fluoride	mg/L	4	0.5	0.2	0.2	0.2	0.1	0.1	ND	ND	ND	ND	ND	<0.130	0.1053
pH, Field	SU	N/A	5.25-6.32	5.9	5.93	6.03	6.01	5.69	5.73	5.9	5.97	6.06	5.42	5.77	5.60
Sulfate	mg/L	N/A	3,300	2,880	2,950	2,960	2,760	3,060	3,070	3,160	2,880	-	3,210	2,920	3,050
Total Dissolved Solids	mg/L	N/A	8,340	6,950	6,800	6,750	6,470	6,520	6,530	7,060	7,240	-	7,890	5,630	5,930
Appendix IV															
Antimony	mg/L	0.008	0.00157	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	0.0007713	0.001573
Arsenic	mg/L	0.01	0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	0.0	ND	0.0019	0.00169	0.00501	0.00415
Barium	mg/L	2	0.19	0.05	0.05	<0.1	0.07	0.05	ND	-	-	0.025	0.0284	0.184	0.0638
Beryllium	mg/L	0.004	0.002	<0.001	<0.001	<0.001	0.002	0.001	ND	ND	ND	ND	ND	0.00157	0.00101
Cadmium	mg/L	0.005	0.000217	<0.005	<0.005	<0.005	<0.005	<0.005	ND	ND	ND	ND	ND	<0.000217	<0.000217
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	ND	ND	0.00248	<0.00153
Cobalt	mg/L	0.006	0.00174	<0.02	<0.02	<0.02	<0.02	<0.02	ND	ND	ND	ND	ND	0.00174	0.00049
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	0.0106	0.00482
Lithium	mg/L	0.04	1.69	1.36	1.15	1.3	1.28	1.21	1.21	1.25	1.39	1.05	1.43	1.23	1.24
Mercury	mg/L	0.002	0.00013	<0.001	<0.001	<0.001	<0.001	<0.001	ND	-	-	ND	ND	<0.000130	<0.000130
Molybdenum	mg/L	0.1	0.00199	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	ND	ND	0.00199	0.000613
Radium-226/228	pCi/L	5.0	3.9	2.6	2.92	2.2	-0.06	0.6	1.5	1.81	1.07	1.47	1.33	3.380	2.09
Selenium	mg/L	0.05	0.000739	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	ND	ND	<0.00151	<0.00151
Thallium	mg/L	0.002	0.000472	<0.002	<0.002	<0.002	<0.002	<0.002	ND	ND	ND	ND	ND	0.0002063	0.0003883
Notes:															
BTU - Background Threshold Value															
HBL - Health-Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.															
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.															
mg/L - milligrams per liter.															
mV - millivolts															
mg/L - milligrams per liter.															
pCi/L - picocuries per liter.															
SU - standard units, pH is a field parameter.															
µS/cm - micro Siemens per centimeter															
All metals were analyzed as total unless otherwise specified.															

Constituent		Sample Location: Compliance Phase		Background																		Initial A.M.		SSP MW-2										Assessment Monitoring																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				Sample Dates										Background								Initial A.M.		SSP MW-2										Assessment Monitoring																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				8/21/2016	8/23/2016	10/18/2016	12/20/2016	2/21/2017	5/3/2017	6/14/2017	8/24/2017	3/20/2018	6/9/2018	11/5/2019	6/28/2019	12/18/2019	6/17/2020	2/10/2021	7/13/2021	7/20/2022	12/13/2022	8/27/2023	11/15/2023	8/28/2024	12/12/2024																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		MCL/HBL	Site BTv																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</

Notes:
BTv - Background Threshold Value
HBL - Health-Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal CR rule 40 CFR Part 257.
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.
mg/L - milligrams per liter.
mV - millivolts
pCi/L - picocuries per liter.
SU - standard units, pH is a field parameter.
µS/cm - micro Siemens per centimeter
All metals were analyzed as total unless otherwise specified.

Constituent		Sample Location: Compliance Phase		Background												Initial A.M.		SSP MW-3												Assessment Monitoring											
				Sample Dates												Sample Dates		Sample Dates												Sample Dates		Sample Dates									
	Unit	MCL/HBL	Site BTU	6/21/2016	8/23/2016	10/18/2016	12/20/2016	2/21/2017	5/4/2017	6/13/2017	8/24/2017	3/21/2018	6/11/2018	11/5/2019	8/27/2019	12/18/2019	6/17/2020	2/9/2021	7/13/2021	7/19/2022	12/13/2022	6/27/2023	11/14/2023	8/26/2024	12/12/2024																
Field Parameters																																									
pH	SU	-	-	-	-	-	-	-	-	-	-	-	-	4.3	4.29	4.15	4.3	4.73	3.6	4.29	4.18	4.42	4.17	4.21	4.34	5.09	4.73														
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	8,670	7,490	8,980	8,520	8,510	7,870	6,797	8,264	8,154	7,669	8,144	7,111	6,849	6,771														
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	-	-	48.1	44.8	19.1	7.7	20.1	42.6	6.50	2.87	11.11	38.92	5.04	5.91	220.41	16.22														
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.09	0.67	17.22	0.42	1.99	3.99	0.06	0.03	0.57	0.30	0.13	0.32	1.60	0.54														
Temperature	°C	-	-	-	-	-	-	-	-	-	-	-	-	21.91	28.11	20.45	26.99	22.81	17.5	23.3	22.7	24.3	22.4	25.2	21.9	209.0															
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-	-	282	323	323	272	299	331	301.3	274.4	193.4	80.7	222.0	256.8	113.9	209.0														
Appendix III																																									
Boron	mg/L	N/A	1.41	3.2	2.9	2.7	2.86	2.68	2.24	2.84	2.59	-	2.5	2.47	2.94	-	722	2.87	2.78	2.57	2.35	3.14	2.22	3.62	2.76	4.07															
Calcium	mg/L	N/A	745	647	693	689	703	694	684	673	646	-	689	618	712	-	722	712	712	690	659	673	722	641	659	603															
Chloride	mg/L	N/A	1,750	1,560	1,790	1,860	1,700	1,830	1,850	1,810	1,790	-	1,720	1,770	1,870	-	2,060	1,700	1,690	1,670	1,480	1,770	1,430	1,480	1,390																
Fluoride	mg/L	4	0.5	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.8	ND	1.82	2.72	ND	0.551	ND	0.441J	0.466J	0.441	0.435	0.423	0.348	0.563J	<1.00																
pH, Field	SU	N/A	5.25-6.32	4.4	4.3	4.31	4.16	4.45	4.34	4.16	4.20	4.26	4.28	4.45	4.25	4.73	3.6	4.29	4.18	4.42	4.42	4.17	4.21	4.34	5.09	4.73															
Sulfate	mg/L	N/A	3,300	2,400	2,500	2,440	2,480	2,520	2,380	2,510	2,510	-	2,500	2,550	2,370	-	2,760	2,430	2,370	2,200	2,210	2,440	2,320	2,270	2,510	2,510															
Total Dissolved Solids	mg/L	N/A	8,340	6,510	6,610	6,690	5,780	6,450	6,670	6,370	6,260	-	6,370	6,410	5,780	-	6,330	2,200	5,860	6,180	6,020	8,070	5,470	5,710	4,560	4,560															
Appendix IV																																									
Antimony	mg/L	0.006	0.00157	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	ND	-	-	ND	ND	ND	0.000378	0.00128J	<0.00506	<0.00967	<0.00967	<0.00375	<0.00750																
Arsenic	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	0.00655	ND	0.00314	0.00695	0.00631	0.00631	0.00636	0.00629	0.0065	0.00631	0.00670J	0.00714J																
Barium	mg/L	2	0.19	0.03	0.05	0.04	0.09	0.03	0.03	0.02	0.03	ND	-	-	-	0.0192	0.0239	0.0218	0.0218	0.0217	0.0221	0.0265	0.0251	0.0224	0.0184J																
Beryllium	mg/L	0.004	0.002	0.122	0.118	0.12	0.121	0.121	0.12	0.16	0.113	0.138	0.11	0.101	0.107	0.0992	0.105	0.12	0.104	0.0904	0.116	0.0927	0.101	0.0904	0.0977																
Cadmium	mg/L	0.005	0.000217	0.064	0.055	0.05	0.062	0.067	0.081	0.066	0.078	0.0686	0.0775	0.0877	0.0711	0.0788	0.0787	0.0736	0.0752	0.0688	0.0655	0.0829	0.0477	0.0589	0.0476																
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.0	0.00616	0.00575	0.0135	0.00235	0.00319	0.00221	<0.00153	0.00355J	<0.00560																
Cobalt	mg/L	0.006	0.00174	0.64	0.56	0.58	0.59	0.62	0.62	0.56	0.56	0.506	0.58	0.621	0.524	0.35	0.559	0.584	0.596	0.495	0.511	0.561	0.445	0.445	0.461																
Lead	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00562	ND	0.00441	0.0044	0.00519	0.00545	0.00533	0.00468	0.0028	0.0582	0.00414	0.00292	0.00438J	0.00454J																
Lithium	mg/L	0.04	1.69	0.72	0.64	0.75	0.73	0.66	0.61	0.67	0.53	0.644	0.526	0.514	0.587	0.549	0.602	0.593	0.589	0.511	0.622	0.568	0.533	0.289	0.360																
Mercury	mg/L	0.002	0.00013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	-	-	-	ND	ND	0.000162J	<0.000130	0.000669	0.000461	0.00015J	0.000218	0.000469	<0.0000708																
Molybdenum	mg/L	0.1	0.00199	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	<0.000610	0.000667J	0.00011J	<0.000610	0.000142J	<0.000610	<0.00128	<0.00255																
Radium-226/228	pCi/L	5.0	3.9	24.5	49.8	24.7	37	27.8	23.2	28.4	32.2	30.8	29.2	35.4	33.4	-	ND	32	40.2	34.2	27.3	36.6	31	31.3	29.0	34.0															
Selenium	mg/L	0.05	0.000739	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	0.00076	ND	<0.00151	0.000658J	<0.00151	0.000739	0.000792J	<0.000739	0.0221	0.0467																
Thallium	mg/L	0.002	0.000472	0.009	0.008	0.01	0.01	0.01	0.01	0.01	0.008	0.00982	0.0087	0.0112	0.0076	-	0.00661	0.0102	0.0101	0.00971	0.00795	0.0094	0.00974	0.00776J	0.00760J																

Notes:
BTU - Background Threshold Value
HBL - Health-Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.
MCL - Maximum Contaminant Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.
mg/L - milligrams per liter.
mV - millivolt
mg/L - milligrams per liter.
pCi/L - picocuries per liter.
SU - standard units, pH is a field parameter.
µS/cm - micro siemens per centimeter
All metals were analyzed as total unless otherwise specified.

Constituent		Sample Location: Compliance Phase		Background												Initial A.M.		Assessment Monitoring											
				Background												Initial A.M.		Assessment Monitoring											
				6/21/2016	8/23/2016	10/18/2016	12/20/2016	2/21/2017	5/4/2014	6/14/2017	8/24/2017	6/14/2018	6/17/2020	11/5/2019	6/27/2019	12/18/2019	6/17/2020	2/10/2021	7/13/2021	7/20/2022	12/12/2022	6/27/2023	11/14/2023	8/26/2024	12/12/2024				
Unit	MCL/HBL	Site BTM																											
Field Parameters																													
pH	SU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Conductivity	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Turbidity	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Temperature	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Oxidation Reduction Potential	mV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Appendix III																													
Boron	mg/L	N/A	1.41	1.3	1.31	1.28	1.24	1.47	1.31	1.15	1.15	-	1.35	ND	1.51	-	1.17	1.12	0.102	1.39	1.16	1.02	0.903	2.19	1.35	1.35	1.35		
Calcium	mg/L	N/A	745	369	395	413	413	390	455	413	365	-	408	371	414	-	403	398	389	428	428	264	276	555	411	411			
Chloride	mg/L	N/A	1,750	1,120	1,110	1,240	1,170	1,180	1,120	1,190	1,190	-	1,080	1,150	1,120	-	1,350	990	378	1,140	1,110	696	843	420	1,150	1,150			
Fluoride	mg/L	4	0.5	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND	ND	2.84	ND	ND	ND	<0.130	0.227J	0.103J	0.0585J	<0.0650	0.0444J	<0.500	<0.500				
pH, Field	SU	N/A	5.25-6.32	6.38	6.12	6.26	5.78	5.95	6.26	6.05	6.26	6.12	6.35	6.15	6.61	5.67	6.63	11.96	6.29	6.31	6.09	6.04	6.10	6.16	6.16	6.16			
Sulfate	mg/L	N/A	3,300	1,190	1,140	1,210	1,210	1,240	1,180	1,200	1,170	-	1,220	1,170	1,080	-	1,340	982	82	1,090	1,080	592	700	2,220	1,250	1,250			
Total Dissolved Solids	mg/L	N/A	8,340	3,880	3,930	3,850	3,890	3,390	3,660	3,630	3,630	-	3,870	3,790	4,040	-	3,880	2,890	3,080	3,740	3,660	2,470	2,910	3,870	5,700	5,700			
Appendix IV																													
Antimony	mg/L	0.006	0.00157	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	ND	-	-	-	ND	ND	<0.00378	0.000415J	<0.00506	<0.00897	0.00136J	<0.00375	<0.00375	<0.00375	<0.00375			
Arsenic	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	0.00203	ND	ND	0.00103	0.00694J	0.00084J	0.000497J	0.000811J	<0.00282	<0.00345	<0.00345	<0.00345				
Barium	mg/L	2	0.19	0.06	0.04	0.03	0.05	0.03	0.03	0.02	0.02	ND	-	-	-	0.0203	0.0273	0.027	0.103	0.0204	0.0212	0.025	0.0184	0.0271	0.0195J	0.0195J			
Beryllium	mg/L	0.004	0.002	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	ND	ND	ND	ND	ND	ND	<0.000182	<0.000182	<0.000274	<0.000274	<0.000274	<0.00136	<0.00136	<0.00136	<0.00136			
Cadmium	mg/L	0.005	0.000217	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	ND	ND	ND	ND	ND	ND	<0.000217	<0.000217	<0.000274	<0.000274	<0.000274	<0.00120	<0.00120	<0.00120	<0.00120			
Chromium	mg/L	0.1	0.00248	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	0.00762	0.00259	0.176	0.00284	0.00493	0.337	0.233	<0.00280	0.0111J	0.0111J			
Cobalt	mg/L	0.006	0.00174	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	ND	ND	ND	ND	ND	ND	0.000336J	<0.000134	<0.000261	0.000286J	<0.000261	<0.00178	<0.00178	<0.00178	<0.00178			
Ceair	mg/L	0.015	0.0106	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	ND	ND	ND	ND	ND	0.000161J	0.000276J	0.000234J	<0.000167	<0.000376	<0.00184	<0.00184	<0.00184	<0.00184			
Lithium	mg/L	0.04	1.69	0.94	0.87	1.02	1	0.87	0.87	0.95	0.78	1.01	0.81	0.858	0.919	0.706	0.911	0.727	0.146	0.767	0.975	0.402	0.542	0.757	0.772	0.772			
Mercury	mg/L	0.002	0.00013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ND	-	-	-	ND	ND	<0.000130	<0.000130	<0.000130	<0.000130	<0.000130	<0.0000706	<0.0000706	<0.0000706	<0.0000706			
Molybdenum	mg/L	0.1	0.00199	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND	-	-	-	ND	ND	0.00021J	0.00629	0.000864J	0.00694	0.202	0.108	<0.00128	0.0118	0.0118			
Radium-226/228	pCi/L	5.0	3.9	5.38	6.82	2.3	3	3.5	4.4	3.2	2.7	3.19	2.77	2.82	2.02	3.07	2.6	1.62	1.46	2.68	3.08	1.69	2.56	0.0164	4.74	4.74			
Selenium	mg/L	0.05	0.000739	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND	-	-	-	ND	ND	<0.00151	0.00441J	<0.000739	<0.000739	0.00711	0.00456J	<0.00295	<0.00295	<0.00295			
Thallium	mg/L	0.002	0.000472	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	ND	ND	ND	ND	ND	ND	<0.000448	<0.000148	<0.000472	<0.000472	<0.000472	<0.000625	<0.000625	<0.000625	<0.000625			
Notes:																													
BTM - Background Threshold Value																													
HBL - Health-Based Level, Groundwater protection standards established for cobalt, lithium, and molybdenum under the Federal COR rule 40 CFR Part 257.																													
MCL - Maximum Contaminant Level, EPA Drinking Water Standards and Health Advisories, April 2012.																													
mg/L - milligrams per liter.																													
mV - millivolts																													
mg/L - milligrams per liter.																													
pCi/L - picocuries per liter.																													
µS/cm - micro Siemens per centimeter																													
SU - standard units, pH is a field parameter.																													
All metals were analyzed as total unless otherwise specified.																													

Appendix D

Lab Reports

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ANALYTICAL REPORT

PREPARED FOR

Attn: David Vogt
HDR Inc
17111 Preston Road
Suite 200
Dallas, Texas 75248-1232

Generated 1/20/2025 4:00:06 PM Revision 1

JOB DESCRIPTION

Gibbons Creek Steam Electric Station
10012191

JOB NUMBER

870-29766-1

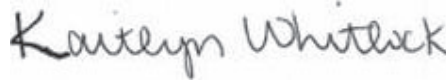
Eurofins Dallas

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
1/20/2025 4:00:06 PM
Revision 1

Authorized for release by
Kaitlyn Whitlock, Project Management Assistant I
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(214)902-0300



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Definitions/Glossary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

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

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
U	Indicates the analyte was analyzed for but not detected.

Rad

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

Glossary

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

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Definitions/Glossary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: HDR Inc
Project: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1

Job ID: 870-29766-1

Eurofins Dallas

Job Narrative 870-29766-1

REVISION

The report being provided is a revision of the original report sent on 11/15/2024. The report (revision 1) is being revised due to Client requests Lower Limits formatter.

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

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

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

Receipt

The samples were received on 9/3/2024 9:28 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 4.5°C, 4.9°C, 4.9°C, 5.3°C and 5.9°C.

HPLC/IC

Method 9056A_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-193322 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 9056A_ORGFM_28D: The following sample was diluted due to the abundance of non-target analytes: FB-1 (870-29766-8). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were analyzed outside of analytical holding time due to received out of hold: MNW-18 (870-29766-16), AP MW-1D (870-29766-17), AP MW-5 (870-29766-18), AP MW-4 (870-29766-19) and FB-2 (870-29766-20).

Method 9056A_ORGFM_28D: The following sample was diluted to bring the concentration of target analytes within the calibration range: AP MW-5 (870-29766-18). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were received outside of holding time: SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), SSP MW-3 (870-29766-4), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), SFL MW-6 (870-29766-9) and SFL MW-5 (870-29766-10).

Method 9056A_ORGFM_28D: The following sample was received outside of holding time: AP MW-3 DUP-1 (870-29766-7).

Method 9056A_ORGFM_28D: The following samples were diluted to bring the concentration of target analytes within the calibration range: SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13) and SFL MW-7 (870-29766-14). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were analyzed outside of analytical holding time due to PM/Client requested the analysis outside holding time: SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14) and MNW-15 (870-29766-15).

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

Metals

Method 6020B: The following samples were diluted due to the nature of the sample matrix: SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), EQ-1 (870-29766-3), SSP MW-3 (870-29766-4), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP

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MW-3 DUP-1 (870-29766-7), FB-1 (870-29766-8), SFL MW-6 (870-29766-9), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), MNW-15 (870-29766-15), MNW-18 (870-29766-16), AP MW-1D (870-29766-17), AP MW-5 (870-29766-18), AP MW-4 (870-29766-19) and FB-2 (870-29766-20). Elevated reporting limits (RLs) are provided.

Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-193215 and analytical batch 860-197122 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 7470A: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 28 days. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), EQ-1 (870-29766-3), SSP MW-3 (870-29766-4), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), FB-1 (870-29766-8), SFL MW-6 (870-29766-9), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), MNW-15 (870-29766-15), MNW-18 (870-29766-16), AP MW-1D (870-29766-17), AP MW-5 (870-29766-18), AP MW-4 (870-29766-19) and FB-2 (870-29766-20).

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

General Chemistry

Method 2540C_Calcd: The following samples were received outside of holding time: SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), EQ-1 (870-29766-3), SSP MW-3 (870-29766-4), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), FB-1 (870-29766-8), SFL MW-6 (870-29766-9), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), (870-29766-A-13 DU) and (870-29766-A-14 DU).

Method 2540C_Calcd: The following samples were analyzed outside of analytical holding time due analysis being taken off of hold: MNW-15 (870-29766-15), MNW-18 (870-29766-16), AP MW-1D (870-29766-17), AP MW-5 (870-29766-18), AP MW-4 (870-29766-19), FB-2 (870-29766-20) and (870-29766-A-15 DU).

Method SM4500_H+: The following samples were received outside of holding time: SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), EQ-1 (870-29766-3), SSP MW-3 (870-29766-4), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), FB-1 (870-29766-8), SFL MW-6 (870-29766-9), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), (870-29766-A-1 DU) and (870-29766-A-11 DU).

Method SM4500_H+: The following samples were received outside of holding time: MNW-15 (870-29766-15), MNW-18 (870-29766-16), AP MW-1D (870-29766-17), AP MW-5 (870-29766-18), AP MW-4 (870-29766-19), FB-2 (870-29766-20) and (870-29766-A-20 DU).

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

Gamma Spectroscopy

Method 901.1_Ra: Gamma prep batch 160-683702

The minimum detectable concentration (MDC) for the method blank (MB) is above the requested limit for Ra226 and Ra228. The activity was not observed in the MB above the MDC or reporting limit (RL). The data for the following sample have been reported with the MDC achieved:

(MB 160-683702/1-A)

Method 901.1_Ra: Gamma prep batch 160-683702

The detection goal of 50 pCi/L was not met for Ra226 and/or Ra228 for the following sample. An elevated MDC can occur when higher background counts are applied to a peak ROI. This is due to the relatively small size of the peak or subsequent "force-fit" of the non-existent peak which resulted in higher than normal background counts due to statistical fluctuations in the Compton baseline. The laboratory does not believe this adversely affects the data, the activity is well below the RL and MDC.

SSP/AP MW-1 (870-29766-1), EQ-1 (870-29766-3), SSP MW-3 (870-29766-4), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), FB-1 (870-29766-8), SFL MW-6 (870-29766-9), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), MNW-15 (870-29766-15), AP MW-5 (870-29766-18), AP MW-4 (870-29766-19) and FB-2 (870-29766-20)

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Method 901.1_Ra: Gamma Prep Batch 160-683702

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), EQ-1 (870-29766-3), SSP MW-3 (870-29766-4), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), FB-1 (870-29766-8), SFL MW-6 (870-29766-9), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), MNW-15 (870-29766-15), MNW-18 (870-29766-16), AP MW-1D (870-29766-17), AP MW-5 (870-29766-18), AP MW-4 (870-29766-19), FB-2 (870-29766-20) and (870-29766-B-1-B DU)

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

Gas Flow Proportional Counter

Method 903.0: Radium-226 prep batch 160-683837

Insufficient sample volume was available to perform a sample duplicate for the following samples: SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), EQ-1 (870-29766-3), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), SFL MW-6 (870-29766-9), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), MNW-18 (870-29766-16), AP MW-1D (870-29766-17) and FB-2 (870-29766-20). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 904.0: Radium-228prep batch 160-683838

Insufficient sample volume was available to perform a sample duplicate for the following samples: SSP/AP MW-1 (870-29766-1), SSP MW-4 (870-29766-2), EQ-1 (870-29766-3), SSP MW-2 (870-29766-5), AP MW-3 (870-29766-6), AP MW-3 DUP-1 (870-29766-7), FB-1 (870-29766-8), SFL MW-5 (870-29766-10), SFL MW-2 (870-29766-11), SFL MW-4 (870-29766-12), SFL MW-3 (870-29766-13), SFL MW-7 (870-29766-14), MNW-18 (870-29766-16), AP MW-1D (870-29766-17) and FB-2 (870-29766-20). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 904.0: Radium 228 Batch 683838

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Client: HDR Inc
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The detection goal was not met for the following sample due to the presence of matrix interferences: SSP MW-3 (870-29766-4). Analytical results are reported with the detection limit achieved.

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

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP/AP MW-1

Lab Sample ID: 870-29766-1

Date Collected: 08/28/24 11:00

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1640	H	2.50	1.25	mg/L			10/14/24 17:34	5
Fluoride	<0.500	U H	2.50	0.500	mg/L			10/14/24 17:34	5
Sulfate	3760	H	25.0	10.0	mg/L			10/14/24 17:40	50

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	1.40		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0288	J	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 21:40	5
Antimony	0.0245		0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 21:40	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 21:40	5
Iron	3.58		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 21:40	5
Barium	0.0245		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 21:40	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 21:40	5
Boron	0.742		0.0500	0.0200	mg/L		10/12/24 10:30	10/30/24 17:04	5
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 21:40	5
Calcium	649		2.00	0.601	mg/L		10/12/24 10:30	10/30/24 17:08	20
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 21:40	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 21:40	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 21:40	5
Molybdenum	0.00321	J	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 21:40	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 21:40	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 21:40	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 18:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7510	H	20.0	20.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	5.9	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	20.5	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	44.0		23.2	23.6	50.0	24.9	pCi/L	10/15/24 14:02	11/05/24 07:22	1
Radium-228	-3.11	U G	42.6	42.6	50.0	53.6	pCi/L	10/15/24 14:02	11/05/24 07:22	1
Combined Radium 226 + 228	40.9	U	48.5	48.7		53.6	pCi/L	10/15/24 14:02	11/05/24 07:22	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0437	U	0.0875	0.0875	1.00	0.154	pCi/L	10/16/24 08:33	11/11/24 16:05	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP/AP MW-1

Lab Sample ID: 870-29766-1

Date Collected: 08/28/24 11:00

Matrix: Water

Date Received: 09/03/24 09:28

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		30 - 110	10/16/24 08:33	11/11/24 16:05	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.31		0.573	0.586	1.00	0.771	pCi/L	10/16/24 08:38	11/01/24 12:02	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		30 - 110	10/16/24 08:38	11/01/24 12:02	1
Y Carrier	68.0		30 - 110	10/16/24 08:38	11/01/24 12:02	1

Client Sample ID: SSP MW-4

Lab Sample ID: 870-29766-2

Date Collected: 08/28/24 12:30

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	420	H	2.50	1.25	mg/L			10/14/24 17:47	5
Fluoride	<0.500	U H	2.50	0.500	mg/L			10/14/24 17:47	5
Sulfate	2220	H	2.50	1.00	mg/L			10/14/24 17:47	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.757		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 21:56	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 21:56	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 21:56	5
Iron	0.592		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 21:56	5
Barium	0.0271		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 21:56	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 21:56	5
Boron	2.19		0.100	0.0401	mg/L		10/12/24 10:30	10/30/24 17:16	10
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 21:56	5
Calcium	555		2.00	0.601	mg/L		10/12/24 10:30	10/30/24 17:19	20
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 21:56	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 21:56	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 21:56	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 21:56	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 21:56	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 21:56	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 18:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3870	H	20.0	20.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	6.3	HF			SU			10/12/24 13:49	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP MW-4

Lab Sample ID: 870-29766-2

Date Collected: 08/28/24 12:30

Matrix: Water

Date Received: 09/03/24 09:28

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	22.3	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	33.9		21.5	21.7	50.0	26.7	pCi/L	10/15/24 14:02	11/05/24 07:23	1
Radium-228	18.6	U	27.9	27.9	50.0	36.0	pCi/L	10/15/24 14:02	11/05/24 07:23	1
Combined Radium 226 + 228	52.5		35.2	35.3		36.0	pCi/L	10/15/24 14:02	11/05/24 07:23	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0777	U	0.0784	0.0788	1.00	0.124	pCi/L	10/16/24 08:33	11/11/24 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110					10/16/24 08:33	11/11/24 16:05	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0613	U	0.356	0.356	1.00	0.677	pCi/L	10/16/24 08:38	11/01/24 12:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110					10/16/24 08:38	11/01/24 12:02	1
Y Carrier	80.7		30 - 110					10/16/24 08:38	11/01/24 12:02	1

Client Sample ID: EQ-1

Lab Sample ID: 870-29766-3

Date Collected: 08/28/24 13:00

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U H F1	0.500	0.250	mg/L			10/14/24 18:13	1
Fluoride	<0.100	U H	0.500	0.100	mg/L			10/14/24 18:13	1
Sulfate	<0.200	U H F1	0.500	0.200	mg/L			10/14/24 18:13	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.00713	J	0.0200	0.00549	mg/L		10/12/24 10:30	10/30/24 17:22	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		10/12/24 10:30	10/30/24 17:22	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		10/12/24 10:30	10/30/24 17:22	1
Iron	0.0249		0.0200	0.00445	mg/L		10/12/24 10:30	10/30/24 17:22	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		10/12/24 10:30	10/30/24 17:22	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		10/12/24 10:30	10/30/24 17:22	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: EQ-1

Lab Sample ID: 870-29766-3

Date Collected: 08/28/24 13:00

Matrix: Water

Date Received: 09/03/24 09:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0162		0.0100	0.00401	mg/L		10/12/24 10:30	10/30/24 17:22	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		10/12/24 10:30	10/30/24 17:22	1
Calcium	0.0339	J	0.100	0.0301	mg/L		10/12/24 10:30	10/30/24 17:22	1
Chromium	0.00371	J	0.00400	0.000560	mg/L		10/12/24 10:30	10/30/24 17:22	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		10/12/24 10:30	10/30/24 17:22	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		10/12/24 10:30	10/30/24 17:22	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		10/12/24 10:30	10/30/24 17:22	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		10/12/24 10:30	10/30/24 17:22	1
Thallium	<0.000185	U	0.00200	0.000185	mg/L		10/12/24 10:30	10/30/24 17:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	51.5	H	2.50	2.50	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	5.9	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	20.8	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-12.3	U G	30.5	30.5	50.0	52.4	pCi/L	10/15/24 14:02	11/05/24 07:23	1
Radium-228	-2.49	U G	6.10	6.10	50.0	56.2	pCi/L	10/15/24 14:02	11/05/24 07:23	1
Combined Radium 226 + 228	-14.8	U	31.1	31.1		56.2	pCi/L	10/15/24 14:02	11/05/24 07:23	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.102		0.0701	0.0707	1.00	0.0941	pCi/L	10/16/24 08:33	11/11/24 16:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		30 - 110					10/16/24 08:33	11/11/24 16:06	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.211	U	0.350	0.351	1.00	0.599	pCi/L	10/16/24 08:38	11/01/24 12:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		30 - 110					10/16/24 08:38	11/01/24 12:02	1
Y Carrier	76.6		30 - 110					10/16/24 08:38	11/01/24 12:02	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP MW-3

Lab Sample ID: 870-29766-4

Date Collected: 08/28/24 14:30

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1480	H	2.50	1.25	mg/L			10/14/24 18:38	5
Fluoride	0.563	J H	2.50	0.500	mg/L			10/14/24 18:38	5
Sulfate	2270	H	2.50	1.00	mg/L			10/14/24 18:38	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.289		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.74		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:00	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:00	5
Arsenic	0.00670	J	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:00	5
Iron	1.33		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:00	5
Barium	0.0244		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:00	5
Beryllium	0.0904		0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:00	5
Boron	2.76		0.100	0.0401	mg/L		10/12/24 10:30	10/30/24 17:29	10
Cadmium	0.0589		0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:00	5
Calcium	659		2.00	0.601	mg/L		10/12/24 10:30	10/30/24 17:33	20
Chromium	0.00355	J	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:00	5
Cobalt	0.445		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:00	5
Lead	0.00438	J	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:00	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:00	5
Selenium	0.0221		0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:00	5
Thallium	0.00778	J	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:00	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000469	H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5710	H	20.0	20.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	5.2	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	19.9	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-17.4	U G	31.9	31.9	50.0	54.8	pCi/L	10/15/24 14:02	11/05/24 07:24	1
Radium-228	74.1		27.2	28.1	50.0	21.4	pCi/L	10/15/24 14:02	11/05/24 07:24	1
Combined Radium 226 + 228	56.7		41.9	42.5		54.8	pCi/L	10/15/24 14:02	11/05/24 07:24	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.34		0.439	0.532	1.00	0.189	pCi/L	10/16/24 08:33	11/11/24 16:07	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP MW-3

Date Collected: 08/28/24 14:30

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-4

Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110	10/16/24 08:33	11/11/24 16:07	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	25.7	G	2.22	3.25	1.00	1.05	pCi/L	10/16/24 08:38	11/01/24 12:03	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110	10/16/24 08:38	11/01/24 12:03	1
Y Carrier	81.1		30 - 110	10/16/24 08:38	11/01/24 12:03	1

Client Sample ID: SSP MW-2

Date Collected: 08/28/24 15:30

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2370	H	5.00	2.50	mg/L			10/14/24 18:51	10
Fluoride	<1.00	U H	5.00	1.00	mg/L			10/14/24 18:51	10
Sulfate	2390	H	5.00	2.00	mg/L			10/14/24 18:51	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.481		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.82		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:02	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:02	5
Arsenic	0.00465	J	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:02	5
Iron	3.96		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:02	5
Barium	0.0205		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:02	5
Beryllium	0.0532		0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:02	5
Boron	0.558		0.0500	0.0200	mg/L		10/12/24 10:30	10/30/24 17:36	5
Cadmium	0.00140	J	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:02	5
Calcium	920		5.00	1.50	mg/L		10/12/24 10:30	10/30/24 17:39	50
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:02	5
Cobalt	0.0574		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:02	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:02	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:02	5
Selenium	0.0261		0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:02	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:02	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7850	H	20.0	20.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	4.6	HF			SU			10/12/24 13:49	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP MW-2

Lab Sample ID: 870-29766-5

Date Collected: 08/28/24 15:30

Matrix: Water

Date Received: 09/03/24 09:28

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	20.6	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	19.4	U	16.4	16.5	50.0	22.7	pCi/L	10/15/24 14:02	11/05/24 07:24	1
Radium-228	13.4	U G	37.0	37.0	50.0	66.3	pCi/L	10/15/24 14:02	11/05/24 07:24	1
Combined Radium 226 + 228	32.8	U	40.5	40.5		66.3	pCi/L	10/15/24 14:02	11/05/24 07:24	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.406		0.115	0.121	1.00	0.0916	pCi/L	10/16/24 08:33	11/11/24 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		30 - 110					10/16/24 08:33	11/11/24 16:07	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.17		0.536	0.572	1.00	0.566	pCi/L	10/16/24 08:38	11/01/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		30 - 110					10/16/24 08:38	11/01/24 12:03	1
Y Carrier	77.8		30 - 110					10/16/24 08:38	11/01/24 12:03	1

Client Sample ID: AP MW-3

Lab Sample ID: 870-29766-6

Date Collected: 08/28/24 16:30

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	153	H	0.500	0.250	mg/L			10/14/24 19:04	1
Fluoride	0.112	J H	0.500	0.100	mg/L			10/14/24 19:04	1
Sulfate	667	H	5.00	2.00	mg/L			10/14/24 19:11	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:04	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:04	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:04	5
Iron	0.0547	J	0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:04	5
Barium	0.0215		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:04	5
Beryllium	0.00295	J	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:04	5

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-3

Lab Sample ID: 870-29766-6

Date Collected: 08/28/24 16:30

Matrix: Water

Date Received: 09/03/24 09:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.53		0.200	0.0801	mg/L		10/12/24 10:30	10/30/24 17:42	20
Cadmium	0.00349	J	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:04	5
Calcium	145		0.500	0.150	mg/L		10/12/24 10:30	10/18/24 22:04	5
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:04	5
Cobalt	0.0332		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:04	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:04	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:04	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:04	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:04	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00177	H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1230	H	5.00	5.00	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	5.3	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	21.9	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	-7.10	U G	(2σ+/-) 49.5	(2σ+/-) 49.5	50.0	86.4	pCi/L	10/15/24 14:02	11/05/24 09:12	1
Radium-228	3.63	U G	(2σ+/-) 41.0	(2σ+/-) 41.0	50.0	62.4	pCi/L	10/15/24 14:02	11/05/24 09:12	1
Combined Radium 226 + 228	-3.47	U	(2σ+/-) 64.3	(2σ+/-) 64.3		86.4	pCi/L	10/15/24 14:02	11/05/24 09:12	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	0.228		(2σ+/-) 0.0939	(2σ+/-) 0.0961	1.00	0.100	pCi/L	10/16/24 08:33	11/11/24 16:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		30 - 110					10/16/24 08:33	11/11/24 16:07	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-228	2.10		(2σ+/-) 0.558	(2σ+/-) 0.591	1.00	0.633	pCi/L	10/16/24 08:38	11/01/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		30 - 110					10/16/24 08:38	11/01/24 12:03	1
Y Carrier	78.5		30 - 110					10/16/24 08:38	11/01/24 12:03	1

Eurofins Dallas

Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-3 DUP-1

Lab Sample ID: 870-29766-7

Date Collected: 08/28/24 16:45

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	153	H	0.500	0.250	mg/L			10/14/24 19:30	1
Fluoride	0.112	J H	0.500	0.100	mg/L			10/14/24 19:30	1
Sulfate	665	H	5.00	2.00	mg/L			10/14/24 19:36	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:07	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:07	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:07	5
Iron	0.0776	J	0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:07	5
Barium	0.0224		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:07	5
Beryllium	0.00304	J	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:07	5
Boron	4.72		0.200	0.0801	mg/L		10/12/24 10:30	10/30/24 17:45	20
Cadmium	0.00356	J	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:07	5
Calcium	149		0.500	0.150	mg/L		10/12/24 10:30	10/18/24 22:07	5
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:07	5
Cobalt	0.0340		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:07	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:07	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:07	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:07	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:07	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00189	H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 18:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1250	H	5.00	5.00	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	5.3	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	22.5	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-20.1	U G	19.7	19.8	50.0	53.4	pCi/L	10/15/24 14:02	11/05/24 09:11	1
Radium-228	17.0	U	33.6	33.6	50.0	30.4	pCi/L	10/15/24 14:02	11/05/24 09:11	1
Combined Radium 226 + 228	-3.09	U	38.9	39.0		53.4	pCi/L	10/15/24 14:02	11/05/24 09:11	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.160		0.0760	0.0774	1.00	0.0751	pCi/L	10/16/24 08:33	11/11/24 16:07	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-3 DUP-1

Lab Sample ID: 870-29766-7

Date Collected: 08/28/24 16:45

Matrix: Water

Date Received: 09/03/24 09:28

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		30 - 110	10/16/24 08:33	11/11/24 16:07	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.44		0.483	0.500	1.00	0.584	pCi/L	10/16/24 08:38	11/01/24 12:03	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		30 - 110	10/16/24 08:38	11/01/24 12:03	1
Y Carrier	80.0		30 - 110	10/16/24 08:38	11/01/24 12:03	1

Client Sample ID: FB-1

Lab Sample ID: 870-29766-8

Date Collected: 08/28/24 16:50

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U H	0.500	0.250	mg/L			10/14/24 19:56	1
Fluoride	<0.100	U H	0.500	0.100	mg/L			10/14/24 19:56	1
Sulfate	0.228	J H	0.500	0.200	mg/L			10/14/24 19:56	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		10/12/24 10:30	10/30/24 17:48	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		10/12/24 10:30	10/30/24 17:48	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		10/12/24 10:30	10/30/24 17:48	1
Iron	0.00950	J	0.0200	0.00445	mg/L		10/12/24 10:30	10/30/24 17:48	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		10/12/24 10:30	10/30/24 17:48	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		10/12/24 10:30	10/30/24 17:48	1
Boron	0.0187		0.0100	0.00401	mg/L		10/12/24 10:30	10/30/24 17:48	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		10/12/24 10:30	10/30/24 17:48	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		10/12/24 10:30	10/30/24 17:48	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		10/12/24 10:30	10/30/24 17:48	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		10/12/24 10:30	10/30/24 17:48	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		10/12/24 10:30	10/30/24 17:48	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		10/12/24 10:30	10/30/24 17:48	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		10/12/24 10:30	10/30/24 17:48	1
Thallium	<0.000185	U	0.00200	0.000185	mg/L		10/12/24 10:30	10/30/24 17:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	22.0	H	2.50	2.50	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	5.5	HF			SU			10/12/24 13:49	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: FB-1

Lab Sample ID: 870-29766-8

Date Collected: 08/28/24 16:50

Matrix: Water

Date Received: 09/03/24 09:28

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	22.6	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	7.03	U G	4.97	5.02	50.0	51.6	pCi/L	10/15/24 14:02	11/05/24 09:12	1
Radium-228	23.9	U	31.1	31.2	50.0	36.0	pCi/L	10/15/24 14:02	11/05/24 09:12	1
Combined Radium 226 + 228	30.9	U	31.5	31.6		51.6	pCi/L	10/15/24 14:02	11/05/24 09:12	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0268	U	0.0578	0.0579	1.00	0.105	pCi/L	10/16/24 08:33	11/11/24 16:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					10/16/24 08:33	11/11/24 16:11	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.453	U	0.359	0.362	1.00	0.551	pCi/L	10/16/24 08:38	11/01/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					10/16/24 08:38	11/01/24 12:03	1
Y Carrier	76.3		30 - 110					10/16/24 08:38	11/01/24 12:03	1

Client Sample ID: SFL MW-6

Lab Sample ID: 870-29766-9

Date Collected: 08/29/24 08:35

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6170	H	50.0	25.0	mg/L			10/14/24 20:15	100
Fluoride	<1.00	U H	5.00	1.00	mg/L			10/14/24 20:08	10
Sulfate	2420	H	5.00	2.00	mg/L			10/14/24 20:08	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.490		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10.4		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:11	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:11	5
Arsenic	0.0202		0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:11	5
Iron	21.7		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:11	5
Barium	0.0730		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:11	5
Beryllium	0.0728		0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:11	5

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-6

Lab Sample ID: 870-29766-9

Date Collected: 08/29/24 08:35

Matrix: Water

Date Received: 09/03/24 09:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.406		0.0500	0.0200	mg/L		10/12/24 10:30	10/30/24 17:51	5
Cadmium	0.00697	J	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:11	5
Calcium	1250		5.00	1.50	mg/L		10/12/24 10:30	10/30/24 17:54	50
Chromium	0.00620	J	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:11	5
Cobalt	0.150		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:11	5
Lead	0.0141		0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:11	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:11	5
Selenium	0.0885		0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:11	5
Thallium	0.00415	J	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:11	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000222	H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	13100	H	50.0	50.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	3.4	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	21.2	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	-24.8	U G	(2σ+/-) 28.4	(2σ+/-) 28.5	50.0	61.3	pCi/L	10/15/24 14:02	11/05/24 09:13	1
Radium-228	-20.0	U G	(2σ+/-) 54.9	(2σ+/-) 54.9	50.0	61.5	pCi/L	10/15/24 14:02	11/05/24 09:13	1
Combined Radium 226 + 228	-44.9	U	(2σ+/-) 61.8	(2σ+/-) 61.9		61.5	pCi/L	10/15/24 14:02	11/05/24 09:13	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	2.07		(2σ+/-) 0.298	(2σ+/-) 0.351	1.00	0.175	pCi/L	10/16/24 08:33	11/11/24 16:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		30 - 110					10/16/24 08:33	11/11/24 16:11	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-228	13.9		(2σ+/-) 1.39	(2σ+/-) 1.89	1.00	0.736	pCi/L	10/16/24 08:38	11/01/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		30 - 110					10/16/24 08:38	11/01/24 12:03	1
Y Carrier	74.4		30 - 110					10/16/24 08:38	11/01/24 12:03	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-5

Lab Sample ID: 870-29766-10

Date Collected: 08/29/24 09:15

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3020	H	25.0	12.5	mg/L			10/14/24 20:28	50
Fluoride	<0.500	U H	2.50	0.500	mg/L			10/14/24 20:21	5
Sulfate	2390	H	2.50	1.00	mg/L			10/14/24 20:21	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.533		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.744		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:13	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:13	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:13	5
Iron	0.674		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:13	5
Barium	0.0191	J	0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:13	5
Beryllium	0.0128		0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:13	5
Boron	6.65		0.200	0.0801	mg/L		10/12/24 10:30	10/30/24 17:57	20
Cadmium	0.00460	J	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:13	5
Calcium	905		2.00	0.601	mg/L		10/12/24 10:30	10/30/24 17:57	20
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:13	5
Cobalt	0.0525		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:13	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:13	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:13	5
Selenium	0.0126		0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:13	5
Thallium	0.00129	J	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:13	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000114	J H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	9280	H	50.0	50.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	4.4	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	19.5	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	11.4	U	15.5	15.6	50.0	22.9	pCi/L	10/15/24 14:02	11/05/24 09:13	1
Radium-228	1.60	U G	5.91	5.91	50.0	59.0	pCi/L	10/15/24 14:02	11/05/24 09:13	1
Combined Radium 226 + 228	13.0	U	16.6	16.7		59.0	pCi/L	10/15/24 14:02	11/05/24 09:13	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.98		0.250	0.307	1.00	0.121	pCi/L	10/16/24 08:33	11/11/24 16:11	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-5

Lab Sample ID: 870-29766-10

Date Collected: 08/29/24 09:15

Matrix: Water

Date Received: 09/03/24 09:28

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		30 - 110	10/16/24 08:33	11/11/24 16:11	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	11.4		1.08	1.51	1.00	0.554	pCi/L	10/16/24 08:38	11/01/24 12:03	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		30 - 110	10/16/24 08:38	11/01/24 12:03	1
Y Carrier	80.0		30 - 110	10/16/24 08:38	11/01/24 12:03	1

Client Sample ID: SFL MW-2

Lab Sample ID: 870-29766-11

Date Collected: 08/29/24 09:55

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.00	U H	5.00	1.00	mg/L			10/15/24 14:05	10
Sulfate	1860	H	5.00	2.00	mg/L			10/15/24 14:05	10

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3490	H	50.0	25.0	mg/L			10/15/24 14:13	100

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.231		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.836		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:15	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:15	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:15	5
Iron	0.296		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:15	5
Barium	0.0292		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:15	5
Beryllium	0.00546	J	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:15	5
Boron	0.555		0.100	0.0401	mg/L		10/12/24 10:30	10/30/24 18:05	10
Cadmium	0.00208	J	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:15	5
Calcium	935		5.00	1.50	mg/L		10/12/24 10:30	10/30/24 18:09	50
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:15	5
Cobalt	0.0316		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:15	5
Lead	0.00184	J	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:15	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:15	5
Selenium	0.00450	J	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:15	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:15	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000860	J H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:12	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-2

Lab Sample ID: 870-29766-11

Date Collected: 08/29/24 09:55

Matrix: Water

Date Received: 09/03/24 09:28

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	9530	H	50.0	50.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	6.1	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	20.8	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	11.5	U G	6.95	7.04	50.0	59.4	pCi/L	10/15/24 14:02	11/05/24 09:14	1
Radium-228	2.23	U G	4.99	5.00	50.0	76.6	pCi/L	10/15/24 14:02	11/05/24 09:14	1
Combined Radium 226 + 228	13.8	U	8.56	8.63		76.6	pCi/L	10/15/24 14:02	11/05/24 09:14	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.10		0.209	0.231	1.00	0.145	pCi/L	10/16/24 08:33	11/11/24 16:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110					10/16/24 08:33	11/11/24 16:12	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.91		0.924	1.12	1.00	0.659	pCi/L	10/16/24 08:38	11/01/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110					10/16/24 08:38	11/01/24 12:05	1
Y Carrier	79.6		30 - 110					10/16/24 08:38	11/01/24 12:05	1

Client Sample ID: SFL MW-4

Lab Sample ID: 870-29766-12

Date Collected: 08/29/24 10:30

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.500	U H	2.50	0.500	mg/L			10/15/24 14:20	5
Sulfate	2080	H	2.50	1.00	mg/L			10/15/24 14:20	5

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1830	H	25.0	12.5	mg/L			10/15/24 14:28	50

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.209		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:21	5

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-4

Lab Sample ID: 870-29766-12

Date Collected: 08/29/24 10:30

Matrix: Water

Date Received: 09/03/24 09:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:21	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:21	5
Iron	1.25		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:21	5
Barium	0.0291		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:21	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:21	5
Boron	0.646		0.100	0.0401	mg/L		10/12/24 10:30	10/30/24 18:12	10
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:21	5
Calcium	763		2.00	0.601	mg/L		10/12/24 10:30	10/30/24 18:16	20
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:21	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:21	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:21	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:21	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:21	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:21	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6100	H	20.0	20.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	6.5	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	20.2	HF			Celsius			10/12/24 13:49	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	22.7		14.6	14.7	50.0	20.8	pCi/L	10/15/24 14:02	11/05/24 13:33	1
Radium-228	1.76	U G	6.52	6.52	50.0	54.2	pCi/L	10/15/24 14:02	11/05/24 13:33	1
Combined Radium 226 + 228	24.5	U	16.0	16.1		54.2	pCi/L	10/15/24 14:02	11/05/24 13:33	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.317		0.126	0.129	1.00	0.146	pCi/L	10/16/24 08:33	11/11/24 16:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					10/16/24 08:33	11/11/24 16:12	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.891		0.436	0.444	1.00	0.585	pCi/L	10/16/24 08:38	11/01/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					10/16/24 08:38	11/01/24 12:05	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-4

Date Collected: 08/29/24 10:30

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-12

Matrix: Water

Method: EPA 904.0 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	73.3		30 - 110	10/16/24 08:38	11/01/24 12:05	1

Client Sample ID: SFL MW-3

Date Collected: 08/29/24 11:05

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-13

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.241	J H	0.500	0.100	mg/L			10/15/24 14:35	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	847	H	5.00	2.50	mg/L			10/15/24 14:43	10
Sulfate	2540	H	5.00	2.00	mg/L			10/15/24 14:43	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.0983		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8.10		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:23	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:23	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:23	5
Iron	1.75		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:23	5
Barium	0.0138	J	0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:23	5
Beryllium	0.0322		0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:23	5
Boron	4.87		0.200	0.0801	mg/L		10/12/24 10:30	10/30/24 18:19	20
Cadmium	0.00464	J	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:23	5
Calcium	614		2.00	0.601	mg/L		10/12/24 10:30	10/30/24 18:19	20
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:23	5
Cobalt	0.0520		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:23	5
Lead	0.0168		0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:23	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:23	5
Selenium	0.0167		0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:23	5
Thallium	0.00511	J	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:23	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000228	H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5070	H	20.0	20.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	3.9	HF			SU			10/12/24 13:49	1
Temperature (SM 4500 H+ B)	21.4	HF			Celsius			10/12/24 13:49	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-3

Lab Sample ID: 870-29766-13

Date Collected: 08/29/24 11:05

Matrix: Water

Date Received: 09/03/24 09:28

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-24.8	U G	28.3	28.4	50.0	71.3	pCi/L	10/15/24 14:02	11/05/24 13:37	1
Radium-228	-27.3	U G	33.7	33.8	50.0	66.4	pCi/L	10/15/24 14:02	11/05/24 13:37	1
Combined Radium 226 + 228	-52.1	U	44.0	44.1		71.3	pCi/L	10/15/24 14:02	11/05/24 13:37	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.04		0.173	0.197	1.00	0.113	pCi/L	10/16/24 08:33	11/11/24 16:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		30 - 110					10/16/24 08:33	11/11/24 16:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.06		0.609	0.671	1.00	0.525	pCi/L	10/16/24 08:38	11/01/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		30 - 110					10/16/24 08:38	11/01/24 12:05	1
Y Carrier	71.4		30 - 110					10/16/24 08:38	11/01/24 12:05	1

Client Sample ID: SFL MW-7

Lab Sample ID: 870-29766-14

Date Collected: 08/29/24 11:40

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.500	U H	2.50	0.500	mg/L			10/15/24 14:50	5
Sulfate	651	H	2.50	1.00	mg/L			10/15/24 14:50	5

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2280	H	25.0	12.5	mg/L			10/15/24 14:58	50

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.284		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:25	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:25	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:25	5
Iron	0.238		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:25	5
Barium	0.0472		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:25	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:25	5
Boron	0.877		0.100	0.0401	mg/L		10/12/24 10:30	10/30/24 18:22	10

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-7

Lab Sample ID: 870-29766-14

Date Collected: 08/29/24 11:40

Matrix: Water

Date Received: 09/03/24 09:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:25	5
Calcium	473		1.00	0.301	mg/L		10/12/24 10:30	10/30/24 18:22	10
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:25	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:25	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:25	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:25	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:25	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:25	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5020	H	20.0	20.0	mg/L			10/12/24 13:52	1
pH (SM 4500 H+ B)	6.6	HF			SU			10/12/24 13:50	1
Temperature (SM 4500 H+ B)	21.7	HF			Celsius			10/12/24 13:50	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	20.3	U G	20.1	20.2	50.0	54.5	pCi/L	10/15/24 14:02	11/05/24 15:05	1
Radium-228	10.9	U	23.6	23.6	50.0	48.1	pCi/L	10/15/24 14:02	11/05/24 15:05	1
Combined Radium 226 + 228	31.2	U	31.0	31.1		54.5	pCi/L	10/15/24 14:02	11/05/24 15:05	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.327		0.113	0.117	1.00	0.104	pCi/L	10/16/24 08:33	11/11/24 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		30 - 110					10/16/24 08:33	11/11/24 18:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.10		0.463	0.474	1.00	0.598	pCi/L	10/16/24 08:38	11/01/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		30 - 110					10/16/24 08:38	11/01/24 12:05	1
Y Carrier	80.0		30 - 110					10/16/24 08:38	11/01/24 12:05	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: MNW-15

Lab Sample ID: 870-29766-15

Date Collected: 08/29/24 12:20

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	678	H	2.50	1.25	mg/L			10/15/24 15:05	5
Fluoride	0.927	J H	2.50	0.500	mg/L			10/15/24 15:05	5
Sulfate	1440	H	2.50	1.00	mg/L			10/15/24 15:05	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	28.0		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:27	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:27	5
Arsenic	0.00665	J	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:27	5
Iron	24.0		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:27	5
Barium	0.0170	J	0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:27	5
Beryllium	0.0847		0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:27	5
Boron	10.3		0.500	0.200	mg/L		10/12/24 10:30	10/30/24 18:25	50
Cadmium	0.0267		0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:27	5
Calcium	332		5.00	1.50	mg/L		10/12/24 10:30	10/30/24 18:25	50
Chromium	0.0146	J	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:27	5
Cobalt	0.308		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:27	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:27	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:27	5
Selenium	0.0467		0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:27	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:27	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3770	H	20.0	20.0	mg/L			10/16/24 11:29	1
pH (SM 4500 H+ B)	3.3	HF			SU			10/16/24 11:18	1
Temperature (SM 4500 H+ B)	21.4	HF			Celsius			10/16/24 11:18	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	28.4	U G	21.8	22.0	50.0	66.3	pCi/L	10/15/24 14:02	11/05/24 15:06	1
Radium-228	-18.5	U G	48.8	48.8	50.0	85.2	pCi/L	10/15/24 14:02	11/05/24 15:06	1
Combined Radium 226 + 228	9.81	U	53.4	53.5		85.2	pCi/L	10/15/24 14:02	11/05/24 15:06	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.118		0.0740	0.0748	1.00	0.0940	pCi/L	10/16/24 08:33	11/11/24 18:09	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: MNW-15

Date Collected: 08/29/24 12:20

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-15

Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	83.0		30 - 110	10/16/24 08:33	11/11/24 18:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.393	U	0.411	0.412	1.00	0.665	pCi/L	10/16/24 08:38	11/01/24 12:05	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	83.0		30 - 110	10/16/24 08:38	11/01/24 12:05	1
Y Carrier	72.5		30 - 110	10/16/24 08:38	11/01/24 12:05	1

Client Sample ID: MNW-18

Date Collected: 08/29/24 13:25

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-16

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	270	H	2.50	1.25	mg/L			10/14/24 18:20	5
Fluoride	<0.500	U H	2.50	0.500	mg/L			10/14/24 18:20	5
Sulfate	848	H	2.50	1.00	mg/L			10/14/24 18:20	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.185		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:29	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:29	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:29	5
Iron	0.0535	J	0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:29	5
Barium	<0.00671	U	0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:29	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:29	5
Boron	0.395		0.100	0.0401	mg/L		10/12/24 10:30	10/30/24 18:28	10
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:29	5
Calcium	178		1.00	0.301	mg/L		10/12/24 10:30	10/30/24 18:28	10
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:29	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:29	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:29	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:29	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:29	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:29	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2090	H	10.0	10.0	mg/L			10/16/24 11:29	1
pH (SM 4500 H+ B)	7.5	HF			SU			10/16/24 11:18	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: MNW-18

Lab Sample ID: 870-29766-16

Date Collected: 08/29/24 13:25

Matrix: Water

Date Received: 09/03/24 09:28

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	21.3	HF			Celsius			10/16/24 11:18	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	27.6		23.4	23.5	50.0	25.9	pCi/L	10/15/24 14:02	11/05/24 15:05	1
Radium-228	6.79	U	22.2	22.2	50.0	30.4	pCi/L	10/15/24 14:02	11/05/24 15:05	1
Combined Radium 226 + 228	34.4		32.3	32.3		30.4	pCi/L	10/15/24 14:02	11/05/24 15:05	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0256	U	0.0580	0.0580	1.00	0.107	pCi/L	10/16/24 08:33	11/11/24 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.0		30 - 110					10/16/24 08:33	11/11/24 18:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0663	U	0.278	0.278	1.00	0.550	pCi/L	10/16/24 08:38	11/01/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.0		30 - 110					10/16/24 08:38	11/01/24 12:05	1
Y Carrier	83.7		30 - 110					10/16/24 08:38	11/01/24 12:05	1

Client Sample ID: AP MW-1D

Lab Sample ID: 870-29766-17

Date Collected: 08/29/24 14:15

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74.3	H	0.500	0.250	mg/L			10/14/24 18:35	1
Fluoride	1.13	H	0.500	0.100	mg/L			10/14/24 18:35	1
Sulfate	288	H	0.500	0.200	mg/L			10/14/24 18:35	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:31	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:31	5
Arsenic	0.0140	J	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:31	5
Iron	<0.0223	U	0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:31	5
Barium	0.0134	J	0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:31	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:31	5

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-1D

Lab Sample ID: 870-29766-17

Date Collected: 08/29/24 14:15

Matrix: Water

Date Received: 09/03/24 09:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.14		0.500	0.200	mg/L		10/12/24 10:30	10/30/24 18:32	50
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:31	5
Calcium	50.1		5.00	1.50	mg/L		10/12/24 10:30	10/30/24 18:32	50
Chromium	<0.00280	U	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:31	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:31	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:31	5
Molybdenum	0.0352		0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:31	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:31	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:31	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	943	H	5.00	5.00	mg/L			10/16/24 11:29	1
pH (SM 4500 H+ B)	6.5	HF			SU			10/16/24 11:18	1
Temperature (SM 4500 H+ B)	19.9	HF			Celsius			10/16/24 11:18	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	31.5		19.9	20.2	50.0	24.2	pCi/L	10/15/24 14:02	11/05/24 15:06	1
Radium-228	9.20	U	21.4	21.4	50.0	27.1	pCi/L	10/15/24 14:02	11/05/24 15:06	1
Combined Radium 226 + 228	40.7		29.2	29.4		27.1	pCi/L	10/15/24 14:02	11/05/24 15:06	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0542	U	0.0824	0.0826	1.00	0.141	pCi/L	10/16/24 08:33	11/11/24 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110					10/16/24 08:33	11/11/24 18:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.715		0.374	0.379	1.00	0.512	pCi/L	10/16/24 08:38	11/01/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110					10/16/24 08:38	11/01/24 12:05	1
Y Carrier	77.4		30 - 110					10/16/24 08:38	11/01/24 12:05	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-5

Lab Sample ID: 870-29766-18

Date Collected: 08/30/24 09:30

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	555	H	2.50	1.25	mg/L			10/14/24 19:05	5
Fluoride	2.62	H	2.50	0.500	mg/L			10/14/24 19:05	5

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2810	H	25.0	10.0	mg/L			10/14/24 19:12	50

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.414		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	48.7		0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:33	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:33	5
Arsenic	0.0139	J	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:33	5
Iron	3.96		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:33	5
Barium	0.00978	J	0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:33	5
Beryllium	0.103		0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:33	5
Boron	3.54		0.500	0.200	mg/L		10/12/24 10:30	10/30/24 18:35	50
Cadmium	0.0113		0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:33	5
Calcium	582		5.00	1.50	mg/L		10/12/24 10:30	10/30/24 18:35	50
Chromium	0.0116	J	0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:33	5
Cobalt	0.205		0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:33	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:33	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:33	5
Selenium	0.0870		0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:33	5
Thallium	0.00277	J	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:33	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000160	J H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5390	H	20.0	20.0	mg/L			10/16/24 11:29	1
pH (SM 4500 H+ B)	3.6	HF			SU			10/16/24 11:18	1
Temperature (SM 4500 H+ B)	20.1	HF			Celsius			10/16/24 11:18	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-9.77	U G	43.6	43.6	50.0	73.9	pCi/L	10/15/24 14:02	11/05/24 15:06	1
Radium-228	-21.4	U G	42.1	42.2	50.0	66.4	pCi/L	10/15/24 14:02	11/05/24 15:06	1
Combined Radium 226 + 228	-31.1	U	60.6	60.7		73.9	pCi/L	10/15/24 14:02	11/05/24 15:06	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-5

Lab Sample ID: 870-29766-18

Date Collected: 08/30/24 09:30

Matrix: Water

Date Received: 09/03/24 09:28

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.630		0.141	0.152	1.00	0.109	pCi/L	10/16/24 08:33	11/11/24 18:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		30 - 110					10/16/24 08:33	11/11/24 18:10	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.46		0.458	0.477	1.00	0.504	pCi/L	10/16/24 08:38	11/01/24 12:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		30 - 110					10/16/24 08:38	11/01/24 12:05	1
Y Carrier	73.3		30 - 110					10/16/24 08:38	11/01/24 12:05	1

Client Sample ID: AP MW-4

Lab Sample ID: 870-29766-19

Date Collected: 08/30/24 10:10

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1050	H	2.50	1.25	mg/L			10/14/24 19:20	5
Fluoride	<0.500	U H	2.50	0.500	mg/L			10/14/24 19:20	5
Sulfate	1080	H	2.50	1.00	mg/L			10/14/24 19:20	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.749		0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0374	J	0.100	0.0275	mg/L		10/12/24 10:30	10/18/24 22:35	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		10/12/24 10:30	10/18/24 22:35	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		10/12/24 10:30	10/18/24 22:35	5
Iron	0.415		0.100	0.0223	mg/L		10/12/24 10:30	10/18/24 22:35	5
Barium	0.0207		0.0200	0.00671	mg/L		10/12/24 10:30	10/18/24 22:35	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		10/12/24 10:30	10/18/24 22:35	5
Boron	1.13		0.100	0.0401	mg/L		10/12/24 10:30	10/30/24 18:43	10
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		10/12/24 10:30	10/18/24 22:35	5
Calcium	400		1.00	0.301	mg/L		10/12/24 10:30	10/30/24 18:43	10
Chromium	0.0793		0.0200	0.00280	mg/L		10/12/24 10:30	10/18/24 22:35	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		10/12/24 10:30	10/18/24 22:35	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		10/12/24 10:30	10/18/24 22:35	5
Molybdenum	0.0366		0.0100	0.00128	mg/L		10/12/24 10:30	10/18/24 22:35	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		10/12/24 10:30	10/18/24 22:35	5
Thallium	<0.000925	U	0.0100	0.000925	mg/L		10/12/24 10:30	10/18/24 22:35	5

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-4

Lab Sample ID: 870-29766-19

Date Collected: 08/30/24 10:10

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3040	H	10.0	10.0	mg/L			10/16/24 11:29	1
pH (SM 4500 H+ B)	6.1	HF			SU			10/16/24 11:18	1
Temperature (SM 4500 H+ B)	20.8	HF			Celsius			10/16/24 11:18	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-17.4	U G	24.3	24.4	50.0	63.0	pCi/L	10/15/24 14:02	11/05/24 15:07	1
Radium-228	10.6	U	17.2	17.3	50.0	21.4	pCi/L	10/15/24 14:02	11/05/24 15:07	1
Combined Radium 226 + 228	-6.81	U	29.8	29.9		63.0	pCi/L	10/15/24 14:02	11/05/24 15:07	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.496		0.130	0.138	1.00	0.0965	pCi/L	10/16/24 08:33	11/11/24 18:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		30 - 110					10/16/24 08:33	11/11/24 18:10	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.14		0.569	0.579	1.00	0.810	pCi/L	10/16/24 08:38	11/01/24 12:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		30 - 110					10/16/24 08:38	11/01/24 12:02	1
Y Carrier	69.2		30 - 110					10/16/24 08:38	11/01/24 12:02	1

Client Sample ID: FB-2

Lab Sample ID: 870-29766-20

Date Collected: 08/30/24 10:20

Matrix: Water

Date Received: 09/03/24 09:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U H	0.500	0.250	mg/L			10/14/24 19:35	1
Fluoride	<0.100	U H	0.500	0.100	mg/L			10/14/24 19:35	1
Sulfate	<0.200	U H	0.500	0.200	mg/L			10/14/24 19:35	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 15:24	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: FB-2

Lab Sample ID: 870-29766-20

Date Collected: 08/30/24 10:20

Matrix: Water

Date Received: 09/03/24 09:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		10/12/24 10:30	10/30/24 18:46	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		10/12/24 10:30	10/30/24 18:46	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		10/12/24 10:30	10/30/24 18:46	1
Iron	<0.00445	U	0.0200	0.00445	mg/L		10/12/24 10:30	10/30/24 18:46	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		10/12/24 10:30	10/30/24 18:46	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		10/12/24 10:30	10/30/24 18:46	1
Boron	0.0120		0.0100	0.00401	mg/L		10/12/24 10:30	10/30/24 18:46	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		10/12/24 10:30	10/30/24 18:46	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		10/12/24 10:30	10/30/24 18:46	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		10/12/24 10:30	10/30/24 18:46	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		10/12/24 10:30	10/30/24 18:46	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		10/12/24 10:30	10/30/24 18:46	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		10/12/24 10:30	10/30/24 18:46	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		10/12/24 10:30	10/30/24 18:46	1
Thallium	<0.000185	U	0.00200	0.000185	mg/L		10/12/24 10:30	10/30/24 18:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U H	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 19:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	68.5	H	2.50	2.50	mg/L			10/16/24 11:29	1
pH (SM 4500 H+ B)	5.8	HF			SU			10/16/24 11:18	1
Temperature (SM 4500 H+ B)	20.1	HF			Celsius			10/16/24 11:18	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-31.8	U G	19.6	19.8	50.0	69.9	pCi/L	10/15/24 14:02	11/05/24 15:07	1
Radium-228	-24.3	U G	41.3	41.4	50.0	60.5	pCi/L	10/15/24 14:02	11/05/24 15:07	1
Combined Radium 226 + 228	-56.1	U	45.7	45.9		69.9	pCi/L	10/15/24 14:02	11/05/24 15:07	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0511	U	0.0516	0.0518	1.00	0.0775	pCi/L	10/16/24 08:33	11/11/24 18:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					10/16/24 08:33	11/11/24 18:10	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.383	U	0.438	0.440	1.00	0.719	pCi/L	10/16/24 08:38	11/01/24 12:07	1

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Client Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: FB-2

Lab Sample ID: 870-29766-20

Date Collected: 08/30/24 10:20

Matrix: Water

Date Received: 09/03/24 09:28

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110	10/16/24 08:38	11/01/24 12:07	1
Y Carrier	66.5		30 - 110	10/16/24 08:38	11/01/24 12:07	1

Tracer/Carrier Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba (30-110)					
870-29766-1	SSP/AP MW-1	81.5					
870-29766-2	SSP MW-4	82.0					
870-29766-3	EQ-1	86.6					
870-29766-4	SSP MW-3	88.6					
870-29766-5	SSP MW-2	95.9					
870-29766-6	AP MW-3	95.2					
870-29766-7	AP MW-3 DUP-1	89.6					
870-29766-8	FB-1	88.1					
870-29766-9	SFL MW-6	94.2					
870-29766-10	SFL MW-5	89.9					
870-29766-11	SFL MW-2	81.3					
870-29766-12	SFL MW-4	85.6					
870-29766-13	SFL MW-3	97.2					
870-29766-14	SFL MW-7	79.2					
870-29766-15	MNW-15	83.0					
870-29766-16	MNW-18	83.0					
870-29766-17	AP MW-1D	92.7					
870-29766-18	AP MW-5	97.5					
870-29766-19	AP MW-4	84.6					
870-29766-20	FB-2	85.6					
LCS 160-683837/2-A	Lab Control Sample	80.5					
LCSD 160-683837/3-A	Lab Control Sample Dup	79.2					
MB 160-683837/1-A	Method Blank	96.5					
Tracer/Carrier Legend							
Ba = Ba Carrier							

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)				
870-29766-1	SSP/AP MW-1	81.5	68.0				
870-29766-2	SSP MW-4	82.0	80.7				
870-29766-3	EQ-1	86.6	76.6				
870-29766-4	SSP MW-3	88.6	81.1				
870-29766-5	SSP MW-2	95.9	77.8				
870-29766-6	AP MW-3	95.2	78.5				
870-29766-7	AP MW-3 DUP-1	89.6	80.0				
870-29766-8	FB-1	88.1	76.3				
870-29766-9	SFL MW-6	94.2	74.4				
870-29766-10	SFL MW-5	89.9	80.0				
870-29766-11	SFL MW-2	81.3	79.6				
870-29766-12	SFL MW-4	85.6	73.3				
870-29766-13	SFL MW-3	97.2	71.4				
870-29766-14	SFL MW-7	79.2	80.0				
870-29766-15	MNW-15	83.0	72.5				
870-29766-16	MNW-18	83.0	83.7				
870-29766-17	AP MW-1D	92.7	77.4				

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Tracer/Carrier Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method: 904.0 - Radium-228 (GFPC) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
870-29766-18	AP MW-5	97.5	73.3
870-29766-19	AP MW-4	84.6	69.2
870-29766-20	FB-2	85.6	66.5
LCS 160-683838/2-A	Lab Control Sample	80.5	81.9
LCSD 160-683838/3-A	Lab Control Sample Dup	79.2	69.2
MB 160-683838/1-A	Method Blank	96.5	81.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 860-193322/3

Matrix: Water

Analysis Batch: 193322

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			10/14/24 10:42	1
Fluoride	<0.100	U	0.500	0.100	mg/L			10/14/24 10:42	1
Sulfate	<0.200	U	0.500	0.200	mg/L			10/14/24 10:42	1

Lab Sample ID: MB 860-193322/62

Matrix: Water

Analysis Batch: 193322

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			10/14/24 17:02	1
Fluoride	<0.100	U	0.500	0.100	mg/L			10/14/24 17:02	1
Sulfate	<0.200	U	0.500	0.200	mg/L			10/14/24 17:02	1

Lab Sample ID: LCS 860-193322/63

Matrix: Water

Analysis Batch: 193322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.668		mg/L		97	90 - 110
Fluoride	10.0	9.480		mg/L		95	90 - 110
Sulfate	10.0	9.724		mg/L		97	90 - 110

Lab Sample ID: LCSD 860-193322/64

Matrix: Water

Analysis Batch: 193322

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.671		mg/L		97	90 - 110	0	20
Fluoride	10.0	9.479		mg/L		95	90 - 110	0	20
Sulfate	10.0	9.715		mg/L		97	90 - 110	0	20

Lab Sample ID: LLCS 860-193322/7

Matrix: Water

Analysis Batch: 193322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.7141		mg/L		143	50 - 150
Fluoride	0.500	0.6677		mg/L		134	50 - 150
Sulfate	0.500	0.7271		mg/L		145	50 - 150

Lab Sample ID: 870-29766-3 MS

Matrix: Water

Analysis Batch: 193322

Client Sample ID: EQ-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.250	U H F1	10.0	11.13	F1	mg/L		111	90 - 110
Fluoride	<0.100	U H	10.0	10.77		mg/L		108	90 - 110
Sulfate	<0.200	U H F1	10.0	11.20	F1	mg/L		112	90 - 110

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: 870-29766-3 MSD

Matrix: Water

Analysis Batch: 193322

Client Sample ID: EQ-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.250	U H F1	10.0	11.11	F1	mg/L		111	90 - 110	0	15
Fluoride	<0.100	U H	10.0	10.76		mg/L		108	90 - 110	0	15
Sulfate	<0.200	U H F1	10.0	11.17	F1	mg/L		112	90 - 110	0	15

Lab Sample ID: 870-29766-7 MS

Matrix: Water

Analysis Batch: 193322

Client Sample ID: AP MW-3 DUP-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	153	H	10.0	162.4	4	mg/L		91	90 - 110		
Fluoride	0.112	J H	10.0	10.78		mg/L		107	90 - 110		

Lab Sample ID: 870-29766-7 MSD

Matrix: Water

Analysis Batch: 193322

Client Sample ID: AP MW-3 DUP-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	153	H	10.0	162.3	4	mg/L		91	90 - 110	0	15
Fluoride	0.112	J H	10.0	10.80		mg/L		107	90 - 110	0	15

Lab Sample ID: MB 860-193324/3

Matrix: Water

Analysis Batch: 193324

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			10/14/24 11:44	1
Fluoride	<0.100	U	0.500	0.100	mg/L			10/14/24 11:44	1
Sulfate	<0.200	U	0.500	0.200	mg/L			10/14/24 11:44	1

Lab Sample ID: LCS 860-193324/4

Matrix: Water

Analysis Batch: 193324

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.23		mg/L		102	90 - 110		
Fluoride	10.0	9.886		mg/L		99	90 - 110		
Sulfate	10.0	10.08		mg/L		101	90 - 110		

Lab Sample ID: LCSD 860-193324/5

Matrix: Water

Analysis Batch: 193324

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.26		mg/L		103	90 - 110	0	20
Fluoride	10.0	9.882		mg/L		99	90 - 110	0	20
Sulfate	10.0	10.10		mg/L		101	90 - 110	0	20

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: LLCS 860-193324/7

Matrix: Water

Analysis Batch: 193324

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5338		mg/L		107	50 - 150
Fluoride	0.500	0.5012		mg/L		100	50 - 150
Sulfate	0.500	0.5435		mg/L		109	50 - 150

Lab Sample ID: 870-29766-20 MS

Matrix: Water

Analysis Batch: 193324

Client Sample ID: FB-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.250	U H	10.0	10.58		mg/L		106	90 - 110
Fluoride	<0.100	U H	10.0	9.912		mg/L		99	90 - 110
Sulfate	<0.200	U H	10.0	10.23		mg/L		102	90 - 110

Lab Sample ID: 870-29766-20 MSD

Matrix: Water

Analysis Batch: 193324

Client Sample ID: FB-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.250	U H	10.0	10.59		mg/L		106	90 - 110	0	15
Fluoride	<0.100	U H	10.0	9.931		mg/L		99	90 - 110	0	15
Sulfate	<0.200	U H	10.0	10.25		mg/L		103	90 - 110	0	15

Lab Sample ID: MB 860-193627/3

Matrix: Water

Analysis Batch: 193627

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			10/15/24 11:21	1
Fluoride	<0.100	U	0.500	0.100	mg/L			10/15/24 11:21	1
Sulfate	<0.200	U	0.500	0.200	mg/L			10/15/24 11:21	1

Lab Sample ID: LCS 860-193627/4

Matrix: Water

Analysis Batch: 193627

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.20		mg/L		102	90 - 110
Fluoride	10.0	9.899		mg/L		99	90 - 110
Sulfate	10.0	10.06		mg/L		101	90 - 110

Lab Sample ID: LCSD 860-193627/5

Matrix: Water

Analysis Batch: 193627

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.21		mg/L		102	90 - 110	0	20
Fluoride	10.0	9.906		mg/L		99	90 - 110	0	20
Sulfate	10.0	10.04		mg/L		100	90 - 110	0	20

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: LLCS 860-193627/7

Matrix: Water

Analysis Batch: 193627

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5320		mg/L		106	50 - 150
Fluoride	0.500	0.5198		mg/L		104	50 - 150
Sulfate	0.500	0.5431		mg/L		109	50 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-193216/1-A

Matrix: Water

Analysis Batch: 193605

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 193216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		10/12/24 10:30	10/14/24 14:18	1

Lab Sample ID: LCS 860-193216/2-A

Matrix: Water

Analysis Batch: 193605

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 193216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Li	1.00	0.9710		mg/L		97	80 - 120

Lab Sample ID: LCSD 860-193216/3-A

Matrix: Water

Analysis Batch: 193605

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 193216

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Li	1.00	0.9750		mg/L		98	80 - 120	0	20

Lab Sample ID: 870-29766-2 MS

Matrix: Water

Analysis Batch: 193605

Client Sample ID: SSP MW-4

Prep Type: Total/NA

Prep Batch: 193216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Li	0.757		1.00	1.820		mg/L		106	75 - 125

Lab Sample ID: 870-29766-2 MSD

Matrix: Water

Analysis Batch: 193605

Client Sample ID: SSP MW-4

Prep Type: Total/NA

Prep Batch: 193216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Li	0.757		1.00	1.820		mg/L		106	75 - 125	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 860-193215/1-A

Matrix: Water

Analysis Batch: 194866

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 193215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		10/12/24 10:30	10/18/24 21:34	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		10/12/24 10:30	10/18/24 21:34	1

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: MB 860-193215/1-A
Matrix: Water
Analysis Batch: 194866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		10/12/24 10:30	10/18/24 21:34	1
Iron	<0.00445	U	0.0200	0.00445	mg/L		10/12/24 10:30	10/18/24 21:34	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		10/12/24 10:30	10/18/24 21:34	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		10/12/24 10:30	10/18/24 21:34	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		10/12/24 10:30	10/18/24 21:34	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		10/12/24 10:30	10/18/24 21:34	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		10/12/24 10:30	10/18/24 21:34	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		10/12/24 10:30	10/18/24 21:34	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		10/12/24 10:30	10/18/24 21:34	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		10/12/24 10:30	10/18/24 21:34	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		10/12/24 10:30	10/18/24 21:34	1
Thallium	<0.000185	U	0.00200	0.000185	mg/L		10/12/24 10:30	10/18/24 21:34	1

Lab Sample ID: MB 860-193215/1-A
Matrix: Water
Analysis Batch: 197122

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		10/12/24 10:30	10/30/24 16:56	1
Iron	<0.00445	U	0.0200	0.00445	mg/L		10/12/24 10:30	10/30/24 16:56	1
Boron	<0.00401	U	0.0100	0.00401	mg/L		10/12/24 10:30	10/30/24 16:56	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		10/12/24 10:30	10/30/24 16:56	1

Lab Sample ID: LCS 860-193215/2-A
Matrix: Water
Analysis Batch: 194866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.500	0.5051		mg/L		101	80 - 120
Antimony	0.100	0.08860		mg/L		89	80 - 120
Arsenic	0.100	0.1010		mg/L		101	80 - 120
Iron	0.500	0.5001		mg/L		100	80 - 120
Barium	0.100	0.1010		mg/L		101	80 - 120
Beryllium	0.100	0.09540		mg/L		95	80 - 120
Cadmium	0.100	0.09809		mg/L		98	80 - 120
Calcium	2.50	2.694		mg/L		108	80 - 120
Chromium	0.100	0.09964		mg/L		100	80 - 120
Cobalt	0.100	0.09998		mg/L		100	80 - 120
Lead	0.100	0.09942		mg/L		99	80 - 120
Molybdenum	0.100	0.09632		mg/L		96	80 - 120
Selenium	0.100	0.1004		mg/L		100	80 - 120
Thallium	0.100	0.1003		mg/L		100	80 - 120

Lab Sample ID: LCS 860-193215/2-A
Matrix: Water
Analysis Batch: 197122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.500	0.5073		mg/L		101	80 - 120

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: LCS 860-193215/2-A
Matrix: Water
Analysis Batch: 197122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	0.500	0.4863		mg/L		97	80 - 120
Boron	0.100	0.09047		mg/L		90	80 - 120
Calcium	2.50	2.533		mg/L		101	80 - 120

Lab Sample ID: LCSD 860-193215/3-A
Matrix: Water
Analysis Batch: 194866

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 193215

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.500	0.5023		mg/L		100	80 - 120	1	20
Antimony	0.100	0.09187		mg/L		92	80 - 120	4	20
Arsenic	0.100	0.1014		mg/L		101	80 - 120	0	20
Iron	0.500	0.5017		mg/L		100	80 - 120	0	20
Barium	0.100	0.1021		mg/L		102	80 - 120	1	20
Beryllium	0.100	0.09631		mg/L		96	80 - 120	1	20
Cadmium	0.100	0.09820		mg/L		98	80 - 120	0	20
Calcium	2.50	2.641		mg/L		106	80 - 120	2	20
Chromium	0.100	0.09977		mg/L		100	80 - 120	0	20
Cobalt	0.100	0.1007		mg/L		101	80 - 120	1	20
Lead	0.100	0.1002		mg/L		100	80 - 120	1	20
Molybdenum	0.100	0.09655		mg/L		97	80 - 120	0	20
Selenium	0.100	0.1008		mg/L		101	80 - 120	0	20
Thallium	0.100	0.1011		mg/L		101	80 - 120	1	20

Lab Sample ID: LCSD 860-193215/3-A
Matrix: Water
Analysis Batch: 197122

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 193215

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.500	0.5032		mg/L		101	80 - 120	1	20
Iron	0.500	0.4843		mg/L		97	80 - 120	0	20
Boron	0.100	0.09374		mg/L		94	80 - 120	4	20
Calcium	2.50	2.586		mg/L		103	80 - 120	2	20

Lab Sample ID: 870-29766-1 MS
Matrix: Water
Analysis Batch: 194866

Client Sample ID: SSP/AP MW-1
Prep Type: Total/NA
Prep Batch: 193215

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	<0.0275	U	0.500	0.5517		mg/L		110	75 - 125
Aluminum	<0.0275	U	0.500	0.5517		mg/L		110	75 - 125
Antimony	<0.00375	U	0.100	0.1232		mg/L		123	75 - 125
Antimony	<0.00375	U	0.100	0.1232		mg/L		123	75 - 125
Arsenic	<0.00345	U	0.100	0.1125		mg/L		113	75 - 125
Arsenic	<0.00345	U	0.100	0.1125		mg/L		113	75 - 125
Iron	3.56		0.500	4.167	4	mg/L		121	75 - 125
Iron	3.56		0.500	4.167	4	mg/L		121	75 - 125
Barium	0.0228		0.100	0.1383		mg/L		116	75 - 125
Barium	0.0228		0.100	0.1383		mg/L		116	75 - 125

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: 870-29766-1 MS

Matrix: Water

Analysis Batch: 194866

Client Sample ID: SSP/AP MW-1

Prep Type: Total/NA

Prep Batch: 193215

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	<0.00136	U	0.100	0.09945		mg/L		99	75 - 125
Beryllium	<0.00136	U	0.100	0.09945		mg/L		99	75 - 125
Cadmium	<0.00120	U	0.100	0.09548		mg/L		95	75 - 125
Cadmium	<0.00120	U	0.100	0.09548		mg/L		95	75 - 125
Chromium	<0.00280	U	0.100	0.1048		mg/L		105	75 - 125
Chromium	<0.00280	U	0.100	0.1048		mg/L		105	75 - 125
Cobalt	<0.00178	U	0.100	0.1008		mg/L		101	75 - 125
Cobalt	<0.00178	U	0.100	0.1008		mg/L		101	75 - 125
Lead	<0.00184	U	0.100	0.1040		mg/L		104	75 - 125
Lead	<0.00184	U	0.100	0.1040		mg/L		104	75 - 125
Molybdenum	<0.00128	U	0.100	0.1049		mg/L		105	75 - 125
Molybdenum	<0.00128	U	0.100	0.1049		mg/L		105	75 - 125
Selenium	<0.00295	U	0.100	0.1081		mg/L		108	75 - 125
Selenium	<0.00295	U	0.100	0.1081		mg/L		108	75 - 125
Thallium	<0.000925	U	0.100	0.1058		mg/L		106	75 - 125
Thallium	<0.000925	U	0.100	0.1058		mg/L		106	75 - 125

Lab Sample ID: 870-29766-1 MS

Matrix: Water

Analysis Batch: 197122

Client Sample ID: SSP/AP MW-1

Prep Type: Total/NA

Prep Batch: 193215

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	<0.110	U	0.500	0.5315		mg/L		106	75 - 125
Iron	3.41		0.500	3.876	4	mg/L		93	75 - 125
Boron	0.783		0.100	0.8771	4	mg/L		94	75 - 125
Boron	0.783		0.100	0.8771	4	mg/L		94	75 - 125
Calcium	649		2.50	681.8	4	mg/L		1295	75 - 125
Calcium	649		2.50	681.8	4	mg/L		1295	75 - 125

Lab Sample ID: 870-29766-1 MSD

Matrix: Water

Analysis Batch: 194866

Client Sample ID: SSP/AP MW-1

Prep Type: Total/NA

Prep Batch: 193215

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Aluminum	<0.0275	U	0.500	0.5380		mg/L		108	75 - 125	3	20
Aluminum	<0.0275	U	0.500	0.5380		mg/L		108	75 - 125	3	20
Antimony	<0.00375	U	0.100	0.1163		mg/L		116	75 - 125	6	20
Antimony	<0.00375	U	0.100	0.1163		mg/L		116	75 - 125	6	20
Arsenic	<0.00345	U	0.100	0.1107		mg/L		111	75 - 125	2	20
Arsenic	<0.00345	U	0.100	0.1107		mg/L		111	75 - 125	2	20
Iron	3.56		0.500	3.992	4	mg/L		86	75 - 125	4	20
Iron	3.56		0.500	3.992	4	mg/L		86	75 - 125	4	20
Barium	0.0228		0.100	0.1326		mg/L		110	75 - 125	4	20
Barium	0.0228		0.100	0.1326		mg/L		110	75 - 125	4	20
Beryllium	<0.00136	U	0.100	0.1010		mg/L		101	75 - 125	2	20
Beryllium	<0.00136	U	0.100	0.1010		mg/L		101	75 - 125	2	20
Cadmium	<0.00120	U	0.100	0.09186		mg/L		92	75 - 125	4	20
Cadmium	<0.00120	U	0.100	0.09186		mg/L		92	75 - 125	4	20
Chromium	<0.00280	U	0.100	0.1004		mg/L		100	75 - 125	4	20

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: 870-29766-1 MSD

Matrix: Water

Analysis Batch: 194866

Client Sample ID: SSP/AP MW-1

Prep Type: Total/NA

Prep Batch: 193215

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	<0.00280	U	0.100	0.1004		mg/L		100	75 - 125	4	20
Cobalt	<0.00178	U	0.100	0.09668		mg/L		97	75 - 125	4	20
Cobalt	<0.00178	U	0.100	0.09668		mg/L		97	75 - 125	4	20
Lead	<0.00184	U	0.100	0.09952		mg/L		100	75 - 125	4	20
Lead	<0.00184	U	0.100	0.09952		mg/L		100	75 - 125	4	20
Molybdenum	<0.00128	U	0.100	0.1003		mg/L		100	75 - 125	4	20
Molybdenum	<0.00128	U	0.100	0.1003		mg/L		100	75 - 125	4	20
Selenium	<0.00295	U	0.100	0.1052		mg/L		105	75 - 125	3	20
Selenium	<0.00295	U	0.100	0.1052		mg/L		105	75 - 125	3	20
Thallium	<0.000925	U	0.100	0.1011		mg/L		101	75 - 125	5	20
Thallium	<0.000925	U	0.100	0.1011		mg/L		101	75 - 125	5	20

Lab Sample ID: 870-29766-1 MSD

Matrix: Water

Analysis Batch: 197122

Client Sample ID: SSP/AP MW-1

Prep Type: Total/NA

Prep Batch: 193215

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	<0.110	U	0.500	0.5282		mg/L		106	75 - 125	1	20
Iron	3.41		0.500	3.835	4	mg/L		85	75 - 125	1	20
Boron	0.783		0.100	0.8707	4	mg/L		88	75 - 125	1	20
Boron	0.783		0.100	0.8707	4	mg/L		88	75 - 125	1	20
Calcium	649		2.50	662.4	4	mg/L		520	75 - 125	3	20
Calcium	649		2.50	662.4	4	mg/L		520	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-193232/10-A

Matrix: Water

Analysis Batch: 193546

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 193232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		10/13/24 06:15	10/14/24 18:46	1

Lab Sample ID: LCS 860-193232/11-A

Matrix: Water

Analysis Batch: 193546

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 193232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.001952		mg/L		98	80 - 120

Lab Sample ID: LCSD 860-193232/12-A

Matrix: Water

Analysis Batch: 193546

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 193232

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.001955		mg/L		98	80 - 120	0	20

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 870-29766-7 MS

Matrix: Water

Analysis Batch: 193546

Client Sample ID: AP MW-3 DUP-1

Prep Type: Total/NA

Prep Batch: 193232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00189	H	0.00200	0.003732		mg/L		92	75 - 125

Lab Sample ID: 870-29766-7 MSD

Matrix: Water

Analysis Batch: 193546

Client Sample ID: AP MW-3 DUP-1

Prep Type: Total/NA

Prep Batch: 193232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00189	H	0.00200	0.003676		mg/L		89	75 - 125	2	20

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

Lab Sample ID: MB 870-23565/1

Matrix: Water

Analysis Batch: 23565

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<2.50	U	2.50	2.50	mg/L			10/12/24 13:52	1

Lab Sample ID: LCS 870-23565/2

Matrix: Water

Analysis Batch: 23565

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1065		mg/L		107	80 - 120

Lab Sample ID: LCSD 870-23565/3

Matrix: Water

Analysis Batch: 23565

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1021		mg/L		102	80 - 120	4	10

Lab Sample ID: 870-29766-13 DU

Matrix: Water

Analysis Batch: 23565

Client Sample ID: SFL MW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	5070	H	5228		mg/L		3	10

Lab Sample ID: 870-29766-14 DU

Matrix: Water

Analysis Batch: 23565

Client Sample ID: SFL MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	5020	H	4792		mg/L		5	10

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

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

Lab Sample ID: MB 870-23639/1
Matrix: Water
Analysis Batch: 23639

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<2.50	U	2.50	2.50	mg/L			10/16/24 11:29	1

Lab Sample ID: LCS 870-23639/2
Matrix: Water
Analysis Batch: 23639

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	980.0		mg/L		98	80 - 120

Lab Sample ID: LCSD 870-23639/3
Matrix: Water
Analysis Batch: 23639

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1019		mg/L		102	80 - 120	4	10

Lab Sample ID: 870-29766-15 DU
Matrix: Water
Analysis Batch: 23639

Client Sample ID: MNW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3770	H	4104		mg/L		9	10

Method: SM 4500 H+ B - pH

Lab Sample ID: 870-29766-1 DU
Matrix: Water
Analysis Batch: 23562

Client Sample ID: SSP/AP MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	5.9	HF	5.9		SU		0.2	20
Temperature	20.5	HF	20.5		Celsius		0	20

Lab Sample ID: 870-29766-11 DU
Matrix: Water
Analysis Batch: 23562

Client Sample ID: SFL MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.1	HF	6.1		SU		0	20
Temperature	20.8	HF	20.8		Celsius		0	20

Lab Sample ID: 870-29766-20 DU
Matrix: Water
Analysis Batch: 23638

Client Sample ID: FB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	5.8	HF	5.6		SU		2	20
Temperature	20.1	HF	20.7		Celsius		3	20

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-683702/1-A
Matrix: Water
Analysis Batch: 687128

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683702

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-13.69	U G	33.0	33.0	50.0	56.4	pCi/L	10/15/24 14:02	11/05/24 07:21	1
Radium-228	0.1794	U G	0.293	0.294	50.0	64.4	pCi/L	10/15/24 14:02	11/05/24 07:21	1
Combined Radium 226 + 228	-13.51	U	33.0	33.0		64.4	pCi/L	10/15/24 14:02	11/05/24 07:21	1

Lab Sample ID: LCS 160-683702/2-A
Matrix: Water
Analysis Batch: 687130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683702

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	135000	155200		16000		567	pCi/L	115	75 - 125
Cesium-137	39400	43340		4250		153	pCi/L	110	75 - 125
Cobalt-60	14400	16070		1580		81.5	pCi/L	111	75 - 125

Lab Sample ID: 870-29766-1 DU
Matrix: Water
Analysis Batch: 687128

Client Sample ID: SSP/AP MW-1
Prep Type: Total/NA
Prep Batch: 683702

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	44.0		17.33	U	16.1	50.0	22.3	pCi/L	0.67	1
Radium-228	-3.11	U G	11.69	U	28.1	50.0	32.1	pCi/L	0.21	1
Combined Radium 226 + 228	40.9	U	29.03	U	32.4		32.1	pCi/L	0.15	1

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-683837/1-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683837

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09094		0.0654	0.0659	1.00	0.0901	pCi/L	10/16/24 08:33	11/11/24 16:05	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		30 - 110					10/16/24 08:33	11/11/24 16:05	1

Lab Sample ID: LCS 160-683837/2-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683837

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	9.634		1.03	1.00	0.0980	pCi/L	101	75 - 125

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-683837/2-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683837

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	80.5		30 - 110

Lab Sample ID: LCSD 160-683837/3-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 683837

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	9.58	9.851		1.05	1.00	0.111	pCi/L	103	75 - 125	0.10	1
	LCS	LCS									
Carrier	%Yield	Qualifier	Limits								
Ba Carrier	79.2		30 - 110								

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-683838/1-A
Matrix: Water
Analysis Batch: 686236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683838

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2299	U	0.302	0.303	1.00	0.505	pCi/L	10/16/24 08:38	11/01/24 12:02	1
	MB	MB								
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		30 - 110					10/16/24 08:38	11/01/24 12:02	1
Y Carrier	81.5		30 - 110					10/16/24 08:38	11/01/24 12:02	1

Lab Sample ID: LCS 160-683838/2-A
Matrix: Water
Analysis Batch: 686236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683838

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.38	9.133		1.31	1.00	0.540	pCi/L	109	75 - 125
	LCS	LCS							
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	80.5		30 - 110						
Y Carrier	81.9		30 - 110						

Lab Sample ID: LCSD 160-683838/3-A
Matrix: Water
Analysis Batch: 686236

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 683838

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	8.38	9.788		1.47	1.00	0.700	pCi/L	117	75 - 125	0.24	1

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QC Sample Results

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-683838/3-A
Matrix: Water
Analysis Batch: 686236

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 683838

Carrier	LCSD	LCSD	Limits
	%Yield	Qualifier	
Ba Carrier	79.2		30 - 110
Y Carrier	69.2		30 - 110

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QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

HPLC/IC

Analysis Batch: 193322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	9056A	
870-29766-1	SSP/AP MW-1	Total/NA	Water	9056A	
870-29766-2	SSP MW-4	Total/NA	Water	9056A	
870-29766-3	EQ-1	Total/NA	Water	9056A	
870-29766-4	SSP MW-3	Total/NA	Water	9056A	
870-29766-5	SSP MW-2	Total/NA	Water	9056A	
870-29766-6	AP MW-3	Total/NA	Water	9056A	
870-29766-6	AP MW-3	Total/NA	Water	9056A	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	9056A	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	9056A	
870-29766-8	FB-1	Total/NA	Water	9056A	
870-29766-9	SFL MW-6	Total/NA	Water	9056A	
870-29766-9	SFL MW-6	Total/NA	Water	9056A	
870-29766-10	SFL MW-5	Total/NA	Water	9056A	
870-29766-10	SFL MW-5	Total/NA	Water	9056A	
MB 860-193322/3	Method Blank	Total/NA	Water	9056A	
MB 860-193322/62	Method Blank	Total/NA	Water	9056A	
LCS 860-193322/63	Lab Control Sample	Total/NA	Water	9056A	
LCSD 860-193322/64	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 860-193322/7	Lab Control Sample	Total/NA	Water	9056A	
870-29766-3 MS	EQ-1	Total/NA	Water	9056A	
870-29766-3 MSD	EQ-1	Total/NA	Water	9056A	
870-29766-7 MS	AP MW-3 DUP-1	Total/NA	Water	9056A	
870-29766-7 MSD	AP MW-3 DUP-1	Total/NA	Water	9056A	

Analysis Batch: 193324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-16	MNW-18	Total/NA	Water	9056A	
870-29766-17	AP MW-1D	Total/NA	Water	9056A	
870-29766-18	AP MW-5	Total/NA	Water	9056A	
870-29766-18 - DL	AP MW-5	Total/NA	Water	9056A	
870-29766-19	AP MW-4	Total/NA	Water	9056A	
870-29766-20	FB-2	Total/NA	Water	9056A	
MB 860-193324/3	Method Blank	Total/NA	Water	9056A	
LCS 860-193324/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 860-193324/5	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 860-193324/7	Lab Control Sample	Total/NA	Water	9056A	
870-29766-20 MS	FB-2	Total/NA	Water	9056A	
870-29766-20 MSD	FB-2	Total/NA	Water	9056A	

Analysis Batch: 193627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-11	SFL MW-2	Total/NA	Water	9056A	
870-29766-11 - DL	SFL MW-2	Total/NA	Water	9056A	
870-29766-12	SFL MW-4	Total/NA	Water	9056A	
870-29766-12 - DL	SFL MW-4	Total/NA	Water	9056A	
870-29766-13	SFL MW-3	Total/NA	Water	9056A	
870-29766-13 - DL	SFL MW-3	Total/NA	Water	9056A	
870-29766-14	SFL MW-7	Total/NA	Water	9056A	
870-29766-14 - DL	SFL MW-7	Total/NA	Water	9056A	
870-29766-15	MNW-15	Total/NA	Water	9056A	

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QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

HPLC/IC (Continued)

Analysis Batch: 193627 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-193627/3	Method Blank	Total/NA	Water	9056A	
LCS 860-193627/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 860-193627/5	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 860-193627/7	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 193215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	3010A	
870-29766-2	SSP MW-4	Total/NA	Water	3010A	
870-29766-3	EQ-1	Total/NA	Water	3010A	
870-29766-4	SSP MW-3	Total/NA	Water	3010A	
870-29766-5	SSP MW-2	Total/NA	Water	3010A	
870-29766-6	AP MW-3	Total/NA	Water	3010A	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	3010A	
870-29766-8	FB-1	Total/NA	Water	3010A	
870-29766-9	SFL MW-6	Total/NA	Water	3010A	
870-29766-10	SFL MW-5	Total/NA	Water	3010A	
870-29766-11	SFL MW-2	Total/NA	Water	3010A	
870-29766-12	SFL MW-4	Total/NA	Water	3010A	
870-29766-13	SFL MW-3	Total/NA	Water	3010A	
870-29766-14	SFL MW-7	Total/NA	Water	3010A	
870-29766-15	MNW-15	Total/NA	Water	3010A	
870-29766-16	MNW-18	Total/NA	Water	3010A	
870-29766-17	AP MW-1D	Total/NA	Water	3010A	
870-29766-18	AP MW-5	Total/NA	Water	3010A	
870-29766-19	AP MW-4	Total/NA	Water	3010A	
870-29766-20	FB-2	Total/NA	Water	3010A	
MB 860-193215/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-193215/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-193215/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
870-29766-1 MS	SSP/AP MW-1	Total/NA	Water	3010A	
870-29766-1 MSD	SSP/AP MW-1	Total/NA	Water	3010A	

Prep Batch: 193216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	3010A	
870-29766-2	SSP MW-4	Total/NA	Water	3010A	
870-29766-3	EQ-1	Total/NA	Water	3010A	
870-29766-4	SSP MW-3	Total/NA	Water	3010A	
870-29766-5	SSP MW-2	Total/NA	Water	3010A	
870-29766-6	AP MW-3	Total/NA	Water	3010A	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	3010A	
870-29766-8	FB-1	Total/NA	Water	3010A	
870-29766-9	SFL MW-6	Total/NA	Water	3010A	
870-29766-10	SFL MW-5	Total/NA	Water	3010A	
870-29766-11	SFL MW-2	Total/NA	Water	3010A	
870-29766-12	SFL MW-4	Total/NA	Water	3010A	
870-29766-13	SFL MW-3	Total/NA	Water	3010A	
870-29766-14	SFL MW-7	Total/NA	Water	3010A	

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QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Metals (Continued)

Prep Batch: 193216 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-15	MNW-15	Total/NA	Water	3010A	
870-29766-16	MNW-18	Total/NA	Water	3010A	
870-29766-17	AP MW-1D	Total/NA	Water	3010A	
870-29766-18	AP MW-5	Total/NA	Water	3010A	
870-29766-19	AP MW-4	Total/NA	Water	3010A	
870-29766-20	FB-2	Total/NA	Water	3010A	
MB 860-193216/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-193216/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-193216/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
870-29766-2 MS	SSP MW-4	Total/NA	Water	3010A	
870-29766-2 MSD	SSP MW-4	Total/NA	Water	3010A	

Prep Batch: 193232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	7470A	
870-29766-2	SSP MW-4	Total/NA	Water	7470A	
870-29766-3	EQ-1	Total/NA	Water	7470A	
870-29766-4	SSP MW-3	Total/NA	Water	7470A	
870-29766-5	SSP MW-2	Total/NA	Water	7470A	
870-29766-6	AP MW-3	Total/NA	Water	7470A	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	7470A	
870-29766-8	FB-1	Total/NA	Water	7470A	
870-29766-9	SFL MW-6	Total/NA	Water	7470A	
870-29766-10	SFL MW-5	Total/NA	Water	7470A	
870-29766-11	SFL MW-2	Total/NA	Water	7470A	
870-29766-12	SFL MW-4	Total/NA	Water	7470A	
870-29766-13	SFL MW-3	Total/NA	Water	7470A	
870-29766-14	SFL MW-7	Total/NA	Water	7470A	
870-29766-15	MNW-15	Total/NA	Water	7470A	
870-29766-16	MNW-18	Total/NA	Water	7470A	
870-29766-17	AP MW-1D	Total/NA	Water	7470A	
870-29766-18	AP MW-5	Total/NA	Water	7470A	
870-29766-19	AP MW-4	Total/NA	Water	7470A	
870-29766-20	FB-2	Total/NA	Water	7470A	
MB 860-193232/10-A	Method Blank	Total/NA	Water	7470A	
LCS 860-193232/11-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 860-193232/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	
870-29766-7 MS	AP MW-3 DUP-1	Total/NA	Water	7470A	
870-29766-7 MSD	AP MW-3 DUP-1	Total/NA	Water	7470A	

Analysis Batch: 193546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	7470A	193232
870-29766-2	SSP MW-4	Total/NA	Water	7470A	193232
870-29766-3	EQ-1	Total/NA	Water	7470A	193232
870-29766-4	SSP MW-3	Total/NA	Water	7470A	193232
870-29766-5	SSP MW-2	Total/NA	Water	7470A	193232
870-29766-6	AP MW-3	Total/NA	Water	7470A	193232
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	7470A	193232
870-29766-8	FB-1	Total/NA	Water	7470A	193232
870-29766-9	SFL MW-6	Total/NA	Water	7470A	193232

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QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Metals (Continued)

Analysis Batch: 193546 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-10	SFL MW-5	Total/NA	Water	7470A	193232
870-29766-11	SFL MW-2	Total/NA	Water	7470A	193232
870-29766-12	SFL MW-4	Total/NA	Water	7470A	193232
870-29766-13	SFL MW-3	Total/NA	Water	7470A	193232
870-29766-14	SFL MW-7	Total/NA	Water	7470A	193232
870-29766-15	MNW-15	Total/NA	Water	7470A	193232
870-29766-16	MNW-18	Total/NA	Water	7470A	193232
870-29766-17	AP MW-1D	Total/NA	Water	7470A	193232
870-29766-18	AP MW-5	Total/NA	Water	7470A	193232
870-29766-19	AP MW-4	Total/NA	Water	7470A	193232
870-29766-20	FB-2	Total/NA	Water	7470A	193232
MB 860-193232/10-A	Method Blank	Total/NA	Water	7470A	193232
LCS 860-193232/11-A	Lab Control Sample	Total/NA	Water	7470A	193232
LCSD 860-193232/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	193232
870-29766-7 MS	AP MW-3 DUP-1	Total/NA	Water	7470A	193232
870-29766-7 MSD	AP MW-3 DUP-1	Total/NA	Water	7470A	193232

Analysis Batch: 193605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	6010D	193216
870-29766-2	SSP MW-4	Total/NA	Water	6010D	193216
870-29766-3	EQ-1	Total/NA	Water	6010D	193216
870-29766-4	SSP MW-3	Total/NA	Water	6010D	193216
870-29766-5	SSP MW-2	Total/NA	Water	6010D	193216
870-29766-6	AP MW-3	Total/NA	Water	6010D	193216
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	6010D	193216
870-29766-8	FB-1	Total/NA	Water	6010D	193216
870-29766-9	SFL MW-6	Total/NA	Water	6010D	193216
870-29766-10	SFL MW-5	Total/NA	Water	6010D	193216
870-29766-11	SFL MW-2	Total/NA	Water	6010D	193216
870-29766-12	SFL MW-4	Total/NA	Water	6010D	193216
870-29766-13	SFL MW-3	Total/NA	Water	6010D	193216
870-29766-14	SFL MW-7	Total/NA	Water	6010D	193216
870-29766-15	MNW-15	Total/NA	Water	6010D	193216
870-29766-16	MNW-18	Total/NA	Water	6010D	193216
870-29766-17	AP MW-1D	Total/NA	Water	6010D	193216
870-29766-18	AP MW-5	Total/NA	Water	6010D	193216
870-29766-19	AP MW-4	Total/NA	Water	6010D	193216
870-29766-20	FB-2	Total/NA	Water	6010D	193216
MB 860-193216/1-A	Method Blank	Total/NA	Water	6010D	193216
LCS 860-193216/2-A	Lab Control Sample	Total/NA	Water	6010D	193216
LCSD 860-193216/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	193216
870-29766-2 MS	SSP MW-4	Total/NA	Water	6010D	193216
870-29766-2 MSD	SSP MW-4	Total/NA	Water	6010D	193216

Analysis Batch: 194866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	6020B	193215
870-29766-2	SSP MW-4	Total/NA	Water	6020B	193215
870-29766-4	SSP MW-3	Total/NA	Water	6020B	193215
870-29766-5	SSP MW-2	Total/NA	Water	6020B	193215

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Metals (Continued)

Analysis Batch: 194866 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-6	AP MW-3	Total/NA	Water	6020B	193215
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	6020B	193215
870-29766-9	SFL MW-6	Total/NA	Water	6020B	193215
870-29766-10	SFL MW-5	Total/NA	Water	6020B	193215
870-29766-11	SFL MW-2	Total/NA	Water	6020B	193215
870-29766-12	SFL MW-4	Total/NA	Water	6020B	193215
870-29766-13	SFL MW-3	Total/NA	Water	6020B	193215
870-29766-14	SFL MW-7	Total/NA	Water	6020B	193215
870-29766-15	MNW-15	Total/NA	Water	6020B	193215
870-29766-16	MNW-18	Total/NA	Water	6020B	193215
870-29766-17	AP MW-1D	Total/NA	Water	6020B	193215
870-29766-18	AP MW-5	Total/NA	Water	6020B	193215
870-29766-19	AP MW-4	Total/NA	Water	6020B	193215
MB 860-193215/1-A	Method Blank	Total/NA	Water	6020B	193215
LCS 860-193215/2-A	Lab Control Sample	Total/NA	Water	6020B	193215
LCSD 860-193215/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	193215
870-29766-1 MS	SSP/AP MW-1	Total/NA	Water	6020B	193215
870-29766-1 MSD	SSP/AP MW-1	Total/NA	Water	6020B	193215

Analysis Batch: 197122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	6020B	193215
870-29766-1	SSP/AP MW-1	Total/NA	Water	6020B	193215
870-29766-2	SSP MW-4	Total/NA	Water	6020B	193215
870-29766-2	SSP MW-4	Total/NA	Water	6020B	193215
870-29766-3	EQ-1	Total/NA	Water	6020B	193215
870-29766-4	SSP MW-3	Total/NA	Water	6020B	193215
870-29766-4	SSP MW-3	Total/NA	Water	6020B	193215
870-29766-5	SSP MW-2	Total/NA	Water	6020B	193215
870-29766-5	SSP MW-2	Total/NA	Water	6020B	193215
870-29766-6	AP MW-3	Total/NA	Water	6020B	193215
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	6020B	193215
870-29766-8	FB-1	Total/NA	Water	6020B	193215
870-29766-9	SFL MW-6	Total/NA	Water	6020B	193215
870-29766-9	SFL MW-6	Total/NA	Water	6020B	193215
870-29766-10	SFL MW-5	Total/NA	Water	6020B	193215
870-29766-11	SFL MW-2	Total/NA	Water	6020B	193215
870-29766-11	SFL MW-2	Total/NA	Water	6020B	193215
870-29766-12	SFL MW-4	Total/NA	Water	6020B	193215
870-29766-12	SFL MW-4	Total/NA	Water	6020B	193215
870-29766-13	SFL MW-3	Total/NA	Water	6020B	193215
870-29766-14	SFL MW-7	Total/NA	Water	6020B	193215
870-29766-15	MNW-15	Total/NA	Water	6020B	193215
870-29766-16	MNW-18	Total/NA	Water	6020B	193215
870-29766-17	AP MW-1D	Total/NA	Water	6020B	193215
870-29766-18	AP MW-5	Total/NA	Water	6020B	193215
870-29766-19	AP MW-4	Total/NA	Water	6020B	193215
870-29766-20	FB-2	Total/NA	Water	6020B	193215
MB 860-193215/1-A	Method Blank	Total/NA	Water	6020B	193215
LCS 860-193215/2-A	Lab Control Sample	Total/NA	Water	6020B	193215
LCSD 860-193215/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	193215

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Metals (Continued)

Analysis Batch: 197122 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1 MS	SSP/AP MW-1	Total/NA	Water	6020B	193215
870-29766-1 MSD	SSP/AP MW-1	Total/NA	Water	6020B	193215

General Chemistry

Analysis Batch: 23562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	SM 4500 H+ B	
870-29766-2	SSP MW-4	Total/NA	Water	SM 4500 H+ B	
870-29766-3	EQ-1	Total/NA	Water	SM 4500 H+ B	
870-29766-4	SSP MW-3	Total/NA	Water	SM 4500 H+ B	
870-29766-5	SSP MW-2	Total/NA	Water	SM 4500 H+ B	
870-29766-6	AP MW-3	Total/NA	Water	SM 4500 H+ B	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	SM 4500 H+ B	
870-29766-8	FB-1	Total/NA	Water	SM 4500 H+ B	
870-29766-9	SFL MW-6	Total/NA	Water	SM 4500 H+ B	
870-29766-10	SFL MW-5	Total/NA	Water	SM 4500 H+ B	
870-29766-11	SFL MW-2	Total/NA	Water	SM 4500 H+ B	
870-29766-12	SFL MW-4	Total/NA	Water	SM 4500 H+ B	
870-29766-13	SFL MW-3	Total/NA	Water	SM 4500 H+ B	
870-29766-14	SFL MW-7	Total/NA	Water	SM 4500 H+ B	
870-29766-1 DU	SSP/AP MW-1	Total/NA	Water	SM 4500 H+ B	
870-29766-11 DU	SFL MW-2	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 23565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	SM 2540C	
870-29766-2	SSP MW-4	Total/NA	Water	SM 2540C	
870-29766-3	EQ-1	Total/NA	Water	SM 2540C	
870-29766-4	SSP MW-3	Total/NA	Water	SM 2540C	
870-29766-5	SSP MW-2	Total/NA	Water	SM 2540C	
870-29766-6	AP MW-3	Total/NA	Water	SM 2540C	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	SM 2540C	
870-29766-8	FB-1	Total/NA	Water	SM 2540C	
870-29766-9	SFL MW-6	Total/NA	Water	SM 2540C	
870-29766-10	SFL MW-5	Total/NA	Water	SM 2540C	
870-29766-11	SFL MW-2	Total/NA	Water	SM 2540C	
870-29766-12	SFL MW-4	Total/NA	Water	SM 2540C	
870-29766-13	SFL MW-3	Total/NA	Water	SM 2540C	
870-29766-14	SFL MW-7	Total/NA	Water	SM 2540C	
MB 870-23565/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 870-23565/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 870-23565/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
870-29766-13 DU	SFL MW-3	Total/NA	Water	SM 2540C	
870-29766-14 DU	SFL MW-7	Total/NA	Water	SM 2540C	

Analysis Batch: 23638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-15	MNW-15	Total/NA	Water	SM 4500 H+ B	
870-29766-16	MNW-18	Total/NA	Water	SM 4500 H+ B	
870-29766-17	AP MW-1D	Total/NA	Water	SM 4500 H+ B	

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

General Chemistry (Continued)

Analysis Batch: 23638 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-18	AP MW-5	Total/NA	Water	SM 4500 H+ B	
870-29766-19	AP MW-4	Total/NA	Water	SM 4500 H+ B	
870-29766-20	FB-2	Total/NA	Water	SM 4500 H+ B	
870-29766-20 DU	FB-2	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 23639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-15	MNW-15	Total/NA	Water	SM 2540C	
870-29766-16	MNW-18	Total/NA	Water	SM 2540C	
870-29766-17	AP MW-1D	Total/NA	Water	SM 2540C	
870-29766-18	AP MW-5	Total/NA	Water	SM 2540C	
870-29766-19	AP MW-4	Total/NA	Water	SM 2540C	
870-29766-20	FB-2	Total/NA	Water	SM 2540C	
MB 870-23639/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 870-23639/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 870-23639/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
870-29766-15 DU	MNW-15	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 683702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	Fill_Geo-21	
870-29766-2	SSP MW-4	Total/NA	Water	Fill_Geo-21	
870-29766-3	EQ-1	Total/NA	Water	Fill_Geo-21	
870-29766-4	SSP MW-3	Total/NA	Water	Fill_Geo-21	
870-29766-5	SSP MW-2	Total/NA	Water	Fill_Geo-21	
870-29766-6	AP MW-3	Total/NA	Water	Fill_Geo-21	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	Fill_Geo-21	
870-29766-8	FB-1	Total/NA	Water	Fill_Geo-21	
870-29766-9	SFL MW-6	Total/NA	Water	Fill_Geo-21	
870-29766-10	SFL MW-5	Total/NA	Water	Fill_Geo-21	
870-29766-11	SFL MW-2	Total/NA	Water	Fill_Geo-21	
870-29766-12	SFL MW-4	Total/NA	Water	Fill_Geo-21	
870-29766-13	SFL MW-3	Total/NA	Water	Fill_Geo-21	
870-29766-14	SFL MW-7	Total/NA	Water	Fill_Geo-21	
870-29766-15	MNW-15	Total/NA	Water	Fill_Geo-21	
870-29766-16	MNW-18	Total/NA	Water	Fill_Geo-21	
870-29766-17	AP MW-1D	Total/NA	Water	Fill_Geo-21	
870-29766-18	AP MW-5	Total/NA	Water	Fill_Geo-21	
870-29766-19	AP MW-4	Total/NA	Water	Fill_Geo-21	
870-29766-20	FB-2	Total/NA	Water	Fill_Geo-21	
MB 160-683702/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-683702/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	
870-29766-1 DU	SSP/AP MW-1	Total/NA	Water	Fill_Geo-21	

Prep Batch: 683837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	PrecSep-21	
870-29766-2	SSP MW-4	Total/NA	Water	PrecSep-21	
870-29766-3	EQ-1	Total/NA	Water	PrecSep-21	

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Rad (Continued)

Prep Batch: 683837 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-4	SSP MW-3	Total/NA	Water	PrecSep-21	
870-29766-5	SSP MW-2	Total/NA	Water	PrecSep-21	
870-29766-6	AP MW-3	Total/NA	Water	PrecSep-21	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	PrecSep-21	
870-29766-8	FB-1	Total/NA	Water	PrecSep-21	
870-29766-9	SFL MW-6	Total/NA	Water	PrecSep-21	
870-29766-10	SFL MW-5	Total/NA	Water	PrecSep-21	
870-29766-11	SFL MW-2	Total/NA	Water	PrecSep-21	
870-29766-12	SFL MW-4	Total/NA	Water	PrecSep-21	
870-29766-13	SFL MW-3	Total/NA	Water	PrecSep-21	
870-29766-14	SFL MW-7	Total/NA	Water	PrecSep-21	
870-29766-15	MNW-15	Total/NA	Water	PrecSep-21	
870-29766-16	MNW-18	Total/NA	Water	PrecSep-21	
870-29766-17	AP MW-1D	Total/NA	Water	PrecSep-21	
870-29766-18	AP MW-5	Total/NA	Water	PrecSep-21	
870-29766-19	AP MW-4	Total/NA	Water	PrecSep-21	
870-29766-20	FB-2	Total/NA	Water	PrecSep-21	
MB 160-683837/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-683837/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-683837/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 683838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-29766-1	SSP/AP MW-1	Total/NA	Water	PrecSep_0	
870-29766-2	SSP MW-4	Total/NA	Water	PrecSep_0	
870-29766-3	EQ-1	Total/NA	Water	PrecSep_0	
870-29766-4	SSP MW-3	Total/NA	Water	PrecSep_0	
870-29766-5	SSP MW-2	Total/NA	Water	PrecSep_0	
870-29766-6	AP MW-3	Total/NA	Water	PrecSep_0	
870-29766-7	AP MW-3 DUP-1	Total/NA	Water	PrecSep_0	
870-29766-8	FB-1	Total/NA	Water	PrecSep_0	
870-29766-9	SFL MW-6	Total/NA	Water	PrecSep_0	
870-29766-10	SFL MW-5	Total/NA	Water	PrecSep_0	
870-29766-11	SFL MW-2	Total/NA	Water	PrecSep_0	
870-29766-12	SFL MW-4	Total/NA	Water	PrecSep_0	
870-29766-13	SFL MW-3	Total/NA	Water	PrecSep_0	
870-29766-14	SFL MW-7	Total/NA	Water	PrecSep_0	
870-29766-15	MNW-15	Total/NA	Water	PrecSep_0	
870-29766-16	MNW-18	Total/NA	Water	PrecSep_0	
870-29766-17	AP MW-1D	Total/NA	Water	PrecSep_0	
870-29766-18	AP MW-5	Total/NA	Water	PrecSep_0	
870-29766-19	AP MW-4	Total/NA	Water	PrecSep_0	
870-29766-20	FB-2	Total/NA	Water	PrecSep_0	
MB 160-683838/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-683838/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-683838/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP/AP MW-1

Lab Sample ID: 870-29766-1

Date Collected: 08/28/24 11:00

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193322	10/14/24 17:34	WP	EET HOU
Total/NA	Analysis	9056A		50	0 mL	1.0 mL	193322	10/14/24 17:40	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:39	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			197122	10/30/24 17:04	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 17:08	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 21:40	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 18:57	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687127	11/05/24 07:22	CAH	EET SL
Total/NA	Prep	PrecSep-21			1009.20 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 16:05	SWS	EET SL
Total/NA	Prep	PrecSep_0			1009.20 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:02	SWS	EET SL

Client Sample ID: SSP MW-4

Lab Sample ID: 870-29766-2

Date Collected: 08/28/24 12:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193322	10/14/24 17:47	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:23	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		10			197122	10/30/24 17:16	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 17:19	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 21:56	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 18:58	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687129	11/05/24 07:23	CAH	EET SL
Total/NA	Prep	PrecSep-21			1013.42 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 16:05	SWS	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP MW-4

Lab Sample ID: 870-29766-2

Date Collected: 08/28/24 12:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1013.42 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:02	SWS	EET SL

Client Sample ID: EQ-1

Lab Sample ID: 870-29766-3

Date Collected: 08/28/24 13:00

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			193322	10/14/24 18:13	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:41	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		1			197122	10/30/24 17:22	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:03	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687124	11/05/24 07:23	CAH	EET SL
Total/NA	Prep	PrecSep-21			1016.23 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 16:06	SWS	EET SL
Total/NA	Prep	PrecSep_0			1016.23 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:02	SWS	EET SL

Client Sample ID: SSP MW-3

Lab Sample ID: 870-29766-4

Date Collected: 08/28/24 14:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193322	10/14/24 18:38	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:43	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		10			197122	10/30/24 17:29	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 17:33	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:00	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:04	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687125	11/05/24 07:24	CAH	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SSP MW-3

Lab Sample ID: 870-29766-4

Date Collected: 08/28/24 14:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			527.72 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 16:07	SWS	EET SL
Total/NA	Prep	PrecSep_0			527.72 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:03	SWS	EET SL

Client Sample ID: SSP MW-2

Lab Sample ID: 870-29766-5

Date Collected: 08/28/24 15:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			193322	10/14/24 18:51	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:44	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			197122	10/30/24 17:36	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		50			197122	10/30/24 17:39	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:02	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:05	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687126	11/05/24 07:24	CAH	EET SL
Total/NA	Prep	PrecSep-21			999.25 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 16:07	SWS	EET SL
Total/NA	Prep	PrecSep_0			999.25 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:03	SWS	EET SL

Client Sample ID: AP MW-3

Lab Sample ID: 870-29766-6

Date Collected: 08/28/24 16:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			193322	10/14/24 19:04	WP	EET HOU
Total/NA	Analysis	9056A		10	0 mL	1.0 mL	193322	10/14/24 19:11	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:46	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 17:42	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:04	DP	EET HOU

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-3

Date Collected: 08/28/24 16:30

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:07	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687130	11/05/24 09:12	CAH	EET SL
Total/NA	Prep	PrecSep-21			983.64 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 16:07	SWS	EET SL
Total/NA	Prep	PrecSep_0			983.64 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:03	SWS	EET SL

Client Sample ID: AP MW-3 DUP-1

Date Collected: 08/28/24 16:45

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			193322	10/14/24 19:30	WP	EET HOU
Total/NA	Analysis	9056A		10	0 mL	1.0 mL	193322	10/14/24 19:36	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:48	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 17:45	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:07	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 18:50	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687127	11/05/24 09:11	CAH	EET SL
Total/NA	Prep	PrecSep-21			1005.96 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 16:07	SWS	EET SL
Total/NA	Prep	PrecSep_0			1005.96 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:03	SWS	EET SL

Client Sample ID: FB-1

Date Collected: 08/28/24 16:50

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			193322	10/14/24 19:56	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:49	JDM	EET HOU

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: FB-1

Date Collected: 08/28/24 16:50

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		1			197122	10/30/24 17:48	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:08	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687129	11/05/24 09:12	CAH	EET SL
Total/NA	Prep	PrecSep-21			994.30 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687881	11/11/24 16:11	CMM	EET SL
Total/NA	Prep	PrecSep_0			994.30 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:03	SWS	EET SL

Client Sample ID: SFL MW-6

Date Collected: 08/29/24 08:35

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			193322	10/14/24 20:08	WP	EET HOU
Total/NA	Analysis	9056A		100	0 mL	1.0 mL	193322	10/14/24 20:15	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 14:51	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			197122	10/30/24 17:51	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		50			197122	10/30/24 17:54	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:11	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:09	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687124	11/05/24 09:13	CAH	EET SL
Total/NA	Prep	PrecSep-21			749.26 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687881	11/11/24 16:11	CMM	EET SL
Total/NA	Prep	PrecSep_0			749.26 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:03	SWS	EET SL

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-5

Lab Sample ID: 870-29766-10

Date Collected: 08/29/24 09:15

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193322	10/14/24 20:21	WP	EET HOU
Total/NA	Analysis	9056A		50	0 mL	1.0 mL	193322	10/14/24 20:28	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:00	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 17:57	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:13	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:11	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687125	11/05/24 09:13	CAH	EET SL
Total/NA	Prep	PrecSep-21			1007.54 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687881	11/11/24 16:11	CMM	EET SL
Total/NA	Prep	PrecSep_0			1007.54 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:03	SWS	EET SL

Client Sample ID: SFL MW-2

Lab Sample ID: 870-29766-11

Date Collected: 08/29/24 09:55

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			193627	10/15/24 14:05	WP	EET HOU
Total/NA	Analysis	9056A	DL	100			193627	10/15/24 14:13	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:01	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		10			197122	10/30/24 18:05	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		50			197122	10/30/24 18:09	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:15	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:12	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687126	11/05/24 09:14	CAH	EET SL
Total/NA	Prep	PrecSep-21			994.54 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687881	11/11/24 16:12	CMM	EET SL
Total/NA	Prep	PrecSep_0			994.54 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-4

Lab Sample ID: 870-29766-12

Date Collected: 08/29/24 10:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193627	10/15/24 14:20	WP	EET HOU
Total/NA	Analysis	9056A	DL	50			193627	10/15/24 14:28	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:03	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		10			197122	10/30/24 18:12	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 18:16	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:21	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:13	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687128	11/05/24 13:33	CAH	EET SL
Total/NA	Prep	PrecSep-21			993.76 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687881	11/11/24 16:12	CMM	EET SL
Total/NA	Prep	PrecSep_0			993.76 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Client Sample ID: SFL MW-3

Lab Sample ID: 870-29766-13

Date Collected: 08/29/24 11:05

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			193627	10/15/24 14:35	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			193627	10/15/24 14:43	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:05	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		20			197122	10/30/24 18:19	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:23	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:15	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:49	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687124	11/05/24 13:37	CAH	EET SL
Total/NA	Prep	PrecSep-21			1021.80 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687882	11/11/24 16:09	CMM	EET SL
Total/NA	Prep	PrecSep_0			1021.80 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: SFL MW-7

Lab Sample ID: 870-29766-14

Date Collected: 08/29/24 11:40

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193627	10/15/24 14:50	WP	EET HOU
Total/NA	Analysis	9056A	DL	50			193627	10/15/24 14:58	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:06	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		10			197122	10/30/24 18:22	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:25	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:19	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23565	10/12/24 13:52	DKD	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23562	10/12/24 13:50	DKD	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687128	11/05/24 15:05	CAH	EET SL
Total/NA	Prep	PrecSep-21			1009.84 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 18:09	SWS	EET SL
Total/NA	Prep	PrecSep_0			1009.84 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Client Sample ID: MNW-15

Lab Sample ID: 870-29766-15

Date Collected: 08/29/24 12:20

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193627	10/15/24 15:05	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:08	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		50			197122	10/30/24 18:25	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:27	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:20	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23639	10/16/24 11:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23638	10/16/24 11:18	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687130	11/05/24 15:06	CAH	EET SL
Total/NA	Prep	PrecSep-21			1013.85 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 18:09	SWS	EET SL
Total/NA	Prep	PrecSep_0			1013.85 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: MNW-18

Date Collected: 08/29/24 13:25

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193324	10/14/24 18:20	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:10	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		10			197122	10/30/24 18:28	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:29	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:22	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	23639	10/16/24 11:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23638	10/16/24 11:18	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687127	11/05/24 15:05	CAH	EET SL
Total/NA	Prep	PrecSep-21			998.26 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 18:09	SWS	EET SL
Total/NA	Prep	PrecSep_0			998.26 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Client Sample ID: AP MW-1D

Date Collected: 08/29/24 14:15

Date Received: 09/03/24 09:28

Lab Sample ID: 870-29766-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			193324	10/14/24 18:35	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:12	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		50			197122	10/30/24 18:32	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:31	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:23	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	23639	10/16/24 11:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23638	10/16/24 11:18	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687129	11/05/24 15:06	CAH	EET SL
Total/NA	Prep	PrecSep-21			993.15 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 18:09	SWS	EET SL
Total/NA	Prep	PrecSep_0			993.15 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: AP MW-5

Lab Sample ID: 870-29766-18

Date Collected: 08/30/24 09:30

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193324	10/14/24 19:05	WP	EET HOU
Total/NA	Analysis	9056A	DL	50			193324	10/14/24 19:12	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:20	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		50			197122	10/30/24 18:35	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:33	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:24	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	23639	10/16/24 11:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23638	10/16/24 11:18	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687124	11/05/24 15:06	CAH	EET SL
Total/NA	Prep	PrecSep-21			1001.13 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 18:10	SWS	EET SL
Total/NA	Prep	PrecSep_0			1001.13 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:05	SWS	EET SL

Client Sample ID: AP MW-4

Lab Sample ID: 870-29766-19

Date Collected: 08/30/24 10:10

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			193324	10/14/24 19:20	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:22	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		10			197122	10/30/24 18:43	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		5			194866	10/18/24 22:35	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:26	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	23639	10/16/24 11:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23638	10/16/24 11:18	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687125	11/05/24 15:07	CAH	EET SL
Total/NA	Prep	PrecSep-21			1008.84 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 18:10	SWS	EET SL
Total/NA	Prep	PrecSep_0			1008.84 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686236	11/01/24 12:02	SWS	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Client Sample ID: FB-2

Lab Sample ID: 870-29766-20

Date Collected: 08/30/24 10:20

Matrix: Water

Date Received: 09/03/24 09:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			193324	10/14/24 19:35	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193216	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6010D		1			193605	10/14/24 15:24	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	193215	10/12/24 10:30	MD	EET HOU
Total/NA	Analysis	6020B		1			197122	10/30/24 18:46	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	193232	10/13/24 06:15	AGR	EET HOU
Total/NA	Analysis	7470A		1			193546	10/14/24 19:27	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	23639	10/16/24 11:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			23638	10/16/24 11:18	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	683702	10/15/24 14:02	HGB	EET SL
Total/NA	Analysis	901.1		1			687126	11/05/24 15:07	CAH	EET SL
Total/NA	Prep	PrecSep-21			1010.25 mL	1.0 g	683837	10/16/24 08:33	BCE	EET SL
Total/NA	Analysis	903.0		1			687867	11/11/24 18:10	SWS	EET SL
Total/NA	Prep	PrecSep_0			1010.25 mL	1.0 g	683838	10/16/24 08:38	BCE	EET SL
Total/NA	Analysis	904.0		1			686242	11/01/24 12:07	SWS	EET SL

Laboratory References:

EET DAL = Eurofins Dallas, 9701 Harry Hines Blvd, Dallas, TX 75220, TEL (214)902-0300

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Laboratory: Eurofins Dallas

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704295	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3010A	Water	Calcium

Laboratory: Eurofins St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704193	07-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
901.1	Fill_Geo-21	Water	Combined Radium 226 + 228
901.1	Fill_Geo-21	Water	Radium-226
901.1	Fill_Geo-21	Water	Radium-228
903.0	PrecSep-21	Water	Radium-226
904.0	PrecSep_0	Water	Radium-228

Method Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET HOU
6010D	Metals (ICP)	SW846	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DAL
SM 4500 H+ B	pH	SM	EET DAL
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
3010A	Preparation, Total Metals	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

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

Laboratory References:

EET DAL = Eurofins Dallas, 9701 Harry Hines Blvd, Dallas, TX 75220, TEL (214)902-0300

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Sample Summary

Client: HDR Inc
Project/Site: Gibbons Creek Steam Electric Station

Job ID: 870-29766-1
SDG: 10012191

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
870-29766-1	SSP/AP MW-1	Water	08/28/24 11:00	09/03/24 09:28
870-29766-2	SSP MW-4	Water	08/28/24 12:30	09/03/24 09:28
870-29766-3	EQ-1	Water	08/28/24 13:00	09/03/24 09:28
870-29766-4	SSP MW-3	Water	08/28/24 14:30	09/03/24 09:28
870-29766-5	SSP MW-2	Water	08/28/24 15:30	09/03/24 09:28
870-29766-6	AP MW-3	Water	08/28/24 16:30	09/03/24 09:28
870-29766-7	AP MW-3 DUP-1	Water	08/28/24 16:45	09/03/24 09:28
870-29766-8	FB-1	Water	08/28/24 16:50	09/03/24 09:28
870-29766-9	SFL MW-6	Water	08/29/24 08:35	09/03/24 09:28
870-29766-10	SFL MW-5	Water	08/29/24 09:15	09/03/24 09:28
870-29766-11	SFL MW-2	Water	08/29/24 09:55	09/03/24 09:28
870-29766-12	SFL MW-4	Water	08/29/24 10:30	09/03/24 09:28
870-29766-13	SFL MW-3	Water	08/29/24 11:05	09/03/24 09:28
870-29766-14	SFL MW-7	Water	08/29/24 11:40	09/03/24 09:28
870-29766-15	MNW-15	Water	08/29/24 12:20	09/03/24 09:28
870-29766-16	MNW-18	Water	08/29/24 13:25	09/03/24 09:28
870-29766-17	AP MW-1D	Water	08/29/24 14:15	09/03/24 09:28
870-29766-18	AP MW-5	Water	08/30/24 09:30	09/03/24 09:28
870-29766-19	AP MW-4	Water	08/30/24 10:10	09/03/24 09:28
870-29766-20	FB-2	Water	08/30/24 10:20	09/03/24 09:28

Chain of Custody Record



Client Information		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:									
Client Contact: David Vogt		Phone: 972 960 4461	E-Mail: dvogt@hdrinc.com	State of Origin: TX	Page: 1 of 2									
Company: HDR Inc		PWSID:			Job #:									
Address: 17111 Preston Road Suite 200		Due Date Requested:												
City: Dallas		TAT Requested (days):												
State, Zip: TX, 75248-1232		Compliance Project: ☐ Yes ☒ No												
Phone: 972-960-4461 (Tel)		PO #:												
Email: david.vogt@hdrinc.com		WO #:												
Project Name: Gibbons Creek Steam Electric Station		Project #: 10012191												
Site: Gibbons Creek Steam Elec. Station		SSOW #:												
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Performance/MSD (Yes or No)	903.0 - Standard Target List	904.0 - Standard Target List	9056A - ORGFM_28D - (MOD) Local Method	6020B, 7470A	2540C, Calcd - Local Method	Analysis Requested	Preservation Codes:	Special Instructions/Note:
SSP/AP MW-1	8/28	1100	G	Water			X	X	X	X	X		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
SSP MW-2	8/28	1230	G	Water			X	X	X	X	X		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
SSP MW-3	8/28	1300	G	Water			X	X	X	X	X			
AP MW-3 DUP-1	8/28	1430	G	Water			X	X	X	X	X			
FB-1	8/28	1530	G	Water			X	X	X	X	X			
3FL MW-6	8/28	1630	G	Water			X	X	X	X	X			
3FL MW-5	8/28	1645	G	Water			X	X	X	X	X			
3FL MW-2	8/28	1650	G	Water			X	X	X	X	X			
3FL MW-5	8/29	0835	G	Water			X	X	X	X	X			
3FL MW-2	8/29	0915	G	Water			X	X	X	X	X			
3FL MW-2	8/29	0955	G	Water			X	X	X	X	X			
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological													Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)														
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____														
Relinquished by: _____ Date/Time: 9/13/24 0930 Company: _____														
Relinquished by: _____ Date/Time: _____ Company: _____														
Relinquished by: _____ Date/Time: _____ Company: _____														
Custody Seals Intact: ☐ Yes ☒ No														
Custody Seal No.: _____														

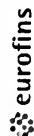
Chain of Custody Record



Client Information		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:								
Client Contact: David Vogt		Phone: 972-960 21461	E-Mail: david.vogt@hdrinc.com	State of Origin: TX	Page: 2 of 2								
Company: HDR Inc		PWSID:			Job #:								
Address: 17111 Preston Road Suite 200 Dallas, TX 75248-1232		Due Date Requested:											
City: Dallas		TAT Requested (days):											
State, Zip: TX, 75248-1232		Compliance Project: ☒ Yes ☐ No											
Phone: 972-960-4461 (Tel)		PO #:											
Email: david.vogt@hdrinc.com		WO #:											
Project Name: Gibbons Creek Steam Electric Station		Project #: 10012191											
Site: Gibbons Creek Steam Elec Station		SSOW #:											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BFI=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0 - Standard Target List	904.0 - Standard Target List	9056A - ORGFM_280 - (MOD) Local Method	6020B, 7470A	2540C - Calcd - Local Method	Total Number of Containers	Special Instructions/Note:
SFL MW-4	8/29	1030	6	Water			X	X	X	X	X		
SFL MW-3	8/29	11:05	6	Water			X	X	X	X	X		
SFL MW-7	8/29	11:40	6	Water			X	X	X	X	X		
MW-15	8/29	12:20	6	Water			X	X	X	X	X		
MW-18	8/29	13:25	6	Water			X	X	X	X	X		
AP MW-1D	8/29	14:15	6	Water			X	X	X	X	X		
AP MW-5	8/30	0930	6	Water			X	X	X	X	X		
AP MW-4	8/30	1010	6	Water			X	X	X	X	X		
FB-2	8/30	1020	6	Water			X	X	X	X	X		
				Water									
				Water									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months													
Special Instructions/QC Requirements:													
Empty Kit Relinquished by: _____ Date: _____													
Relinquished by: _____ Date/Time: 9/3/24 0930													
Relinquished by: _____ Date/Time: _____													
Relinquished by: _____ Date/Time: _____													
Custody Seals Intact: ☐ Yes ☐ No													
Custody Seal No.: _____													
Cooler Temperature(s) °C and Other Remarks: _____													

Eurofins Dallas
9701 Harry Hines Blvd
Dallas, TX 75220
Phone: 214-902-0300

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:				
Client Contact:		Phone		E-Mail:		State of Origin:		Page				
Company:		TestAmerica Laboratories, Inc.		Emily.Gondwe@ET.EurofinsUS.com		Texas		Page 2 of 3				
Address:		13715 Ridler Trail North,		Accreditations Required (See note):		Job #:		870-29766-1				
City:		Earth City		Due Date Requested:		Preservation Codes:						
State, Zip:		MO, 63045		9/10/2024								
Phone:		314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):								
Email:												
Project Name:		Gibbons Creek Steam Electric Station		PO #:								
Site:				WO #:								
Project #:		87002063										
SSOW#:												
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)	Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PresSep, 21 Standard Target List	904.0/PresSep, 0 Standard Target List	901.1, Ra/Fill, Geo, 21 (MOD) Radium-226/228	Analysis Requested	Total Number of containers	Special Instructions/Note:
SFL MW-5 (870-29766-10)	8/29/24	09:15 Central	G	Water			X	X	X		2	
SFL MW-2 (870-29766-11)	8/29/24	09:55 Central	G	Water			X	X	X		2	
SFL MW-4 (870-29766-12)	8/29/24	10:30 Central	G	Water			X	X	X		2	
SFL MW-3 (870-29766-13)	8/29/24	11:05 Central	G	Water			X	X	X		2	
SFL MW-7 (870-29766-14)	8/29/24	11:40 Central	G	Water			X	X	X		2	
MNW-15 (870-29766-15)	8/29/24	12:20 Central	G	Water			X	X	X		2	
MNW-18 (870-29766-16)	8/29/24	13:25 Central	G	Water			X	X	X		2	
AP MW-1D (870-29766-17)	8/29/24	14:15 Central	G	Water			X	X	X		2	
AP MW-5 (870-29766-18)	8/30/24	09:30 Central	G	Water			X	X	X		2	

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

Possible Hazard Identification

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

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

Relinquished by: _____ Date/Time: 8/14/24 - 17:00 Company: EF

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seal Intact: _____ Custody Seal No.: _____

Δ Yes Δ No

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: 08/15/2024 09:30 Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: _____

Method of Shipment: FedEx

Received by: _____ Date/Time: _____ Company: _____

Special Instructions/QC Requirements: _____

Return To Client ☐ Archive For _____ Months

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

☐ Return To Client ☐ Disposal By Lab

Environment Testing



Environment Testing

CONDITION UPON RECEIPT FORM (CUR)



280-197971 Login

PM: Bieniulis, Dylan T

Company: Rainbow Energy Center LLC

Client: DenverInitiated by: MLP Date: Oct 15 2024 Time: 0930Shipper: FEPackage Quantity: 8

- Mercury solid samples <u>must</u> be received at 0- 6°C. If not, note temp below. - Metal solid samples <u>must</u> be refrigerated (0- 6°C) upon receipt. - If samples are from West Virginia, please fill out form ADMIN-0031.	Thermometer ID and CF (Circle One): ID: CF: <u>ID: IR-3 CF: +0.4°C</u>
--	--

	Shipping #(s)	Uncorrected Package Temp (°C)	Corrected Package Temp (°C)
1.	<u>7385 6154 2638</u>	<u>9.1</u>	<u>9.5</u>
2.	<u>2649</u>	<u>8.8</u>	<u>9.2</u>
3.	<u>2580</u>	<u>10.8</u>	<u>11.2</u>
4.	<u>2627</u>	<u>8.9</u>	<u>9.3</u>
5.	<u>2650</u>	<u>8.3</u>	<u>8.7</u>
6.	<u>2605</u>	<u>9.4</u>	<u>9.8</u>

Condition Circle "Y" for yes, "N" for no and "N/A" for not applicable.Inspected by: MLP

1.	Y <u>N</u>	Are there custody seals present on the cooler?	9.	Y N <u>N/A</u>	Do custody seals on bottles appear to be tampered with?
2.	Y N <u>N/A</u>	Do custody seals on cooler appear to be tampered with?	10.	<u>Y</u> N	Sample received in proper containers?
3.	<u>Y</u> N	Were contents of cooler frisked after opening, but before unpacking?	11.	Y N <u>N/A</u>	Headspace in Rn-222 samples? (>6mm) (If Yes, note sample ID's below)
4.	<u>Y</u> N	Sample received with Chain of Custody (COC)?	12.	<u>Y</u> N N/A	Individual containers frisked after unpacking?
5.	<u>Y</u> N	Does the COC include the following : - sample ID's that match the container(s)? - location, date and time of collection? - collector's name? - sample preservation type?	13.	<u>Y</u> N N/A	Was sample received with proper pH? pH strip lot #: <u>LRS-4861</u> If not: - contact PM (do not adjust without approval) - Record sample ID and pH in notes - If pH is adjusted, record info below
6.	Y <u>N</u>	Was sample received broken?	14.	Y N <u>N/A</u>	Are containers for Rn-222, C-14, Cl-36, H-3 & I-129/131 marked with "Do Not Preserve" label?
7.	<u>Y</u> N	Is sample volume sufficient for analysis?	15.	Y N <u>N/A</u>	Are soil containers for C-14, H-3, Tc-99 & I-129/131 marked with "Do Not Dry" label?
8.	Y <u>N</u>	Are there custody seals present on bottles?			

Notes:

pH Adjustment (if needed)	Date/Time of Preservation:
Preservative and lot#:	Final pH checked by (initials/date):
Amount of Preservative:	Final pH and pH strip lot#:



Environment Testing

CONDITION UPON RECEIPT FORM (CUR)

Client: Denver cont.

Initiated by: MLP

Date: OCT 15 2024

Time: 0930

Shipper: FE

Package Quantity: _____

- Mercury solid samples must be received at 0- 6°C. If not, note temp below.
- Metal solid samples must be refrigerated (0- 6°C) upon receipt.
- If samples are from West Virginia, please fill out form ADMIN-0031.

Thermometer ID and CF (Circle One):

ID: CF:

ID: IR-3 CF: +0.4°C

Shipping #(s)		Uncorrected Package Temp (°C)	Corrected Package Temp (°C)
1.	7385 6154 2616	8.6	9.0
2.	2590	8.8	9.2
3.			
4.			
5.			
6.			

Condition Circle "Y" for yes, "N" for no and "N/A" for not applicable.

Inspected by: _____

1.	Y N	Are there custody seals present on the cooler?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	10.	Y N	Sample received in proper containers?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	11.	Y N N/A	Headspace in Rn-222 samples? (>6mm) (If Yes, note sample ID's below)
4.	Y N	Sample received with Chain of Custody (COC)?	12.	Y N N/A	Individual containers frisked after unpacking?
5.	Y N	Does the COC include the following : - sample ID's that match the container(s)? - location, date and time of collection? - collector's name? - sample preservation type?	13.	Y N N/A	Was sample received with proper pH? pH strip lot #: _____ If not: - contact PM (do not adjust without approval) - Record sample ID and pH in notes - If pH is adjusted, record info below
6.	Y N	Was sample received broken?	14.	Y N N/A	Are containers for Rn-222, C-14, Cl-36, H-3 & I-129/131 marked with "Do Not Preserve" label?
7.	Y N	Is sample volume sufficient for analysis?	15.	Y N N/A	Are soil containers for C-14, H-3, Tc-99 & I-129/131 marked with "Do Not Dry" label?
8.	Y N	Are there custody seals present on bottles?			

Notes:

pH Adjustment (if needed)	Date/Time of Preservation:
Preservative and lot#:	Final pH checked by (initials/date):
Amount of Preservative:	Final pH and pH strip lot#:

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 870-29766-1

SDG Number: 10012191

Login Number: 29766

List Number: 1

Creator: Bodnarchuk, Andrew G

List Source: Eurofins Dallas

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

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 870-29766-1

SDG Number: 10012191

Login Number: 29766

List Number: 2

Creator: Jimenez, Nicanor

List Source: Eurofins Houston

List Creation: 10/12/24 10:31 AM

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

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 870-29766-1

SDG Number: 10012191

Login Number: 29766

List Number: 3

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 10/15/24 01:12 PM

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



ANALYTICAL REPORT

PREPARED FOR

Attn: David Vogt
HDR Inc
17111 Preston Road
Suite 200
Dallas, Texas 75248-1232

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JOB DESCRIPTION

Appendix III/IV

JOB NUMBER

870-32406-1

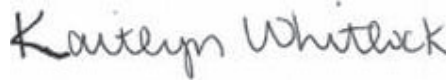
Eurofins Dallas

Job Notes

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

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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1/17/2025 7:58:38 PM

Authorized for release by
Kaitlyn Whitlock, Project Management Assistant I
Kaitlyn.Whitlock@et.eurofinsus.com
(214)902-0300



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Definitions/Glossary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
U	Indicates the analyte was analyzed for but not detected.

Rad

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

Glossary

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

Case Narrative

Client: HDR Inc
Project: Appendix III/IV

Job ID: 870-32406-1

Job ID: 870-32406-1

Eurofins Dallas

Job Narrative 870-32406-1

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

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

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

Receipt

The samples were received on 12/13/2024 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were -3.3°C, -2.9°C, -2.7°C, -2.5°C and -1.9°C.

HPLC/IC

Method 9056A_ORGFM_28D: The following samples were diluted to bring the concentration of target analytes within the calibration range: MNW-18 (870-32406-1), MNW-15 (870-32406-2) and SFL MW-7 (870-32406-3). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were diluted to bring the concentration of target analytes within the calibration range: SFL MW-7 FD (870-32406-4), SFL MW-3 (870-32406-5), SFL MW-4 (870-32406-6), SFL MW-5 (870-32406-8), SFL MW-6 (870-32406-9), SSP/AP MW-1 (870-32406-11), SSP MW-2 (870-32406-12), SSP MW-2 FD (870-32406-13), APMW-4 (870-32406-14), APMW-5 (870-32406-15), APMW-3 (870-32406-18) and SSP MW-3 (870-32406-21). Elevated reporting limits (RLs) are provided.

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

Metals

Method 6010D: The following sample was diluted due to the nature of the sample matrix: APMW-3 (870-32406-18). Elevated reporting limits (RLs) are provided.

Method 6020B: The following samples were diluted due to the nature of the sample matrix: APMW-5 (870-32406-15), APMW-1D (870-32406-17), APMW-3 (870-32406-18) and SSP MW-4 (870-32406-19). Elevated reporting limits (RLs) are provided.

Method 6020B: The following sample was diluted to bring the concentration of target analytes within the calibration range: SSP MW-4 (870-32406-19). Elevated reporting limits (RLs) are provided.

Method 6020B: The following sample was diluted due to the nature of the sample matrix: SSP MW-3 (870-32406-21). Elevated reporting limits (RLs) are provided.

Method 6020B: The following samples were diluted due to the nature of the sample matrix: SSP MW-2 (870-32406-12), SSP MW-2 FD (870-32406-13) and APMW-4 (870-32406-14). Elevated reporting limits (RLs) are provided.

Method 6020B: The following samples were diluted due to the nature of the sample matrix: MNW-18 (870-32406-1), MNW-15 (870-32406-2), SFL MW-7 (870-32406-3), SFL MW-7 FD (870-32406-4), SFL MW-3 (870-32406-5), SFL MW-4 (870-32406-6), SFL MW-2 (870-32406-7), SFL MW-5 (870-32406-8), SFL MW-6 (870-32406-9) and SSP/AP MW-1 (870-32406-11). Elevated reporting limits (RLs) are provided.

Method 6020B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MNW-18 (870-32406-1), MNW-15 (870-32406-2), SFL MW-7 (870-32406-3), SFL MW-7 FD (870-32406-4), SFL MW-3 (870-32406-5), SFL MW-4 (870-32406-6), SFL MW-2 (870-32406-7), SFL MW-5 (870-32406-8), SFL MW-6 (870-32406-9), SSP/AP MW-1 (870-32406-11), SSP MW-2 (870-32406-12), SSP MW-2 FD (870-32406-13) and APMW-4 (870-32406-14). Elevated reporting limits (RLs) are provided.

Eurofins Dallas

Case Narrative

Client: HDR Inc
Project: Appendix III/IV

Job ID: 870-32406-1

Job ID: 870-32406-1 (Continued)

Eurofins Dallas

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

General Chemistry

Method 2540C_Calcd: The measured conductivity of the samples resulted in the residue being under the RL

FB-01 (870-32406-10), FB-02 (870-32406-16) and EQ-01 (870-32406-20)

Method SM4500_H+: The following samples were received outside of holding time: MNW-18 (870-32406-1), MNW-15 (870-32406-2), SFL MW-7 (870-32406-3), SFL MW-7 FD (870-32406-4), SFL MW-3 (870-32406-5), SFL MW-4 (870-32406-6), SFL MW-2 (870-32406-7), SFL MW-5 (870-32406-8), SFL MW-6 (870-32406-9) and FB-01 (870-32406-10).

Method SM4500_H+: The following samples were received outside of holding time: SSP/AP MW-1 (870-32406-11), SSP MW-2 (870-32406-12), SSP MW-2 FD (870-32406-13), APMW-4 (870-32406-14), APMW-5 (870-32406-15), FB-02 (870-32406-16), APMW-1D (870-32406-17), APMW-3 (870-32406-18), SSP MW-4 (870-32406-19), EQ-01 (870-32406-20), SSP MW-3 (870-32406-21), (870-32406-D-18 DU) and (870-32406-D-19 DU).

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

Gamma Spectroscopy

Method 901.1_Ra: Gamma prep batch 160-694212

The minimum detectable concentration (MDC) for the method blank (MB) is above the requested limit for Ra226. The activity was not observed in the MB above the MDC or reporting limit (RL). The data for the following sample have been reported with the MDC achieved:

(MB 160-694212/1-A)

Method 901.1_Ra: Gamma prep batch 160- 694212

The detection goal was not met for Ra226/Ra228 for the following sample. An elevated MDC can occur when higher background counts are applied to a peak ROI. This is due to the relatively small size of the peak or subsequent "force-fit" of the non-existent peak which resulted in higher than normal background counts due to statistical fluctuations in the Compton baseline. The laboratory does not believe this adversely affects the data, the activity is well below the RL and MDC.

SSP MW-3 (870-32406-21)

Method 901.1_Ra: Gamma Prep Batch 160-694212

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227

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Case Narrative

Client: HDR Inc
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Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

SSP MW-3 (870-32406-21) and (870-32406-A-21-B DU)

Method 901.1_Ra: Gamma 160-694201

Activity detected in the method blank (MB), analyzed by gamma spectroscopy, was above the minimum detectable concentration (MDC) but below the requested limit for Ra226. The data for the following samples have been reported with this narrative: (MB 160-694201/1-A)

Method 901.1_Ra: Gamma prep batch 160- 694201

The detection goal was not met for Ra226 and/or Ra228 for the following sample. An elevated MDC can occur when higher background counts are applied to a peak ROI. This is due to the relatively small size of the peak or subsequent "force-fit" of the non-existent peak which resulted in higher than normal background counts due to statistical fluctuations in the Compton baseline. The laboratory does not believe this adversely affects the data, the activity is well below the RL and MDC.

MNW-18 (870-32406-1), MNW-15 (870-32406-2), SFL MW-7 (870-32406-3), SFL MW-7 FD (870-32406-4), SFL MW-3 (870-32406-5), SFL MW-4 (870-32406-6), SFL MW-2 (870-32406-7), SFL MW-5 (870-32406-8), SFL MW-6 (870-32406-9), FB-01 (870-32406-10), SSP MW-2 (870-32406-12), SSP MW-2 FD (870-32406-13), APMW-4 (870-32406-14), FB-02 (870-32406-16), SSP MW-4 (870-32406-19), EQ-01 (870-32406-20) and (870-32406-A-1-B DU)

Method 901.1_Ra: Gamma Prep Batch 160-694201

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

MNW-18 (870-32406-1), MNW-15 (870-32406-2), SFL MW-7 (870-32406-3), SFL MW-7 FD (870-32406-4), SFL MW-3 (870-32406-5), SFL MW-4 (870-32406-6), SFL MW-2 (870-32406-7), SFL MW-5 (870-32406-8), SFL MW-6 (870-32406-9), FB-01

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Case Narrative

Client: HDR Inc
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(870-32406-10), SSP/AP MW-1 (870-32406-11), SSP MW-2 (870-32406-12), SSP MW-2 FD (870-32406-13), APMW-4 (870-32406-14), APMW-5 (870-32406-15), FB-02 (870-32406-16), APMW-1D (870-32406-17), APMW-3 (870-32406-18), SSP MW-4 (870-32406-19), EQ-01 (870-32406-20) and (870-32406-A-1-B DU)

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

Gas Flow Proportional Counter

Method 904.0: Radium-228 batch 694335

The LCS recovered at (142%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (69-145%) per method requirements. The LCS passes, no further action is required (LCS 160-694335/2-A)

Method 904.0: Radium 228 batch 694330

The LCS recovered at (131%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (69-145%) per method requirements. The LCS passes, no further action is required

(LCS 160-694330/2-A)

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

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: MNW-18

Lab Sample ID: 870-32406-1

Date Collected: 12/11/24 08:02

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	433		2.50	1.25	mg/L			12/31/24 03:12	5
Fluoride	<0.500	U	2.50	0.500	mg/L			12/31/24 03:12	5
Sulfate	1260		2.50	1.00	mg/L			12/31/24 03:12	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.154		0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.00943	J	0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:02	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:03	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:03	10
Iron	1.89		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:02	1
Barium	0.0191	J	0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:03	10
Beryllium	<0.00271	U	0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:03	10
Boron	0.312		0.100	0.0401	mg/L		12/23/24 08:30	12/23/24 23:03	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:03	10
Calcium	122		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:13	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:03	10
Cobalt	<0.00355	U	0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:03	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:03	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:03	10
Selenium	<0.00590	U	0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:03	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:03	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 20:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3760		20.0	20.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	7.0	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	21.3	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-4.88	U G	30.1	30.1	50.0	52.5	pCi/L	12/17/24 14:43	01/08/25 20:30	1
Radium-228	-19.8	U G	35.2	35.3	50.0	54.1	pCi/L	12/17/24 14:43	01/08/25 20:30	1
Combined Radium 226 + 228	-24.7	U	46.3	46.4		54.1	pCi/L	12/17/24 14:43	01/08/25 20:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.847		0.160	0.177	1.00	0.0934	pCi/L	12/18/24 08:12	01/15/25 09:27	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: MNW-18

Lab Sample ID: 870-32406-1

Date Collected: 12/11/24 08:02

Matrix: Water

Date Received: 12/13/24 08:20

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		30 - 110	12/18/24 08:12	01/15/25 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.00		0.492	0.526	1.00	0.504	pCi/L	12/18/24 08:16	01/03/25 11:58	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		30 - 110	12/18/24 08:16	01/03/25 11:58	1
Y Carrier	81.9		30 - 110	12/18/24 08:16	01/03/25 11:58	1

Client Sample ID: MNW-15

Lab Sample ID: 870-32406-2

Date Collected: 12/11/24 09:16

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	648		2.50	1.25	mg/L			12/31/24 03:30	5
Fluoride	<0.500	U	2.50	0.500	mg/L			12/31/24 03:30	5
Sulfate	1500		2.50	1.00	mg/L			12/31/24 03:30	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	28.2		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:04	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:05	10
Arsenic	0.00911	J	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:05	10
Iron	24.9		0.100	0.0223	mg/L		12/18/24 13:30	12/18/24 21:07	5
Barium	0.0179	J	0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:05	10
Beryllium	0.0958		0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:05	10
Boron	9.78		1.00	0.401	mg/L		12/23/24 08:30	12/23/24 23:15	100
Cadmium	0.0331		0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:05	10
Calcium	243		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:15	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:05	10
Cobalt	0.346		0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:05	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:05	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:05	10
Selenium	0.0647		0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:05	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:05	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 20:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4440		20.0	20.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	3.5	HF			SU			12/20/24 11:02	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: MNW-15

Lab Sample ID: 870-32406-2

Date Collected: 12/11/24 09:16

Matrix: Water

Date Received: 12/13/24 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	22.8	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-13.4	U G	24.2	24.3	50.0	54.9	pCi/L	12/17/24 14:43	01/08/25 22:44	1
Radium-228	12.7	U	31.7	31.7	50.0	41.8	pCi/L	12/17/24 14:43	01/08/25 22:44	1
Combined Radium 226 + 228	-0.639	U	39.9	39.9		54.9	pCi/L	12/17/24 14:43	01/08/25 22:44	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0294	U	0.0606	0.0607	1.00	0.109	pCi/L	12/18/24 08:12	01/15/25 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		30 - 110					12/18/24 08:12	01/15/25 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0382	U	0.329	0.329	1.00	0.622	pCi/L	12/18/24 08:16	01/03/25 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		30 - 110					12/18/24 08:16	01/03/25 11:58	1
Y Carrier	81.9		30 - 110					12/18/24 08:16	01/03/25 11:58	1

Client Sample ID: SFL MW-7

Lab Sample ID: 870-32406-3

Date Collected: 12/11/24 10:11

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2880		5.00	2.50	mg/L			12/31/24 03:48	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 03:48	10
Sulfate	908		5.00	2.00	mg/L			12/31/24 03:48	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0144	J	0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:10	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:07	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:07	10
Iron	0.0825		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:10	1
Barium	0.0421		0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:07	10
Beryllium	<0.00271	U	0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:07	10

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-7

Lab Sample ID: 870-32406-3

Date Collected: 12/11/24 10:11

Matrix: Water

Date Received: 12/13/24 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.15		0.100	0.0401	mg/L		12/23/24 08:30	12/23/24 23:07	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:07	10
Calcium	564		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:17	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:07	10
Cobalt	<0.00355	U	0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:07	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:07	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:07	10
Selenium	<0.00590	U	0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:07	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:07	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7020		20.0	20.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	6.4	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	24.1	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-2.51	U	18.4	18.4	50.0	32.5	pCi/L	12/17/24 14:43	01/08/25 22:44	1
Radium-228	-2.91	U G	7.29	7.29	50.0	60.0	pCi/L	12/17/24 14:43	01/08/25 22:44	1
Combined Radium 226 + 228	-5.43	U	19.8	19.8		60.0	pCi/L	12/17/24 14:43	01/08/25 22:44	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.258		0.131	0.134	1.00	0.175	pCi/L	12/18/24 08:12	01/15/25 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		30 - 110					12/18/24 08:12	01/15/25 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	2.75		0.641	0.689	1.00	0.614	pCi/L	12/18/24 08:16	01/03/25 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		30 - 110					12/18/24 08:16	01/03/25 11:58	1
Y Carrier	80.7		30 - 110					12/18/24 08:16	01/03/25 11:58	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-7 FD

Lab Sample ID: 870-32406-4

Date Collected: 12/11/24 10:14

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2910		5.00	2.50	mg/L			12/31/24 11:08	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 11:08	10
Sulfate	917		5.00	2.00	mg/L			12/31/24 11:08	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0178	J	0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:12	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:09	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:09	10
Iron	0.0890		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:12	1
Barium	0.0415		0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:09	10
Beryllium	<0.00271	U	0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:09	10
Boron	1.01		0.100	0.0401	mg/L		12/23/24 08:30	12/23/24 23:09	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:09	10
Calcium	495		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:20	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:09	10
Cobalt	<0.00355	U	0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:09	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:09	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:09	10
Selenium	<0.00590	U	0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:09	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:09	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6360		50.0	50.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	6.4	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	23.4	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	10.6	U G	9.91	9.97	50.0	68.9	pCi/L	12/17/24 14:43	01/08/25 22:45	1
Radium-228	-21.4	U G	38.7	38.8	50.0	59.8	pCi/L	12/17/24 14:43	01/08/25 22:45	1
Combined Radium 226 + 228	-10.8	U	39.9	40.1		68.9	pCi/L	12/17/24 14:43	01/08/25 22:45	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.465		0.128	0.135	1.00	0.106	pCi/L	12/18/24 08:12	01/15/25 09:27	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-7 FD

Lab Sample ID: 870-32406-4

Date Collected: 12/11/24 10:14

Matrix: Water

Date Received: 12/13/24 08:20

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		30 - 110	12/18/24 08:12	01/15/25 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.59		0.638	0.681	1.00	0.709	pCi/L	12/18/24 08:16	01/03/25 11:59	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		30 - 110	12/18/24 08:16	01/03/25 11:59	1
Y Carrier	82.6		30 - 110	12/18/24 08:16	01/03/25 11:59	1

Client Sample ID: SFL MW-3

Lab Sample ID: 870-32406-5

Date Collected: 12/11/24 11:17

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	759		2.50	1.25	mg/L			12/31/24 12:28	5
Fluoride	<0.500	U	2.50	0.500	mg/L			12/31/24 12:28	5
Sulfate	2430		2.50	1.00	mg/L			12/31/24 12:28	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8.08		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:15	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:11	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:11	10
Iron	1.71		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:15	1
Barium	0.0148	J	0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:11	10
Beryllium	0.0354		0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:11	10
Boron	4.31		1.00	0.401	mg/L		12/23/24 08:30	12/23/24 23:22	100
Cadmium	0.00573	J	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:11	10
Calcium	436		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:22	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:11	10
Cobalt	0.0621		0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:11	10
Lead	0.0196	J	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:11	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:11	10
Selenium	0.0251		0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:11	10
Thallium	0.00596	J	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:11	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000277		0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6070		20.0	20.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	3.8	HF			SU			12/20/24 11:02	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-3

Lab Sample ID: 870-32406-5

Date Collected: 12/11/24 11:17

Matrix: Water

Date Received: 12/13/24 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	24.0	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	15.8	U G	10.6	10.7	50.0	54.4	pCi/L	12/17/24 14:43	01/09/25 08:16	1
Radium-228	-8.48	U	32.7	32.7	50.0	49.4	pCi/L	12/17/24 14:43	01/09/25 08:16	1
Combined Radium 226 + 228	7.33	U	34.4	34.4		54.4	pCi/L	12/17/24 14:43	01/09/25 08:16	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.950		0.179	0.198	1.00	0.117	pCi/L	12/18/24 08:12	01/15/25 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		30 - 110					12/18/24 08:12	01/15/25 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.97		0.610	0.668	1.00	0.640	pCi/L	12/18/24 08:16	01/03/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		30 - 110					12/18/24 08:16	01/03/25 11:55	1
Y Carrier	83.4		30 - 110					12/18/24 08:16	01/03/25 11:55	1

Client Sample ID: SFL MW-4

Lab Sample ID: 870-32406-6

Date Collected: 12/11/24 12:10

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1570		5.00	2.50	mg/L			12/31/24 12:46	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 12:46	10
Sulfate	2610		5.00	2.00	mg/L			12/31/24 12:46	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0868	U	0.200	0.0868	mg/L		12/16/24 11:02	12/16/24 17:41	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0204		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:17	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:28	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:28	10
Iron	0.444		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:17	1
Barium	0.0175	J	0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:28	10
Beryllium	<0.00271	U	0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:28	10

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-4

Lab Sample ID: 870-32406-6

Date Collected: 12/11/24 12:10

Matrix: Water

Date Received: 12/13/24 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.727		0.100	0.0401	mg/L		12/23/24 08:30	12/23/24 23:28	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:28	10
Calcium	545		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:38	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:28	10
Cobalt	<0.00355	U	0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:28	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:28	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:28	10
Selenium	<0.00590	U	0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:28	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:28	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7660		20.0	20.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	6.3	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	24.9	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-4.88	U G	30.2	30.2	50.0	52.6	pCi/L	12/17/24 14:43	01/09/25 08:15	1
Radium-228	-0.829	U G	2.70	2.70	50.0	54.1	pCi/L	12/17/24 14:43	01/09/25 08:15	1
Combined Radium 226 + 228	-5.71	U	30.3	30.3		54.1	pCi/L	12/17/24 14:43	01/09/25 08:15	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.252		0.0949	0.0975	1.00	0.0971	pCi/L	12/18/24 08:12	01/15/25 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		30 - 110					12/18/24 08:12	01/15/25 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.28		0.406	0.423	1.00	0.470	pCi/L	12/18/24 08:16	01/03/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		30 - 110					12/18/24 08:16	01/03/25 11:55	1
Y Carrier	83.4		30 - 110					12/18/24 08:16	01/03/25 11:55	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-2

Lab Sample ID: 870-32406-7

Date Collected: 12/11/24 13:01

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2380		5.00	2.50	mg/L			12/31/24 13:32	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 13:32	10
Sulfate	1490		5.00	2.00	mg/L			12/31/24 13:32	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 17:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.322		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:20	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:30	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:30	10
Iron	0.101		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:20	1
Barium	0.0244	J	0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:30	10
Beryllium	<0.00271	U	0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:30	10
Boron	0.759		0.100	0.0401	mg/L		12/23/24 08:30	12/23/24 23:30	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:30	10
Calcium	548		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:40	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:30	10
Cobalt	0.0148	J	0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:30	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:30	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:30	10
Selenium	<0.00590	U	0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:30	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:30	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6230		20.0	20.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	6.4	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	21.3	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	51.0		21.3	21.9	50.0	24.5	pCi/L	12/17/24 14:43	01/09/25 09:41	1
Radium-228	2.18	U G	4.95	4.95	50.0	60.0	pCi/L	12/17/24 14:43	01/09/25 09:41	1
Combined Radium 226 + 228	53.2	U	21.9	22.5		60.0	pCi/L	12/17/24 14:43	01/09/25 09:41	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	1.37		0.215	0.248	1.00	0.128	pCi/L	12/18/24 08:12	01/15/25 09:27	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-2

Lab Sample ID: 870-32406-7

Date Collected: 12/11/24 13:01

Matrix: Water

Date Received: 12/13/24 08:20

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		30 - 110	12/18/24 08:12	01/15/25 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.62		0.878	1.07	1.00	0.639	pCi/L	12/18/24 08:16	01/03/25 11:55	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		30 - 110	12/18/24 08:16	01/03/25 11:55	1
Y Carrier	80.4		30 - 110	12/18/24 08:16	01/03/25 11:55	1

Client Sample ID: SFL MW-5

Lab Sample ID: 870-32406-8

Date Collected: 12/11/24 13:50

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2660		5.00	2.50	mg/L			12/31/24 13:50	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 13:50	10
Sulfate	2230		5.00	2.00	mg/L			12/31/24 13:50	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.129		0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.519		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:22	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:32	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:32	10
Iron	0.416		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:22	1
Barium	0.0219	J	0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:32	10
Beryllium	0.0126	J	0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:32	10
Boron	4.54		1.00	0.401	mg/L		12/23/24 08:30	12/23/24 23:42	100
Cadmium	0.00480	J	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:32	10
Calcium	639		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:42	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:32	10
Cobalt	0.0553		0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:32	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:32	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:32	10
Selenium	0.0177	J	0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:32	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:32	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000790	J	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6410		50.0	50.0	mg/L			12/17/24 14:48	1
pH (SM 4500 H+ B)	4.5	HF			SU			12/20/24 11:02	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-5

Lab Sample ID: 870-32406-8

Date Collected: 12/11/24 13:50

Matrix: Water

Date Received: 12/13/24 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	24.9	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-2.39	U G	32.7	32.8	50.0	56.5	pCi/L	12/17/24 14:43	01/09/25 09:41	1
Radium-228	4.47	U	9.18	9.19	50.0	47.6	pCi/L	12/17/24 14:43	01/09/25 09:41	1
Combined Radium 226 + 228	2.08	U	34.0	34.1		56.5	pCi/L	12/17/24 14:43	01/09/25 09:41	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.83		0.233	0.285	1.00	0.117	pCi/L	12/18/24 08:12	01/15/25 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		30 - 110					12/18/24 08:12	01/15/25 15:54	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	9.77		0.973	1.32	1.00	0.575	pCi/L	12/18/24 08:16	01/03/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		30 - 110					12/18/24 08:16	01/03/25 11:55	1
Y Carrier	83.4		30 - 110					12/18/24 08:16	01/03/25 11:55	1

Client Sample ID: SFL MW-6

Lab Sample ID: 870-32406-9

Date Collected: 12/11/24 14:43

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 14:08	10
Sulfate	2570		5.00	2.00	mg/L			12/31/24 14:08	10

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7750		50.0	25.0	mg/L			12/31/24 14:17	100

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.271		0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11.1		0.100	0.0275	mg/L		12/18/24 13:30	12/18/24 21:33	5
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:34	10
Arsenic	0.0301	J	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:34	10

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-6

Lab Sample ID: 870-32406-9

Date Collected: 12/11/24 14:43

Matrix: Water

Date Received: 12/13/24 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19.8		0.100	0.0223	mg/L		12/18/24 13:30	12/18/24 21:33	5
Barium	0.0690		0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:34	10
Beryllium	0.116		0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:34	10
Boron	0.690		0.100	0.0401	mg/L		12/23/24 08:30	12/23/24 23:34	10
Cadmium	0.00697	J	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:34	10
Calcium	1030		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:44	100
Chromium	0.0509		0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:34	10
Cobalt	0.225		0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:34	10
Lead	0.0173	J	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:34	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:34	10
Selenium	0.171		0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:34	10
Thallium	0.00616	J	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:34	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000109	J	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	15000		50.0	50.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	3.7	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	23.0	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	5.01	U G	10.4	10.4	50.0	51.6	pCi/L	12/17/24 14:43	01/09/25 11:15	1
Radium-228	-2.28	U G	4.53	4.53	50.0	55.0	pCi/L	12/17/24 14:43	01/09/25 11:15	1
Combined Radium 226 + 228	2.74	U	11.3	11.3		55.0	pCi/L	12/17/24 14:43	01/09/25 11:15	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	2.95		0.318	0.415	1.00	0.0976	pCi/L	12/18/24 08:12	01/15/25 15:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		30 - 110					12/18/24 08:12	01/15/25 15:55	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	17.6		1.44	2.17	1.00	0.653	pCi/L	12/18/24 08:16	01/03/25 11:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		30 - 110					12/18/24 08:16	01/03/25 11:56	1
Y Carrier	78.1		30 - 110					12/18/24 08:16	01/03/25 11:56	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: FB-01

Lab Sample ID: 870-32406-10

Date Collected: 12/11/24 15:46

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			12/31/24 14:26	1
Fluoride	<0.100	U	0.500	0.100	mg/L			12/31/24 14:26	1
Sulfate	<0.200	U	0.500	0.200	mg/L			12/31/24 14:26	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 17:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:35	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		12/23/24 08:30	12/23/24 23:54	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		12/23/24 08:30	12/23/24 23:54	1
Iron	0.00560	J	0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:35	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		12/23/24 08:30	12/23/24 23:54	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		12/23/24 08:30	12/23/24 23:54	1
Boron	0.00463	J	0.0100	0.00401	mg/L		12/23/24 08:30	12/23/24 23:54	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		12/23/24 08:30	12/23/24 23:54	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		12/23/24 08:30	12/23/24 23:54	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		12/23/24 08:30	12/23/24 23:54	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		12/23/24 08:30	12/23/24 23:54	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		12/23/24 08:30	12/23/24 23:54	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		12/23/24 08:30	12/23/24 23:54	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		12/23/24 08:30	12/23/24 23:54	1
Thallium	<0.000415	U	0.00200	0.000415	mg/L		12/23/24 08:30	12/23/24 23:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<2.50	U	2.50	2.50	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	6.3	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	26.5	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-8.51	U	23.0	23.0	50.0	41.3	pCi/L	12/17/24 14:43	01/09/25 11:17	1
Radium-228	-3.53	U G	7.23	7.24	50.0	59.8	pCi/L	12/17/24 14:43	01/09/25 11:17	1
Combined Radium 226 + 228	-12.0	U	24.1	24.1		59.8	pCi/L	12/17/24 14:43	01/09/25 11:17	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-0.00661	U	0.0394	0.0394	1.00	0.0882	pCi/L	12/18/24 08:12	01/15/25 15:55	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: FB-01

Lab Sample ID: 870-32406-10

Date Collected: 12/11/24 15:46

Matrix: Water

Date Received: 12/13/24 08:20

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		30 - 110	12/18/24 08:12	01/15/25 15:55	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.362	U	0.340	0.341	1.00	0.541	pCi/L	12/18/24 08:16	01/03/25 11:56	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		30 - 110	12/18/24 08:16	01/03/25 11:56	1
Y Carrier	77.8		30 - 110	12/18/24 08:16	01/03/25 11:56	1

Client Sample ID: SSP/AP MW-1

Lab Sample ID: 870-32406-11

Date Collected: 12/11/24 16:51

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1570		5.00	2.50	mg/L			12/31/24 15:31	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 15:31	10
Sulfate	3400		5.00	2.00	mg/L			12/31/24 15:31	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	1.51		0.0400	0.0174	mg/L		12/19/24 08:30	12/19/24 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0477		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:38	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 08:30	12/23/24 23:36	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 08:30	12/23/24 23:36	10
Iron	4.32		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:38	1
Barium	0.0296	J	0.0400	0.0134	mg/L		12/23/24 08:30	12/23/24 23:36	10
Beryllium	<0.00271	U	0.0200	0.00271	mg/L		12/23/24 08:30	12/23/24 23:36	10
Boron	1.00		0.100	0.0401	mg/L		12/23/24 08:30	12/23/24 23:36	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 08:30	12/23/24 23:36	10
Calcium	448		10.0	3.01	mg/L		12/23/24 08:30	12/23/24 23:46	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 08:30	12/23/24 23:36	10
Cobalt	<0.00355	U	0.0200	0.00355	mg/L		12/23/24 08:30	12/23/24 23:36	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 08:30	12/23/24 23:36	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 08:30	12/23/24 23:36	10
Selenium	<0.00590	U	0.0200	0.00590	mg/L		12/23/24 08:30	12/23/24 23:36	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 08:30	12/23/24 23:36	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7640		20.0	20.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	5.9	HF			SU			12/20/24 11:02	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP/AP MW-1

Lab Sample ID: 870-32406-11

Date Collected: 12/11/24 16:51

Matrix: Water

Date Received: 12/13/24 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	31.1	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	41.4		20.6	21.0	50.0	23.7	pCi/L	12/17/24 14:43	01/09/25 12:21	1
Radium-228	4.71	U	8.76	8.78	50.0	43.0	pCi/L	12/17/24 14:43	01/09/25 12:21	1
Combined Radium 226 + 228	46.1		22.4	22.8		43.0	pCi/L	12/17/24 14:43	01/09/25 12:21	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0631	U	0.0634	0.0637	1.00	0.0996	pCi/L	12/18/24 08:12	01/16/25 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.1		30 - 110					12/18/24 08:12	01/16/25 13:59	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.08		0.406	0.418	1.00	0.489	pCi/L	12/18/24 08:16	01/03/25 11:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.1		30 - 110					12/18/24 08:16	01/03/25 11:56	1
Y Carrier	79.6		30 - 110					12/18/24 08:16	01/03/25 11:56	1

Client Sample ID: SSP MW-2

Lab Sample ID: 870-32406-12

Date Collected: 12/12/24 07:44

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2380		5.00	2.50	mg/L			12/31/24 15:49	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 15:49	10
Sulfate	2320		5.00	2.00	mg/L			12/31/24 15:49	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.154		0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.16		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:40	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 10:00	12/23/24 20:49	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 10:00	12/23/24 20:49	10
Iron	4.05		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:40	1
Barium	0.0185	J	0.0400	0.0134	mg/L		12/23/24 10:00	12/23/24 20:49	10
Beryllium	0.0449		0.0200	0.00271	mg/L		12/23/24 10:00	12/23/24 20:49	10

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-2

Lab Sample ID: 870-32406-12

Date Collected: 12/12/24 07:44

Matrix: Water

Date Received: 12/13/24 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.493		0.100	0.0401	mg/L		12/23/24 10:00	12/23/24 20:49	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 10:00	12/23/24 20:49	10
Calcium	831		10.0	3.01	mg/L		12/23/24 10:00	12/24/24 00:00	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 10:00	12/23/24 20:49	10
Cobalt	0.0481		0.0200	0.00355	mg/L		12/23/24 10:00	12/23/24 20:49	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 10:00	12/23/24 20:49	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 10:00	12/23/24 20:49	10
Selenium	0.0297		0.0200	0.00590	mg/L		12/23/24 10:00	12/23/24 20:49	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 10:00	12/23/24 20:49	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	9720		50.0	50.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	5.3	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	29.9	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	9.45	U G	12.8	12.9	50.0	52.8	pCi/L	12/17/24 14:43	01/09/25 12:22	1
Radium-228	-39.7	U G	33.3	33.6	50.0	65.0	pCi/L	12/17/24 14:43	01/09/25 12:22	1
Combined Radium 226 + 228	-30.3	U	35.7	36.0		65.0	pCi/L	12/17/24 14:43	01/09/25 12:22	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.427		0.128	0.134	1.00	0.116	pCi/L	12/18/24 08:12	01/15/25 15:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		30 - 110					12/18/24 08:12	01/15/25 15:56	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	2.56		0.611	0.655	1.00	0.613	pCi/L	12/18/24 08:16	01/03/25 11:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		30 - 110					12/18/24 08:16	01/03/25 11:56	1
Y Carrier	78.9		30 - 110					12/18/24 08:16	01/03/25 11:56	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-2 FD

Lab Sample ID: 870-32406-13

Date Collected: 12/12/24 07:47

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2380		5.00	2.50	mg/L			12/31/24 16:07	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 16:07	10
Sulfate	2320		5.00	2.00	mg/L			12/31/24 16:07	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.144		0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.22		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:43	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 10:00	12/23/24 20:52	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 10:00	12/23/24 20:52	10
Iron	4.04		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:43	1
Barium	0.0199	J	0.0400	0.0134	mg/L		12/23/24 10:00	12/23/24 20:52	10
Beryllium	0.0488		0.0200	0.00271	mg/L		12/23/24 10:00	12/23/24 20:52	10
Boron	0.529		0.100	0.0401	mg/L		12/23/24 10:00	12/23/24 20:52	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 10:00	12/23/24 20:52	10
Calcium	731		10.0	3.01	mg/L		12/23/24 10:00	12/24/24 00:02	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 10:00	12/23/24 20:52	10
Cobalt	0.0533		0.0200	0.00355	mg/L		12/23/24 10:00	12/23/24 20:52	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 10:00	12/23/24 20:52	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 10:00	12/23/24 20:52	10
Selenium	0.0319		0.0200	0.00590	mg/L		12/23/24 10:00	12/23/24 20:52	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 10:00	12/23/24 20:52	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	11100		50.0	50.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	5.2	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	27.5	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	38.8		22.1	22.5	50.0	25.9	pCi/L	12/17/24 14:43	01/09/25 13:37	1
Radium-228	1.95	U G	6.53	6.54	50.0	55.0	pCi/L	12/17/24 14:43	01/09/25 13:37	1
Combined Radium 226 + 228	40.8	U	23.0	23.4		55.0	pCi/L	12/17/24 14:43	01/09/25 13:37	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.340		0.116	0.120	1.00	0.124	pCi/L	12/18/24 08:12	01/16/25 07:25	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-2 FD

Lab Sample ID: 870-32406-13

Date Collected: 12/12/24 07:47

Matrix: Water

Date Received: 12/13/24 08:20

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	83.6		30 - 110	12/18/24 08:12	01/16/25 07:25	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.65		0.611	0.658	1.00	0.638	pCi/L	12/18/24 08:16	01/03/25 11:56	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	83.6		30 - 110	12/18/24 08:16	01/03/25 11:56	1
Y Carrier	80.0		30 - 110	12/18/24 08:16	01/03/25 11:56	1

Client Sample ID: APMW-4

Lab Sample ID: 870-32406-14

Date Collected: 12/12/24 09:34

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	446		2.50	1.25	mg/L			12/31/24 16:25	5
Fluoride	<0.500	U	2.50	0.500	mg/L			12/31/24 16:25	5
Sulfate	2280		2.50	1.00	mg/L			12/31/24 16:25	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.517		0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0278		0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 21:45	1
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/23/24 10:00	12/23/24 20:54	10
Arsenic	<0.00690	U	0.0400	0.00690	mg/L		12/23/24 10:00	12/23/24 20:54	10
Iron	1.49		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:45	1
Barium	0.0183	J	0.0400	0.0134	mg/L		12/23/24 10:00	12/23/24 20:54	10
Beryllium	<0.00271	U	0.0200	0.00271	mg/L		12/23/24 10:00	12/23/24 20:54	10
Boron	2.63		0.100	0.0401	mg/L		12/23/24 10:00	12/23/24 20:54	10
Cadmium	<0.00240	U	0.0200	0.00240	mg/L		12/23/24 10:00	12/23/24 20:54	10
Calcium	457		10.0	3.01	mg/L		12/23/24 10:00	12/24/24 00:05	100
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/23/24 10:00	12/23/24 20:54	10
Cobalt	<0.00355	U	0.0200	0.00355	mg/L		12/23/24 10:00	12/23/24 20:54	10
Lead	<0.00367	U	0.0200	0.00367	mg/L		12/23/24 10:00	12/23/24 20:54	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/23/24 10:00	12/23/24 20:54	10
Selenium	<0.00590	U	0.0200	0.00590	mg/L		12/23/24 10:00	12/23/24 20:54	10
Thallium	<0.00415	U	0.0200	0.00415	mg/L		12/23/24 10:00	12/23/24 20:54	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4400		20.0	20.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	5.9	HF			SU			12/20/24 11:02	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: APMW-4

Lab Sample ID: 870-32406-14

Date Collected: 12/12/24 09:34

Matrix: Water

Date Received: 12/13/24 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	26.5	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-25.3	U G	22.4	22.6	50.0	55.0	pCi/L	12/17/24 14:43	01/09/25 13:38	1
Radium-228	-0.635	U G	1.97	1.97	50.0	59.8	pCi/L	12/17/24 14:43	01/09/25 13:38	1
Combined Radium 226 + 228	-25.9	U	22.5	22.7		59.8	pCi/L	12/17/24 14:43	01/09/25 13:38	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.544		0.135	0.143	1.00	0.0981	pCi/L	12/18/24 08:12	01/15/25 15:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		30 - 110					12/18/24 08:12	01/15/25 15:56	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.655		0.396	0.401	1.00	0.577	pCi/L	12/18/24 08:16	01/03/25 11:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		30 - 110					12/18/24 08:16	01/03/25 11:56	1
Y Carrier	78.1		30 - 110					12/18/24 08:16	01/03/25 11:56	1

Client Sample ID: APMW-5

Lab Sample ID: 870-32406-15

Date Collected: 12/12/24 10:19

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	631		2.50	1.25	mg/L			12/31/24 16:43	5
Fluoride	2.79		2.50	0.500	mg/L			12/31/24 16:43	5
Sulfate	3580		25.0	10.0	mg/L			12/31/24 16:52	50

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.263		0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	58.2		0.400	0.110	mg/L		12/20/24 10:00	12/20/24 17:38	20
Antimony	<0.00375	U	0.0100	0.00375	mg/L		12/20/24 10:00	12/20/24 17:35	5
Arsenic	0.0210		0.0200	0.00345	mg/L		12/20/24 10:00	12/20/24 17:35	5
Iron	4.32		0.100	0.0223	mg/L		12/20/24 10:00	12/20/24 17:35	5
Barium	0.0102	J	0.0200	0.00671	mg/L		12/20/24 10:00	12/20/24 17:35	5
Beryllium	0.115		0.0100	0.00136	mg/L		12/20/24 10:00	12/20/24 17:35	5

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: APMW-5

Lab Sample ID: 870-32406-15

Date Collected: 12/12/24 10:19

Matrix: Water

Date Received: 12/13/24 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3.38		0.500	0.200	mg/L		12/20/24 10:00	12/20/24 19:11	50
Cadmium	0.0120		0.0100	0.00120	mg/L		12/20/24 10:00	12/20/24 17:35	5
Calcium	548		0.500	0.150	mg/L		12/20/24 10:00	12/20/24 17:35	5
Chromium	<0.00280	U	0.0200	0.00280	mg/L		12/20/24 10:00	12/20/24 17:35	5
Cobalt	0.232		0.0100	0.00178	mg/L		12/20/24 10:00	12/20/24 17:35	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		12/20/24 10:00	12/20/24 17:35	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		12/20/24 10:00	12/20/24 17:35	5
Selenium	0.220		0.0100	0.00295	mg/L		12/20/24 10:00	12/20/24 17:35	5
Thallium	0.00263	J	0.0100	0.00208	mg/L		12/20/24 10:00	12/20/24 17:35	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000883		0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5760		20.0	20.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	3.5	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	26.2	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	6.64	U	6.44	6.48	50.0	45.1	pCi/L	12/17/24 14:43	01/09/25 15:42	1
Radium-228	11.8	U	21.7	21.7	50.0	35.1	pCi/L	12/17/24 14:43	01/09/25 15:42	1
Combined Radium 226 + 228	18.4	U	22.6	22.6		45.1	pCi/L	12/17/24 14:43	01/09/25 15:42	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.483		0.127	0.134	1.00	0.0997	pCi/L	12/18/24 08:12	01/15/25 15:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		30 - 110					12/18/24 08:12	01/15/25 15:58	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.825		0.377	0.385	1.00	0.497	pCi/L	12/18/24 08:16	01/03/25 11:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		30 - 110					12/18/24 08:16	01/03/25 11:56	1
Y Carrier	84.5		30 - 110					12/18/24 08:16	01/03/25 11:56	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: FB-02

Lab Sample ID: 870-32406-16

Date Collected: 12/12/24 10:37

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			12/31/24 17:19	1
Fluoride	<0.100	U	0.500	0.100	mg/L			12/31/24 17:19	1
Sulfate	<0.200	U	0.500	0.200	mg/L			12/31/24 17:19	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		12/20/24 10:00	12/20/24 19:23	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		12/20/24 10:00	12/20/24 19:23	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		12/20/24 10:00	12/20/24 19:23	1
Iron	0.00608	J	0.0200	0.00445	mg/L		12/20/24 10:00	12/20/24 19:23	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		12/20/24 10:00	12/20/24 19:23	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		12/20/24 10:00	12/20/24 19:23	1
Boron	0.00927	J	0.0100	0.00401	mg/L		12/20/24 10:00	12/20/24 19:23	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		12/20/24 10:00	12/20/24 19:23	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		12/20/24 10:00	12/20/24 19:23	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		12/20/24 10:00	12/20/24 19:23	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		12/20/24 10:00	12/20/24 19:23	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		12/20/24 10:00	12/20/24 19:23	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		12/20/24 10:00	12/20/24 19:23	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		12/20/24 10:00	12/20/24 19:23	1
Thallium	<0.000415	U	0.00200	0.000415	mg/L		12/20/24 10:00	12/20/24 19:23	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<2.50	U	2.50	2.50	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	5.3	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	26.1	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-5.20	U	12.1	12.1	50.0	48.8	pCi/L	12/17/24 14:43	01/09/25 15:42	1
Radium-228	-10.3	U G	36.5	36.5	50.0	54.1	pCi/L	12/17/24 14:43	01/09/25 15:42	1
Combined Radium 226 + 228	-15.5	U	38.5	38.5		54.1	pCi/L	12/17/24 14:43	01/09/25 15:42	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.157		0.0819	0.0831	1.00	0.0971	pCi/L	12/18/24 08:12	01/15/25 15:59	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: FB-02

Lab Sample ID: 870-32406-16

Date Collected: 12/12/24 10:37

Matrix: Water

Date Received: 12/13/24 08:20

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		30 - 110	12/18/24 08:12	01/15/25 15:59	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.125	U	0.275	0.276	1.00	0.488	pCi/L	12/18/24 08:16	01/03/25 11:56	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		30 - 110	12/18/24 08:16	01/03/25 11:56	1
Y Carrier	76.3		30 - 110	12/18/24 08:16	01/03/25 11:56	1

Client Sample ID: APMW-1D

Lab Sample ID: 870-32406-17

Date Collected: 12/12/24 11:14

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.8		0.500	0.250	mg/L			12/31/24 17:56	1
Fluoride	0.744		0.500	0.100	mg/L			12/31/24 17:56	1
Sulfate	366		0.500	0.200	mg/L			12/31/24 17:56	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 18:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		12/20/24 10:00	12/20/24 17:45	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		12/20/24 10:00	12/20/24 17:45	5
Arsenic	0.0121	J	0.0200	0.00345	mg/L		12/20/24 10:00	12/20/24 17:45	5
Iron	<0.0223	U	0.100	0.0223	mg/L		12/20/24 10:00	12/20/24 17:45	5
Barium	0.0108	J	0.0200	0.00671	mg/L		12/20/24 10:00	12/20/24 17:45	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		12/20/24 10:00	12/20/24 17:45	5
Boron	4.50		0.500	0.200	mg/L		12/20/24 10:00	12/20/24 19:14	50
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		12/20/24 10:00	12/20/24 17:45	5
Calcium	54.6		0.500	0.150	mg/L		12/20/24 10:00	12/20/24 17:45	5
Chromium	<0.00280	U	0.0200	0.00280	mg/L		12/20/24 10:00	12/20/24 17:45	5
Cobalt	0.00898	J	0.0100	0.00178	mg/L		12/20/24 10:00	12/20/24 17:45	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		12/20/24 10:00	12/20/24 17:45	5
Molybdenum	0.0337		0.0100	0.00128	mg/L		12/20/24 10:00	12/20/24 17:45	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		12/20/24 10:00	12/20/24 17:45	5
Thallium	<0.00208	U	0.0100	0.00208	mg/L		12/20/24 10:00	12/20/24 17:45	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1060		5.00	5.00	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	6.5	HF			SU			12/20/24 11:02	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: APMW-1D

Lab Sample ID: 870-32406-17

Date Collected: 12/12/24 11:14

Matrix: Water

Date Received: 12/13/24 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	25.1	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	31.9		18.8	19.0	50.0	23.8	pCi/L	12/17/24 14:43	01/09/25 18:22	1
Radium-228	2.13	U	4.83	4.83	50.0	43.0	pCi/L	12/17/24 14:43	01/09/25 18:22	1
Combined Radium 226 + 228	34.0	U	19.4	19.6		43.0	pCi/L	12/17/24 14:43	01/09/25 18:22	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.338		0.105	0.109	1.00	0.0711	pCi/L	12/18/24 08:12	01/15/25 15:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		30 - 110					12/18/24 08:12	01/15/25 15:59	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.33		0.477	0.492	1.00	0.597	pCi/L	12/18/24 08:16	01/03/25 11:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		30 - 110					12/18/24 08:16	01/03/25 11:56	1
Y Carrier	86.7		30 - 110					12/18/24 08:16	01/03/25 11:56	1

Client Sample ID: APMW-3

Lab Sample ID: 870-32406-18

Date Collected: 12/12/24 12:11

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		0.500	0.250	mg/L			12/31/24 18:14	1
Fluoride	<0.100	U	0.500	0.100	mg/L			12/31/24 18:14	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	644		5.00	2.00	mg/L			12/31/24 18:23	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.174	U	0.400	0.174	mg/L		12/16/24 11:02	12/16/24 17:56	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0275	U	0.100	0.0275	mg/L		12/20/24 10:00	12/20/24 17:48	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		12/20/24 10:00	12/20/24 17:48	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		12/20/24 10:00	12/20/24 17:48	5

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: APMW-3

Lab Sample ID: 870-32406-18

Date Collected: 12/12/24 12:11

Matrix: Water

Date Received: 12/13/24 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.0371	J	0.100	0.0223	mg/L		12/20/24 10:00	12/20/24 17:48	5
Barium	0.0211		0.0200	0.00671	mg/L		12/20/24 10:00	12/20/24 17:48	5
Beryllium	0.00269	J	0.0100	0.00136	mg/L		12/20/24 10:00	12/20/24 17:48	5
Boron	4.65		0.500	0.200	mg/L		12/20/24 10:00	12/20/24 19:18	50
Cadmium	0.00383	J	0.0100	0.00120	mg/L		12/20/24 10:00	12/20/24 17:48	5
Calcium	137		0.500	0.150	mg/L		12/20/24 10:00	12/20/24 17:48	5
Chromium	<0.00280	U	0.0200	0.00280	mg/L		12/20/24 10:00	12/20/24 17:48	5
Cobalt	0.0370		0.0100	0.00178	mg/L		12/20/24 10:00	12/20/24 17:48	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		12/20/24 10:00	12/20/24 17:48	5
Molybdenum	<0.00128	U	0.0100	0.00128	mg/L		12/20/24 10:00	12/20/24 17:48	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		12/20/24 10:00	12/20/24 17:48	5
Thallium	<0.00208	U	0.0100	0.00208	mg/L		12/20/24 10:00	12/20/24 17:48	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00140		0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1780		5.00	5.00	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	5.4	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	24.2	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	30.5		19.4	19.7	50.0	23.8	pCi/L	12/17/24 14:43	01/09/25 19:50	1
Radium-228	4.79	U	20.1	20.1	50.0	49.4	pCi/L	12/17/24 14:43	01/09/25 19:50	1
Combined Radium 226 + 228	35.3	U	27.9	28.1		49.4	pCi/L	12/17/24 14:43	01/09/25 19:50	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.558		0.135	0.144	1.00	0.0941	pCi/L	12/18/24 08:12	01/15/25 15:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.4		30 - 110					12/18/24 08:12	01/15/25 15:59	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.86		0.584	0.640	1.00	0.527	pCi/L	12/18/24 08:16	01/03/25 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.4		30 - 110					12/18/24 08:16	01/03/25 12:00	1
Y Carrier	82.2		30 - 110					12/18/24 08:16	01/03/25 12:00	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-4

Lab Sample ID: 870-32406-19

Date Collected: 12/12/24 13:12

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1150		2.50	1.25	mg/L			12/31/24 18:32	5
Fluoride	<0.500	U	2.50	0.500	mg/L			12/31/24 18:32	5
Sulfate	1250		2.50	1.00	mg/L			12/31/24 18:32	5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.772		0.0400	0.0174	mg/L		12/19/24 08:30	12/19/24 15:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0291	J	0.100	0.0275	mg/L		12/20/24 10:00	12/20/24 17:56	5
Antimony	<0.00375	U	0.0100	0.00375	mg/L		12/20/24 10:00	12/20/24 17:56	5
Arsenic	<0.00345	U	0.0200	0.00345	mg/L		12/20/24 10:00	12/20/24 17:56	5
Iron	0.735		0.100	0.0223	mg/L		12/20/24 10:00	12/20/24 17:56	5
Barium	0.0195	J	0.0200	0.00671	mg/L		12/20/24 10:00	12/20/24 17:56	5
Beryllium	<0.00136	U	0.0100	0.00136	mg/L		12/20/24 10:00	12/20/24 17:56	5
Boron	1.35		0.100	0.0401	mg/L		12/20/24 10:00	12/20/24 19:21	10
Cadmium	<0.00120	U	0.0100	0.00120	mg/L		12/20/24 10:00	12/20/24 17:56	5
Calcium	411		2.00	0.601	mg/L		12/20/24 10:00	12/20/24 17:59	20
Chromium	0.0111	J	0.0200	0.00280	mg/L		12/20/24 10:00	12/20/24 17:56	5
Cobalt	<0.00178	U	0.0100	0.00178	mg/L		12/20/24 10:00	12/20/24 17:56	5
Lead	<0.00184	U	0.0100	0.00184	mg/L		12/20/24 10:00	12/20/24 17:56	5
Molybdenum	0.0118		0.0100	0.00128	mg/L		12/20/24 10:00	12/20/24 17:56	5
Selenium	<0.00295	U	0.0100	0.00295	mg/L		12/20/24 10:00	12/20/24 17:56	5
Thallium	<0.00208	U	0.0100	0.00208	mg/L		12/20/24 10:00	12/20/24 17:56	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5700		20.0	20.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	6.2	HF			SU			12/20/24 11:02	1
Temperature (SM 4500 H+ B)	24.7	HF			Celsius			12/20/24 11:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-4.88	U G	30.1	30.1	50.0	52.5	pCi/L	12/17/24 14:43	01/09/25 19:51	1
Radium-228	-5.78	U G	10.3	10.3	50.0	54.1	pCi/L	12/17/24 14:43	01/09/25 19:51	1
Combined Radium 226 + 228	-10.7	U	31.8	31.8		54.1	pCi/L	12/17/24 14:43	01/09/25 19:51	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.832		0.162	0.178	1.00	0.105	pCi/L	12/18/24 08:12	01/15/25 15:59	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-4

Lab Sample ID: 870-32406-19

Date Collected: 12/12/24 13:12

Matrix: Water

Date Received: 12/13/24 08:20

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		30 - 110	12/18/24 08:12	01/15/25 15:59	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.91		0.645	0.738	1.00	0.478	pCi/L	12/18/24 08:16	01/03/25 12:00	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		30 - 110	12/18/24 08:16	01/03/25 12:00	1
Y Carrier	81.5		30 - 110	12/18/24 08:16	01/03/25 12:00	1

Client Sample ID: EQ-01

Lab Sample ID: 870-32406-20

Date Collected: 12/12/24 13:53

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			12/31/24 19:08	1
Fluoride	<0.100	U	0.500	0.100	mg/L			12/31/24 19:08	1
Sulfate	<0.200	U	0.500	0.200	mg/L			12/31/24 19:08	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 17:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 20:42	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		12/23/24 10:00	12/24/24 00:07	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		12/23/24 10:00	12/24/24 00:07	1
Iron	0.00524	J	0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 20:42	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		12/23/24 10:00	12/24/24 00:07	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		12/23/24 10:00	12/24/24 00:07	1
Boron	<0.00401	U	0.0100	0.00401	mg/L		12/23/24 10:00	12/24/24 00:07	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		12/23/24 10:00	12/24/24 00:07	1
Calcium	0.0526	J	0.100	0.0301	mg/L		12/23/24 10:00	12/24/24 00:07	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		12/23/24 10:00	12/24/24 00:07	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		12/23/24 10:00	12/24/24 00:07	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		12/23/24 10:00	12/24/24 00:07	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		12/23/24 10:00	12/24/24 00:07	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		12/23/24 10:00	12/24/24 00:07	1
Thallium	<0.000415	U	0.00200	0.000415	mg/L		12/23/24 10:00	12/24/24 00:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 21:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<2.50	U	2.50	2.50	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	5.2	HF			SU			12/20/24 11:05	1

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: EQ-01

Lab Sample ID: 870-32406-20

Date Collected: 12/12/24 13:53

Matrix: Water

Date Received: 12/13/24 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature (SM 4500 H+ B)	22.7	HF			Celsius			12/20/24 11:05	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	7.34	U G	5.56	5.60	50.0	55.9	pCi/L	12/17/24 14:43	01/09/25 21:08	1
Radium-228	-20.2	U G	23.2	23.3	50.0	64.6	pCi/L	12/17/24 14:43	01/09/25 21:08	1
Combined Radium 226 + 228	-12.8	U	23.9	24.0		64.6	pCi/L	12/17/24 14:43	01/09/25 21:08	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.126		0.0771	0.0779	1.00	0.101	pCi/L	12/18/24 08:12	01/15/25 15:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		30 - 110					12/18/24 08:12	01/15/25 15:59	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.988		0.412	0.422	1.00	0.540	pCi/L	12/18/24 08:16	01/03/25 12:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		30 - 110					12/18/24 08:16	01/03/25 12:00	1
Y Carrier	84.5		30 - 110					12/18/24 08:16	01/03/25 12:00	1

Client Sample ID: SSP MW-3

Lab Sample ID: 870-32406-21

Date Collected: 12/12/24 15:00

Matrix: Water

Date Received: 12/13/24 08:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1390		5.00	2.50	mg/L			12/31/24 19:26	10
Fluoride	<1.00	U	5.00	1.00	mg/L			12/31/24 19:26	10
Sulfate	2510		5.00	2.00	mg/L			12/31/24 19:26	10

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	0.350		0.0400	0.0174	mg/L		12/19/24 08:30	12/19/24 15:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2.01		0.200	0.0549	mg/L		12/18/24 13:30	12/19/24 13:11	10
Antimony	<0.00750	U	0.0200	0.00750	mg/L		12/18/24 13:30	12/19/24 13:11	10
Arsenic	0.00714	J	0.0400	0.00690	mg/L		12/18/24 13:30	12/19/24 13:11	10
Iron	1.16		0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 21:48	1
Barium	0.0184	J	0.0400	0.0134	mg/L		12/18/24 13:30	12/19/24 13:11	10
Beryllium	0.0977		0.0200	0.00271	mg/L		12/18/24 13:30	12/19/24 13:11	10

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Client Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-3

Lab Sample ID: 870-32406-21

Date Collected: 12/12/24 15:00

Matrix: Water

Date Received: 12/13/24 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.07		0.200	0.0801	mg/L		12/18/24 13:30	12/30/24 17:33	20
Cadmium	0.0476		0.0200	0.00240	mg/L		12/18/24 13:30	12/19/24 13:11	10
Calcium	603		1.00	0.301	mg/L		12/18/24 13:30	12/19/24 13:11	10
Chromium	<0.00560	U	0.0400	0.00560	mg/L		12/18/24 13:30	12/19/24 13:11	10
Cobalt	0.461		0.0200	0.00355	mg/L		12/18/24 13:30	12/19/24 13:11	10
Lead	0.00454	J	0.0200	0.00367	mg/L		12/18/24 13:30	12/19/24 13:11	10
Molybdenum	<0.00255	U	0.0200	0.00255	mg/L		12/18/24 13:30	12/19/24 13:11	10
Selenium	0.0467		0.0200	0.00590	mg/L		12/18/24 13:30	12/19/24 13:11	10
Thallium	0.00760	J	0.0200	0.00415	mg/L		12/18/24 13:30	12/19/24 13:11	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/26/24 03:24	12/26/24 11:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4560		20.0	20.0	mg/L			12/18/24 12:29	1
pH (SM 4500 H+ B)	4.7	HF			SU			12/20/24 11:05	1
Temperature (SM 4500 H+ B)	24.7	HF			Celsius			12/20/24 11:05	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	5.25	U G	8.83	8.84	50.0	60.1	pCi/L	12/17/24 16:58	01/08/25 12:31	1
Radium-228	7.79	U G	41.7	41.7	50.0	54.7	pCi/L	12/17/24 16:58	01/08/25 12:31	1
Combined Radium 226 + 228	13.0	U	42.6	42.6		60.1	pCi/L	12/17/24 16:58	01/08/25 12:31	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	4.44		0.433	0.589	1.00	0.147	pCi/L	12/18/24 08:18	01/13/25 08:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					12/18/24 08:18	01/13/25 08:06	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	29.6		2.13	3.46	1.00	0.940	pCi/L	12/18/24 08:22	01/02/25 14:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					12/18/24 08:22	01/02/25 14:22	1
Y Carrier	75.1		30 - 110					12/18/24 08:22	01/02/25 14:22	1

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Tracer/Carrier Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
		Ba					
Lab Sample ID	Client Sample ID	(30-110)					
870-32406-1	MNW-18	92.8					
870-32406-1 DU	MNW-18	78.7					
870-32406-2	MNW-15	84.1					
870-32406-3	SFL MW-7	74.4					
870-32406-4	SFL MW-7 FD	81.0					
870-32406-5	SFL MW-3	91.3					
870-32406-6	SFL MW-4	94.6					
870-32406-7	SFL MW-2	81.0					
870-32406-8	SFL MW-5	88.2					
870-32406-9	SFL MW-6	99.7					
870-32406-10	FB-01	92.8					
870-32406-11	SSP/AP MW-1	93.1					
870-32406-12	SSP MW-2	78.2					
870-32406-13	SSP MW-2 FD	83.6					
870-32406-14	APMW-4	84.6					
870-32406-15	APMW-5	85.9					
870-32406-16	FB-02	86.7					
870-32406-17	APMW-1D	82.6					
870-32406-18	APMW-3	87.4					
870-32406-19	SSP MW-4	90.3					
870-32406-20	EQ-01	89.7					
870-32406-21	SSP MW-3	83.3					
LCS 160-694329/2-A	Lab Control Sample	85.6					
LCS 160-694332/2-A	Lab Control Sample	80.3					
MB 160-694329/1-A	Method Blank	88.7					
MB 160-694332/1-A	Method Blank	92.3					

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
		Ba		Y			
Lab Sample ID	Client Sample ID	(30-110)	(30-110)				
870-32406-1	MNW-18	92.8	81.9				
870-32406-1 DU	MNW-18	78.7	82.2				
870-32406-2	MNW-15	84.1	81.9				
870-32406-3	SFL MW-7	74.4	80.7				
870-32406-4	SFL MW-7 FD	81.0	82.6				
870-32406-5	SFL MW-3	91.3	83.4				
870-32406-6	SFL MW-4	94.6	83.4				
870-32406-7	SFL MW-2	81.0	80.4				
870-32406-8	SFL MW-5	88.2	83.4				
870-32406-9	SFL MW-6	99.7	78.1				
870-32406-10	FB-01	92.8	77.8				
870-32406-11	SSP/AP MW-1	93.1	79.6				
870-32406-12	SSP MW-2	78.2	78.9				
870-32406-13	SSP MW-2 FD	83.6	80.0				

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Tracer/Carrier Summary

Client: HDR Inc

Job ID: 870-32406-1

Project/Site: Appendix III/IV

Method: 904.0 - Radium-228 (GFPC) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
870-32406-14	APMW-4	84.6	78.1
870-32406-15	APMW-5	85.9	84.5
870-32406-16	FB-02	86.7	76.3
870-32406-17	APMW-1D	82.6	86.7
870-32406-18	APMW-3	87.4	82.2
870-32406-19	SSP MW-4	90.3	81.5
870-32406-20	EQ-01	89.7	84.5
870-32406-21	SSP MW-3	83.3	75.1
LCS 160-694330/2-A	Lab Control Sample	85.6	80.7
LCS 160-694335/2-A	Lab Control Sample	80.3	79.6
MB 160-694330/1-A	Method Blank	88.7	82.6
MB 160-694335/1-A	Method Blank	92.3	85.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 860-208349/3

Matrix: Water

Analysis Batch: 208349

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			12/30/24 14:00	1
Fluoride	<0.100	U	0.500	0.100	mg/L			12/30/24 14:00	1
Sulfate	<0.200	U	0.500	0.200	mg/L			12/30/24 14:00	1

Lab Sample ID: MB 860-208349/61

Matrix: Water

Analysis Batch: 208349

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			12/31/24 00:56	1
Fluoride	<0.100	U	0.500	0.100	mg/L			12/31/24 00:56	1
Sulfate	<0.200	U	0.500	0.200	mg/L			12/31/24 00:56	1

Lab Sample ID: LCS 860-208349/62

Matrix: Water

Analysis Batch: 208349

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.724		mg/L		97	90 - 110
Fluoride	10.0	10.47		mg/L		105	90 - 110
Sulfate	10.0	9.988		mg/L		100	90 - 110

Lab Sample ID: LCSD 860-208349/63

Matrix: Water

Analysis Batch: 208349

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.911		mg/L		99	90 - 110	2	20
Fluoride	10.0	10.61		mg/L		106	90 - 110	1	20
Sulfate	10.0	10.14		mg/L		101	90 - 110	2	20

Lab Sample ID: LLCS 860-208349/7

Matrix: Water

Analysis Batch: 208349

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5236		mg/L		105	50 - 150
Fluoride	0.500	0.4350	J	mg/L		87	50 - 150
Sulfate	0.500	0.4645	J	mg/L		93	50 - 150

Lab Sample ID: MB 860-208490/3

Matrix: Water

Analysis Batch: 208490

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			12/31/24 10:23	1
Fluoride	<0.100	U	0.500	0.100	mg/L			12/31/24 10:23	1
Sulfate	<0.200	U	0.500	0.200	mg/L			12/31/24 10:23	1

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: LCS 860-208490/4

Matrix: Water

Analysis Batch: 208490

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.704		mg/L		97	90 - 110
Fluoride	10.0	10.45		mg/L		104	90 - 110
Sulfate	10.0	9.956		mg/L		100	90 - 110

Lab Sample ID: LCSD 860-208490/5

Matrix: Water

Analysis Batch: 208490

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.898		mg/L		99	90 - 110	2	20
Fluoride	10.0	10.61		mg/L		106	90 - 110	2	20
Sulfate	10.0	10.10		mg/L		101	90 - 110	1	20

Lab Sample ID: LLCS 860-208490/7

Matrix: Water

Analysis Batch: 208490

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.4586	J	mg/L		92	50 - 150
Fluoride	0.500	0.3623	J	mg/L		72	50 - 150
Sulfate	0.500	0.4233	J	mg/L		85	50 - 150

Lab Sample ID: 870-32406-10 MS

Matrix: Water

Analysis Batch: 208490

Client Sample ID: FB-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.250	U	10.0	10.18		mg/L		102	90 - 110
Fluoride	<0.100	U	10.0	10.18		mg/L		102	90 - 110
Sulfate	<0.200	U	10.0	10.68		mg/L		107	90 - 110

Lab Sample ID: 870-32406-10 MSD

Matrix: Water

Analysis Batch: 208490

Client Sample ID: FB-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.250	U	10.0	10.20		mg/L		102	90 - 110	0	15
Fluoride	<0.100	U	10.0	10.17		mg/L		102	90 - 110	0	15
Sulfate	<0.200	U	10.0	10.15		mg/L		102	90 - 110	5	15

Lab Sample ID: 870-32406-16 MS

Matrix: Water

Analysis Batch: 208490

Client Sample ID: FB-02

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.250	U	10.0	10.33		mg/L		103	90 - 110
Fluoride	<0.100	U	10.0	9.460		mg/L		95	90 - 110
Sulfate	<0.200	U	10.0	10.08		mg/L		101	90 - 110

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: 870-32406-16 MSD

Matrix: Water

Analysis Batch: 208490

Client Sample ID: FB-02

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.250	U	10.0	10.36		mg/L		104	90 - 110	0	15
Fluoride	<0.100	U	10.0	9.053		mg/L		91	90 - 110	4	15
Sulfate	<0.200	U	10.0	10.11		mg/L		101	90 - 110	0	15

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-205641/1-A

Matrix: Water

Analysis Batch: 205864

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 205641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/16/24 11:02	12/16/24 17:27	1

Lab Sample ID: LCS 860-205641/2-A

Matrix: Water

Analysis Batch: 205864

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 205641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Li	1.00	0.9560		mg/L		96	80 - 120

Lab Sample ID: LCSD 860-205641/3-A

Matrix: Water

Analysis Batch: 205864

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 205641

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Li	1.00	0.9480		mg/L		95	80 - 120	1	20

Lab Sample ID: 870-32406-6 MS

Matrix: Water

Analysis Batch: 205864

Client Sample ID: SFL MW-4

Prep Type: Total/NA

Prep Batch: 205641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Li	<0.0174	U L	1.00	0.8600		mg/L		86	75 - 125

Lab Sample ID: 870-32406-6 MSD

Matrix: Water

Analysis Batch: 205864

Client Sample ID: SFL MW-4

Prep Type: Total/NA

Prep Batch: 205641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Li	<0.0174	U L	1.00	0.8930		mg/L		89	75 - 125	4	20

Lab Sample ID: MB 860-206517/1-A

Matrix: Water

Analysis Batch: 206850

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Li	<0.0174	U	0.0400	0.0174	mg/L		12/19/24 08:30	12/19/24 14:33	1

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: LCS 860-206517/2-A
Matrix: Water
Analysis Batch: 206850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Li	1.00	0.9880		mg/L		99	80 - 120

Lab Sample ID: LCSD 860-206517/3-A
Matrix: Water
Analysis Batch: 206850

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 206517

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Li	1.00	0.9820		mg/L		98	80 - 120	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 860-206314/1-A
Matrix: Water
Analysis Batch: 206536

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		12/18/24 13:30	12/18/24 20:34	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		12/18/24 13:30	12/18/24 20:34	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		12/18/24 13:30	12/18/24 20:34	1
Iron	<0.00445	U	0.0200	0.00445	mg/L		12/18/24 13:30	12/18/24 20:34	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		12/18/24 13:30	12/18/24 20:34	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		12/18/24 13:30	12/18/24 20:34	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		12/18/24 13:30	12/18/24 20:34	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		12/18/24 13:30	12/18/24 20:34	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		12/18/24 13:30	12/18/24 20:34	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		12/18/24 13:30	12/18/24 20:34	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		12/18/24 13:30	12/18/24 20:34	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		12/18/24 13:30	12/18/24 20:34	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		12/18/24 13:30	12/18/24 20:34	1
Thallium	<0.000415	U	0.00200	0.000415	mg/L		12/18/24 13:30	12/18/24 20:34	1

Lab Sample ID: MB 860-206314/1-A
Matrix: Water
Analysis Batch: 208493

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000750	U	0.00200	0.000750	mg/L		12/18/24 13:30	12/30/24 17:20	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		12/18/24 13:30	12/30/24 17:20	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		12/18/24 13:30	12/30/24 17:20	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		12/18/24 13:30	12/30/24 17:20	1
Boron	<0.00401	U	0.0100	0.00401	mg/L		12/18/24 13:30	12/30/24 17:20	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		12/18/24 13:30	12/30/24 17:20	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		12/18/24 13:30	12/30/24 17:20	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		12/18/24 13:30	12/30/24 17:20	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		12/18/24 13:30	12/30/24 17:20	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		12/18/24 13:30	12/30/24 17:20	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		12/18/24 13:30	12/30/24 17:20	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		12/18/24 13:30	12/30/24 17:20	1
Thallium	<0.000415	U	0.00200	0.000415	mg/L		12/18/24 13:30	12/30/24 17:20	1

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: LCS 860-206314/2-A

Matrix: Water

Analysis Batch: 206536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Aluminum	0.500	0.4703		mg/L		94	80 - 120	
Antimony	0.100	0.09175		mg/L		92	80 - 120	
Arsenic	0.100	0.09604		mg/L		96	80 - 120	
Iron	0.500	0.4562		mg/L		91	80 - 120	
Barium	0.100	0.09623		mg/L		96	80 - 120	
Beryllium	0.100	0.09211		mg/L		92	80 - 120	
Cadmium	0.100	0.09465		mg/L		95	80 - 120	
Calcium	2.50	2.452		mg/L		98	80 - 120	
Chromium	0.100	0.09561		mg/L		96	80 - 120	
Cobalt	0.100	0.09795		mg/L		98	80 - 120	
Lead	0.100	0.09646		mg/L		96	80 - 120	
Molybdenum	0.100	0.09346		mg/L		93	80 - 120	
Selenium	0.100	0.09590		mg/L		96	80 - 120	
Thallium	0.100	0.09765		mg/L		98	80 - 120	

Lab Sample ID: LCS 860-206314/2-A

Matrix: Water

Analysis Batch: 208493

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Antimony	0.100	0.09371		mg/L		94	80 - 120	
Arsenic	0.100	0.09551		mg/L		96	80 - 120	
Barium	0.100	0.09513		mg/L		95	80 - 120	
Beryllium	0.100	0.09213		mg/L		92	80 - 120	
Boron	0.100	0.09036		mg/L		90	80 - 120	
Cadmium	0.100	0.09551		mg/L		96	80 - 120	
Calcium	2.50	2.266		mg/L		91	80 - 120	
Chromium	0.100	0.09732		mg/L		97	80 - 120	
Cobalt	0.100	0.09831		mg/L		98	80 - 120	
Lead	0.100	0.09665		mg/L		97	80 - 120	
Molybdenum	0.100	0.09732		mg/L		97	80 - 120	
Selenium	0.100	0.09217		mg/L		92	80 - 120	
Thallium	0.100	0.09622		mg/L		96	80 - 120	

Lab Sample ID: LCSD 860-206314/3-A

Matrix: Water

Analysis Batch: 206536

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
Aluminum	0.500	0.4825		mg/L		97	80 - 120		3	20
Antimony	0.100	0.09428		mg/L		94	80 - 120		3	20
Arsenic	0.100	0.09682		mg/L		97	80 - 120		1	20
Iron	0.500	0.4638		mg/L		93	80 - 120		2	20
Barium	0.100	0.09710		mg/L		97	80 - 120		1	20
Beryllium	0.100	0.09364		mg/L		94	80 - 120		2	20
Cadmium	0.100	0.09639		mg/L		96	80 - 120		2	20
Calcium	2.50	2.535		mg/L		101	80 - 120		3	20
Chromium	0.100	0.09675		mg/L		97	80 - 120		1	20
Cobalt	0.100	0.09787		mg/L		98	80 - 120		0	20

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: LCSD 860-206314/3-A

Matrix: Water

Analysis Batch: 206536

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.100	0.09734		mg/L		97	80 - 120	1	20
Molybdenum	0.100	0.09570		mg/L		96	80 - 120	2	20
Selenium	0.100	0.09914		mg/L		99	80 - 120	3	20
Thallium	0.100	0.09842		mg/L		98	80 - 120	1	20

Lab Sample ID: LCSD 860-206314/3-A

Matrix: Water

Analysis Batch: 208493

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.09493		mg/L		95	80 - 120	1	20
Arsenic	0.100	0.09587		mg/L		96	80 - 120	0	20
Barium	0.100	0.09543		mg/L		95	80 - 120	0	20
Beryllium	0.100	0.09249		mg/L		92	80 - 120	0	20
Boron	0.100	0.09197		mg/L		92	80 - 120	2	20
Cadmium	0.100	0.09605		mg/L		96	80 - 120	1	20
Calcium	2.50	2.262		mg/L		90	80 - 120	0	20
Chromium	0.100	0.09762		mg/L		98	80 - 120	0	20
Cobalt	0.100	0.09944		mg/L		99	80 - 120	1	20
Lead	0.100	0.09772		mg/L		98	80 - 120	1	20
Molybdenum	0.100	0.09840		mg/L		98	80 - 120	1	20
Selenium	0.100	0.09185		mg/L		92	80 - 120	0	20
Thallium	0.100	0.09694		mg/L		97	80 - 120	1	20

Lab Sample ID: 870-32406-20 MS

Matrix: Water

Analysis Batch: 206536

Client Sample ID: EQ-01

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	<0.00549	U	0.500	0.4938		mg/L		99	75 - 125
Antimony	0.000924	J	0.100	0.1006		mg/L		100	75 - 125
Arsenic	<0.000690	U	0.100	0.1011		mg/L		101	75 - 125
Iron	0.00524	J	0.500	0.5075		mg/L		100	75 - 125
Barium	<0.00134	U	0.100	0.09660		mg/L		97	75 - 125
Beryllium	<0.000271	U	0.100	0.09529		mg/L		95	75 - 125
Cadmium	<0.000240	U	0.100	0.1012		mg/L		101	75 - 125
Calcium	0.0440	J	2.50	2.750		mg/L		108	75 - 125
Chromium	<0.000560	U	0.100	0.1046		mg/L		105	75 - 125
Cobalt	<0.000355	U	0.100	0.09997		mg/L		100	75 - 125
Lead	<0.000367	U	0.100	0.1026		mg/L		103	75 - 125
Molybdenum	0.000267	J	0.100	0.1050		mg/L		105	75 - 125
Selenium	<0.000590	U	0.100	0.1010		mg/L		101	75 - 125
Thallium	<0.000415	U	0.100	0.1042		mg/L		104	75 - 125

QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: 870-32406-20 MS

Matrix: Water

Analysis Batch: 208493

Client Sample ID: EQ-01

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.00107	J	0.100	0.1000		mg/L		99	75 - 125
Arsenic	<0.000690	U	0.100	0.09929		mg/L		99	75 - 125
Barium	<0.00134	U	0.100	0.1007		mg/L		101	75 - 125
Beryllium	<0.000271	U	0.100	0.09832		mg/L		98	75 - 125
Boron	0.00570	J	0.100	0.1062		mg/L		100	75 - 125
Cadmium	<0.000240	U	0.100	0.09903		mg/L		99	75 - 125
Calcium	0.0428	J	2.50	2.477		mg/L		97	75 - 125
Chromium	<0.000560	U	0.100	0.1049		mg/L		105	75 - 125
Cobalt	<0.000355	U	0.100	0.1060		mg/L		106	75 - 125
Lead	<0.000367	U	0.100	0.1040		mg/L		104	75 - 125
Molybdenum	<0.000255	U	0.100	0.1056		mg/L		106	75 - 125
Selenium	<0.000590	U	0.100	0.09363		mg/L		94	75 - 125
Thallium	<0.000415	U	0.100	0.1036		mg/L		104	75 - 125

Lab Sample ID: 870-32406-20 MSD

Matrix: Water

Analysis Batch: 206536

Client Sample ID: EQ-01

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	<0.00549	U	0.500	0.5035		mg/L		101	75 - 125	2	20
Antimony	0.00107	J	0.100	0.09951		mg/L		98	75 - 125	1	20
Arsenic	<0.000690	U	0.100	0.1006		mg/L		101	75 - 125	0	20
Iron	<0.00445	U	0.500	0.5012		mg/L		100	75 - 125	1	20
Barium	<0.00134	U	0.100	0.09865		mg/L		99	75 - 125	2	20
Beryllium	<0.000271	U	0.100	0.09374		mg/L		94	75 - 125	2	20
Cadmium	<0.000240	U	0.100	0.1006		mg/L		101	75 - 125	1	20
Calcium	0.0428	J	2.50	2.660		mg/L		105	75 - 125	3	20
Chromium	<0.000560	U	0.100	0.1036		mg/L		104	75 - 125	1	20
Cobalt	<0.000355	U	0.100	0.1015		mg/L		102	75 - 125	2	20
Lead	<0.000367	U	0.100	0.1036		mg/L		104	75 - 125	1	20
Molybdenum	<0.000255	U	0.100	0.1051		mg/L		105	75 - 125	0	20
Selenium	<0.000590	U	0.100	0.1008		mg/L		101	75 - 125	0	20
Thallium	<0.000415	U	0.100	0.1056		mg/L		106	75 - 125	1	20

Lab Sample ID: 870-32406-20 MSD

Matrix: Water

Analysis Batch: 208493

Client Sample ID: EQ-01

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.00107	J	0.100	0.1007		mg/L		100	75 - 125	1	20
Arsenic	<0.000690	U	0.100	0.09959		mg/L		100	75 - 125	0	20
Barium	<0.00134	U	0.100	0.1010		mg/L		101	75 - 125	0	20
Beryllium	<0.000271	U	0.100	0.09965		mg/L		100	75 - 125	1	20
Boron	0.00570	J	0.100	0.1093		mg/L		104	75 - 125	3	20
Cadmium	<0.000240	U	0.100	0.09943		mg/L		99	75 - 125	0	20
Calcium	0.0428	J	2.50	2.475		mg/L		97	75 - 125	0	20
Chromium	<0.000560	U	0.100	0.1053		mg/L		105	75 - 125	0	20
Cobalt	<0.000355	U	0.100	0.1063		mg/L		106	75 - 125	0	20
Lead	<0.000367	U	0.100	0.1046		mg/L		105	75 - 125	1	20

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: 870-32406-20 MSD

Matrix: Water

Analysis Batch: 208493

Client Sample ID: EQ-01

Prep Type: Total/NA

Prep Batch: 206314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Molybdenum	<0.000255	U	0.100	0.1068		mg/L		107	75 - 125	1	20
Selenium	<0.000590	U	0.100	0.09324		mg/L		93	75 - 125	0	20
Thallium	<0.000415	U	0.100	0.1027		mg/L		103	75 - 125	1	20

Lab Sample ID: MB 860-206481/1-B

Matrix: Water

Analysis Batch: 207056

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		12/20/24 10:00	12/20/24 16:44	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		12/20/24 10:00	12/20/24 16:44	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		12/20/24 10:00	12/20/24 16:44	1
Iron	<0.00445	U	0.0200	0.00445	mg/L		12/20/24 10:00	12/20/24 16:44	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		12/20/24 10:00	12/20/24 16:44	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		12/20/24 10:00	12/20/24 16:44	1
Boron	<0.00401	U	0.0100	0.00401	mg/L		12/20/24 10:00	12/20/24 16:44	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		12/20/24 10:00	12/20/24 16:44	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		12/20/24 10:00	12/20/24 16:44	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		12/20/24 10:00	12/20/24 16:44	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		12/20/24 10:00	12/20/24 16:44	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		12/20/24 10:00	12/20/24 16:44	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		12/20/24 10:00	12/20/24 16:44	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		12/20/24 10:00	12/20/24 16:44	1
Thallium	<0.000415	U	0.00200	0.000415	mg/L		12/20/24 10:00	12/20/24 16:44	1

Lab Sample ID: LCS 860-206481/2-B

Matrix: Water

Analysis Batch: 207056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.500	0.5101		mg/L		102	80 - 120
Antimony	0.100	0.09638		mg/L		96	80 - 120
Arsenic	0.100	0.09665		mg/L		97	80 - 120
Iron	0.500	0.4700		mg/L		94	80 - 120
Barium	0.100	0.09828		mg/L		98	80 - 120
Beryllium	0.100	0.09902		mg/L		99	80 - 120
Boron	0.100	0.09480		mg/L		95	80 - 120
Cadmium	0.100	0.09660		mg/L		97	80 - 120
Calcium	2.50	2.560		mg/L		102	80 - 120
Chromium	0.100	0.09776		mg/L		98	80 - 120
Cobalt	0.100	0.09791		mg/L		98	80 - 120
Lead	0.100	0.09632		mg/L		96	80 - 120
Molybdenum	0.100	0.09647		mg/L		96	80 - 120
Selenium	0.100	0.09960		mg/L		100	80 - 120
Thallium	0.100	0.09820		mg/L		98	80 - 120

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: LCSD 860-206481/3-B

Matrix: Water

Analysis Batch: 207056

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 206876

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Aluminum	0.500	0.5145		mg/L		103	80 - 120		1	20
Antimony	0.100	0.09735		mg/L		97	80 - 120		1	20
Arsenic	0.100	0.09704		mg/L		97	80 - 120		0	20
Iron	0.500	0.4711		mg/L		94	80 - 120		0	20
Barium	0.100	0.09877		mg/L		99	80 - 120		0	20
Beryllium	0.100	0.09776		mg/L		98	80 - 120		1	20
Boron	0.100	0.09580		mg/L		96	80 - 120		1	20
Cadmium	0.100	0.09692		mg/L		97	80 - 120		0	20
Calcium	2.50	2.513		mg/L		101	80 - 120		2	20
Chromium	0.100	0.09776		mg/L		98	80 - 120		0	20
Cobalt	0.100	0.09781		mg/L		98	80 - 120		0	20
Lead	0.100	0.09663		mg/L		97	80 - 120		0	20
Molybdenum	0.100	0.09694		mg/L		97	80 - 120		0	20
Selenium	0.100	0.09764		mg/L		98	80 - 120		2	20
Thallium	0.100	0.09779		mg/L		98	80 - 120		0	20

Lab Sample ID: MB 860-207282/1-A

Matrix: Water

Analysis Batch: 207560

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 207282

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed		Dil Fac
	Result	Qualifier								
Antimony	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1
Arsenic	<0.00400	U	0.00400		mg/L		12/23/24 08:30	12/23/24 17:54		1
Barium	<0.00400	U	0.00400		mg/L		12/23/24 08:30	12/23/24 17:54		1
Beryllium	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1
Boron	<0.0100	U	0.0100		mg/L		12/23/24 08:30	12/23/24 17:54		1
Cadmium	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1
Calcium	<0.100	U	0.100		mg/L		12/23/24 08:30	12/23/24 17:54		1
Chromium	<0.00400	U	0.00400		mg/L		12/23/24 08:30	12/23/24 17:54		1
Cobalt	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1
Lead	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1
Molybdenum	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1
Selenium	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1
Thallium	<0.00200	U	0.00200		mg/L		12/23/24 08:30	12/23/24 17:54		1

Lab Sample ID: LCS 860-207282/2-A

Matrix: Water

Analysis Batch: 207560

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Antimony	0.100	0.09883		mg/L		99	80 - 120	
Arsenic	0.100	0.09675		mg/L		97	80 - 120	
Barium	0.100	0.09874		mg/L		99	80 - 120	
Beryllium	0.100	0.09316		mg/L		93	80 - 120	
Boron	0.100	0.09106		mg/L		91	80 - 120	
Cadmium	0.100	0.09838		mg/L		98	80 - 120	
Calcium	2.50	2.217		mg/L		89	80 - 120	
Chromium	0.100	0.09635		mg/L		96	80 - 120	
Cobalt	0.100	0.09741		mg/L		97	80 - 120	

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: LCS 860-207282/2-A

Matrix: Water

Analysis Batch: 207560

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.100	0.09758		mg/L		98	80 - 120
Molybdenum	0.100	0.09803		mg/L		98	80 - 120
Selenium	0.100	0.09546		mg/L		95	80 - 120
Thallium	0.100	0.09790		mg/L		98	80 - 120

Lab Sample ID: LCSD 860-207282/3-A

Matrix: Water

Analysis Batch: 207560

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 207282

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.100	0.09944		mg/L		99	80 - 120	1	20
Arsenic	0.100	0.09698		mg/L		97	80 - 120	0	20
Barium	0.100	0.1004		mg/L		100	80 - 120	2	20
Beryllium	0.100	0.09498		mg/L		95	80 - 120	2	20
Boron	0.100	0.09504		mg/L		95	80 - 120	4	20
Cadmium	0.100	0.09927		mg/L		99	80 - 120	1	20
Calcium	2.50	2.186		mg/L		87	80 - 120	1	20
Chromium	0.100	0.09623		mg/L		96	80 - 120	0	20
Cobalt	0.100	0.09678		mg/L		97	80 - 120	1	20
Lead	0.100	0.09682		mg/L		97	80 - 120	1	20
Molybdenum	0.100	0.09786		mg/L		98	80 - 120	0	20
Selenium	0.100	0.09618		mg/L		96	80 - 120	1	20
Thallium	0.100	0.09903		mg/L		99	80 - 120	1	20

Lab Sample ID: MB 860-206864/1-B

Matrix: Water

Analysis Batch: 207562

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 207310

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		12/23/24 10:00	12/23/24 20:27	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		12/23/24 10:00	12/23/24 20:27	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		12/23/24 10:00	12/23/24 20:27	1
Iron	<0.00445	U	0.0200	0.00445	mg/L		12/23/24 10:00	12/23/24 20:27	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		12/23/24 10:00	12/23/24 20:27	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		12/23/24 10:00	12/23/24 20:27	1
Boron	<0.00401	U	0.0100	0.00401	mg/L		12/23/24 10:00	12/23/24 20:27	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		12/23/24 10:00	12/23/24 20:27	1
Calcium	<0.0301	U	0.100	0.0301	mg/L		12/23/24 10:00	12/23/24 20:27	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		12/23/24 10:00	12/23/24 20:27	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		12/23/24 10:00	12/23/24 20:27	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		12/23/24 10:00	12/23/24 20:27	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		12/23/24 10:00	12/23/24 20:27	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		12/23/24 10:00	12/23/24 20:27	1
Thallium	<0.000415	U	0.00200	0.000415	mg/L		12/23/24 10:00	12/23/24 20:27	1

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: LCS 860-206864/2-B

Matrix: Water

Analysis Batch: 207562

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Aluminum	0.500	0.4845		mg/L		97	80 - 120	
Antimony	0.100	0.09601		mg/L		96	80 - 120	
Arsenic	0.100	0.09728		mg/L		97	80 - 120	
Iron	0.500	0.4921		mg/L		98	80 - 120	
Barium	0.100	0.1009		mg/L		101	80 - 120	
Beryllium	0.100	0.1027		mg/L		103	80 - 120	
Boron	0.100	0.1012		mg/L		101	80 - 120	
Cadmium	0.100	0.09621		mg/L		96	80 - 120	
Calcium	2.50	2.365		mg/L		95	80 - 120	
Chromium	0.100	0.09571		mg/L		96	80 - 120	
Cobalt	0.100	0.09925		mg/L		99	80 - 120	
Lead	0.100	0.09802		mg/L		98	80 - 120	
Molybdenum	0.100	0.09860		mg/L		99	80 - 120	
Selenium	0.100	0.09440		mg/L		94	80 - 120	
Thallium	0.100	0.09891		mg/L		99	80 - 120	

Lab Sample ID: LCSD 860-206864/3-B

Matrix: Water

Analysis Batch: 207562

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 207310

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
Aluminum	0.500	0.4802		mg/L		96	80 - 120		1	20
Antimony	0.100	0.09641		mg/L		96	80 - 120		0	20
Arsenic	0.100	0.09691		mg/L		97	80 - 120		0	20
Iron	0.500	0.4925		mg/L		98	80 - 120		0	20
Barium	0.100	0.1008		mg/L		101	80 - 120		0	20
Beryllium	0.100	0.1013		mg/L		101	80 - 120		1	20
Boron	0.100	0.1004		mg/L		100	80 - 120		1	20
Cadmium	0.100	0.09589		mg/L		96	80 - 120		0	20
Calcium	2.50	2.353		mg/L		94	80 - 120		0	20
Chromium	0.100	0.09569		mg/L		96	80 - 120		0	20
Cobalt	0.100	0.09952		mg/L		100	80 - 120		0	20
Lead	0.100	0.09879		mg/L		99	80 - 120		1	20
Molybdenum	0.100	0.09846		mg/L		98	80 - 120		0	20
Selenium	0.100	0.09429		mg/L		94	80 - 120		0	20
Thallium	0.100	0.09827		mg/L		98	80 - 120		1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-206775/10-A

Matrix: Water

Analysis Batch: 207085

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206775

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/20/24 04:48	12/20/24 20:46	1

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 860-206775/11-A

Matrix: Water

Analysis Batch: 207085

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.001813		mg/L		91	80 - 120

Lab Sample ID: LCSD 860-206775/12-A

Matrix: Water

Analysis Batch: 207085

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 206775

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.001843		mg/L		92	80 - 120	2	20

Lab Sample ID: 870-32406-1 MS

Matrix: Water

Analysis Batch: 207085

Client Sample ID: MNW-18

Prep Type: Total/NA

Prep Batch: 206775

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.0000706	U	0.00200	0.001789		mg/L		89	75 - 125

Lab Sample ID: 870-32406-1 MSD

Matrix: Water

Analysis Batch: 207085

Client Sample ID: MNW-18

Prep Type: Total/NA

Prep Batch: 206775

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.0000706	U	0.00200	0.001762		mg/L		88	75 - 125	2	20

Lab Sample ID: MB 860-207609/10-A

Matrix: Water

Analysis Batch: 207711

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 207609

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		12/26/24 03:24	12/26/24 10:52	1

Lab Sample ID: LCS 860-207609/11-A

Matrix: Water

Analysis Batch: 207711

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207609

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.001960		mg/L		98	80 - 120

Lab Sample ID: LCSD 860-207609/12-A

Matrix: Water

Analysis Batch: 207711

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 207609

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.001960		mg/L		98	80 - 120	0	20

QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

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

Lab Sample ID: MB 870-25193/1

Matrix: Water

Analysis Batch: 25193

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<2.50	U	2.50	2.50	mg/L			12/17/24 14:48	1

Lab Sample ID: LCS 870-25193/2

Matrix: Water

Analysis Batch: 25193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	980.0		mg/L		98	80 - 120

Lab Sample ID: LCSD 870-25193/3

Matrix: Water

Analysis Batch: 25193

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1015		mg/L		102	80 - 120	4	10

Lab Sample ID: MB 870-25222/1

Matrix: Water

Analysis Batch: 25222

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<2.50	U	2.50	2.50	mg/L			12/18/24 12:29	1

Lab Sample ID: LCS 870-25222/2

Matrix: Water

Analysis Batch: 25222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1084		mg/L		108	80 - 120

Lab Sample ID: LCSD 870-25222/3

Matrix: Water

Analysis Batch: 25222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1138		mg/L		114	80 - 120	5	10

Lab Sample ID: 870-32406-9 DU

Matrix: Water

Analysis Batch: 25222

Client Sample ID: SFL MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	15000		14310		mg/L		5	10

Lab Sample ID: 870-32406-13 DU

Matrix: Water

Analysis Batch: 25222

Client Sample ID: SSP MW-2 FD

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	11100		10150		mg/L		9	10

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: SM 4500 H+ B - pH

Lab Sample ID: 870-32406-18 DU
Matrix: Water
Analysis Batch: 25306

Client Sample ID: APMW-3
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
pH	5.4	HF	5.4		SU		0.2	20
Temperature	24.2	HF	24.3		Celsius		0.4	20

Lab Sample ID: 870-32406-19 DU
Matrix: Water
Analysis Batch: 25306

Client Sample ID: SSP MW-4
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
pH	6.2	HF	6.2		SU		0	20
Temperature	24.7	HF	24.7		Celsius		0	20

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-694201/1-A
Matrix: Water
Analysis Batch: 697378

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 694201

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	47.66		20.8	21.3	50.0	23.5	pCi/L	12/17/24 14:43	01/08/25 21:36	1
Radium-228	5.013	U	13.5	13.5	50.0	43.0	pCi/L	12/17/24 14:43	01/08/25 21:36	1
Combined Radium 226 + 228	52.67		24.8	25.2		43.0	pCi/L	12/17/24 14:43	01/08/25 21:36	1

Lab Sample ID: LCS 160-694201/2-A
Matrix: Water
Analysis Batch: 697379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 694201

Analyte	Spike	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec	Limits
	Added	Result	Qual	Uncert. (2σ+/-)						
Americium-241	135000	146400		16000		1070	pCi/L	109		75 - 125
Cesium-137	39200	44760		4450		106	pCi/L	114		75 - 125
Cobalt-60	14100	15350		1500		54.9	pCi/L	109		75 - 125

Lab Sample ID: 870-32406-1 DU
Matrix: Water
Analysis Batch: 697187

Client Sample ID: MNW-18
Prep Type: Total/NA
Prep Batch: 694201

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	-4.88	U G	-3.514	U G	4.96	50.0	56.8	pCi/L	0.04	1
Radium-228	-19.8	U G	1.149	U	2.82	50.0	48.7	pCi/L	0.55	1
Combined Radium 226 + 228	-24.7	U	-2.365	U	5.71		56.8	pCi/L	0.43	1

QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: MB 160-694212/1-A
Matrix: Water
Analysis Batch: 697379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 694212

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	7.552	U G	11.7	11.7	50.0	51.3	pCi/L	12/17/24 16:58	01/08/25 12:41	1
Radium-228	6.193	U	10.9	10.9	50.0	47.6	pCi/L	12/17/24 16:58	01/08/25 12:41	1
Combined Radium 226 + 228	13.75	U	16.0	16.0		51.3	pCi/L	12/17/24 16:58	01/08/25 12:41	1

Lab Sample ID: LCS 160-694212/2-A
Matrix: Water
Analysis Batch: 697378

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 694212

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Americium-241	135000	146700		16000		1030	pCi/L	109	75 - 125
Cesium-137	39200	45060		4480		104	pCi/L	115	75 - 125
Cobalt-60	14100	15530		1520		52.2	pCi/L	110	75 - 125

Lab Sample ID: 870-32406-21 DU
Matrix: Water
Analysis Batch: 697378

Client Sample ID: SSP MW-3
Prep Type: Total/NA
Prep Batch: 694212

Analyte	Sample		DU		Total	RL	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	5.25	U G	17.06	U G	11.6	50.0	51.7	pCi/L	0.58	1
Radium-228	7.79	U G	41.81	U	23.3	50.0	49.4	pCi/L	0.52	1
Combined Radium 226 + 228	13.0	U	58.87		26.0		51.7	pCi/L	0.67	1

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-694329/1-A
Matrix: Water
Analysis Batch: 698319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 694329

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert.	Uncert.						
Radium-226	-0.01726	U	(2σ+/-) 0.0608	(2σ+/-) 0.0608	1.00	0.128	pCi/L	12/18/24 08:12	01/15/25 09:27	1
Carrier	MB	MB								
	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.7		30 - 110					12/18/24 08:12	01/15/25 09:27	1

Lab Sample ID: LCS 160-694329/2-A
Matrix: Water
Analysis Batch: 698319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 694329

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	9.58	9.722		1.03	1.00	0.0911	pCi/L	102	75 - 125

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-694329/2-A

Matrix: Water

Analysis Batch: 698319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 694329

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	85.6		30 - 110

Lab Sample ID: 870-32406-1 DU

Matrix: Water

Analysis Batch: 698319

Client Sample ID: MNW-18

Prep Type: Total/NA

Prep Batch: 694329

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.847		0.7904		0.179	1.00	0.103	pCi/L	0.16	1
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	78.7		30 - 110							

Lab Sample ID: MB 160-694332/1-A

Matrix: Water

Analysis Batch: 698067

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 694332

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04397	U	0.0584	0.0585	1.00	0.0978	pCi/L	12/18/24 08:18	01/13/25 08:06	1
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	92.3		30 - 110							

Lab Sample ID: LCS 160-694332/2-A

Matrix: Water

Analysis Batch: 698067

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 694332

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	10.74		1.14	1.00	0.133	pCi/L	112	75 - 125
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	80.3		30 - 110						

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-694330/1-A

Matrix: Water

Analysis Batch: 696734

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 694330

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6857		0.371	0.376	1.00	0.524	pCi/L	12/18/24 08:16	01/03/25 11:58	1
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	88.7		30 - 110							

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-694330/1-A

Matrix: Water

Analysis Batch: 696734

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 694330

	MB	MB									
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac					
Y Carrier	82.6		30 - 110	12/18/24 08:16	01/03/25 11:58	1					

Lab Sample ID: LCS 160-694330/2-A

Matrix: Water

Analysis Batch: 696734

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 694330

					Total						
			Spike	LCS	LCS	Uncert.				%Rec	
Analyte			Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228			8.21	10.76		1.46	1.00	0.618	pCi/L	131	75 - 125
		LCS	LCS								
Carrier	%Yield	Qualifier	Limits								
Ba Carrier	85.6		30 - 110								
Y Carrier	80.7		30 - 110								

Lab Sample ID: 870-32406-1 DU

Matrix: Water

Analysis Batch: 696734

Client Sample ID: MNW-18

Prep Type: Total/NA

Prep Batch: 694330

					Total							
Analyte	Sample	Sample		DU	DU	Uncert.	RL	MDC	Unit		RER	RER
	Result	Qual		Result	Qual	(2σ+/-)					Limit	
Radium-228	2.00			1.765		0.556	1.00	0.598	pCi/L		0.22	1

	DU	DU										
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	78.7		30 - 110									
Y Carrier	82.2		30 - 110									

Lab Sample ID: MB 160-694335/1-A

Matrix: Water

Analysis Batch: 696456

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 694335

				Count	Total							
Analyte	MB	MB		Uncert.	Uncert.	RL	MDC	Unit	Prepared	Analyzed	Dil Fac	
	Result	Qualifier		(2σ+/-)	(2σ+/-)							
Radium-228	0.3077	U		0.331	0.333	1.00	0.540	pCi/L	12/18/24 08:22	01/02/25 14:21	1	

	MB	MB										
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac						
Ba Carrier	92.3		30 - 110	12/18/24 08:22	01/02/25 14:21	1						
Y Carrier	85.6		30 - 110	12/18/24 08:22	01/02/25 14:21	1						

Lab Sample ID: LCS 160-694335/2-A

Matrix: Water

Analysis Batch: 696456

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 694335

					Total							
Analyte		Spike	LCS	LCS	Uncert.	RL	MDC	Unit	%Rec	%Rec		
		Added	Result	Qual	(2σ+/-)				Limits			
Radium-228		8.21	11.65		1.58	1.00	0.616	pCi/L	142	75 - 125		

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QC Sample Results

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-694335/2-A
Matrix: Water
Analysis Batch: 696456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 694335

Carrier	LCS	LCS	Limits
	%Yield	Qualifier	
Ba Carrier	80.3		30 - 110
Y Carrier	79.6		30 - 110

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

QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

HPLC/IC

Analysis Batch: 208349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	9056A	
870-32406-2	MNW-15	Total/NA	Water	9056A	
870-32406-3	SFL MW-7	Total/NA	Water	9056A	
MB 860-208349/3	Method Blank	Total/NA	Water	9056A	
MB 860-208349/61	Method Blank	Total/NA	Water	9056A	
LCS 860-208349/62	Lab Control Sample	Total/NA	Water	9056A	
LCSD 860-208349/63	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 860-208349/7	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 208490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-4	SFL MW-7 FD	Total/NA	Water	9056A	
870-32406-5	SFL MW-3	Total/NA	Water	9056A	
870-32406-6	SFL MW-4	Total/NA	Water	9056A	
870-32406-7	SFL MW-2	Total/NA	Water	9056A	
870-32406-8	SFL MW-5	Total/NA	Water	9056A	
870-32406-9	SFL MW-6	Total/NA	Water	9056A	
870-32406-9 - DL	SFL MW-6	Total/NA	Water	9056A	
870-32406-10	FB-01	Total/NA	Water	9056A	
870-32406-11	SSP/AP MW-1	Total/NA	Water	9056A	
870-32406-12	SSP MW-2	Total/NA	Water	9056A	
870-32406-13	SSP MW-2 FD	Total/NA	Water	9056A	
870-32406-14	APMW-4	Total/NA	Water	9056A	
870-32406-15	APMW-5	Total/NA	Water	9056A	
870-32406-15	APMW-5	Total/NA	Water	9056A	
870-32406-16	FB-02	Total/NA	Water	9056A	
870-32406-17	APMW-1D	Total/NA	Water	9056A	
870-32406-18	APMW-3	Total/NA	Water	9056A	
870-32406-18 - DL	APMW-3	Total/NA	Water	9056A	
870-32406-19	SSP MW-4	Total/NA	Water	9056A	
870-32406-20	EQ-01	Total/NA	Water	9056A	
870-32406-21	SSP MW-3	Total/NA	Water	9056A	
MB 860-208490/3	Method Blank	Total/NA	Water	9056A	
LCS 860-208490/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 860-208490/5	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 860-208490/7	Lab Control Sample	Total/NA	Water	9056A	
870-32406-10 MS	FB-01	Total/NA	Water	9056A	
870-32406-10 MSD	FB-01	Total/NA	Water	9056A	
870-32406-16 MS	FB-02	Total/NA	Water	9056A	
870-32406-16 MSD	FB-02	Total/NA	Water	9056A	

Metals

Prep Batch: 205641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	3010A	
870-32406-2	MNW-15	Total/NA	Water	3010A	
870-32406-3	SFL MW-7	Total/NA	Water	3010A	
870-32406-4	SFL MW-7 FD	Total/NA	Water	3010A	
870-32406-5	SFL MW-3	Total/NA	Water	3010A	
870-32406-6	SFL MW-4	Total/NA	Water	3010A	

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QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Metals (Continued)

Prep Batch: 205641 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-7	SFL MW-2	Total/NA	Water	3010A	
870-32406-8	SFL MW-5	Total/NA	Water	3010A	
870-32406-9	SFL MW-6	Total/NA	Water	3010A	
870-32406-10	FB-01	Total/NA	Water	3010A	
870-32406-12	SSP MW-2	Total/NA	Water	3010A	
870-32406-13	SSP MW-2 FD	Total/NA	Water	3010A	
870-32406-14	APMW-4	Total/NA	Water	3010A	
870-32406-15	APMW-5	Total/NA	Water	3010A	
870-32406-16	FB-02	Total/NA	Water	3010A	
870-32406-17	APMW-1D	Total/NA	Water	3010A	
870-32406-18	APMW-3	Total/NA	Water	3010A	
870-32406-20	EQ-01	Total/NA	Water	3010A	
MB 860-205641/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-205641/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-205641/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
870-32406-6 MS	SFL MW-4	Total/NA	Water	3010A	
870-32406-6 MSD	SFL MW-4	Total/NA	Water	3010A	

Analysis Batch: 205864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	6010D	205641
870-32406-2	MNW-15	Total/NA	Water	6010D	205641
870-32406-3	SFL MW-7	Total/NA	Water	6010D	205641
870-32406-4	SFL MW-7 FD	Total/NA	Water	6010D	205641
870-32406-5	SFL MW-3	Total/NA	Water	6010D	205641
870-32406-6	SFL MW-4	Total/NA	Water	6010D	205641
870-32406-7	SFL MW-2	Total/NA	Water	6010D	205641
870-32406-8	SFL MW-5	Total/NA	Water	6010D	205641
870-32406-9	SFL MW-6	Total/NA	Water	6010D	205641
870-32406-10	FB-01	Total/NA	Water	6010D	205641
870-32406-12	SSP MW-2	Total/NA	Water	6010D	205641
870-32406-13	SSP MW-2 FD	Total/NA	Water	6010D	205641
870-32406-14	APMW-4	Total/NA	Water	6010D	205641
870-32406-15	APMW-5	Total/NA	Water	6010D	205641
870-32406-16	FB-02	Total/NA	Water	6010D	205641
870-32406-17	APMW-1D	Total/NA	Water	6010D	205641
870-32406-18	APMW-3	Total/NA	Water	6010D	205641
870-32406-20	EQ-01	Total/NA	Water	6010D	205641
MB 860-205641/1-A	Method Blank	Total/NA	Water	6010D	205641
LCS 860-205641/2-A	Lab Control Sample	Total/NA	Water	6010D	205641
LCSD 860-205641/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	205641
870-32406-6 MS	SFL MW-4	Total/NA	Water	6010D	205641
870-32406-6 MSD	SFL MW-4	Total/NA	Water	6010D	205641

Prep Batch: 206314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	3010A	
870-32406-2	MNW-15	Total/NA	Water	3010A	
870-32406-3	SFL MW-7	Total/NA	Water	3010A	
870-32406-4	SFL MW-7 FD	Total/NA	Water	3010A	
870-32406-5	SFL MW-3	Total/NA	Water	3010A	

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QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Metals (Continued)

Prep Batch: 206314 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-6	SFL MW-4	Total/NA	Water	3010A	
870-32406-7	SFL MW-2	Total/NA	Water	3010A	
870-32406-8	SFL MW-5	Total/NA	Water	3010A	
870-32406-9	SFL MW-6	Total/NA	Water	3010A	
870-32406-10	FB-01	Total/NA	Water	3010A	
870-32406-11	SSP/AP MW-1	Total/NA	Water	3010A	
870-32406-12	SSP MW-2	Total/NA	Water	3010A	
870-32406-13	SSP MW-2 FD	Total/NA	Water	3010A	
870-32406-14	APMW-4	Total/NA	Water	3010A	
870-32406-20	EQ-01	Total/NA	Water	3010A	
870-32406-21	SSP MW-3	Total/NA	Water	3010A	
MB 860-206314/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-206314/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-206314/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
870-32406-20 MS	EQ-01	Total/NA	Water	3010A	
870-32406-20 MSD	EQ-01	Total/NA	Water	3010A	

Filtration Batch: 206481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-206481/1-B	Method Blank	Total/NA	Water	Filtration	
LCS 860-206481/2-B	Lab Control Sample	Total/NA	Water	Filtration	
LCSD 860-206481/3-B	Lab Control Sample Dup	Total/NA	Water	Filtration	

Prep Batch: 206517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-11	SSP/AP MW-1	Total/NA	Water	3010A	
870-32406-19	SSP MW-4	Total/NA	Water	3010A	
870-32406-21	SSP MW-3	Total/NA	Water	3010A	
MB 860-206517/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-206517/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-206517/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 206536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	6020B	206314
870-32406-2	MNW-15	Total/NA	Water	6020B	206314
870-32406-2	MNW-15	Total/NA	Water	6020B	206314
870-32406-3	SFL MW-7	Total/NA	Water	6020B	206314
870-32406-4	SFL MW-7 FD	Total/NA	Water	6020B	206314
870-32406-5	SFL MW-3	Total/NA	Water	6020B	206314
870-32406-6	SFL MW-4	Total/NA	Water	6020B	206314
870-32406-7	SFL MW-2	Total/NA	Water	6020B	206314
870-32406-8	SFL MW-5	Total/NA	Water	6020B	206314
870-32406-9	SFL MW-6	Total/NA	Water	6020B	206314
870-32406-10	FB-01	Total/NA	Water	6020B	206314
870-32406-11	SSP/AP MW-1	Total/NA	Water	6020B	206314
870-32406-12	SSP MW-2	Total/NA	Water	6020B	206314
870-32406-13	SSP MW-2 FD	Total/NA	Water	6020B	206314
870-32406-14	APMW-4	Total/NA	Water	6020B	206314
870-32406-20	EQ-01	Total/NA	Water	6020B	206314
870-32406-21	SSP MW-3	Total/NA	Water	6020B	206314

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QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Metals (Continued)

Analysis Batch: 206536 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-206314/1-A	Method Blank	Total/NA	Water	6020B	206314
LCS 860-206314/2-A	Lab Control Sample	Total/NA	Water	6020B	206314
LCSD 860-206314/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	206314
870-32406-20 MS	EQ-01	Total/NA	Water	6020B	206314
870-32406-20 MSD	EQ-01	Total/NA	Water	6020B	206314

Analysis Batch: 206692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-21	SSP MW-3	Total/NA	Water	6020B	206314

Prep Batch: 206775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	7470A	
870-32406-2	MNW-15	Total/NA	Water	7470A	
870-32406-3	SFL MW-7	Total/NA	Water	7470A	
870-32406-4	SFL MW-7 FD	Total/NA	Water	7470A	
870-32406-5	SFL MW-3	Total/NA	Water	7470A	
870-32406-6	SFL MW-4	Total/NA	Water	7470A	
870-32406-7	SFL MW-2	Total/NA	Water	7470A	
870-32406-8	SFL MW-5	Total/NA	Water	7470A	
870-32406-9	SFL MW-6	Total/NA	Water	7470A	
870-32406-10	FB-01	Total/NA	Water	7470A	
870-32406-11	SSP/AP MW-1	Total/NA	Water	7470A	
870-32406-12	SSP MW-2	Total/NA	Water	7470A	
870-32406-13	SSP MW-2 FD	Total/NA	Water	7470A	
870-32406-14	APMW-4	Total/NA	Water	7470A	
870-32406-15	APMW-5	Total/NA	Water	7470A	
870-32406-16	FB-02	Total/NA	Water	7470A	
870-32406-17	APMW-1D	Total/NA	Water	7470A	
870-32406-18	APMW-3	Total/NA	Water	7470A	
870-32406-19	SSP MW-4	Total/NA	Water	7470A	
870-32406-20	EQ-01	Total/NA	Water	7470A	
MB 860-206775/10-A	Method Blank	Total/NA	Water	7470A	
LCS 860-206775/11-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 860-206775/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	
870-32406-1 MS	MNW-18	Total/NA	Water	7470A	
870-32406-1 MSD	MNW-18	Total/NA	Water	7470A	

Analysis Batch: 206850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-11	SSP/AP MW-1	Total/NA	Water	6010D	206517
870-32406-19	SSP MW-4	Total/NA	Water	6010D	206517
870-32406-21	SSP MW-3	Total/NA	Water	6010D	206517
MB 860-206517/1-A	Method Blank	Total/NA	Water	6010D	206517
LCS 860-206517/2-A	Lab Control Sample	Total/NA	Water	6010D	206517
LCSD 860-206517/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	206517

Filtration Batch: 206864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-206864/1-B	Method Blank	Total/NA	Water	Filtration	
LCS 860-206864/2-B	Lab Control Sample	Total/NA	Water	Filtration	

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QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Metals (Continued)

Filtration Batch: 206864 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-206864/3-B	Lab Control Sample Dup	Total/NA	Water	Filtration	

Prep Batch: 206876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-15	APMW-5	Total/NA	Water	3010A	
870-32406-16	FB-02	Total/NA	Water	3010A	
870-32406-17	APMW-1D	Total/NA	Water	3010A	
870-32406-18	APMW-3	Total/NA	Water	3010A	
870-32406-19	SSP MW-4	Total/NA	Water	3010A	
MB 860-206481/1-B	Method Blank	Total/NA	Water	3010A	206481
LCS 860-206481/2-B	Lab Control Sample	Total/NA	Water	3010A	206481
LCSD 860-206481/3-B	Lab Control Sample Dup	Total/NA	Water	3010A	206481

Analysis Batch: 207056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-15	APMW-5	Total/NA	Water	6020B	206876
870-32406-15	APMW-5	Total/NA	Water	6020B	206876
870-32406-15	APMW-5	Total/NA	Water	6020B	206876
870-32406-16	FB-02	Total/NA	Water	6020B	206876
870-32406-17	APMW-1D	Total/NA	Water	6020B	206876
870-32406-17	APMW-1D	Total/NA	Water	6020B	206876
870-32406-18	APMW-3	Total/NA	Water	6020B	206876
870-32406-18	APMW-3	Total/NA	Water	6020B	206876
870-32406-19	SSP MW-4	Total/NA	Water	6020B	206876
870-32406-19	SSP MW-4	Total/NA	Water	6020B	206876
870-32406-19	SSP MW-4	Total/NA	Water	6020B	206876
MB 860-206481/1-B	Method Blank	Total/NA	Water	6020B	206876
LCS 860-206481/2-B	Lab Control Sample	Total/NA	Water	6020B	206876
LCSD 860-206481/3-B	Lab Control Sample Dup	Total/NA	Water	6020B	206876

Analysis Batch: 207085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	7470A	206775
870-32406-2	MNW-15	Total/NA	Water	7470A	206775
870-32406-3	SFL MW-7	Total/NA	Water	7470A	206775
870-32406-4	SFL MW-7 FD	Total/NA	Water	7470A	206775
870-32406-5	SFL MW-3	Total/NA	Water	7470A	206775
870-32406-6	SFL MW-4	Total/NA	Water	7470A	206775
870-32406-7	SFL MW-2	Total/NA	Water	7470A	206775
870-32406-8	SFL MW-5	Total/NA	Water	7470A	206775
870-32406-9	SFL MW-6	Total/NA	Water	7470A	206775
870-32406-10	FB-01	Total/NA	Water	7470A	206775
870-32406-11	SSP/AP MW-1	Total/NA	Water	7470A	206775
870-32406-12	SSP MW-2	Total/NA	Water	7470A	206775
870-32406-13	SSP MW-2 FD	Total/NA	Water	7470A	206775
870-32406-14	APMW-4	Total/NA	Water	7470A	206775
870-32406-15	APMW-5	Total/NA	Water	7470A	206775
870-32406-16	FB-02	Total/NA	Water	7470A	206775
870-32406-17	APMW-1D	Total/NA	Water	7470A	206775
870-32406-18	APMW-3	Total/NA	Water	7470A	206775
870-32406-19	SSP MW-4	Total/NA	Water	7470A	206775

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QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Metals (Continued)

Analysis Batch: 207085 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-20	EQ-01	Total/NA	Water	7470A	206775
MB 860-206775/10-A	Method Blank	Total/NA	Water	7470A	206775
LCS 860-206775/11-A	Lab Control Sample	Total/NA	Water	7470A	206775
LCSD 860-206775/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	206775
870-32406-1 MS	MNW-18	Total/NA	Water	7470A	206775
870-32406-1 MSD	MNW-18	Total/NA	Water	7470A	206775

Prep Batch: 207282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	3010A	
870-32406-2	MNW-15	Total/NA	Water	3010A	
870-32406-3	SFL MW-7	Total/NA	Water	3010A	
870-32406-4	SFL MW-7 FD	Total/NA	Water	3010A	
870-32406-5	SFL MW-3	Total/NA	Water	3010A	
870-32406-6	SFL MW-4	Total/NA	Water	3010A	
870-32406-7	SFL MW-2	Total/NA	Water	3010A	
870-32406-8	SFL MW-5	Total/NA	Water	3010A	
870-32406-9	SFL MW-6	Total/NA	Water	3010A	
870-32406-10	FB-01	Total/NA	Water	3010A	
870-32406-11	SSP/AP MW-1	Total/NA	Water	3010A	
MB 860-207282/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-207282/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-207282/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Prep Batch: 207310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-12	SSP MW-2	Total/NA	Water	3010A	
870-32406-13	SSP MW-2 FD	Total/NA	Water	3010A	
870-32406-14	APMW-4	Total/NA	Water	3010A	
870-32406-20	EQ-01	Total/NA	Water	3010A	
MB 860-206864/1-B	Method Blank	Total/NA	Water	3010A	206864
LCS 860-206864/2-B	Lab Control Sample	Total/NA	Water	3010A	206864
LCSD 860-206864/3-B	Lab Control Sample Dup	Total/NA	Water	3010A	206864

Analysis Batch: 207560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-207282/1-A	Method Blank	Total/NA	Water	6020B	207282
LCS 860-207282/2-A	Lab Control Sample	Total/NA	Water	6020B	207282
LCSD 860-207282/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	207282

Analysis Batch: 207562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-12	SSP MW-2	Total/NA	Water	6020B	207310
870-32406-13	SSP MW-2 FD	Total/NA	Water	6020B	207310
870-32406-14	APMW-4	Total/NA	Water	6020B	207310
MB 860-206864/1-B	Method Blank	Total/NA	Water	6020B	207310
LCS 860-206864/2-B	Lab Control Sample	Total/NA	Water	6020B	207310
LCSD 860-206864/3-B	Lab Control Sample Dup	Total/NA	Water	6020B	207310

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Metals

Prep Batch: 207609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-21	SSP MW-3	Total/NA	Water	7470A	
MB 860-207609/10-A	Method Blank	Total/NA	Water	7470A	
LCS 860-207609/11-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 860-207609/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Analysis Batch: 207711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-21	SSP MW-3	Total/NA	Water	7470A	207609
MB 860-207609/10-A	Method Blank	Total/NA	Water	7470A	207609
LCS 860-207609/11-A	Lab Control Sample	Total/NA	Water	7470A	207609
LCSD 860-207609/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	207609

Analysis Batch: 207750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	6020B	207282
870-32406-1	MNW-18	Total/NA	Water	6020B	207282
870-32406-2	MNW-15	Total/NA	Water	6020B	207282
870-32406-2	MNW-15	Total/NA	Water	6020B	207282
870-32406-3	SFL MW-7	Total/NA	Water	6020B	207282
870-32406-3	SFL MW-7	Total/NA	Water	6020B	207282
870-32406-4	SFL MW-7 FD	Total/NA	Water	6020B	207282
870-32406-4	SFL MW-7 FD	Total/NA	Water	6020B	207282
870-32406-5	SFL MW-3	Total/NA	Water	6020B	207282
870-32406-5	SFL MW-3	Total/NA	Water	6020B	207282
870-32406-6	SFL MW-4	Total/NA	Water	6020B	207282
870-32406-6	SFL MW-4	Total/NA	Water	6020B	207282
870-32406-7	SFL MW-2	Total/NA	Water	6020B	207282
870-32406-7	SFL MW-2	Total/NA	Water	6020B	207282
870-32406-8	SFL MW-5	Total/NA	Water	6020B	207282
870-32406-8	SFL MW-5	Total/NA	Water	6020B	207282
870-32406-9	SFL MW-6	Total/NA	Water	6020B	207282
870-32406-9	SFL MW-6	Total/NA	Water	6020B	207282
870-32406-10	FB-01	Total/NA	Water	6020B	207282
870-32406-11	SSP/AP MW-1	Total/NA	Water	6020B	207282
870-32406-11	SSP/AP MW-1	Total/NA	Water	6020B	207282
870-32406-12	SSP MW-2	Total/NA	Water	6020B	207310
870-32406-13	SSP MW-2 FD	Total/NA	Water	6020B	207310
870-32406-14	APMW-4	Total/NA	Water	6020B	207310
870-32406-20	EQ-01	Total/NA	Water	6020B	207310

Analysis Batch: 208493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-21	SSP MW-3	Total/NA	Water	6020B	206314
MB 860-206314/1-A	Method Blank	Total/NA	Water	6020B	206314
LCS 860-206314/2-A	Lab Control Sample	Total/NA	Water	6020B	206314
LCSD 860-206314/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	206314
870-32406-20 MS	EQ-01	Total/NA	Water	6020B	206314
870-32406-20 MSD	EQ-01	Total/NA	Water	6020B	206314

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

General Chemistry

Analysis Batch: 25193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	SM 2540C	
870-32406-2	MNW-15	Total/NA	Water	SM 2540C	
870-32406-3	SFL MW-7	Total/NA	Water	SM 2540C	
870-32406-4	SFL MW-7 FD	Total/NA	Water	SM 2540C	
870-32406-5	SFL MW-3	Total/NA	Water	SM 2540C	
870-32406-6	SFL MW-4	Total/NA	Water	SM 2540C	
870-32406-7	SFL MW-2	Total/NA	Water	SM 2540C	
870-32406-8	SFL MW-5	Total/NA	Water	SM 2540C	
MB 870-25193/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 870-25193/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 870-25193/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Analysis Batch: 25222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-9	SFL MW-6	Total/NA	Water	SM 2540C	
870-32406-10	FB-01	Total/NA	Water	SM 2540C	
870-32406-11	SSP/AP MW-1	Total/NA	Water	SM 2540C	
870-32406-12	SSP MW-2	Total/NA	Water	SM 2540C	
870-32406-13	SSP MW-2 FD	Total/NA	Water	SM 2540C	
870-32406-14	APMW-4	Total/NA	Water	SM 2540C	
870-32406-15	APMW-5	Total/NA	Water	SM 2540C	
870-32406-16	FB-02	Total/NA	Water	SM 2540C	
870-32406-17	APMW-1D	Total/NA	Water	SM 2540C	
870-32406-18	APMW-3	Total/NA	Water	SM 2540C	
870-32406-19	SSP MW-4	Total/NA	Water	SM 2540C	
870-32406-20	EQ-01	Total/NA	Water	SM 2540C	
870-32406-21	SSP MW-3	Total/NA	Water	SM 2540C	
MB 870-25222/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 870-25222/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 870-25222/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
870-32406-9 DU	SFL MW-6	Total/NA	Water	SM 2540C	
870-32406-13 DU	SSP MW-2 FD	Total/NA	Water	SM 2540C	

Analysis Batch: 25306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	SM 4500 H+ B	
870-32406-2	MNW-15	Total/NA	Water	SM 4500 H+ B	
870-32406-3	SFL MW-7	Total/NA	Water	SM 4500 H+ B	
870-32406-4	SFL MW-7 FD	Total/NA	Water	SM 4500 H+ B	
870-32406-5	SFL MW-3	Total/NA	Water	SM 4500 H+ B	
870-32406-6	SFL MW-4	Total/NA	Water	SM 4500 H+ B	
870-32406-7	SFL MW-2	Total/NA	Water	SM 4500 H+ B	
870-32406-8	SFL MW-5	Total/NA	Water	SM 4500 H+ B	
870-32406-9	SFL MW-6	Total/NA	Water	SM 4500 H+ B	
870-32406-10	FB-01	Total/NA	Water	SM 4500 H+ B	
870-32406-11	SSP/AP MW-1	Total/NA	Water	SM 4500 H+ B	
870-32406-12	SSP MW-2	Total/NA	Water	SM 4500 H+ B	
870-32406-13	SSP MW-2 FD	Total/NA	Water	SM 4500 H+ B	
870-32406-14	APMW-4	Total/NA	Water	SM 4500 H+ B	
870-32406-15	APMW-5	Total/NA	Water	SM 4500 H+ B	
870-32406-16	FB-02	Total/NA	Water	SM 4500 H+ B	

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

General Chemistry (Continued)

Analysis Batch: 25306 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-17	APMW-1D	Total/NA	Water	SM 4500 H+ B	
870-32406-18	APMW-3	Total/NA	Water	SM 4500 H+ B	
870-32406-19	SSP MW-4	Total/NA	Water	SM 4500 H+ B	
870-32406-20	EQ-01	Total/NA	Water	SM 4500 H+ B	
870-32406-21	SSP MW-3	Total/NA	Water	SM 4500 H+ B	
870-32406-18 DU	APMW-3	Total/NA	Water	SM 4500 H+ B	
870-32406-19 DU	SSP MW-4	Total/NA	Water	SM 4500 H+ B	

Rad

Prep Batch: 694201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	Fill_Geo-21	
870-32406-2	MNW-15	Total/NA	Water	Fill_Geo-21	
870-32406-3	SFL MW-7	Total/NA	Water	Fill_Geo-21	
870-32406-4	SFL MW-7 FD	Total/NA	Water	Fill_Geo-21	
870-32406-5	SFL MW-3	Total/NA	Water	Fill_Geo-21	
870-32406-6	SFL MW-4	Total/NA	Water	Fill_Geo-21	
870-32406-7	SFL MW-2	Total/NA	Water	Fill_Geo-21	
870-32406-8	SFL MW-5	Total/NA	Water	Fill_Geo-21	
870-32406-9	SFL MW-6	Total/NA	Water	Fill_Geo-21	
870-32406-10	FB-01	Total/NA	Water	Fill_Geo-21	
870-32406-11	SSP/AP MW-1	Total/NA	Water	Fill_Geo-21	
870-32406-12	SSP MW-2	Total/NA	Water	Fill_Geo-21	
870-32406-13	SSP MW-2 FD	Total/NA	Water	Fill_Geo-21	
870-32406-14	APMW-4	Total/NA	Water	Fill_Geo-21	
870-32406-15	APMW-5	Total/NA	Water	Fill_Geo-21	
870-32406-16	FB-02	Total/NA	Water	Fill_Geo-21	
870-32406-17	APMW-1D	Total/NA	Water	Fill_Geo-21	
870-32406-18	APMW-3	Total/NA	Water	Fill_Geo-21	
870-32406-19	SSP MW-4	Total/NA	Water	Fill_Geo-21	
870-32406-20	EQ-01	Total/NA	Water	Fill_Geo-21	
MB 160-694201/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-694201/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	
870-32406-1 DU	MNW-18	Total/NA	Water	Fill_Geo-21	

Prep Batch: 694212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-21	SSP MW-3	Total/NA	Water	Fill_Geo-21	
MB 160-694212/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-694212/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	
870-32406-21 DU	SSP MW-3	Total/NA	Water	Fill_Geo-21	

Prep Batch: 694329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	PrecSep-21	
870-32406-2	MNW-15	Total/NA	Water	PrecSep-21	
870-32406-3	SFL MW-7	Total/NA	Water	PrecSep-21	
870-32406-4	SFL MW-7 FD	Total/NA	Water	PrecSep-21	
870-32406-5	SFL MW-3	Total/NA	Water	PrecSep-21	
870-32406-6	SFL MW-4	Total/NA	Water	PrecSep-21	

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Rad (Continued)

Prep Batch: 694329 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-7	SFL MW-2	Total/NA	Water	PrecSep-21	
870-32406-8	SFL MW-5	Total/NA	Water	PrecSep-21	
870-32406-9	SFL MW-6	Total/NA	Water	PrecSep-21	
870-32406-10	FB-01	Total/NA	Water	PrecSep-21	
870-32406-11	SSP/AP MW-1	Total/NA	Water	PrecSep-21	
870-32406-12	SSP MW-2	Total/NA	Water	PrecSep-21	
870-32406-13	SSP MW-2 FD	Total/NA	Water	PrecSep-21	
870-32406-14	APMW-4	Total/NA	Water	PrecSep-21	
870-32406-15	APMW-5	Total/NA	Water	PrecSep-21	
870-32406-16	FB-02	Total/NA	Water	PrecSep-21	
870-32406-17	APMW-1D	Total/NA	Water	PrecSep-21	
870-32406-18	APMW-3	Total/NA	Water	PrecSep-21	
870-32406-19	SSP MW-4	Total/NA	Water	PrecSep-21	
870-32406-20	EQ-01	Total/NA	Water	PrecSep-21	
MB 160-694329/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-694329/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
870-32406-1 DU	MNW-18	Total/NA	Water	PrecSep-21	

Prep Batch: 694330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-1	MNW-18	Total/NA	Water	PrecSep_0	
870-32406-2	MNW-15	Total/NA	Water	PrecSep_0	
870-32406-3	SFL MW-7	Total/NA	Water	PrecSep_0	
870-32406-4	SFL MW-7 FD	Total/NA	Water	PrecSep_0	
870-32406-5	SFL MW-3	Total/NA	Water	PrecSep_0	
870-32406-6	SFL MW-4	Total/NA	Water	PrecSep_0	
870-32406-7	SFL MW-2	Total/NA	Water	PrecSep_0	
870-32406-8	SFL MW-5	Total/NA	Water	PrecSep_0	
870-32406-9	SFL MW-6	Total/NA	Water	PrecSep_0	
870-32406-10	FB-01	Total/NA	Water	PrecSep_0	
870-32406-11	SSP/AP MW-1	Total/NA	Water	PrecSep_0	
870-32406-12	SSP MW-2	Total/NA	Water	PrecSep_0	
870-32406-13	SSP MW-2 FD	Total/NA	Water	PrecSep_0	
870-32406-14	APMW-4	Total/NA	Water	PrecSep_0	
870-32406-15	APMW-5	Total/NA	Water	PrecSep_0	
870-32406-16	FB-02	Total/NA	Water	PrecSep_0	
870-32406-17	APMW-1D	Total/NA	Water	PrecSep_0	
870-32406-18	APMW-3	Total/NA	Water	PrecSep_0	
870-32406-19	SSP MW-4	Total/NA	Water	PrecSep_0	
870-32406-20	EQ-01	Total/NA	Water	PrecSep_0	
MB 160-694330/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-694330/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
870-32406-1 DU	MNW-18	Total/NA	Water	PrecSep_0	

Prep Batch: 694332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-21	SSP MW-3	Total/NA	Water	PrecSep-21	
MB 160-694332/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-694332/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Eurofins Dallas

QC Association Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Rad

Prep Batch: 694335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-32406-21	SSP MW-3	Total/NA	Water	PrecSep_0	
MB 160-694335/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-694335/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

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

Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: MNW-18

Lab Sample ID: 870-32406-1

Date Collected: 12/11/24 08:02

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			208349	12/31/24 03:12	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:51	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:02	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:03	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:13	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 20:50	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697379	01/08/25 20:30	CAH	EET SL
Total/NA	Prep	PrecSep-21			1000.41 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698319	01/15/25 09:27	SWS	EET SL
Total/NA	Prep	PrecSep_0			1000.41 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696734	01/03/25 11:58	SWS	EET SL

Client Sample ID: MNW-15

Lab Sample ID: 870-32406-2

Date Collected: 12/11/24 09:16

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			208349	12/31/24 03:30	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:29	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:04	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		5			206536	12/18/24 21:07	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:05	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:15	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 20:57	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697187	01/08/25 22:44	CAH	EET SL
Total/NA	Prep	PrecSep-21			995.85 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698319	01/15/25 09:27	SWS	EET SL

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: MNW-15

Lab Sample ID: 870-32406-2

Date Collected: 12/11/24 09:16

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			995.85 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696734	01/03/25 11:58	SWS	EET SL

Client Sample ID: SFL MW-7

Lab Sample ID: 870-32406-3

Date Collected: 12/11/24 10:11

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208349	12/31/24 03:48	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:34	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:10	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:07	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:17	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:01	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697378	01/08/25 22:44	CAH	EET SL
Total/NA	Prep	PrecSep-21			1002.52 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698319	01/15/25 09:27	SWS	EET SL
Total/NA	Prep	PrecSep_0			1002.52 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696734	01/03/25 11:58	SWS	EET SL

Client Sample ID: SFL MW-7 FD

Lab Sample ID: 870-32406-4

Date Collected: 12/11/24 10:14

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 11:08	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:07	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:12	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:09	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:20	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:03	SHZ	EET HOU

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-7 FD

Lab Sample ID: 870-32406-4

Date Collected: 12/11/24 10:14

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697379	01/08/25 22:45	CAH	EET SL
Total/NA	Prep	PrecSep-21			1001.86 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698319	01/15/25 09:27	SWS	EET SL
Total/NA	Prep	PrecSep_0			1001.86 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696734	01/03/25 11:59	SWS	EET SL

Client Sample ID: SFL MW-3

Lab Sample ID: 870-32406-5

Date Collected: 12/11/24 11:17

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			208490	12/31/24 12:28	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:53	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:15	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:11	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:22	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:04	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 08:16	CAH	EET SL
Total/NA	Prep	PrecSep-21			1001.99 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698319	01/15/25 09:27	SWS	EET SL
Total/NA	Prep	PrecSep_0			1001.99 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:55	SWS	EET SL

Client Sample ID: SFL MW-4

Lab Sample ID: 870-32406-6

Date Collected: 12/11/24 12:10

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 12:46	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		5			205864	12/16/24 17:41	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:17	DP	EET HOU

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-4

Lab Sample ID: 870-32406-6

Date Collected: 12/11/24 12:10

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:28	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:38	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:05	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697528	01/09/25 08:15	CAH	EET SL
Total/NA	Prep	PrecSep-21			1000.36 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698319	01/15/25 09:27	SWS	EET SL
Total/NA	Prep	PrecSep_0			1000.36 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:55	SWS	EET SL

Client Sample ID: SFL MW-2

Lab Sample ID: 870-32406-7

Date Collected: 12/11/24 13:01

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 13:32	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 17:51	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:20	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:30	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:40	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:07	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 09:41	CAH	EET SL
Total/NA	Prep	PrecSep-21			996.86 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698319	01/15/25 09:27	SWS	EET SL
Total/NA	Prep	PrecSep_0			996.86 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:55	SWS	EET SL

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-5

Lab Sample ID: 870-32406-8

Date Collected: 12/11/24 13:50

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 13:50	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:27	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:22	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:32	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:42	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:08	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	25193	12/17/24 14:48	CJH	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697528	01/09/25 09:41	CAH	EET SL
Total/NA	Prep	PrecSep-21			1002.46 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:54	SWS	EET SL
Total/NA	Prep	PrecSep_0			1002.46 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:55	SWS	EET SL

Client Sample ID: SFL MW-6

Lab Sample ID: 870-32406-9

Date Collected: 12/11/24 14:43

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 14:08	A1S	EET HOU
Total/NA	Analysis	9056A	DL	100			208490	12/31/24 14:17	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:32	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		5			206536	12/18/24 21:33	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:34	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:44	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:09	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 11:15	CAH	EET SL
Total/NA	Prep	PrecSep-21			750.35 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:55	SWS	EET SL

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SFL MW-6

Lab Sample ID: 870-32406-9

Date Collected: 12/11/24 14:43

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			750.35 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: FB-01

Lab Sample ID: 870-32406-10

Date Collected: 12/11/24 15:46

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			208490	12/31/24 14:26	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 17:55	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:35	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		1			207750	12/23/24 23:54	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:11	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697528	01/09/25 11:17	CAH	EET SL
Total/NA	Prep	PrecSep-21			998.75 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:55	SWS	EET SL
Total/NA	Prep	PrecSep_0			998.75 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: SSP/AP MW-1

Lab Sample ID: 870-32406-11

Date Collected: 12/11/24 16:51

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 15:31	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206517	12/19/24 08:30	MD	EET HOU
Total/NA	Analysis	6010D		1			206850	12/19/24 15:20	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:38	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		10			207750	12/23/24 23:36	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207282	12/23/24 08:30	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/23/24 23:46	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:12	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP/AP MW-1

Lab Sample ID: 870-32406-11

Date Collected: 12/11/24 16:51

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 12:21	CAH	EET SL
Total/NA	Prep	PrecSep-21			1001.48 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1			698668	01/16/25 13:59	SWS	EET SL
Total/NA	Prep	PrecSep_0			1001.48 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: SSP MW-2

Lab Sample ID: 870-32406-12

Date Collected: 12/12/24 07:44

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 15:49	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:31	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:40	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207310	12/23/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		10			207562	12/23/24 20:49	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207310	12/23/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/24/24 00:00	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:17	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697528	01/09/25 12:22	CAH	EET SL
Total/NA	Prep	PrecSep-21			1002.41 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:56	SWS	EET SL
Total/NA	Prep	PrecSep_0			1002.41 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: SSP MW-2 FD

Lab Sample ID: 870-32406-13

Date Collected: 12/12/24 07:47

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 16:07	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:50	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:43	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207310	12/23/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		10			207562	12/23/24 20:52	SHZ	EET HOU

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-2 FD

Lab Sample ID: 870-32406-13

Date Collected: 12/12/24 07:47

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	207310	12/23/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/24/24 00:02	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:24	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 13:37	CAH	EET SL
Total/NA	Prep	PrecSep-21			1001.49 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1			698668	01/16/25 07:25	SWS	EET SL
Total/NA	Prep	PrecSep_0			1001.49 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: APMW-4

Lab Sample ID: 870-32406-14

Date Collected: 12/12/24 09:34

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			208490	12/31/24 16:25	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:14	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:45	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207310	12/23/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		10			207562	12/23/24 20:54	SHZ	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207310	12/23/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		100			207750	12/24/24 00:05	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:25	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697528	01/09/25 13:38	CAH	EET SL
Total/NA	Prep	PrecSep-21			998.38 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:56	SWS	EET SL
Total/NA	Prep	PrecSep_0			998.38 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: APMW-5

Lab Sample ID: 870-32406-15

Date Collected: 12/12/24 10:19

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			208490	12/31/24 16:43	A1S	EET HOU

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: APMW-5

Lab Sample ID: 870-32406-15

Date Collected: 12/12/24 10:19

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		50			208490	12/31/24 16:52	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:10	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		5			207056	12/20/24 17:35	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		20			207056	12/20/24 17:38	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		50			207056	12/20/24 19:11	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:27	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 15:42	CAH	EET SL
Total/NA	Prep	PrecSep-21			994.59 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:58	SWS	EET SL
Total/NA	Prep	PrecSep_0			994.59 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: FB-02

Lab Sample ID: 870-32406-16

Date Collected: 12/12/24 10:37

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			208490	12/31/24 17:19	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:12	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		1			207056	12/20/24 19:23	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:28	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697528	01/09/25 15:42	CAH	EET SL
Total/NA	Prep	PrecSep-21			997.53 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:59	SWS	EET SL
Total/NA	Prep	PrecSep_0			997.53 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: APMW-1D

Lab Sample ID: 870-32406-17

Date Collected: 12/12/24 11:14

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			208490	12/31/24 17:56	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 18:48	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		5			207056	12/20/24 17:45	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		50			207056	12/20/24 19:14	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:30	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 18:22	CAH	EET SL
Total/NA	Prep	PrecSep-21			996.66 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:59	SWS	EET SL
Total/NA	Prep	PrecSep_0			996.66 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696763	01/03/25 11:56	SWS	EET SL

Client Sample ID: APMW-3

Lab Sample ID: 870-32406-18

Date Collected: 12/12/24 12:11

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			208490	12/31/24 18:14	A1S	EET HOU
Total/NA	Analysis	9056A	DL	10			208490	12/31/24 18:23	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		10			205864	12/16/24 17:56	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		5			207056	12/20/24 17:48	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		50			207056	12/20/24 19:18	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:31	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 19:50	CAH	EET SL
Total/NA	Prep	PrecSep-21			999.85 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:59	SWS	EET SL
Total/NA	Prep	PrecSep_0			999.85 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696733	01/03/25 12:00	SWS	EET SL

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Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-4

Lab Sample ID: 870-32406-19

Date Collected: 12/12/24 13:12

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5			208490	12/31/24 18:32	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206517	12/19/24 08:30	MD	EET HOU
Total/NA	Analysis	6010D		1			206850	12/19/24 15:22	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		5			207056	12/20/24 17:56	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		20			207056	12/20/24 17:59	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206876	12/20/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		10			207056	12/20/24 19:21	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:32	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:02	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697528	01/09/25 19:51	CAH	EET SL
Total/NA	Prep	PrecSep-21			994.50 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:59	SWS	EET SL
Total/NA	Prep	PrecSep_0			994.50 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696733	01/03/25 12:00	SWS	EET SL

Client Sample ID: EQ-01

Lab Sample ID: 870-32406-20

Date Collected: 12/12/24 13:53

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			208490	12/31/24 19:08	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	205641	12/16/24 11:02	PB	EET HOU
Total/NA	Analysis	6010D		1			205864	12/16/24 17:53	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 20:42	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	207310	12/23/24 10:00	MD	EET HOU
Total/NA	Analysis	6020B		1			207750	12/24/24 00:07	SHZ	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	206775	12/20/24 04:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			207085	12/20/24 21:34	SHZ	EET HOU
Total/NA	Analysis	SM 2540C		1	200 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:05	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694201	12/17/24 14:43	SAC	EET SL
Total/NA	Analysis	901.1		1			697527	01/09/25 21:08	CAH	EET SL
Total/NA	Prep	PrecSep-21			1001.50 mL	1.0 g	694329	12/18/24 08:12	MLT	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	698335	01/15/25 15:59	SWS	EET SL
Total/NA	Prep	PrecSep_0			1001.50 mL	1.0 g	694330	12/18/24 08:16	MLT	EET SL
Total/NA	Analysis	904.0		1			696733	01/03/25 12:00	SWS	EET SL

Eurofins Dallas

Lab Chronicle

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Client Sample ID: SSP MW-3

Lab Sample ID: 870-32406-21

Date Collected: 12/12/24 15:00

Matrix: Water

Date Received: 12/13/24 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10			208490	12/31/24 19:26	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206517	12/19/24 08:30	MD	EET HOU
Total/NA	Analysis	6010D		1			206850	12/19/24 15:18	JDM	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		1			206536	12/18/24 21:48	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		10			206692	12/19/24 13:11	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	206314	12/18/24 13:30	MD	EET HOU
Total/NA	Analysis	6020B		20			208493	12/30/24 17:33	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	207609	12/26/24 03:24	AGR	EET HOU
Total/NA	Analysis	7470A		1			207711	12/26/24 11:27	JDM	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	25222	12/18/24 12:29	OOE	EET DAL
Total/NA	Analysis	SM 4500 H+ B		1			25306	12/20/24 11:05	OOE	EET DAL
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	694212	12/17/24 16:58	SAC	EET SL
Total/NA	Analysis	901.1		1			697187	01/08/25 12:31	CAH	EET SL
Total/NA	Prep	PrecSep-21			748.08 mL	1.0 g	694332	12/18/24 08:18	MLT	EET SL
Total/NA	Analysis	903.0		1			698067	01/13/25 08:06	SWS	EET SL
Total/NA	Prep	PrecSep_0			748.08 mL	1.0 g	694335	12/18/24 08:22	MLT	EET SL
Total/NA	Analysis	904.0		1			696456	01/02/25 14:22	SWS	EET SL

Laboratory References:

EET DAL = Eurofins Dallas, 9701 Harry Hines Blvd, Dallas, TX 75220, TEL (214)902-0300

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Laboratory: Eurofins Dallas

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704295	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540C		Water	Total Dissolved Solids
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3010A	Water	Calcium

Laboratory: Eurofins St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704193	07-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
901.1	Fill_Geo-21	Water	Combined Radium 226 + 228
901.1	Fill_Geo-21	Water	Radium-226
901.1	Fill_Geo-21	Water	Radium-228

Method Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET HOU
6010D	Metals (ICP)	SW846	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DAL
SM 4500 H+ B	pH	SM	EET DAL
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
3010A	Preparation, Total Metals	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

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

Laboratory References:

EET DAL = Eurofins Dallas, 9701 Harry Hines Blvd, Dallas, TX 75220, TEL (214)902-0300

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Sample Summary

Client: HDR Inc
Project/Site: Appendix III/IV

Job ID: 870-32406-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
870-32406-1	MNW-18	Water	12/11/24 08:02	12/13/24 08:20
870-32406-2	MNW-15	Water	12/11/24 09:16	12/13/24 08:20
870-32406-3	SFL MW-7	Water	12/11/24 10:11	12/13/24 08:20
870-32406-4	SFL MW-7 FD	Water	12/11/24 10:14	12/13/24 08:20
870-32406-5	SFL MW-3	Water	12/11/24 11:17	12/13/24 08:20
870-32406-6	SFL MW-4	Water	12/11/24 12:10	12/13/24 08:20
870-32406-7	SFL MW-2	Water	12/11/24 13:01	12/13/24 08:20
870-32406-8	SFL MW-5	Water	12/11/24 13:50	12/13/24 08:20
870-32406-9	SFL MW-6	Water	12/11/24 14:43	12/13/24 08:20
870-32406-10	FB-01	Water	12/11/24 15:46	12/13/24 08:20
870-32406-11	SSP/AP MW-1	Water	12/11/24 16:51	12/13/24 08:20
870-32406-12	SSP MW-2	Water	12/12/24 07:44	12/13/24 08:20
870-32406-13	SSP MW-2 FD	Water	12/12/24 07:47	12/13/24 08:20
870-32406-14	APMW-4	Water	12/12/24 09:34	12/13/24 08:20
870-32406-15	APMW-5	Water	12/12/24 10:19	12/13/24 08:20
870-32406-16	FB-02	Water	12/12/24 10:37	12/13/24 08:20
870-32406-17	APMW-1D	Water	12/12/24 11:14	12/13/24 08:20
870-32406-18	APMW-3	Water	12/12/24 12:11	12/13/24 08:20
870-32406-19	SSP MW-4	Water	12/12/24 13:12	12/13/24 08:20
870-32406-20	EQ-01	Water	12/12/24 13:53	12/13/24 08:20
870-32406-21	SSP MW-3	Water	12/12/24 15:00	12/13/24 08:20

Eurofins Dallas
9701 Harry Hines Blvd
Dallas, TX 75220
Phone (214) 902-0300

Chain of Custody Record



Environment Testing

Client Information		Sampler: <i>CMW/forey</i>	Lab P/N: Whitlock, Kaitlyn N	Carrier Tracking No(s):	CCC No: 870-11018-3499.1
Client Contact: David Vogt		Phone: 907-6303632	Email: Kaitlyn.Whitlock@eurofins.com	State of Origin:	Page 1 of 2
Company: HDR Inc		PWSID:		Job #:	Preservation Codes: D - HNO3 N - None
Address: 17111 Preston Road Suite 200		Due Date Requested:		Analysis Requested	
City: Dallas		TAT Requested (days):			
State, Zip: TX, 75248-1232		Compliance Project: ☐ Yes ☒ No			
Phone: 972-960-4461 (Tel)		PO #:			
Email: david.vogt@hdrinc.com		Purchase Order not required			
Project Name: Appendix III/IV		Project #: 87002063			
Site: SOW#:				Other:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab, BT=Tissue, A=Air)	Matrix (W=Water, S=Soil, O=Organic, A=Air)
MNU-18		12-11-24	0802	G	Water
MNU-15		12-11-24	0916	G	Water
SFL MW-7		12-11-24	1011	G	Water
SFL MW-7-FD		12-11-24	1014	G	Water
SFL MW-3		12-11-24	1117	G	Water
SFL MW-4		12-11-24	1210	G	Water
SFL MW-2		12-11-24	1301	G	Water
SFL MW-5		12-11-24	1350	G	Water
SFL MW-6		12-11-24	1443	G	Water
FB-01		12-11-24	1546	G	Water
SSP/AP MW-1		12-11-24	1651	G	Water
Possible Hazard Identification		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological			
Deliverable Requested: I, II, III, IV, Other (Specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: <i>CMW/forey</i>		Date/Time: 12-12-24 1905	Company: HDR	Received by: <i>[Signature]</i>	
Relinquished by: <i>David Vogt</i>		Date/Time: 12/13/24 0830	Company: HDR	Received by: <i>[Signature]</i>	
Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No.:		Cooler Temperature (°C) and Other Remarks: -2.8/-0.2 -1.8/-1.7 -3.2/-3.1 -2.6/-2.5	



870-32406 Chain of Custody

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Eurofins Dallas
9701 Harry Hines Blvd
Dallas, TX 75220
Phone (214) 502-0300

Chain of Custody Record



Environment Testing

Client Information		Sampler: <u>6mmu Fe 15x</u>		Lab Pmt: <u>Whitlock, Kaitlyn N</u>		Carter Tracking No(s):		COC No: <u>870-11018-3499.2</u>	
Client Contact: <u>David Vogt</u>		Phone: <u>4078303672</u>		E-Mail: <u>Kaitlyn.Whitlock@eurofins.com</u>		State of Origin:		Page: <u>2 of 2</u>	
Company: <u>HDR Inc</u>		PW/SID:		Analysis Requested		Job #:		Preservation Codes: <u>D - HNO3</u> <u>N - None</u>	
Address: <u>17111 Preston Road Suite 200</u>		Due Date Requested:		Field Filtered Sample (Yes or No)		Total Number of Containers		Special Instructions/Note:	
City: <u>Dallas</u>		TAI Requested (days):		903.0 - Standard Target List					
State, Zip: <u>TX, 75248-1232</u>		Compliance Project: ☐ Yes ☒ No		9056A_ORGFM_28D - (MOD) Local Method					
Phone: <u>972-960-4461(Tel)</u>		PO #:		9020B - CCR Appendix III/IV, Al, Fe + 6010 LI					
Email: <u>david.vogt@hdrinc.com</u>		Purchase Order not required		2540C_Calcd - Local Method					
Project Name: <u>Appendix III/IV</u>		WO #:		904.0 - Standard Target List					
Site: <u>SSOW#:</u>		Project #: <u>87002063</u>		901.1_Ra - (MOD) Radium-226/228					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Synthetic, Standard, On-site, A-M)	
<u>55P MW-2</u>		<u>12-12-24</u>		<u>0744</u>		<u>G</u>		<u>Water</u>	
<u>55P MW-2-FD</u>		<u>12-12-24</u>		<u>0747</u>		<u>G</u>		<u>Water</u>	
<u>APMW-4</u>		<u>12-12-24</u>		<u>0934</u>		<u>G</u>		<u>Water</u>	
<u>APMW-5</u>		<u>12-12-24</u>		<u>1019</u>		<u>G</u>		<u>Water</u>	
<u>FB-02</u>		<u>12-12-24</u>		<u>1037</u>		<u>G</u>		<u>Water</u>	
<u>APMW-1D</u>		<u>12-12-24</u>		<u>1114</u>		<u>G</u>		<u>Water</u>	
<u>APMW-3</u>		<u>12-12-24</u>		<u>1211</u>		<u>G</u>		<u>Water</u>	
<u>55P MW-4</u>		<u>12-12-24</u>		<u>1312</u>		<u>G</u>		<u>Water</u>	
<u>EA-01</u>		<u>12-12-24</u>		<u>1353</u>		<u>G</u>		<u>Water</u>	
<u>55P MW-3</u>		<u>12-12-24</u>		<u>1500</u>		<u>G</u>		<u>Water</u>	
Possible Hazard Identification		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		☐ Return To Client ☐ Disposal By Lab ☐ Archive For <u> </u> Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Date: <u>12-12-24</u>		Time: <u>1405</u>		Method of Shipment:			
Empty Kit Relinquished by: <u>6mmu Fe 15x</u>		Date/Time: <u>12-12-24</u>		Company: <u>HDR</u>		Received by: <u>[Signature]</u>		Date/Time: <u>12-13-24</u>	
Relinquished by: <u>David Vogt</u>		Date/Time: <u>12/13/24</u>		Company: <u>HDR</u>		Received by: <u>[Signature]</u>		Date/Time: <u>12/13/24</u>	
Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No.:		Cooler Temperature(s) and Other Remarks: <u>-2.4/-2.3</u>		Ver: 05/06/2024			

Eurofins Dallas
9701 Harry Hines Blvd
Dallas, TX 75220
Phone: 214-902-0300

Chain of Custody Record



eurofins

Environment Testing

Client Information (Sub Contract Lab)		Sampler N/A	Lab PM Whitlock, Kaitlyn N	Carrier Tracking No(s) N/A	COC No. 870-7620-1
Client Contact Shipping/Receiving		Phone N/A	E-Mail Kaitlyn.Whitlock@et.eurofins.com	State of Origin Texas	Page Page 1 of 3
Company TesAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas			Job # 870-32406-1
Address 13715 Rider Trail North,		Due Date Requested: 12/23/2024			Preservation Codes:
City Earth City		TAT Requested (days): N/A			
State, Zip MO, 63045		PO #: N/A			
Phone 314-298-8566(Tel) 314-298-8757(Fax)		WO #: N/A			
Email: N/A		Project #: 87002063			
Project Name Appendix III/IV		SSOW#: N/A			
Site: N/A					
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=other, A=As)
				Preservation Code:	
MNW-18 (870-32406-1)		12/11/24	08:02 Central	G	Water
MNW-15 (870-32406-2)		12/11/24	09:16 Central	G	Water
SFL MW-7 (870-32406-3)		12/11/24	10:11 Central	G	Water
SFL MW-7 FD (870-32406-4)		12/11/24	10:14 Central	G	Water
SFL MW-3 (870-32406-5)		12/11/24	11:17 Central	G	Water
SFL MW-4 (870-32406-6)		12/11/24	12:10 Central	G	Water
SFL MW-2 (870-32406-7)		12/11/24	13:01 Central	G	Water
SFL MW-5 (870-32406-8)		12/11/24	13:50 Central	G	Water
SFL MW-6 (870-32406-9)		12/11/24	14:43 Central	G	Water
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.					
Possible Hazard Identification					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Date:					
Time:					
Method of Shipment:					
Returned To Client ☐ Disposal By Lab ☐ Archive For ☐ Months					
Special Instructions/QC Requirements:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Received by:  Date/Time: DEC 16 2024					
Company: Cheyenne Forrest					
Date/Time: DEC 17 2024					
Company: Cheyenne Forrest					
Cooler Temperature(s) °C and Other Remarks					
Custody Seal No.: Δ Yes Δ No					

Eurofins Dallas
9701 Harry Hines Blvd
Dallas, TX 75220

Chain of Custody Record



Environmental Testing

Client Information (Sub Contract Lab)						Sampler	Lab Plat:	Canner Tracking Note(s)	IDC No:		
Shipping/Receiving						N/A	Whitlock, Kathryn N	N/A	870-7612-1		
Company: Eurofins Environment Testing South Cent						Phone:	E-Mail:	State of Origin:	Page:		
Address:						Kathryn Whitlock@et.eurofins.com	Texas		Page 1 of 3		
Due Date Requested:						Job #:	Preservation Codes:				
City:						NEAP Texas					
State Zip:											
TX, 77417											
Phone:											
281-240-4200(Tel)											
Email:											
N/A											
Project Name:											
Appendix III/V											
SSOWF:											
Site:											
N/A											
Sample Identification Client ID (Lab ID)						Field Filtered Sample (Yes or No)	Analysis Requested			Total Number of Containers	Special Instructions/Note:
MNW-18 (870-32406-1)						Perform MS/MSD (Yes or No)					
12/11/24						9066A_ORGFM_28D/ (MOD) Local Method					
Central						6020B/3010A (MOD) Aluminum & Iron					
08:02						6010D/3010A 6010-LI					
Water											
G											
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Central											
08:16											
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Client Information (Sub Contract Lab)		Sampler N/A	Lab Pw: Whitlock, Kaitlyn N	Carrier Tracking No(s): N/A	COC No: 870-7612.3
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Kaitlyn.Whitlock@eurofins.com	State of Origin: Texas	Page: Page 3 of 3	
Company: Eurofins Environment Testing South Cent	Due Date Requested: 12/19/2024	Analysis Requested	Accreditations Required (See note): NELAP Texas	Job #: 870-32406-1	Preservation Codes:
Address: 4145 Greenbriar Dr	City: Stafford	State, Zip: TX, 77477	PO #: N/A	WC #: N/A	Project #: N/A
Phone: 281-240-4200 (Tel)	Project Name: Appendix III/IV	SSOV#: N/A	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Other N/A
Email: N/A	Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Sediment, Air, etc.)
APRMN-4 (870-32406-19)		12/12/24	13:12	G	Water
EQ-01 (870-32406-20)		12/12/24	13:53	G	Water
SSP MMW-3 (870-32406-21)		12/12/24	15:00	G	Water
Special Instructions/Note:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Unconfirmed					
Deliverable Requested: I, II, III, IV Other (Specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Relinquished by: <i>AE</i>					
Relinquished by:					
Relinquished by:					
Custody Seals Intact: ☒ Yes ☐ No					
Custody Seal No.					

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 870-32406-1

Login Number: 32406

List Source: Eurofins Dallas

List Number: 1

Creator: Sharp, Michael

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

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 870-32406-1

Login Number: 32406

List Number: 2

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 12/14/24 10:27 AM

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

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 870-32406-1

Login Number: 32406

List Number: 3

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 12/17/24 01:46 PM

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