



Gavin Residual Waste Landfill and Fly Ash Reservoir

2023 Annual Groundwater Monitoring
and Corrective Action Report

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ACRONYMS AND ABBREVIATIONS

Name	Description
ASD	Alternate Source Demonstration
BAP	Bottom Ash Pond
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
ERM	ERM Consulting and Engineering, Inc.
FAR	Fly Ash Reservoir
FGD	Fluidized Gas Desulfurization
Ft AMSL	Feet above mean sea level
Gavin	Gavin Power, LLC
H1	First half of year
H2	Second half of year
K	Hydraulic conductivity
OEPA	Ohio Environmental Protection Agency
Plant	General James M. Gavin Power Plant
RWL	Residual Waste Landfill
SSI	Statistically significant increase
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

On behalf of Gavin Power, LLC (Gavin), ERM Consulting and Engineering, Inc. (ERM) has prepared this 2023 Annual Groundwater Monitoring and Corrective Action Report summarizing groundwater monitoring activities at the Residual Waste Landfill (RWL) and Fly Ash Reservoir (FAR) at the General James M. Gavin Power Plant (Plant) located in Cheshire, Ohio. The RWL and FAR are coal combustion residual (CCR) units at the Plant that are subject to regulation under Title 40, Code of Federal Regulations (CFR), Part 257, Subpart D (40 CFR § 257.50 et seq.), also known as the CCR Rule. In 2021, ERM certified an updated combined monitoring well network for the RWL and FAR, as allowed by 40 CFR 257.91 and as documented in the Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91 (ERM 2021a). Previously, Gavin maintained and monitored two separate (though adjacent) monitoring networks for the RWL and FAR.

This report documents the status of the groundwater monitoring program for the RWL and FAR, which includes the following as required by 40 CFR § 257.90(e):

- A description of the current program status.
- A summary of key actions completed.
- A description of problems encountered, and actions taken to resolve the problems.
- Identification of key activities for the coming year.

The combined RWL and FAR CCR unit groundwater monitoring program began calendar year 2023 in “detection monitoring” program status as defined by 40 CFR § 257.94 and remains in detection monitoring at the end of the 2023 reporting period. Groundwater monitoring in 2023 consisted of two semi-annual monitoring events completed in the spring and fall of 2023, which included groundwater potentiometric elevation measurements and subsequent groundwater sampling. Groundwater potentiometric elevation measurements were used to construct updated groundwater potentiometric surface maps for each of the geologic units monitored.

Groundwater samples were collected for laboratory analysis of CCR Rule Appendix III constituents, and the results were compared to previously calculated upgradient interwell prediction limits to identify statistically significant increases (SSIs) for downgradient wells.

No SSIs were detected for the calendar year of 2023 in the combined RWL and FAR monitoring well network, and as a result no alternate source demonstrations (ASD) are submitted with this report. Therefore, the RWL/FAR network remains in detection monitoring at the conclusion of 2023. Accordingly, no remedial actions were selected, initiated, or performed in 2023.

Some of the matters addressed herein are also addressed in USEPA’s November 22, 2022 Final Decision: Denial of Alternative Closure Deadline for General James M. Gavin Plant, Cheshire, Ohio (Final Decision). In response to the Final Decision, Gavin has explained how the approaches described and documented in this report are consistent with USEPA regulations and guidance as well as with best engineering practices and judgment. Gavin has contested USEPA’s findings in the Final Decision from a factual, technical and legal perspective. We note that USEPA’s findings and determinations in the Final Decision are the subject of pending litigation.



1. INTRODUCTION

The General James M. Gavin Plant is located in southeast Ohio along the western bank of the Ohio River (Figure 1-1) near Cheshire, Ohio. The Plant contains three regulated CCR units that are subject to regulation under Title 40, Code of Federal Regulations, Part 257, Subpart D (40 CFR 257.50 et seq.), also known as the CCR Rule: the RWL, the FAR, and the Bottom Ash Pond (BAP). An updated combined groundwater monitoring system was certified in August 2021 to monitor for potential releases from the RWL and FAR. Previously, Gavin maintained and monitored two separate (though adjacent) groundwater monitoring networks for the RWL and FAR, respectively, but certified the combined monitoring network on 31 August 2021 with completion of the Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91 (ERM 2021a). The BAP has a separate monitoring system (ERM 2021b) and is not addressed in this report.

This report was produced by ERM on behalf of Gavin Power, LLC and documents the status of the groundwater monitoring program for the RWL-FAR network, including the following as required by 40 CFR § 257.90(e):

- A description of the current program status.
- A summary of key actions completed.
- A description of problems encountered, and actions taken to resolve the problems.
- Identification of key activities for the coming year.

Consistent with the reporting and notification requirements of the CCR Rule, this annual groundwater monitoring report will be posted to the Plant operating record no later than 31 January 2024 (40 CFR § 257.105(h)(1)). Within 30 days of placing the report in the operating record, notification will be made to the Ohio Environmental Protection Agency (OEPA) and the report will be placed on the Plant's publicly accessible internet site (40 CFR §§ 257.106(h)(1), 257.107(h)(1)). Table 1-1 cross-references the reporting requirements under the CCR Rule with the contents of this report.

TABLE 1-1: REGULATORY REQUIREMENT CROSS-REFERENCE TABLE

Regulatory Citation in 40 CFR Part 257, Subpart D	Requirement (paraphrased)	Where Addressed in this Report
§ 257.90(e)(6)	Current status of the groundwater monitoring program.	Section 2
§ 257.90(e)	Summarize key actions completed.	Section 4
§ 257.90(e)	Describe any problems encountered and actions taken to resolve problems.	Section 4.2
§ 257.90(e)	Key activities for upcoming year.	Section 6.0
§ 257.90(e)(1)	Map, aerial image, or diagram of CCR unit and all background and downgradient monitoring wells.	Figure 3-2 and 3-3
§ 257.90(e)(2)	Identification of new monitoring wells installed or abandoned during the preceding year and narrative description.	N/A
§ 257.90(e)(3)	Summary of groundwater data, wells sampled, date sampled, and whether sampling was required under detection or assessment monitoring.	Section 2, 3, 4 and Appendix C and D
§ 257.90(e)(4)	Narrative discussion of any transition between monitoring programs (i.e., from detection to assessment monitoring).	N/A
§ 257.93(c) (via § 257.90(e)(5))	Rate and direction of groundwater flow each time groundwater is sampled.	Section 5.1 and 5.2
§ 257.94(e)(2) (via § 257.90(e)(5))	Any alternate source demonstration reports and related certifications pertaining to a detection monitoring program.	N/A
§ 257.95(g)(3) (via § 257.90(e)(5))	Any alternate source demonstration reports and related certifications pertaining to an assessment monitoring program.	N/A
§ 257.96(a) (via § 257.90(e)(5))	Any assessment of corrective measures to prevent further releases, remediate any releases, and restore affected area to original conditions, including the related certifications.	N/A
§ 257.97(a) (via § 257.90(e)(5))	Any semi-annual reports describing the progress in selecting and designing a remedy, including the related certifications.	N/A
§ 257.98(e) (via § 257.90(e)(5))	Any notification describing the completion of the selected remedy, including the related certifications.	N/A

2. PROGRAM STATUS § 257.90(E)

The combined RWL and FAR groundwater monitoring system began the 2023 reporting period in detection monitoring. No SSIs were identified for the combined RWL-FAR groundwater monitoring network in 2023; therefore, the RWL and FAR remain in detection monitoring at the end of the 2023 reporting period.

3. BACKGROUND

3.1 DESCRIPTION OF CCR UNITS

The RWL is approximately 400 acres in size and is located about 1.25 miles northwest of the Plant (Figure 3-1). The CCR material disposed in the RWL is Flue Gas Desulfurization (FGD) byproduct (consisting of scrubber cake, fly ash, and lime) and other approved materials (bottom ash, lime ball mill rejects, coal pulverizer rejects, and BAP sediments).

The FAR is approximately 300 acres in size and is located about 2.5 miles northwest of the Plant (Figure 3-1). From the mid-1970s until January 1995, fly ash was sluiced to the FAR and the settled CCR materials in the FAR were retained behind the Stingy Run Fly Ash Dam that formed the FAR. The FAR was closed in place, and the closure was completed in 2021. Closure was certified on July 30, 2021.

3.2 GEOLOGY AND HYDROGEOLOGY

The shallowest geologic materials at the FAR/RWL include residual soils, mine spoil, fill, and weathered and fractured bedrock (ERM 2021a). The weathered and fractured bedrock includes the Pomeroy Sandstone and Coal, the Pittsburgh Sandstone and Coal, the Bellaire Sandstone, and the Connellsville Sandstone units. Although some of these units may be partially or fully saturated in the vicinity of the FAR and RWL, these formations generally are not capable of yielding usable quantities of groundwater, and thus are not considered part of the uppermost aquifer at the FAR/RWL. The Ohio Department of Natural Resources has records showing the locations of historical mines within and surrounding the FAR and RWL. Evidence of horizontal seam coal mining was observed at borings 2019-06 and 2019-07, which were advanced west of the RWL in 2019. Previous studies found that the lateral extent of underground mining exceeds the area indicated by public records (Geosyntec 2012). These mines were typically auger mining accessed from high walls.

Beneath the Connellsville are the Clarksburg Red Beds, which is a regionally extensive aquitard (low-permeability rock layer), with a typical thickness of approximately 50 feet, that hydraulically isolates the shallower formations from the underlying aquifers.

Beneath the Clarksburg Red Beds are the Morgantown Sandstone and the Cow Run Sandstone. Together these are interpreted as the uppermost aquifer beneath the RWL and FAR (Geosyntec 2016a, 2016b).

The Morgantown Sandstone has an average thickness of approximately 30 feet, is located at elevations between approximately 550 to 650 feet above mean sea level (ft amsl) and is composed of two thin sandstone beds separated by clay shale. Groundwater within the Morgantown Sandstone generally flows from the northwest to the southeast under the FAR and the RWL. To the west of the FAR/RWL, groundwater flows from west to east before joining the overall flow pattern to the southeast. There is a potentiometric trough that extends from the FAR through the RWL that is interpreted to be the result of reduced recharge due to suppression of infiltration through the cap at the FAR, and the liner system at the RWL. There is a potentiometric ridge located along the eastern border of the RWL that divides groundwater flow, with water to

the northeast of this ridge flowing to the northeast, and water to the southwest of the ridge flowing to the southwest before joining the overall flow pattern to the southeast. These groundwater flow interpretations are generally consistent with pre-construction observations (AEP 1993).

East of the RWL, the Morgantown Sandstone is absent (removed through erosion), and groundwater migrating eastward within the Morgantown Sandstone discharges to the alluvial aquifer located along the Stingy Creek valley. In these areas the alluvial aquifer (i.e., where the Morgantown Sandstone is absent) is also considered part of the uppermost aquifer.

Below the Morgantown Sandstone is a unit of approximately 60 feet of interbedded claystone/clay shale and non-crystalline limestone layers, known as the Round Knob Shale. The limestone layers are typically found as calcareous claystone with limestone nodules throughout. These strata extend to the top of the Cow Run Sandstone.

The Cow Run Sandstone has an average thickness of 30 feet, is located at elevations between approximately 475 to 550 ft amsl and is characterized regionally as a coarse-grained sandstone and sandy shale. The Cow Run Sandstone unit is continuous under the FAR/RWL and considered the base of the uppermost aquifer. Groundwater within the Cow Run Sandstone generally flows from the northwest to the southeast under the FAR and the RWL. To the west of the FAR/RWL, groundwater flows from west to east before joining the overall flow pattern to the southeast. There is a potentiometric trough that extends from the FAR through the RWL that is interpreted to be the result of reduced recharge due to the suppression of infiltration through the cap at the FAR, and the liner system at the RWL. There is a potentiometric ridge located along the eastern border of the RWL that divides groundwater flow, with water to the northeast of this ridge flowing to the northeast, and water to the southwest of the ridge flowing to the southwest before joining the overall flow pattern to the southeast. These groundwater flow interpretations are generally consistent with pre-construction observations (AEP 1993).

Beneath the Cow Run Sandstone are the Portersville Limestone and the Anderson Clay, which consist primarily of shale, claystone and clay shale (Geosyntec 2012). These low permeability formations are interpreted to comprise the lower hydraulic boundary of the uppermost aquifer.

Packer tests were completed by Geosyntec in 2012 for locations in both the Morgantown and Cow Run around the northern portion of the RWL. The range of hydraulic conductivity values from packer tests for the Morgantown and Cow Run are provided in Table 3-1.

TABLE 3-1: ESTIMATED HYDRAULIC CONDUCTIVITY VALUES FOR MORGANTOWN AND COW RUN SANDSTONE

	Average K	Low K	High K
Morgantown (Geosyntec 2012)	7.18×10^{-5} cm/sec	2.2×10^{-8} cm/sec	4.6×10^{-4} cm/sec
Cow Run (Geosyntec 2012)	2.92×10^{-5} cm/sec	5.0×10^{-8} cm/sec	5.9×10^{-4} cm/sec

Notes: cm/sec = centimeters per second; K = hydraulic conductivity

Geosyntec 2012 values derived from packer tests (10-foot interval) completed in boreholes across mainly the northern part of the RWL.

3.3 MONITORING WELL NETWORK

The RWL and FAR had previously been monitored using separate groundwater monitoring networks as described in the documents: Groundwater Monitoring Network Evaluation—Residual Waste Landfill (Geosyntec 2016a) and the Groundwater Monitoring Network Evaluation—Fly Ash Reservoir (Geosyntec 2016b). Annual Groundwater Monitoring and Corrective Action Reports for 2020 under these separate monitoring systems were prepared for the RWL (ERM 2021c) and FAR (ERM 2021d) and were posted to the Plant operating record on 31 January 2021. Because of the ongoing expansion of the RWL, several monitoring wells along the northern and western RWL boundaries were removed and a portion of the RWL was expanded over the FAR. To account for these changes and provide an adequate groundwater monitoring system for both units, a combined network for the two CCR units was identified and certified in August 2021 (ERM 2021a).

The combined network which monitors both the RWL (Figures 3-2) and FAR (Figure 3-3) currently contains 24 upgradient and 15 downgradient monitoring wells located in the Alluvium, Morgantown Sandstone, and Cow Run Sandstone. The upgradient wells are placed to accurately represent the quality of background groundwater that has not been affected by any potential leakage from the RWL and FAR units, while the downgradient wells in the network are positioned at the downgradient boundary of waste to detect potential release of CCR constituents from the CCR units into groundwater in the uppermost aquifer. There are additional monitoring wells that are gauged and/or sampled, as required, to provide supplemental information to assist in the interpretation of data received from the certified monitoring network. These wells typically are not located at the downgradient limit of waste or do not recover to reliably provide sufficient water for sampling and are not part of the certified groundwater monitoring network.

In 2022, 14 monitoring wells were installed around the RWL and FAR. Six of these wells were intended to act as replacements for monitoring wells that are included in the certified monitoring network, while the remaining eight were intended as additional groundwater monitoring locations. These wells will be sampled and evaluated for addition to the certified monitoring network as background or compliance wells.

Well construction information for the monitoring wells in the certified network and replacement monitoring wells installed in 2022 is presented in Appendix A and boring logs and construction logs are provided in Appendix B.

3.4 PREVIOUS GROUNDWATER MONITORING ACTIVITIES

The RWL and FAR groundwater monitoring wells were initially sampled eight times between August 2016 and July 2017 to establish upgradient well baseline data. Prediction limits were developed using the baseline data and compared to the July 2017 downgradient well results, consistent with the CCR Rule and the Statistical Analysis Plan developed for Gavin (ERM 2017). This comparison resulted in the identification of SSIs for Appendix III analytes in downgradient RWL and FAR wells, which were reported in the 2017 Annual Groundwater Monitoring and Corrective Action Reports for the RWL and FAR (ERM 2018a and ERM 2018b). Based on a detailed review of groundwater elevations and resulting groundwater flow using the certified well network and additional wells that are used for informational purposes only, the hydraulic positions of monitoring wells within the RWL and FAR networks were reevaluated to consider newly obtained information on hydraulic conditions, including groundwater elevations. A limited number of wells were reclassified as either upgradient or downgradient, and tolerance limits were updated based on the newly defined upgradient dataset. That hydraulic analysis and the derivation of the updated tolerance limits are presented in the first Alternate Source Demonstration reports for the FAR and RWL (ERM 2018c and ERM 2018d). Such ongoing assessment of groundwater flow is a normal part of developing and refining a conceptual site model as new information is collected, especially at a site with multiple aquifers, variable topography, and a history of underground activities. Subsequent sampling and comparison to background values were completed in 2018, 2019, 2020, 2021, and 2022.

Following the certification of the combined network, in December 2021, an addendum to the 2020 Annual Groundwater Monitoring and Corrective Action Reports for the FAR and RWL was prepared that evaluated the 2020 data based on the combined groundwater monitoring network (ERM 2021e). While this addendum was not required, it was prepared proactively to identify if the changes to the program resulted in any retroactive SSIs for 2020. Only one SSI was identified when evaluating the data collected in 2020 from the combined monitoring network: boron at monitoring well 2018-01 in March 2020. Although technically not applicable to 2020 (because the combined network was not certified until August 2021), ERM nevertheless prepared an ASD for the boron SSI to determine whether that finding would have changed the monitoring status of either CCR unit. The ASD identified regional brine as the source of boron and identified the use of cement-bentonite grout for well installation as the catalyst for the localized mobilization of previously adsorbed boron. Thus, even if the combined monitoring well network had been in effect in 2020, the RWL and FAR would have remained in detection monitoring at the conclusion of 2020.

4. MONITORING ACTIVITIES

4.1 MONITORING WELL MAINTENANCE

In order to maintain the quality of the wells included in the certified groundwater monitoring network, well maintenance was performed at monitoring wells 2000, 9631, 9806, 9910, 93100, 93108, 96154R, 96157, 96158, 2016-10, 2016-11, 2016-03, 2016-04, 2016-05, 2016-06, 2018-02, 2018-03, 2018-04, 2019-09, 2022-14, 2022-16, 2022-18, and 2022-19 in November and December 2023. Activities included installation of bollards around the wells, painting and labeling of well casings, removal of damaged well pads, installation of new well pads, cleaning of vegetation around the wells, and drilling of weep holes.

4.2 2023 SAMPLING SUMMARY

Groundwater samples were collected in 2023 as part of the detection monitoring program under 40 CFR § 257.94 and analyzed for the constituents listed in Appendix III to 40 CFR Part 257, Subpart D. Table 4-1 provides a summary of the 2023 first half of year (H1) and second half of year (H2) sample dates and the well gradient designation (upgradient or downgradient) relative to the CCR units. Appendix C provides an analytical summary of samples collected since 2016. Samples were collected by bladder pump, submersible pump, Snap sampler, or Geomon pump. In addition, the samples were not filtered in the field or at the laboratory per the requirement of 40 CFR § 257.93(i) and were managed under chain-of-custody procedures from the field to the laboratory.

Some monitoring wells could not be sampled in 2023 due to insufficient recharge/water and pump failure. In an effort to resolve these and other sampling challenges that resulted in the inability to collect samples in 2023, pump inspection, repair, and replacement is planned for 2024. In many cases, poor recharge and significant depth to groundwater resulted in short water columns that made it challenging to produce enough groundwater to collect sufficient sample volume. In these cases, pilot testing and/or transition to passive sampling methods is planned for 2024 to maximize the chances of successfully collecting a sample. In addition, upgradient monitoring wells 2016-03 and 2016-04 were suspected to be compromised and these monitoring wells will be properly abandoned and replaced in 2024.

TABLE 4-1: 2023 SAMPLING DATES FOR RWL-FAR COMBINED NETWORK

Monitoring Well	Geologic Unit	Location	Sampling Dates	
			H1	H2
2000	Morgantown	Downgradient	5 April 2023	25 September 2023
2003	Morgantown	Upgradient	5 April 2023	22 September 2023
9396	Cow Run	Upgradient	Abandoned/Replaced (2022-19)	
9631	Cow Run	Downgradient	NS ¹	NS ¹
9801	Cow Run	Upgradient	4 April 2023	22 September 2023
9802	Alluvium	Downgradient	4 April 2023	22 September 2023
9806	Morgantown	Downgradient	5 April 2023	26 September 2023
9910	Morgantown	Upgradient	NS ²	14 September 2023 ³
93100	Cow Run	Upgradient	31 March 2023	26 September 2023
93108	Morgantown	Downgradient	4 April 2023	25 September 2023
94136	Cow Run	Downgradient	30 March 2023	22 September 2023
94137	Alluvium	Downgradient	30 March 2023	22 September 2023
94139	Morgantown	Upgradient	31 March 2023	26 September 2023
96152	Morgantown	Upgradient	28 March 2023	15 September 2023
96153R	Morgantown	Upgradient	27 March 2023	14 September 2023
96154R	Morgantown	Upgradient	27 March 2023	14 September 2023
96156	Morgantown	Upgradient	Abandoned/Replaced (2022-18)	
96157	Alluvium	Downgradient	29 March 2023	18 September 2023
96158	Cow Run	Downgradient	29 March 2023	18 September 2023
2016-03	Morgantown	Upgradient	29 March 2023	18 September 2023
2016-04	Cow Run	Upgradient	29 March 2023	18 September 2023
2016-05	Morgantown	Downgradient	29 March 2023	19 September 2023
2016-06	Cow Run	Downgradient	28 March 2023	15 September 2023
2016-07	Morgantown	Upgradient	28 March 2023	14 September 2023
2016-08	Cow Run	Upgradient	Abandoned/Replaced (2022-15)	

Monitoring Well	Geologic Unit	Location	Sampling Dates	
			H1	H2
2016-09	Cow Run	Upgradient	Abandoned/Replaced (2022-16)	
2016-10	Cow Run	Upgradient	27 March 2023	13 September 2023
2016-11	Morgantown	Upgradient	NS ²	NS ²
2018-01	Cow Run	Downgradient	Abandoned/Replaced (2022-17)	
2018-02	Morgantown	Downgradient	31 March 2023	21 September 2023
2018-03	Cow Run	Downgradient	30 March 2023	21 September 2023
2018-04	Morgantown	Downgradient	30 March 2023	21 September 2023
2019-02	Morgantown	Upgradient	Abandoned/Replaced (2022-14)	
2019-06	Morgantown	Upgradient	NS ²	20 September 2023 ³
2019-07	Cow Run	Upgradient	3 April 2023	19 September 2023
2019-09	Cow Run	Upgradient	3 April 2023	21 September 2023
MW-16	Morgantown	Upgradient	NS ²	NS ²
MW-17	Cow Run	Upgradient	4 April 2023	19 September 2023
MW-20	Cow Run	Upgradient	27 March 2023	14 September 2023

Notes: H1 = spring; H2 = fall; NS = Not Sampled

1. Not sampled due to pump failure. Pump repaired 12/13/23, after H2 sampling event.

2. Not sampled due to insufficient volume of water to allow collection of samples.

3. The sample had insufficient volume for analysis of all Appendix III constituents. Analysis was limited to anions and total dissolved solids.

The replacement wells installed in 2022 have been under observation to determine if water levels have reached equilibrium with their respective aquifers. Once this has been determined, an appropriate sampling method will be selected and implemented.

In addition to the semiannual groundwater monitoring events at the Site required under 40 CFR § 257.94, supplemental samples were collected at wells in the combined monitoring network under 40 CFR § 257.94(b). Samples were collected on a monthly or bi-monthly basis throughout 2023 from existing wells that were recently added to the network (9910, 96152, 2018-03, 2019-07, 2019-09, MW-17) towards the required minimum of eight independent samples for each background well for the constituents listed in Appendices III and IV.

4.3 DATA QUALITY REVIEW

ERM reviewed field and laboratory documentation to assess the validity, reliability, and usability of the analytical results. Samples collected in 2023 were analyzed by the Eurofins Canton/Cleveland



laboratory, located in Barberton Ohio. Data quality information reviewed for these results included field sampling forms, chain-of-custody documentation, holding times, laboratory methods, cooler temperatures, laboratory method blanks, laboratory control sample recoveries, field duplicate samples, matrix spikes/matrix spike duplicates, and equipment blanks. Data qualifiers were appended to results in the project database, as appropriate, based on laboratory quality measurements (e.g., control sample recoveries) and field quality measurements (e.g., agreement between normal and field duplicate samples). ERM's data quality review found the laboratory analytical results to be valid, reliable, and usable for decision making purposes with the listed qualifiers. No analytical results were rejected.

5. MONITORING RESULTS

5.1 GROUNDWATER POTENTIOMETRIC CONTOURS AND FLOW DIRECTION

Depth to groundwater measurements were collected in March and September 2023 at each monitoring well prior to each sampling event. Resulting groundwater elevations were calculated by subtracting the depth to groundwater from the surveyed reference elevation for each well. Groundwater elevations, interpreted potentiometric surface maps, and interpreted groundwater flow directions for wells screened in the Morgantown Sandstone (and alluvium) and Cow Run Sandstone are presented on Figures 5-1 and 5-2 (2023 H1) and Figures 5-3 and 5-4 (2023 H2), respectively.

The principal direction of groundwater flow in the uppermost aquifer system under the RWL and FAR (both in the Morgantown Sandstone and in Cow Run Sandstone) is from the north and northwest to the south and southeast, towards the Ohio River which is the local discharge boundary. Groundwater velocity estimates are presented in the next sections.

5.2 GROUNDWATER VELOCITY CALCULATION

5.2.1 MORGANTOWN SANDSTONE GROUNDWATER VELOCITY

Horizontal hydraulic gradients were calculated for the Morgantown Sandstone using groundwater elevations calculated at wells 96154R and 2018-02 for both the spring and fall sampling events. The velocity of groundwater through the Morgantown sandstone is estimated based on the measured horizontal hydraulic gradient, estimated hydraulic conductivity of 7.18×10^{-5} centimeters per second (Geosyntec 2012), and an estimated effective porosity value of 0.01 for fractured bedrock. For both the spring and fall sampling events, a horizontal hydraulic gradient of 0.010 was calculated, resulting in an estimated average groundwater velocity of 77 to 78 feet/year. Groundwater velocities in 2023 were similar to those calculated in 2022 (78 feet/year).

5.2.2 COW RUN SANDSTONE GROUNDWATER VELOCITY

Horizontal hydraulic gradients were calculated for the Cow Run Sandstone using groundwater elevations calculated at wells 96149 and 94136 for both the spring and fall sampling events. The velocity of groundwater through the Cow Run sandstone is estimated based on the measured horizontal hydraulic gradient, the estimated hydraulic conductivity of 2.92×10^{-5} centimeters per second (Geosyntec 2012), and an effective porosity value of 0.01 for fractured bedrock. Horizontal hydraulic gradients of 0.010 were calculated for both the spring and fall 2023 sampling events, resulting in an estimated average groundwater velocity of 31 feet/year. Groundwater velocities in 2023 were slightly lower than those calculated in 2022 (43 to 47 feet/year).

5.3 COMPARISON OF RESULTS TO PREDICTION LIMITS

Consistent with the CCR Rule and with Gavin's Statistical Analysis Plan (ERM 2017), an interwell prediction limit approach was used to identify potential impacts to groundwater. Upper prediction limits were developed for the Appendix III parameters; in the case of pH, a lower prediction limit was also developed. Documentation of the development of the upper prediction limits and lower prediction limit is provided in the 2018 Alternate Source Demonstration (ERM 2018c).

5.3.1 2023 SAMPLING EVENT RESULTS

Tables 5-1 and 5-2 summarize statistical sampling observations in the Morgantown and Cow Run downgradient wells for the semiannual sampling events of 2023. The spring field sampling event was conducted between 27 March and 5 April 2023 and the fall field sampling event was conducted between 14 and 26 September 2023.

No SSIs were detected for the RWL-FAR groundwater monitoring network in 2023. A summary of all analytical results obtained from the RWL-FAR groundwater monitoring is provided in Appendix C. Laboratory analytical reports from both the spring and the fall sampling events as well as the supplemental sampling events are provided in Appendix D.

TABLE 5-1: SSIs FROM 2023 SAMPLING EVENTS—MORGANTOWN/ALLUVIUM

Analyte/Event	Monitoring Well																	
	2000		93108		94137		96157		9802		9806		2016-05		2018-02		2018-04	
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
Boron	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
Calcium	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
Chloride	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
Fluoride	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
pH	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
Sulfate	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
Total Dissolved Solids	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ

Notes: H1 = spring; H2 = fall; NS = Not Sampled; φ = No SSI; X = SSI; SSI = statistically significant increase

TABLE 5-2: SSIs FROM 2023 SAMPLING EVENTS—COW RUN

Analyte/Event	Monitoring Well											
	94136		96158		9631		2016-06		2018-01		2018-03	
	H1	H2	H1	H2	H1 ¹	H2 ¹	H1	H2	H1 ²	H2 ²	H1	H2
Boron	∅	∅	∅	∅	NS	NS	∅	∅	NS	NS	∅	∅
Calcium	∅	∅	∅	∅	NS	NS	∅	∅	NS	NS	∅	∅
Chloride	∅	∅	∅	∅	NS	NS	∅	∅	NS	NS	∅	∅
Fluoride	∅	∅	∅	∅	NS	NS	∅	∅	NS	NS	∅	∅
pH	∅	∅	∅	∅	NS	NS	∅	∅	NS	NS	∅	∅
Sulfate	∅	∅	∅	∅	NS	NS	∅	∅	NS	NS	∅	∅
Total Dissolved Solids	∅	∅	∅	∅	NS	NS	∅	∅	NS	NS	∅	∅

Notes: H1 = spring; H2 = fall; NS = not sampled; ∅ = No SSI; X = SSI; SSI = statistically significant increase

1. Monitoring well not sampled due to pump failure; pump repaired 12/13/23 after H2 sampling event.
2. Monitoring well was abandoned in Fall 2022.

6. KEY FUTURE ACTIVITIES

The following key future activities are planned for 2024:

Groundwater Sampling

- Two groundwater sampling events will be performed in 2024 as part of the detection monitoring program at the RWL/FAR and the results will be compared to the prediction limits.
- Monitoring wells that were installed in 2022 will be sampled and evaluated for addition to the certified monitoring network for use as background or compliance wells.
- Dedicated groundwater sampling pumps will be inspected and repaired, or replaced, as necessary.
- Passive sampling methods will be pilot tested for locations where sample collection has been challenging due to low recharge resulting in low sample volume.

Groundwater Hydraulic Monitoring

- Monitoring wells installed in 2022 will be gauged along with existing monitoring wells to establish relative hydraulic positions and evaluate areas of interest (e.g., the hydraulic ridge east of RWL).
- Transducers have been installed in six monitoring wells around the RWL/FAR. In 2024, transducer data will be downloaded, and the data processed and evaluated to support updates to the Conceptual Site Model.

Monitoring Network

- Monitoring wells 2016-03 and 2016-04 will be abandoned and replaced in 2024.
- The existing monitoring network will be evaluated for potential additional wells.
- The background dataset will be evaluated and updated, if appropriate, to include all valid background data.

7. REFERENCES

- American Electric Power Service Corporation (AEP). 1993. *Hydrogeologic Site Investigation Report for the Proposed Gavin Residual Waste Landfill Facility, Gavin Plant*, dated April 1993, revised September 1993.
- ERM. 2017. *Groundwater Monitoring Plan. Bottom Ash Complex, Fly Ash Reservoir, and Residual Waste Landfill, Gavin Plant, Cheshire Ohio.*
- ERM. 2018a. *2017 Annual Groundwater Monitoring and Corrective Action Report. Residual Waste Landfill, Gavin Plant, Cheshire Ohio*, dated 1-31-2018.
- ERM. 2018b. *2017 Annual Groundwater Monitoring and Corrective Action Report. Fly Ash Reservoir, Gavin Plant, Cheshire Ohio*, dated 1-31-2018.
- ERM. 2018c. *Gavin Residual Waste Landfill Alternate Source Demonstration Report*, dated 7-3-2018.
- ERM. 2018d. *Gavin Fly Ash Reservoir Alternate Source Demonstration Report*, dated 7-3-2018.
- ERM. 2021a. *Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91, Gavin Residual Waste Landfill and Fly Ash Reservoir, Gavin Plant, Cheshire, Ohio*, dated 8-31-2021.
- ERM. 2021b. *Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91, Gavin Bottom Ash Pond, Gavin Plant, Cheshire, Ohio*, dated 5-17-2021.
- ERM. 2021c. *2020 Annual Groundwater Monitoring and Corrective Action Report. Residual Waste Landfill, Gavin Plant, Cheshire Ohio*, dated 1-31-2021.
- ERM. 2021d. *2020 Annual Groundwater Monitoring and Corrective Action Report. Fly Ash Reservoir, Gavin Plant, Cheshire Ohio*, dated 1-31-2021.
- ERM. 2021e. *Addendum to 2020 Annual Groundwater Monitoring and Corrective Action Reports. Gavin Residual Waste Landfill and Fly Ash Reservoir, Gavin Plant, Cheshire, Ohio*, dated 12-07-2021.
- Geosyntec. 2012. "Final Permit-To-Install Application. Expansion of the Gavin Plant Residual Waste Landfill." *Hydrogeologic Study Report. OAC 3745-30-05(C)(4).*
- Geosyntec. 2016a. *Groundwater Monitoring Network Evaluation, Gavin Site—Residual Waste Landfill, Cheshire, Ohio.*
- Geosyntec. 2016b. *Groundwater Monitoring Network Evaluation, Gavin Site—Fly Ash Reservoir, Cheshire, Ohio.*



FIGURES

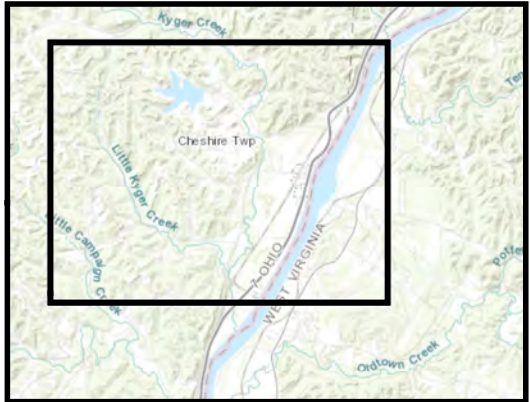
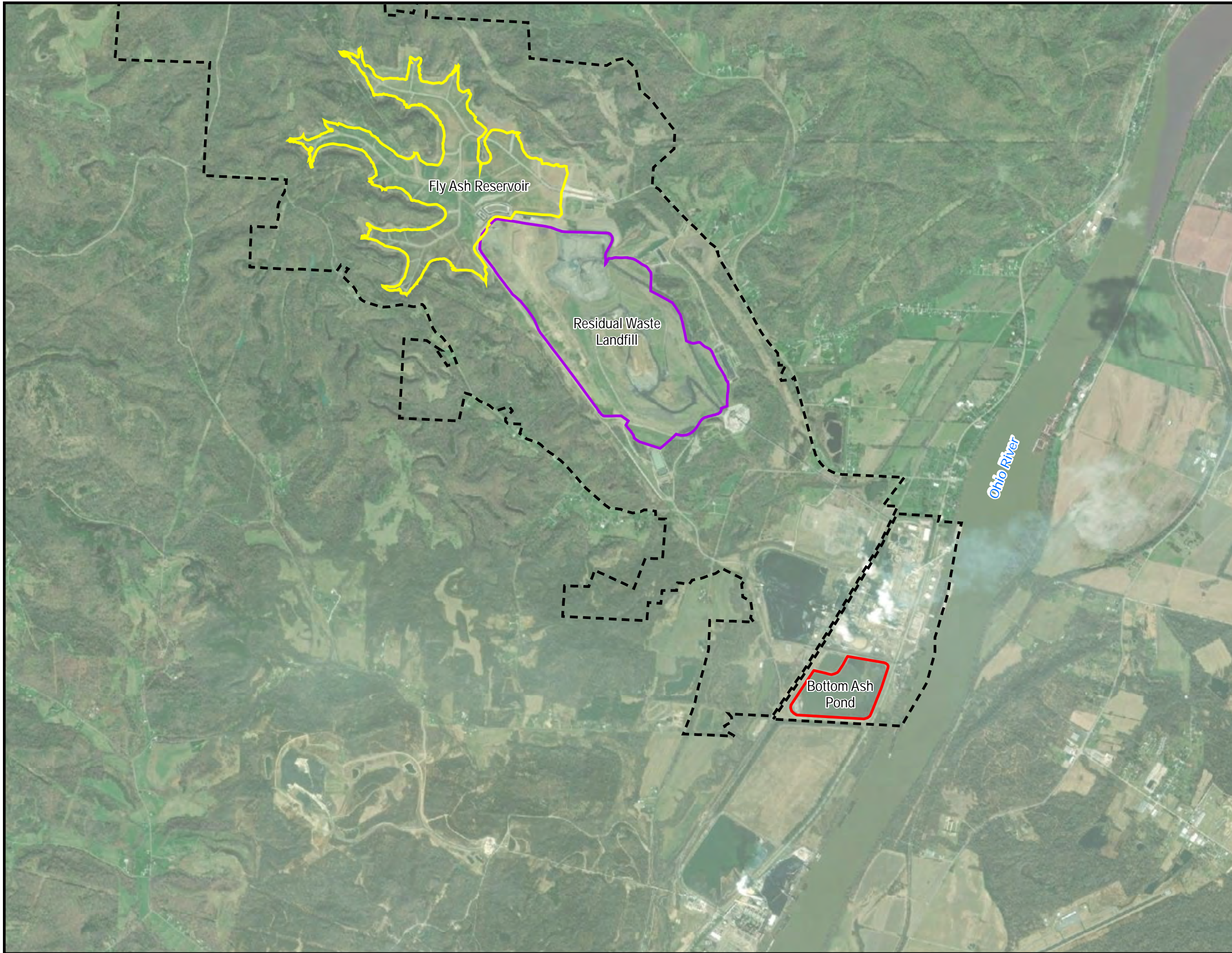


General James M. Gavin Plant

Figure 1-1: Gavin Plant Location
 Gavin Generating Station
 Cheshire, Ohio



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Legend

- Bottom Ash Pond
- Fly Ash Reservoir
- Residual Waste Landfill
- Property Boundary

NOTES:
 1. Aerial Imagery: ESRI World Imagery
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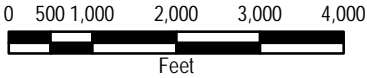
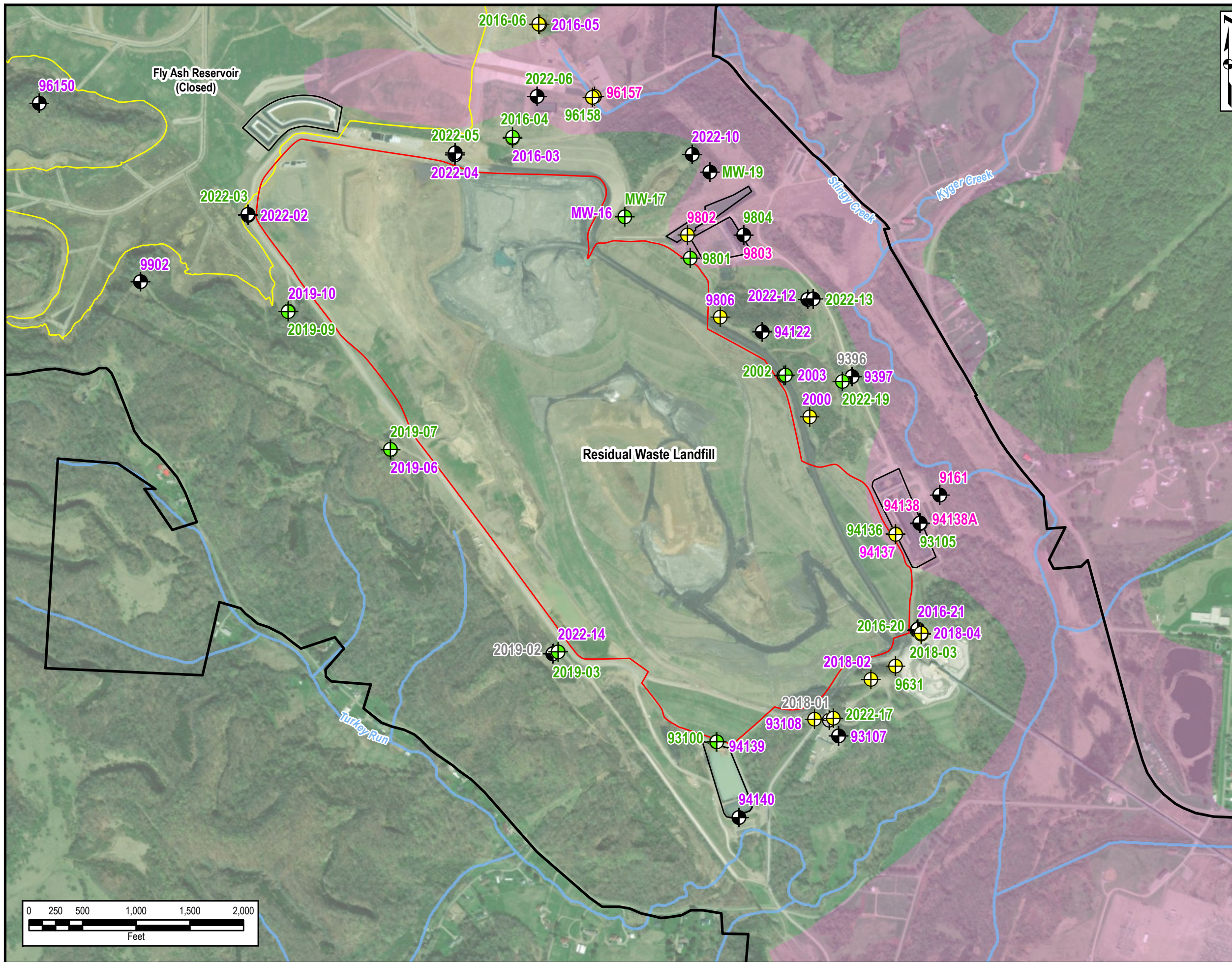


Figure 3-1: RWL and FAR Locations
 Gavin Generating Station
 Cheshire, Ohio





Legend

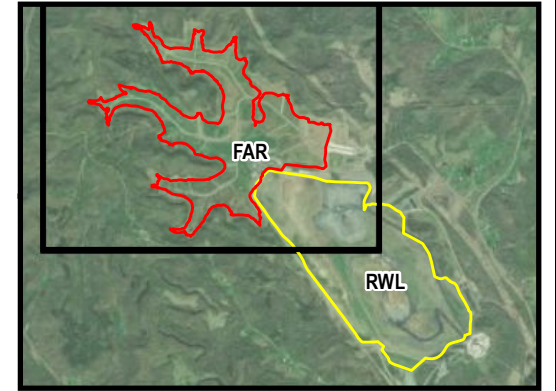
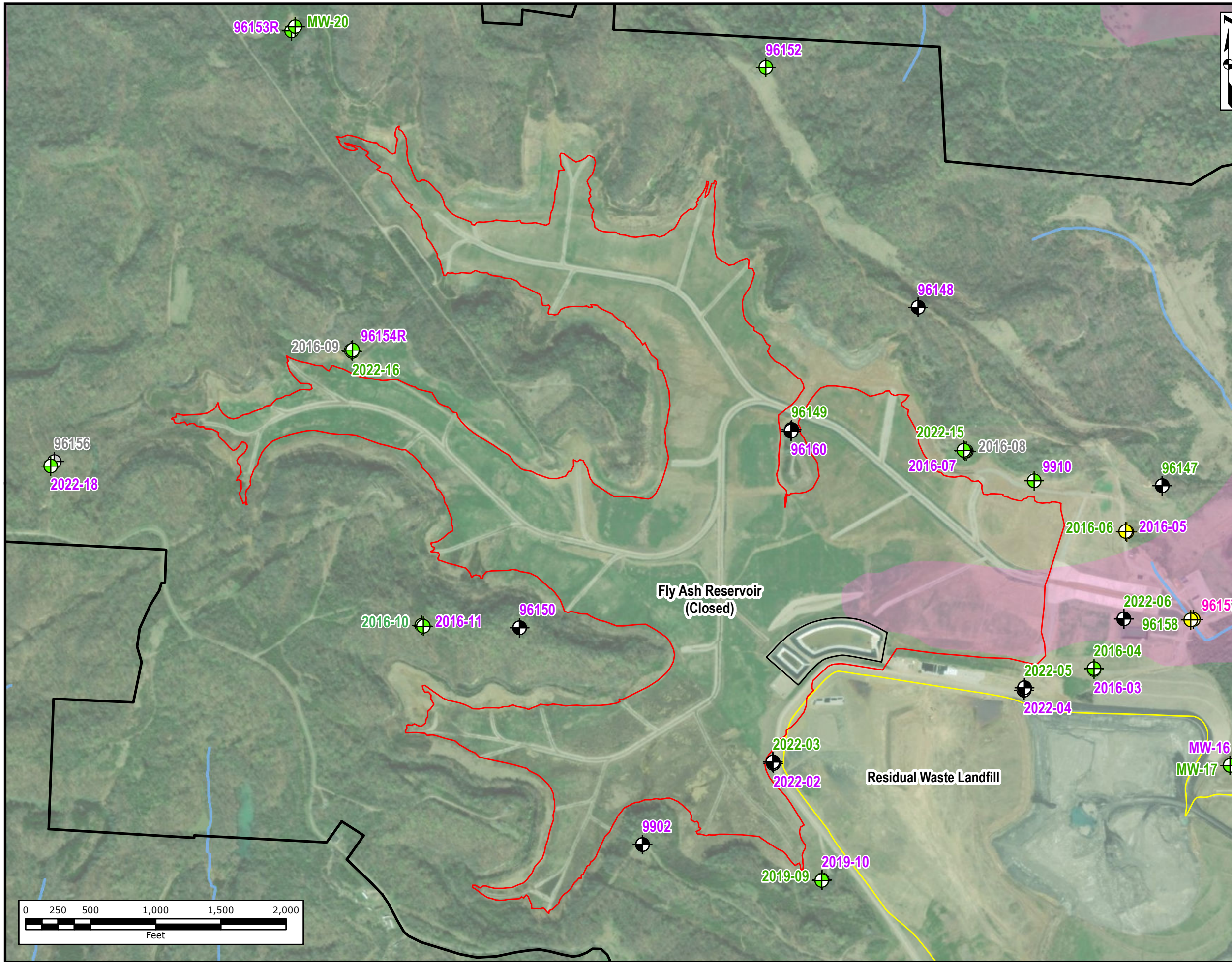
- ⊗ Monitoring Well (Not in Federal Program)
- ⊕ Federal Upgradient Monitoring Well
- ⊙ Federal Downgradient Monitoring Well
- ⊖ Abandoned Well
- Stream/Creek
- ▭ Pond Area
- ▭ Residual Waste Landfill
- ▭ Fly Ash Reservoir
- ▭ Gavin Property Boundary
- ▭ Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)
- 94138 Alluvium Monitoring Well
- 93108 Morgantown Monitoring Well
- 93105 Cow Run Monitoring Well
- 96156 Abandoned Well

NOTE:

- Aerial Imagery: ESRI World Imagery
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Figure 3-2: Federal Monitoring Well Locations
 Residual Waste Landfill Area
 Gavin Power, LLC
 Cheshire, Ohio





Legend

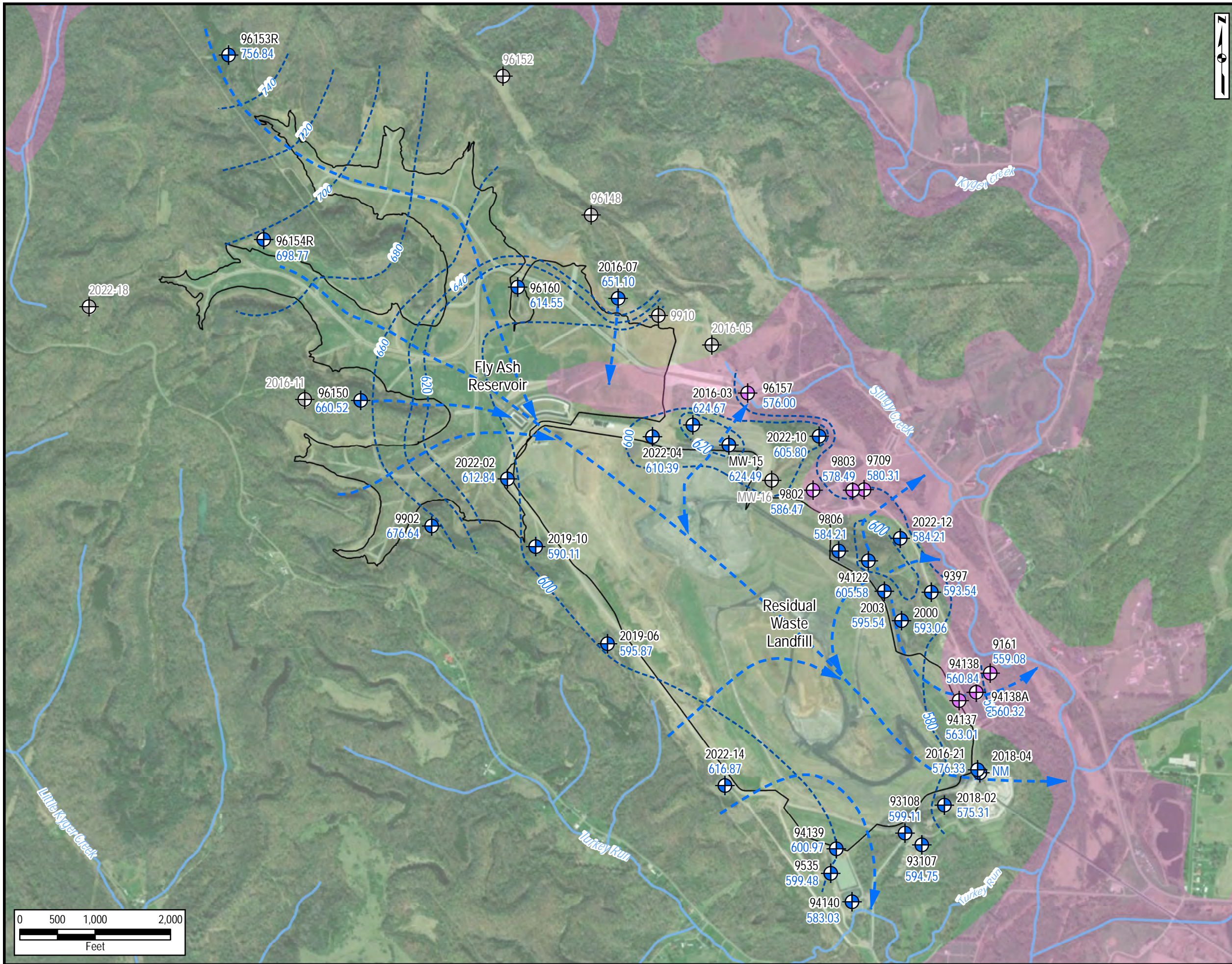
- Monitoring Well (Not in Federal Program)
- Federal Upgradient Monitoring Well
- Federal Downgradient Monitoring Well
- Abandoned Well
- Stream/Creek
- Pond Area
- Fly Ash Reservoir
- Residual Waste Landfill
- Gavin Property Boundary
- Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)
- 94138 Alluvium Monitoring Well
- 93108 Morgantown Monitoring Well
- 93105 Cow Run Monitoring Well
- 96156 Abandoned Well

NOTE:
 - Aerial Imagery: ESRI World Imagery
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Figure 3-3: Federal Monitoring Well Locations
 Fly Ash Reservoir Area
 Gavin Power, LLC
 Cheshire, Ohio



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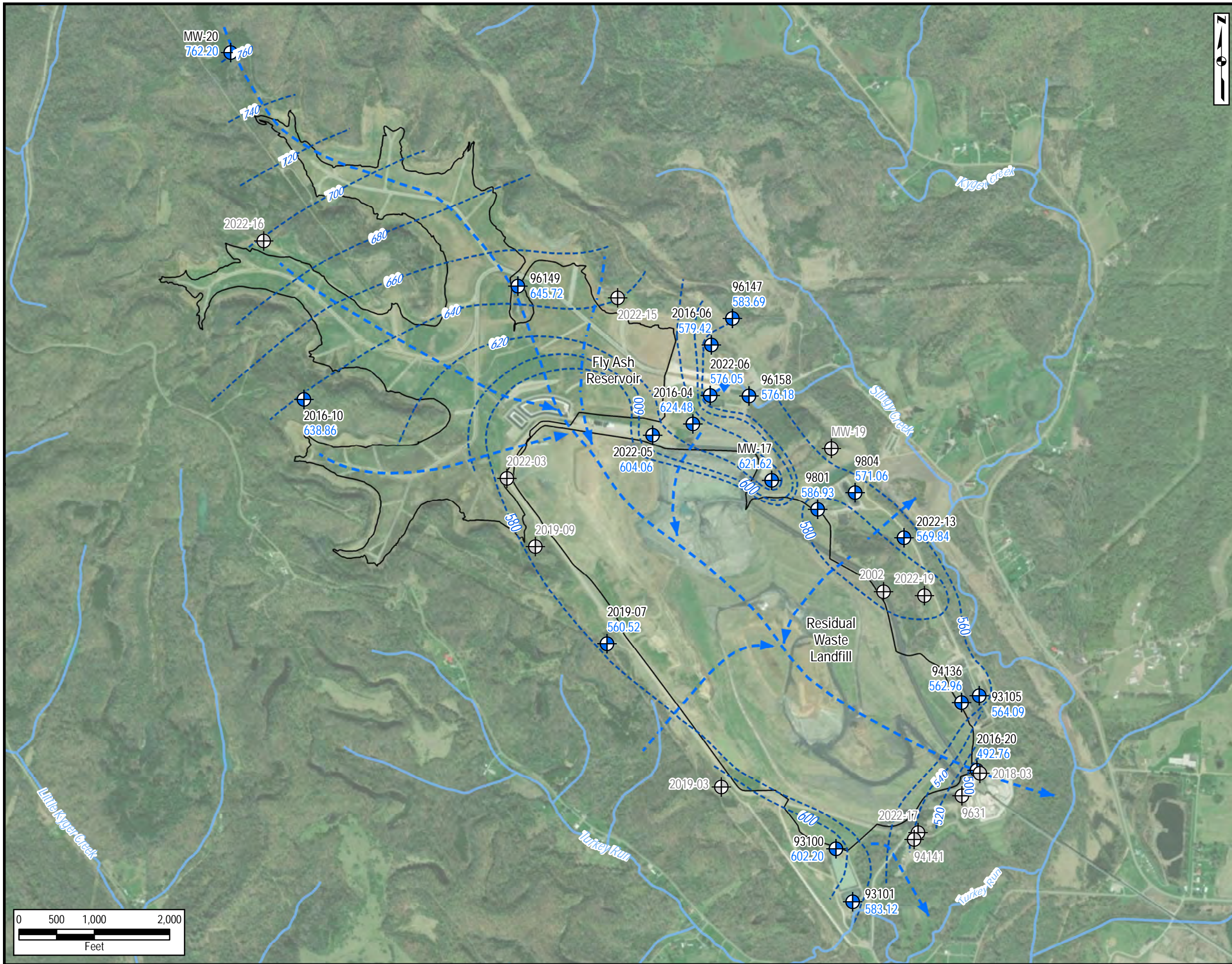
- Legend**
- Morgantown Sandstone Monitoring Well
 - Morgantown Sandstone Monitoring Well - Low Recharge, Dry, Data Anomaly, or Not Gauged
 - Alluvium Monitoring Well
 - 605.82 Potentiometric Elevation (ft)
 - Spring 2023 Interpreted Groundwater Potentiometric Contour
 - Spring 2023 Interpreted Generalized Groundwater Flow Direction
 - Stream/Creek
 - Coal Combustion Residual Unit
 - Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)

NOTES:

- Interpreted contours based on groundwater gauging conducted on 3/23/2023 and 3/24/2023..
- Some potentiometric elevation contours were interpreted using historical groundwater elevation trends in monitoring wells that were not gauged in March 2023.
- Where the Morgantown SS is absent, the contours represent the potentiometric surface in the alluvial aquifer because these aquifers are hydraulically connected
- NM: Not monitored

Figure 5-1: Morgantown Sandstone Groundwater Flow Directions Spring 2023
 Gavin Power, LLC
 Cheshire, Ohio



Legend

- Cow Run Sandstone Monitoring Well
- Cow Run Sandstone Well - Low Recharge, Dry, or Data Anomaly
- Potentiometric Elevation (ft)
- Spring 2023 Interpreted Groundwater Potentiometric Contour
- Spring 2023 Interpreted Generalized Groundwater Flow Direction
- Stream/Creek
- Coal Combustion Residual Unit

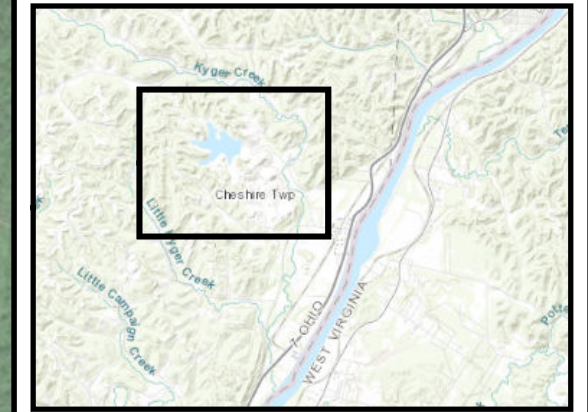
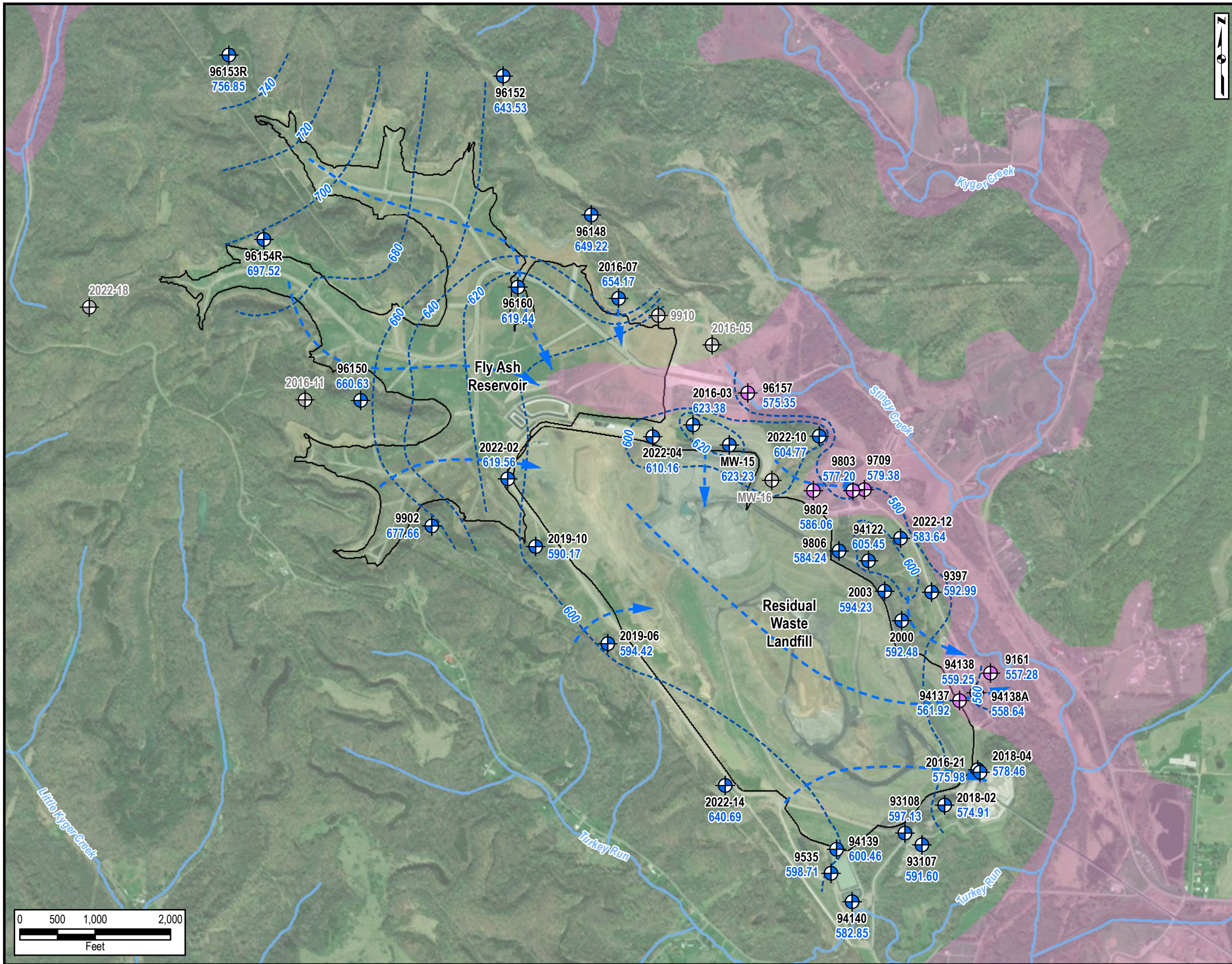
NOTES:

- Cow Run Sandstone is present through entire site.
- Interpreted contours based on groundwater gauging conducted on 3/23/2023 and 3/24/2023.
- Some potentiometric elevation contours were interpreted using historical groundwater elevation trends in monitoring wells that were not gauged in March 2023.

Figure 5-2: Cow Run Sandstone Groundwater Flow Directions Spring 2023
 Gavin Power, LLC
 Cheshire, Ohio



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Legend

- Morgantown Sandstone Monitoring Well
- Morgantown Sandstone Monitoring Well - Low Recharge, Dry, Data Anomaly, or Not Gauged
- Alluvium Monitoring Well
- 605.82** Potentiometric Elevation (ft)
- Fall 2023 Interpreted Groundwater Potentiometric Contour
- Stream/Creek
- Coal Combustion Residual Unit
- Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)

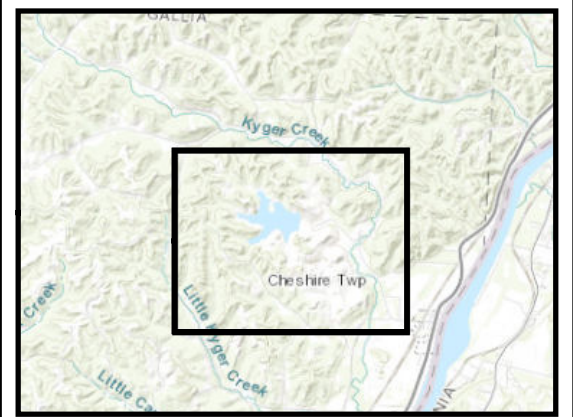
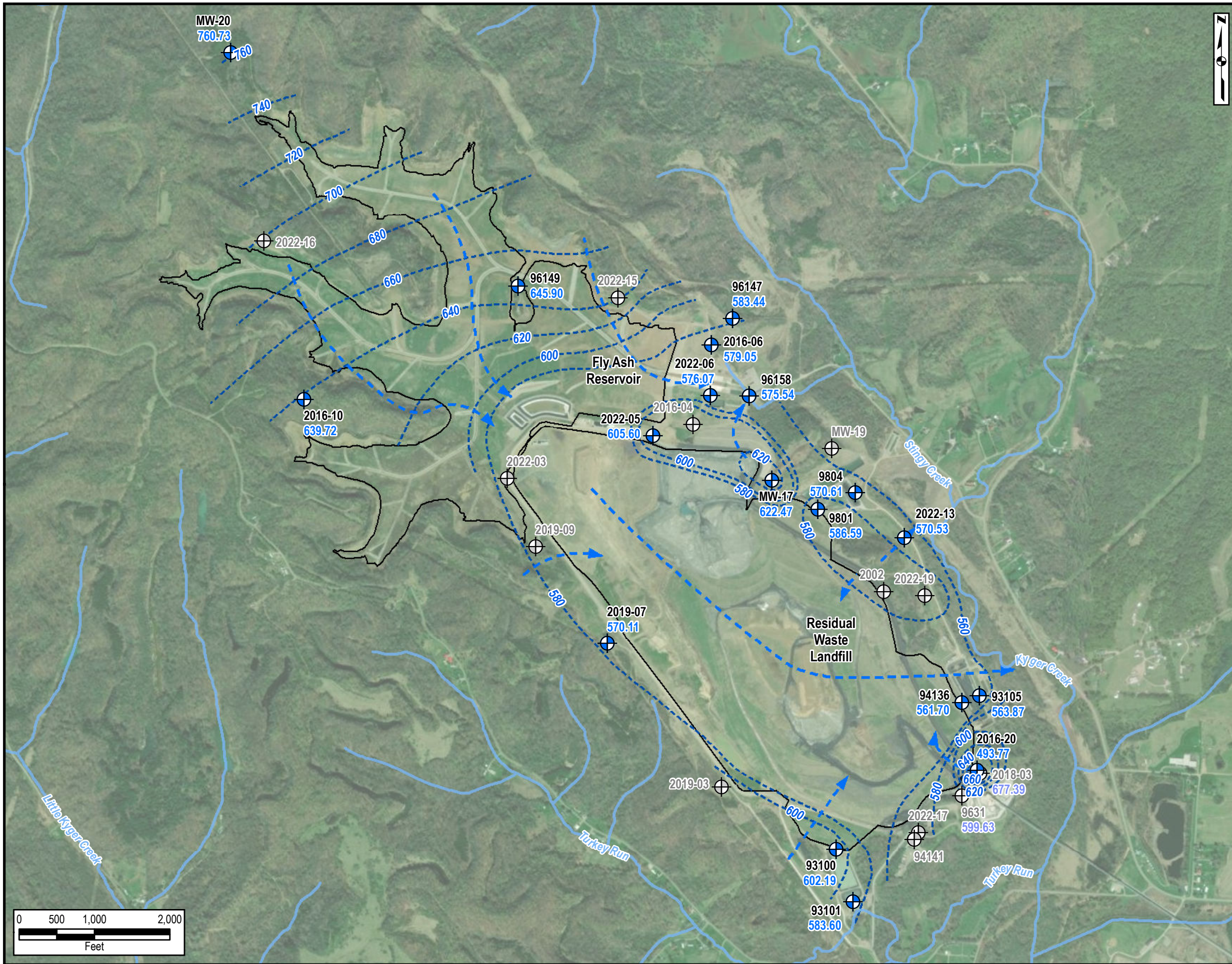
NOTES:

- Interpreted contours based on groundwater gauging conducted on 9/11/2023 and 9/12/2023..
- Some potentiometric elevation contours were interpreted using historical groundwater trends in monitoring wells that were not gauged in September 2023.
- Where the Morgantown SS is absent, the contours represent the potentiometric surface in the alluvial aquifer because these aquifers are hydraulically connected.

Figure 5-3: Morgantown Sandstone Groundwater Flow Directions
 Fall 2023
 Gavin Power, LLC
 Cheshire, Ohio



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Legend

- Cow Run Sandstone Monitoring Well
- Cow Run Sandstone Well - Low Recharge, Dry, or Data Anomaly
- 605.82** Potentiometric Elevation (ft)
- Fall 2023 Interpreted Groundwater Potentiometric Contour
- Fall 2023 Interpreted Generalized Groundwater Flow Direction
- Stream/Creek
- Coal Combustion Residual Unit

NOTES:

- Cow Run Sandstone is present through entire site.
- Interpreted contours based on groundwater gauging conducted on 9/11/2023 and 9/12/2023.
- Some potentiometric elevation contours were interpreted using historical groundwater elevation trends in monitoring wells that were not gauged in September 2023.

Figure 5-4: Cow Run Sandstone Groundwater Flow Directions Fall 2023
 Gavin Power, LLC
 Cheshire, Ohio



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APPENDIX A WELL CONSTRUCTION SUMMARY

Appendix A
Well Construction Details
Gavin Residual Waste Landfill and Fly Ash Reservoir
Cheshire, OH

Well ID	Boring Completion Date	Hydrogeologic Unit	Site Area	Latitude	Longitude	Top of Borehole Elevation (ft)	Top of Casing Elevation (ft)	Total Well Depth (ft bgs)	Screen Start Depth (ft bgs)	Screen End Depth (ft bgs)	Screen Length (ft)	Well Diameter (in)	Screen Material
Federal CCR Monitoring Wells													
2000	2/10/2000	Morgantown	RWL	2072693.04	348163.03	716.68	718.43	150.4	119.6	148.6	29	2	PVC SCH 40
2003	3/7/2000	Morgantown	RWL	2072467.35	348553.78	724.28	726.56	143.98	122.7	141.7	19	2	PVC SCH 40
9396	2/8/1993	Cow Run	RWL	2073087.37	348540.79	613.61	616.22	121.4	114.8	116.8	2	1	NA
9631	10/17/1996	Cow Run	RWL	2073493.05	345839.57	706.7	709.15	227.9	187.1	225.9	38.8	2	NA
9801	12/3/1998	Cow Run	RWL	2071580.02	349642.02	609.77	611.37	130.00	109.4	129	19.6	2	PVC SCH 40
9802	12/2/1998	Alluvium	RWL	2071555.02	349857.02	610.39	612.39	51.1	39	49.1	10.1	2	PVC SCH 40
9806	12/29/1998	Morgantown	RWL	2071860.03	349092.02	718.29	720.29	142	111	140	29	2	PVC SCH 40
9910	8/4/1999	Morgantown	FAR	2069464.98	352217.01	NA	697.07	102.07	57.07	102.07	45	2	PVC SCH 80
93100	7/20/1994	Cow Run	RWL	2071823.04	345135.01	612.00	614.04	114.29	73.35	112.25	38.9	2	PVC SCH 40
93108	8/10/1993	Morgantown	RWL	2072737.05	345345.02	716.72	718.48	151.66	129.9	149.9	20	2	PVC SCH 40
94136	9/8/1994	Cow Run	RWL	2073492.06	347074.03	594.00	596.25	120.75	79.4	118.5	39.1	2	PVC SCH 40
94137	9/7/1994	Alluvium	RWL	2073494.06	347070.03	594.00	596.27	55.17	44	52.9	8.9	2	PVC SCH 40
94139	7/21/1994	Morgantown	RWL	2071828.04	345135.01	612.00	614.11	62.26	41.25	60.15	18.9	2	PVC SCH 40
96152	6/25/1996	Morgantown	FAR	2067403.94	355388.99	777.28	779.44	168.16	127	166	39	2	PVC SCH 40
96153R	2/29/2016	Morgantown	FAR	2063762.89	355668.96	771.91	773.88	116.97	102	112	10	2	PVC SCH 80
96154R	3/3/2016	Morgantown	FAR	2064229.90	353220.96	736.25	738.21	101.86	86	96	10	2	PVC SCH 80
96156	1/3/1996	Morgantown	FAR	2061940.88	352363.94	851.81	854.2	224.49	220.1	222.1	2	1	PVC SCH 80
96157	11/21/1995	Alluvium	FAR	2070687.00	351151.01	584.6	586.52	48.63	37.7	46.7	9	2	PVC SCH 40
96158	11/29/1995	Cow Run	FAR	2070668.00	351145.01	584.7	586.5	60.96	50.2	59.2	9	2	PVC SCH 40
2016-03	3/23/2016	Morgantown	FAR	2069923.99	350764.01	659.06	650.94	56.05	42	52	10	2	PVC SCH 80
2016-04	3/28/2016	Cow Run	FAR	2069923.99	350773.01	658.98	649.36	137.06	123	133	10	2	PVC SCH 80
2016-05	3/29/2016	Morgantown	FAR	2070176.99	351823.01	648.70	650.97	58.27	44	54	10	2	PVC SCH 80
2016-06	3/29/2016	Cow Run	FAR	2070167.99	351825.01	649.02	651.1	126.08	112	122	10	2	PVC SCH 80
2016-07	3/29/2016	Morgantown	FAR	2068933.97	352440.00	728.84	731.45	107.61	93	103	10	2	PVC SCH 80
2016-08	3/23/2016	Cow Run	FAR	2068943.97	352440.00	728.84	731.38	196.54	182	192	10	2	PVC SCH 80
2016-09	3/3/2016	Cow Run	FAR	2064221.9	353215.96	736.83	739.22	191.39	177	187	10	2	PVC SCH 80
2016-10	3/4/2016	Cow Run	FAR	2064761.92	351103.96	864.62	866.97	311.35	294	304	10	2	PVC SCH 80
2016-11	3/4/2016	Morgantown	FAR	2064774.92	351096.96	864.51	866.88	260.37	245	255	10	2	PVC SCH 80
2018-01	12/5/2018	Cow Run	RWL	2072876.05	345335.88	735	735.781	260.00	235	255.5	20.5	2	PVC SCH 40
2018-02	10/24/2018	Morgantown	RWL	2073262.43	345715.60	755	757.316	195.00	182.5	194.5	12	2	PVC SCH 40
2018-03	11/19/2018	Cow Run	RWL	2073732.79	346138.61	707	708.807	226.00	197.8	221.5	23.7	2	PVC SCH 40
2018-04	11/1/2018	Morgantown	RWL	2073732.35	346148.53	707	708.182	137.5	124	134	10	2	PVC SCH 40
2019-02	2/20/2020	Morgantown	RWL	2070306.50	345958.13	739.55	742.347	178	158	178	20	2	PVC SCH 40
2019-06	1/28/2020	Morgantown	RWL	2068790.41	347858.46	813.07	815.915	224	194	224	30	2	PVC SCH 40
2019-07	1/20/2020	Cow Run	RWL	2068786.90	347861.86	812.91	815.91	270	250	270	20	2	PVC SCH 40
2019-09	11/26/2019	Cow Run	RWL	2067834.23	349146.48	747.77	750.767	220	200	220	20	2	PVC SCH 40
MW-16	10/5/2016	Morgantown	RWL	2070971.09	350029.07	727.96	730.76	121.4	109	119	10	2	PVC SCH 40
MW-17	10/3/2016	Cow Run	RWL	2070971.09	350029.07	727.73	730.64	215.4	203	213	10	2	PVC SCH 40
MW-20	5/8/2012	Cow Run	FAR	2063789.89	355701.96	771.80	774.3	222.5	210	220	10	2	PVC SCH 80

Appendix A
Well Construction Details
Gavin Residual Waste Landfill and Fly Ash Reservoir
Cheshire, OH

Well ID	Boring Completion Date	Hydrogeologic Unit	Site Area	Latitude	Longitude	Top of Borehole Elevation (ft)	Top of Casing Elevation (ft)	Total Well Depth (ft bgs)	Screen Start Depth (ft bgs)	Screen End Depth (ft bgs)	Screen Length (ft)	Well Diameter (in)	Screen Material
2022 Replacement Monitoring Wells													
2022-14	7/24/2022	Morgantown	RWL	345975.5035	2070349.795	740.42	743.04	180.00	582	562	20	2	PVC SCH 40
2022-15	8/5/2022	Cow Run	FAR	352451.0853	2068926.25	729.55	732.09	194.00	548	538	10	2	PVC SCH 40
2022-16	8/9/2022	Cow Run	FAR	353206.6888	2064228.927	736.19	738.37	189.00	559	549	10	2	PVC SCH 40
2022-17	9/14/2022	Cow Run	RWL	345353.3472	2072913.835	733.39	735.83	257.00	498	478	20	2	PVC SCH 40
2022-18	8/18/2022	Morgantown	FAR	352327.0836	2061913.471	852.04	854.41	211.00	653	643	10	2	PVC SCH 40
2022-19	7/26/2022	Cow Run	RWL	348497.3409	2072997.258	613.58	616.04	119.00	507	497	10	2	PVC SCH 40

Notes: Datum is SP/NAD83/NGVD29.

For lithology at well 2003, see the boring log for well 2002.

ft = feet; in = inches; bgs = below ground surface; NA = not available



APPENDIX B BORING AND WELL CONSTRUCTION LOGS

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY **OHIO POWER COMPANY**
 PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**
 COORDINATES **N 351,118.0 E 2,070,648.6**
 GROUND ELEVATION **584.6** SYSTEM **STATE PLANE**

BORING NO. **96157** DATE _____ SHEET **1** OF **1**
 BORING START **11/20/95** BORING FINISH **11/21/95**
 PIEZOMETER TYPE _____ WELL TYPE **OW**
 HGT. RISER ABOVE GROUND **1.93** DIA **2.0**
 DEPTH TO TOP OF WELL SCREEN **37.7** BOTTOM **46.7**
 WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**
 FIELD PARTY **TJH-REB** RIG **CME-75**

WATER LEVEL	▽ 38.6	▽	▽
TIME			
DATE	11-21-95		

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	S S S U	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	2.5	4.0	5-7-9	1.1		5		CL	BROWN AND RED SILTY CLAY Moist.		38.6 SWL over nite. 7.2 SWL 12-3-96.
2	SS	7.5	9.0	2-4-4	1.2		10					Latitude 38 57 48.52170 N. = Longitude 082 08 26.71347 W.
3	SS	12.5	14.0	2-3-5	1.1		15		SM CL	BROWN SILTY SAND Wet. GRAY SILTY CLAY Moist.		
4	SS	17.5	18.7	6-8-10	1.3		20			GRAY CLAY Moist.		
5	SS	22.5	24.0	6-12-18	1.0		25			REDDISH BROWN CLAY Wet.		
6	SS	27.5	29.0	4-6-9	1.1		30			GRAY SILTY CLAY Wet with rock fragments.	26.7 Top of seal.	
7	SS	32.5	34.0	4-6-8	1.0		35		SP	BROWN SAND Saturated, fine grain.	31.2 Top of sand.	
8	SS	37.5	39.0	4-7-9	1.2		40		CL	GRAY CLAY Moist.	37.5 Top of screen.	
9	SS	42.5	44.0	4-7-10	1.2		45			GRAY SANDY CLAY Wet.		
10	SS	47.5	48.0	77	?					GRAY CLAY SHALE Dry.	46.7 Bottom of screen 47.8 Bottom of sand.	

TYPE OF CASING USED				PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC			
X	NQ-2 ROCK CORE			WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON			
	6" x 3.25 HSA			RECORDER REB			
	9" x 6.25 HSA						
	HW CASING ADVANCER	4"					
	NW CASING	3"					
	SW CASING	6"					

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY **OHIO POWER COMPANY**
 PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**
 COORDINATES **N 351,115.0 E 2,070,634.8**
 GROUND ELEVATION **584.7** SYSTEM **STATE PLANE**

BORING NO. **96158** DATE _____ SHEET **1** OF **2**
 BORING START **11/27/95** BORING FINISH **11/29/95**
 PIEZOMETER TYPE _____ WELL TYPE **OW**
 HGT. RISER ABOVE GROUND **1.76** DIA **2.0**
 DEPTH TO TOP OF WELL SCREEN **50.2** BOTTOM **59.2**
 WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**
 FIELD PARTY **TJH-WEB** RIG **CME-75**

WATER LEVEL	▽ 7.3	▽	▽
TIME			
DATE	11-29-95		

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY %	RQD %	DEPTH IN FEET	GRAPH LOG	S C U D	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
												Latitude 38 57 48.49213 N. = Longitude 082 08 26.88801 W.
							5		CL	BROWN AND RED SILTY CLAY Moist.		
							10					
							15		SM CL	BROWN SILTY SAND Wet. GRAY SILTY CLAY Moist.		
							20			GRAY CLAY Moist.		
							25			REDDISH BROWN CLAY Wet.		
							30			GRAY SILTY CLAY Wet with rock fragments.		
							35		SP	BROWN SAND Saturated, fine grain.		
							40		CL	GRAY CLAY Moist.		
							45			GRAY SANDY CLAY Wet.		
1	NQ	47.5	49.5		1.4	40				GRAY SANDY CLAYSHALE GRAY SHALEY SANDSTONE Hard.	46.0 Top of seal. 48.5 Top of sand.	

TYPE OF CASING USED				<i>Continued Next Page</i>			
X	NQ-2 ROCK CORE			PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC			
	6" x 3.25 HSA			WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON			
X	9" x 6.25 HSA			RECORDER WEB			
	HW CASING ADVANCER	4"					
	NW CASING	3"					
	SW CASING	6"					

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

BORING NO. **96158** DATE _____ SHEET **2** OF **2**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING START **11/27/95** BORING FINISH **11/29/95**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
2	NQ	49.5	55.3		5.6	62						50.2 Top of screen.
3	NQ	55.3	60.3		5.0	62	55			<u>GRAY CLAY SHALE</u> Hard.		59.2 Bottom of screen. 61.3 Bottom of sand.
							60					

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER _____

COMPANY _____

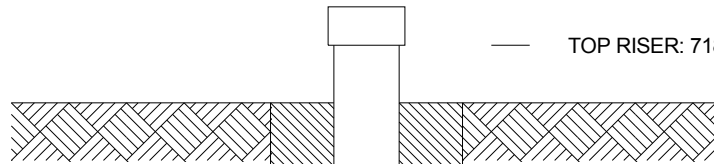
WELL No. **R-2000** BORING No. **R-2000** INSTALLED **2/10/00**

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 348,126.9 E 2,104,157.6**

SYSTEM **State Plane using NADA27**

GROUND ELEVATION 716.68 FT.



TOP RISER: 718.43 FT.



GROUT SEAL: 250 GALLONS QUICK GROUT



BENTONITE SEAL: 150 lbs 3/8" BENTONITE CHIPS



SCREEN: 2" dia., PVC, SLOT SIZE 20, 30'



GRAVEL PACK: 1050 lbs #4 QUARTZ



RISER PIPE: 2", dia., PVC



SPACERS, DEPTH: 130', 115' & 60'

TOP BENTONITE SEAL: 610.58 FT.

TOP GRAVEL PACK: 602.28 FT.

TOP SCREEN: 597.08 FT.

BOTTOM SCREEN: 568.08 FT.

BOTTOM WELL: 567.08 FT.

BOTTOM GRAVEL PACK: 567.08 FT.

BOTTOM BORING: 492.68 FT.

Notes:

THIS IS A CLUSTERED SITE WITH R-2000 & R-2001

Deconned rig and tools prior to setup with 100 gallons potable water and alconox mix.

Water source was G-5 belthead.

Used 8" downhole hammer with water injection.

Used approx. 1500 gallons of water to drill this well and flush clean.

Used compressor to flush boring. Was making approx. 12 gallons/minute. Continued this process for 3.5 hours prior to installing well.

Spider spacers at 130', 115', & 60'

Seal hydrated by drill crew.

SWL at installation on 2/17/00 was at 109.5'

SWL at 129.2' on 2/23/00

Measurement from top of pipe to bottom of hole - 151.64'

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY AMERICAN ELECTRIC POWER
 PROJECT GAVIN LANDFILL
 COORDINATES N 348,126.9 E 2,104,157.6
 GROUND ELEVATION 716.7 SYSTEM State Plane using NADA27

BORING NO. R-2000 DATE 7/14/00 SHEET 1 OF 4
 BORING START 1/18/00 BORING FINISH 2/10/00
 PIEZOMETER TYPE SS WELL TYPE OW
 HGT. RISER ABOVE GROUND 1.75 DIA 2"
 DEPTH TO TOP OF WELL SCREEN 119.6 BOTTOM 148.6
 WELL DEVELOPMENT _____ BACKFILL _____
 FIELD PARTY TJH/REB RIG CME-75

WATER LEVEL	▽	▽	▽
TIME			
DATE			

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	2.7	4.2	4-6-10	1.3		5		SP	BROWN FINE GRAIN SAND Fill Material, Dry		
2	SS	7.7	9.2	5-8-11	1.4		10		CL	GRAY SILTY CLAY Fill Material, Dry		
3	SS	12.7	14.2	10-12-18	1.3		15			DARK GRAY WEATHERED CLAY SHALE Fill Material		
4	SS	17.7	18.2	50/5	0.5	0	20			GRAY WEATHERED CLAY SHALE Random Fill, Dry	Auger refusal at 18.3'; started coring.	
5	NQ-2	18.3	20.0		0.6					N5 MEDIUM GRAY LIMESTONE Broken up		
6	NQ-2	20.0	25.0		5.0	68				N6 MEDIUM LIGHT GRAY WEATHERED CLAY SHALE With limestone nodules		
7	NQ-2	25.0	32.7		2.5	72						
8	NQ-2	32.7	35.0		1.9	37				RED & GRAY CLAY SHALE		
9	NQ-2	35.0	40.0		3.9	77				N6 MEDIUM LIGHT GRAY SHALE		
										N6 MEDIUM LIGHT GRAY SANDY SHALE		
10	NQ-2	40.0	45.0		5.0	74				N6 MEDIUM LIGHT GRAY CLAY SHALE		
										N6 MEDIUM LIGHT GRAY SANDY SHALE		
										N6 MEDIUM LIGHT GRAY CLAY SHALE		
11	NQ-2	45.0	50.0		4.5	44				N6 MEDIUM LIGHT GRAY SANDY SHALE Vertical crack & iron stain 44.0'-44.8' N6 MEDIUM LIGHT GRAY CLAY SHALE N6 MEDIUM LIGHT GRAY SANDY SHALE		

TYPE OF CASING USED				Continued Next Page			
X	NQ-2 ROCK CORE			PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC			
X	6" x 3.25 HSA			WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON			
	9" x 6.25 HSA			RECORDER <u>REB</u>			
	HW CASING ADVANCER	4"					
	NW CASING	3"					
	SW CASING	6"					
	AIR HAMMER	8"					

AEP GAVINLF.GPJ / JT 7/14/00

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY AMERICAN ELECTRIC POWER

BORING NO. R-2000 DATE 7/14/00 SHEET 2 OF 4

PROJECT GAVIN LANDFILL

BORING START 1/18/00 BORING FINISH 2/10/00

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
12	NQ-2	50.0	55.0		3.0	0				Vertical crack, iron stain and partial water loss at 49-0' RED & GRAY CLAY SHALE		Drill tool malfunction At 65', cored into a loose sand with some pore pressure (flushing boring) No water return No water return
13	NQ-2	55.0	60.0		3.5	0	55			5R 4/2 GRAYISH RED CLAY SHALE		
14	NQ-2	60.0	65.0		4.7	77	60			N6 MEDIUM LIGHT GRAY SANDY SHALE		
15	NQ-2	65.0	70.0		4.9	61	65			N6 MEDIUM LIGHT GRAY SANDSTONE Shaley		
16	NQ-2	70.0	75.0		4.2	29	70			N6 MEDIUM LIGHT GRAY CLAY SHALE RED & GRAY CLAY SHALE		
17	NQ-2	75.0	85.0		9.2	50	75			N6 MEDIUM LIGHT GRAY WEATHERED CLAY SHALE Badly broken		
							80			5GY 4/1 DARK GREENISH GRAY CLAY SHALE Not weathered		
							85			REDDISH to MULTI COLORED CLAY SHALE		
18	NQ-2	85.0	94.5		5.6	48	85			5R 4/2 GRAYISH RED SHALE With limestone nodules throughout		
							90					
19	NQ-2	94.7	100.0		4.2	50	95			5R 4/2 GRAYISH RED SHALE Weathered & broken		
20	NQ-2	100.0	105.0		2.7	0	100					
21	NQ-2	105.0	110.0		3.9	31	105			5R 4/2 GRAYISH RED CLAYSTONE Broken, but hard in places		
22	NQ-2	110.0	115.0		5.0	42	110			HARD REDDISH to MULTI COLORED CLAY SHALE Limestone nodules throughout		

AEP GAVINLF.GPJ AEP GDT 7/14/00

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY AMERICAN ELECTRIC POWER BORING NO. R-2000 DATE 7/14/00 SHEET 3 OF 4
 PROJECT GAVIN LANDFILL BORING START 1/18/00 BORING FINISH 2/10/00

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
23	NQ-2	115.0	125.0		10.0	50	120			5R 4/2 GRAYISH RED CLAYSTONE N6 MEDIUM LIGHT GRAY SANDY SHALE Morgantown 5R 4/2 GRAYISH RED SHALE With limestone nodules and red claystone		
24	NQ-2	125.0	135.0		10.0	78	125			5R 4/2 GRAYISH RED CLAYSTONE		
							130			N6 MEDIUM LIGHT GRAY SANDY SHALE (132.7'-134.1' Morgantown)		
25	NQ-2	135.0	138.9		3.9	50	135			N6 MEDIUM LIGHT GRAY CLAY SHALE 5R 4/2 GRAYISH RED CLAYSTONE		No water return
26	NQ-2	138.9	145.0		6.0	70	140			N6 MEDIUM LIGHT GRAY LIMESTONE N6 MEDIUM LIGHT GRAY CLAY SHALE Medium hardness		
27	NQ-2	145.0	148.3		2.9	17	145			5R 4/2 GRAYISH RED CLAYSTONE		
28	NQ-2	148.3	155.0		5.5	27	150			5R 4/2 GRAYISH RED CLAYSTONE With limestone nodules & lenses throughout		
29	NQ-2	155.0	160.0		3.6	19	155			RED & BROWN SHALE Badly broken		No water return
30	NQ-2	160.0	165.0		3.1	0	160			5R 4/2 GRAYISH RED CLAY SHALE Broken up		SWL at 119.7' on 2/7/00; static over weekend
31	NQ-2	165.0	170.0		2.0	0	165			RED, BROWN & GRAY (MULTI COLORED) CLAYSTONE		Pulled rods, pumped hole full with Quick grout, trying to keep rods from chattering.
32	NQ-2	170.0	175.0		4.2	55	170			5R 4/2 GRAYISH RED CLAYSTONE N5 MEDIUM GRAY CLAYSTONE		No water return
33	NQ-2	175.0	180.0		5.0	30	175			N5 MEDIUM GRAY CLAY SHALE With limestone nodules		

AEP GAVINLF.GPJ / 7/14/00

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY AMERICAN ELECTRIC POWER
 PROJECT GAVIN LANDFILL

BORING NO. R-2000 DATE 7/14/00 SHEET 4 OF 4
 BORING START 1/18/00 BORING FINISH 2/10/00

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
34	NQ-2	180.0	185.0		2.5	44				RED & GRAY CLAY SHALE Limestone nodules		
35	NQ-2	185.0	190.0		4.2	0	185			5R 3/4 DUSKY RED CLAY SHALE Badly broken		
36	NQ-2	190.0	195.0				190			RED & GRAY CLAY SHALE		SWL at 61.5' on 2/9/2000 No water return
										N5 MEDIUM GRAY SANDY CLAY SHALE Limestone nodules		
37	NQ-2	195.0	200.0		5.0	84	195			N5 MEDIUM GRAY CLAY SHALE Hard		
38	NQ-2	200.0	210.0		9.0	91	200					No water return
							205					
39	NQ-2	210.0	215.0		5.0	60	210					
40	NQ-2	215.0	217.4		1.4	64	215					
41	NQ-2	217.4	219.0		1.6	75		CL		CLAY SEAM at 217.0'-217.3'		
42	NQ-2	219.0	224.0		4.0	23		CL		CLAY SEAM at 218.8'-219.0'		
							220			RED, GRAY & BROWN CLAY SHALE		
												Bottom of boring at 224.0' Used approx. 6000 gallons of water to core this boring.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 348,513.9 E 2,103,918.7**

GROUND ELEVATION **724.2** SYSTEM **State Plane using NADA27**

BORING NO. **R-2002** DATE **11/24/10** SHEET **1** OF **10**

BORING START **2/7/00** BORING FINISH **2/19/00**

PIEZOMETER TYPE **SS** WELL TYPE **OW**

HGT. RISER ABOVE GROUND **1.85** DIA **2"**

DEPTH TO TOP OF WELL SCREEN **193.6** BOTTOM **232.6**

WELL DEVELOPMENT _____ BACKFILL _____

FIELD PARTY **MCR/PK** RIG **BK-81**

Water Level, ft	▽	▼	▼
TIME			
DATE			

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	1.7	3.2	6-7-8	1.4		5		SP	LIGHT BROWN FINE to MEDIUM GRAIN SAND With some 1/2" size fragments, dry		Deconned rig and tools at G-5 belt head using Leading Creek potable water and liqui-nox before drilling. Used Leading Creek potable water for drilling.
2	SS	6.7	8.2	5-6-6	1.5		10					
3	SS	11.7	13.2	13-13-15	1.4		15		SP	GRAY to BROWN MEDIUM GRAIN SANDSTONE FRAGMENTS Dry		
4	SS	16.7	18.2	7-8-10	1.5				SP	BROWN FINE to MEDIUM GRAIN SAND Dry		

TYPE OF CASING USED

<input checked="" type="checkbox"/>	NQ-2 ROCK CORE
<input checked="" type="checkbox"/>	6" x 3.25 HSA
	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
	AIR HAMMER 8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **MCR**

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **2** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
5	SS	21.7	23.2	8-10-9	1.4		25		SP	GRAY to BROWN FINE to MEDIUM GRAIN SAND With approx 50% of sample being fragments, dry		
6	SS	26.7	28.2	6-7-30	1.5		30		SP	GRAY FINE to MEDIUM GRAIN SAND Some brown, with approx 50% of sample being fragments, dry		
7	SS	31.7	33.2	10-11-14	1.4		35					
8	SS	36.7	38.2	16-22-22	1.4		40					
9	SS	41.7	43.2	9-21-32	1.5		45		SP	LIGHT to MEDIUM BROWN MEDIUM GRAIN SANDSTONE FRAGMENTS With fine grain sand layers		
10	SS	44.1	45.6	8-8-11	1.5		45			BROWN STIFF CLAY with COAL, SANDSTONE FRAGMENTS, & GRAVEL MINE SPOIL Dry		Started adding drilling mud inside of augers at 43.2' to help with drilling.

AEP_R1R2.GPJ_AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **3** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD		DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%							
11	SS	46.7	48.2	8-9-12	1.5			50					
12	SS	51.7	53.2	9-11-10	1.5			55					
13	SS	56.7	58.2	8-12-11	1.5			60					
14	SS	61.7	63.2	9-13-19	1.5			65		CL	RED SHALEY CLAY		
15	SS	66.7	67.4	28-50/.2	0.6						RED CLAY SHALE		
16	SS	68.9	69.0	50/0	0						10YR 7/4 GRAYISH ORANGE CLAY SHALE		Drilling to this point was using 6.25"HSA. Pulled HSA's and installed 6" SW casing. Cleaned inside of casing with 6" roller bit.
17	NQ-2	69.0	74.8		6.2	63		70			N7 LIGHT GRAY FINE GRAIN SANDSTONE Hard		

AEP R1R2.GPJ AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **4** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
18	NQ-2	74.8	79.8		3.6	33	75					
19	NQ-2	79.8	84.8		5.8	78	80					
20	NQ-2	84.8	90.8		6.5	66	85					SWL at 9.8' on 2/15/00 at 7:30AM; NQ hole depth at 84.8'
							90					
21	NQ-2	90.8	94.8		1.7	24						
22	NQ-2	94.8	97.3		1.0	60	95					
23	NQ-2	97.3	98.3		0.6	0						

AEP R1R2.GPJ AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **5** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
24	NQ-2	98.3	103.3		1.0	0	100					Used 2000 gallons of water to this point - 98.3'
25	NQ-2	103.3	108.3		4.2	95	105					
26	NQ-2	108.3	114.8		7.1	76	110					
27	NQ-2	114.8	117.8		3.0	80	115			10R 6/2 PALE RED CLAY SHALE Soft to medium hard, slightly weathered		
28	NQ-2	117.8	125.0		7.4	9	120			CLAY SHALE Badly broken, medium hard		
										SILTY FINE GRAIN SANDSTONE Hard		
										5R 6/2 PALE RED CLAY SHALE Medium hard, badly broken		SWL at 16.8' on 2/16/00 at 7:30 am; NQ hole to 117.8'

AEP R1R2.GPJ AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **6** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
29	NQ-2	125.0	130.0		4.5	56	125			5R 5/4 MODERATE RED CLAY SHALE		
										N7 LIGHT GRAY CLAY SHALE		
30	NQ-2	130.0	140.0		9.6	22	130			5R 5/4 MODERATE RED CLAY SHALE Medium to hard		
										5B 7/1 GRAY SILTY CLAY SHALE		
										REDDISH CLAY SHALE Medium to hard		
31	NQ-2	140.0	145.0		4.7	55	140			5B 7/1 LIGHT BLUISH GRAY FINE GRAIN SILTY SANDSTONE		
										5R 5/4 MODERATE RED CLAY SHALE		
32	NQ-2	145.0	155.0		8.8	15	145			5B 7/1 LIGHT BLUISH GRAY CLAY SHALE Medium hard		Used 5000 gallons of water to this point - 145'

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **7** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
33	NQ-2	155.0	159.0		4.6	61	155			5R 5/4 MODERATE RED CLAY SHALE Medium hard		
34	NQ-2	159.0	165.0		5.0	36	160			5Y 5/2 LIGHT OLIVE GRAY CLAY SHALE Soft		
35	NQ-2	165.0	170.0		4.8	17	165			5R 6/2 PALE RED CLAY SHALE Soft		
36	NQ-2	170.0	174.0		2.9	28	170			5R 5/4 MODERATE RED CLAY SHALE Soft		
37	NQ-2	174.0	180.0		5.1	55	175					

AEP_R1R2.GPJ_AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **8** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
38	NQ-2	180.0	190.0		9.7	29	180			10R 6/2 PALE RED CLAY SHALE Hard		
							185		5B 7/1 LIGHT BLUISH GRAY CLAY SHALE Hard			
							190		10R 6/2 PALE RED CLAY SHALE Hard			
39	NQ-2	190.0	196.5		5.3	58	190			10R 6/2 PALE RED CLAY SHALE Soft		
40	NQ-2	196.5	205.0		8.2	56	195					
							200			5B 5/1 MEDIUM BLUISH GRAY FINE GRAIN SANDY SILTSTONE Hard		

AEP_R1R2.GPJ_AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-2002** DATE **11/24/10** SHEET **10** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/7/00** BORING FINISH **2/19/00**







SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							230			10R 4/6 MODERATE REDDISH BROWN CLAY SHALE Medium hard		Stopped boring at 233.5' on 2/19/00. Used approx. 10,000 gallons of water to drill hole. Monitoring well to be installed at a later date.

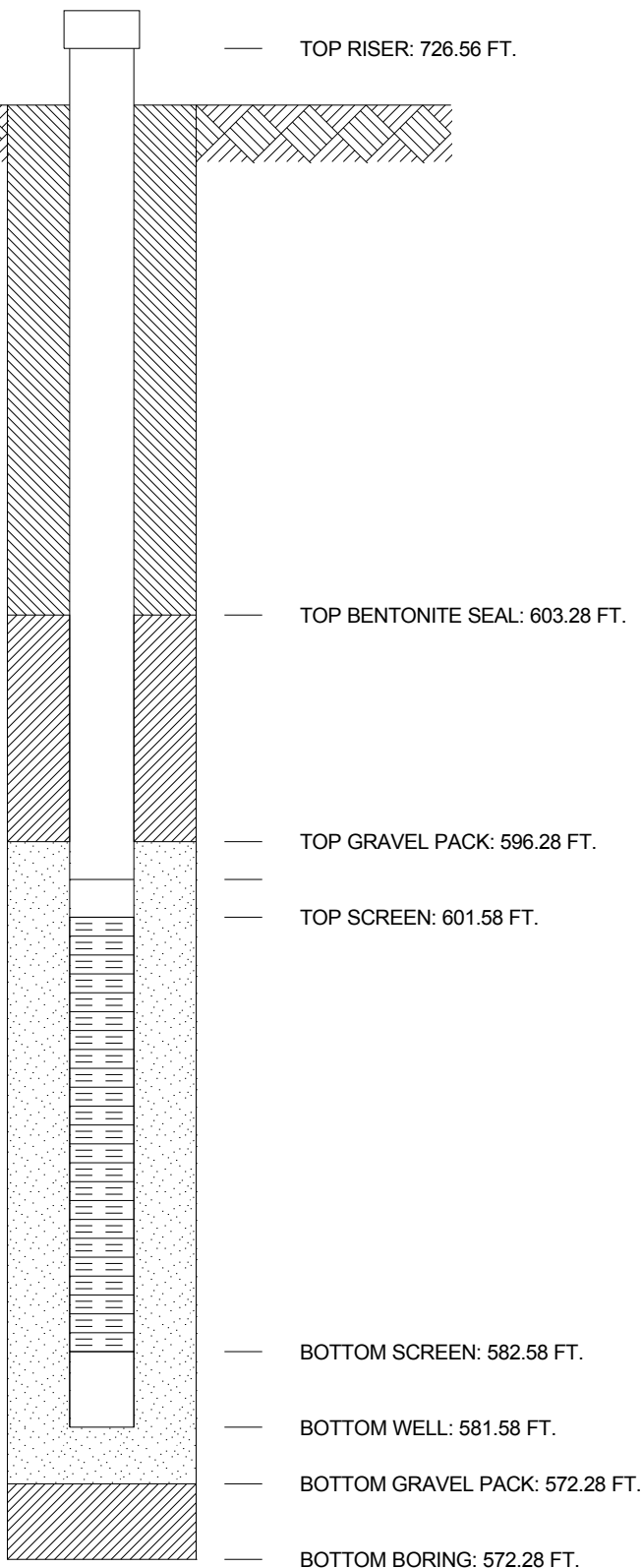
AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER _____
 COMPANY _____ WELL No. **R-2003** BORING No. **R-2003** INSTALLED **3/7/00**
 PROJECT **GAVIN FGD CONVERSION PROJECT**
 COORDINATES **N 348,517.2 E 2,103,917.1**
 SYSTEM **State Plane using NADA27**

GROUND ELEVATION 724.28 FT.

-  GROUT SEAL: APPROX. 200 GALLONS QUICK GROUT
-  BENTONITE SEAL: 100 lbs 3/8" BENTONITE CHIPS
-  SCREEN: 2" dia., PVC, SLOT SIZE 20, 20'
-  GRAVEL PACK: 550 lbs #4 QUARTZ
-  RISER PIPE: 2", dia., PVC
-  SPACERS, DEPTH: 135', 85', & 55'



Notes:
 THIS WELL IS CLUSTERED WITH WELL R-2002.
 THIS INSTALLATION WAS NOT AS PER J T
 MASSEY-NORTON

Potable water supply from G-5 belthead.
 This well was drilled with a 5 7/8" roller bit, water & air.
 The well boring was flushed with approx. 1000 gallons of
 potable water and then blown dry prior to well
 installation.

Bentonite seal was hydrated as placed in one foot lifts.
 Spider spacers at 135', 85' & 55'.

SWL at installation was at 142'
 Measurement from top of pipe to bottom is 144.7'

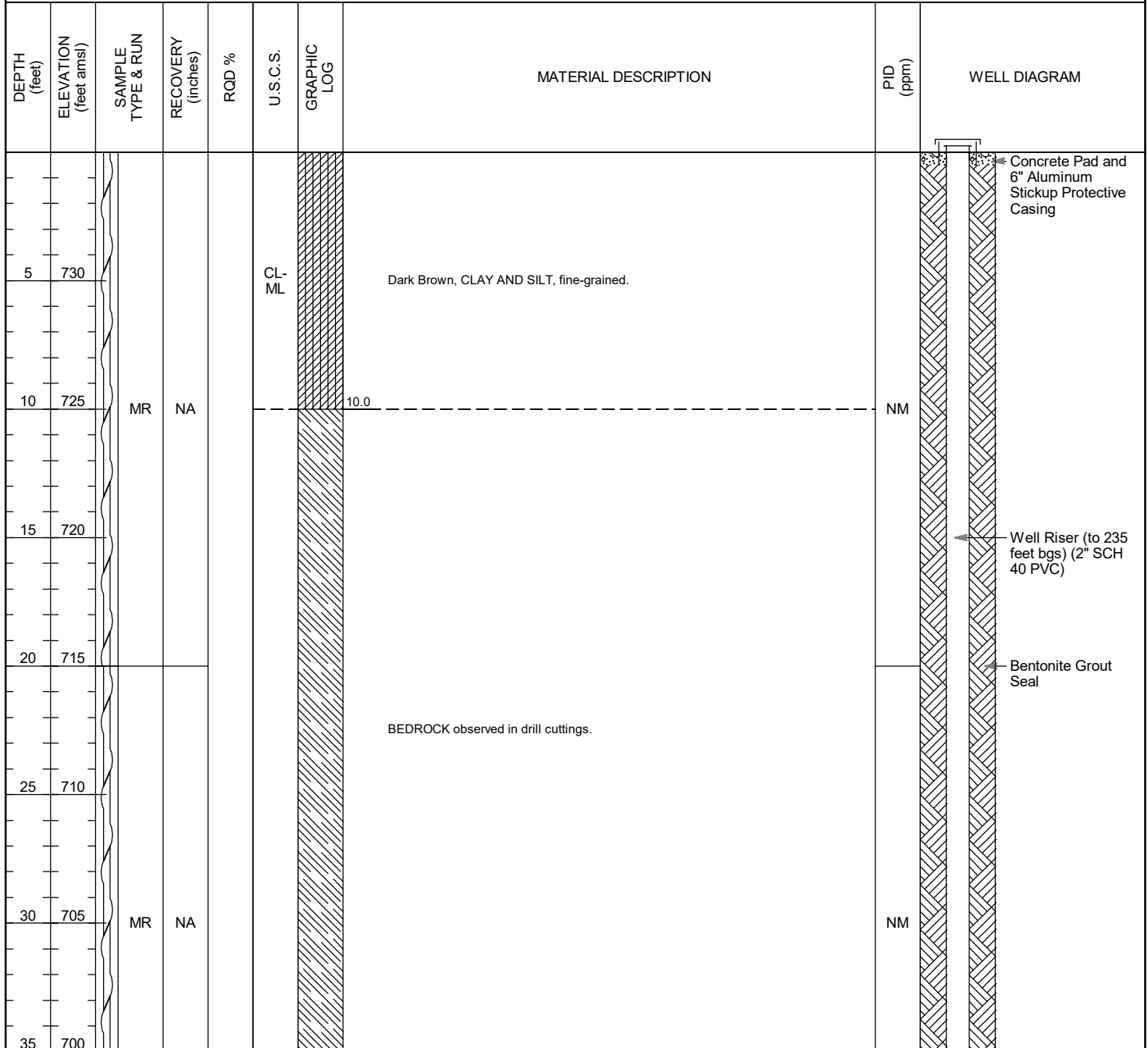
**5.3' of screen exposed to bentonite seal. (Note depths
 on top of screen and top of gravel pack)



ERM
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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342 **Project Location:** Cheshire, OH

DATE STARTED: <u>11/27/2018</u>	TOTAL DEPTH: <u>260 feet bgs</u>	WELL DEVELOPMENT
DATE COMPLETED: <u>12/5/2018</u>	DIAMETER: <u>4 inches</u>	METHOD(S): <u>Pump</u>
DRILLING CONTRACTOR: <u>Terracon</u>	GROUND ELEVATION: <u>735 feet amsl (approx.)</u>	DATE STARTED: <u>03/01/2019</u>
DRILLING METHODS: <u>Mud Rotary/ Rock Coring</u>	PVC ELEVATION: <u>735.78 feet amsl</u>	DATE ENDED: <u>09/05/2019</u>
LOGGED BY: <u>R. Baisden</u>	NORTHING: <u>345328.751</u>	DTW AT START: <u>NM</u>
CHECKED BY: <u>H. Usle</u>	EASTING: <u>2104378.726</u>	DTW AT END: <u>NM</u>
NOTES: <u>Additional drilling and formation water removed during drawdown test prior to well installation.</u>		VOLUME PURGED: <u>90 gallons</u>



SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
40	695								
45	690								
50	685	MR	NA					NM	Well Riser (to 235 feet bgs) (2" SCH 40 PVC)
55	680								
60	675						BEDROCK observed in drill cuttings. (continued)		Bentonite Grout Seal
65	670								
70	665	MR	NA					NM	
75	660								

SAMPLE TYPE Mud Rotary Wireline Rock Coring	GRAPHIC LOG LEGEND Silty Clay Sandstone Bedrock Mudstone Siltstone	ACRONYM LEGEND amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride
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Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	655								
85	650								
90	645	MR	NA					NM	Well Riser (to 235 feet bgs) (2" SCH 40 PVC) Bentonite Grout Seal
95	640								
100	635						BEDROCK observed in drill cuttings. (continued)		
105	630								
110	625	MR	NA						NM
115	620								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
120	615								
125	610								
130	605	MR	NA					NM	
135	600								
140	595								
145	590								
150	585	MR	NA					NM	
155	580								

BEDROCK observed in drill cuttings. *(continued)*

Well Riser (to 235 feet bgs) (2" SCH 40 PVC)

Bentonite Grout Seal

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
160	575								
165	570								
170	565	MR	NA					NM	Well Riser (to 235 feet bgs) (2" SCH 40 PVC)
175	560								Bentonite Grout Seal
180	555						BEDROCK observed in drill cuttings. (continued)		
185	550								
190	545	MR	NA					NM	
195	540								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
200	535								
205	530								
210	525	MR	NA				BEDROCK observed in drill cuttings. <i>(continued)</i>	NM	Well Riser (to 235 feet bgs) (2" SCH 40 PVC)
215	520								Bentonite Grout Seal
220	515								
225	510	RC (1)	36	0				NM	
230	505	RC (2)	44	0			Round Knob, Red Brown, MUDSTONE, fine-grained, laminated, moderate to weak, moderately disintegrated, moderately decomposed to fresh, conformable.	NM	Bentonite Seal
235	500	RC (3)	15	0				NM	Filter Sand (#0 and #1)
240	495	RC (4)	117	42			Cow Run, Gray To Light Gray, SANDSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable, silt interbeds, silt content increasing with depth, pyrite mineralization from 235 to 236 feet bgs, fracture at 237.5 feet bgs.	NM	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
245	490								
250	485	RC (5)	114	43			Cow Run, Gray To Light Gray, SANDSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable, silt interbeds, silt content increasing with depth, pyrite mineralization from 235 to 236 feet bgs, fracture at 237.5 feet bgs. <i>(continued)</i>	NM	<p>Well Screen (235 to 255 feet bgs) (2" SCH 40 PVC/ 0.01 slot)</p> <p>Sump</p>
255	480								
260	475	RC (6)	60	0			Gray To Red Brown, SILTSTONE, fine-grained, laminated, weak, slightly decomposed, slightly disintegrated, conformable.	NM	
							Bottom of Boring @ 260.00 feet bgs		
265	470								
270	465								
275	460								
280	455								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342 **Project Location:** Cheshire, OH

DATE STARTED: 10/10/2018 **TOTAL DEPTH:** 195 feet bgs **WELL DEVELOPMENT**
DATE COMPLETED: 10/24/2018 **DIAMETER:** 4 inches **METHOD(S):** Bailer
DRILLING CONTRACTOR: Terracon **GROUND ELEVATION:** 755 feet amsl (approx.) **DATE STARTED:** 11/6/2018 11:20:00 AM
DRILLING METHODS: Mud Rotary/ Rock Coring **PVC ELEVATION:** 757.32 feet amsl **DATE ENDED:** 11/6/2018 12:15:00 PM
LOGGED BY: R. Baisden **NORTHING:** 345708.471 **DTW AT START:** 182.03 feet bgs
CHECKED BY: H. Usle **EASTING:** 2104765.115 **DTW AT END:** 182.19 feet bgs
NOTES: Additional drilling and formation water removed during drawdown test prior to well installation. **VOLUME PURGED:** 6 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM	
5	750	MR	NA		CL-ML		Dark Brown, CLAY AND SILT, fine-grained.	NM		
10	745						11.5			Pomeroy, Light Brown, SANDSTONE, fine- to medium-grained, massive, strong, fresh, conformable.
15	740						18.0			Pomeroy, Gray, SILTSTONE, trace fine sand, fine-grained, thinly bedded, moderate, fresh, conformable.
20	735	MR	NA				Pomeroy, COAL, fine-grained, thinly bedded, moderate, fresh, conformable, organic-rich laminated coal beds.	NM		
25	730						25.0			Pomeroy, Gray To Light Brown, SANDSTONE, fine-grained, thin to medium bedded, strong, fresh, conformable.
30	725						32.0			
35	720									

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary	Silty Clay	amsl = above mean sea level
Wireline Rock Coring	Sandstone	bgs = below ground surface
	Siltstone	DTW = depth to water
	Coal	NA = not applicable
	Shale	NM = not measured
	Limestone	NR = no recovery
		PID = photoionization detector
		ppm = parts per million
		PVC = polyvinyl chloride



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Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
40	715						Pomeroy, Gray To Light Brown, SANDSTONE, fine-grained, thin to medium bedded, strong, fresh, comfortable, gray to black silt and clay crossbeds. (continued)		
45	710						Pomeroy, Dark Gray, CLAYSTONE, fine-grained, thinly bedded, moderate, fresh, conformable, micaceous.		
50	705	MR	NA				Pomeroy, Gray, SANDSTONE, some silt, fine to medium grained, thinly bedded, strong, fresh, conformable.		
52	703						Pomeroy, Black, SHALE, fine-grained, laminated, moderate, fresh, conformable.	NM	
53	702						Pomeroy, Black, COAL, weak, fresh, conformable.		
55	700								
60	695								
65	690						Pittsburg Undifferentiated Units, Dark Gray To Gray, SHALE, fine-grained, laminated, moderate, fresh, conformable, 2-4" coal seams at 60 and 68 feet bgs, transtions to organic-rich shale with nodules at 70 feet bgs.		
70	685	MR	NA					NM	
75	680						Pittsburg, Gray, LIMESTONE, fine-grained, massive, moderate, fresh, conformable.		

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Sandstone Siltstone Coal Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	675						Pittsburg, Gray, LIMESTONE, fine-grained, massive, moderate, fresh, conformable. (continued)		<p>Well Riser (to 182 feet bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal</p>
85	670						Pittsburg Undifferentiated Units, Dark Red, MUDSTONE, fine-grained, thinly bedded, weak, fresh, conformable.		
90	665	MR	NA				Pittsburg Undifferentiated Units, Gray To Dark Gray, SHALE, fine-grained, thinly bedded, strong, fresh, conformable, nodules of limestone from 90 to 95 feet bgs, 5-10 mm pyrite inclusions from 95 to 97.5 feet bgs.	NM	
95	660						Connellsville, Gray To Light Gray, SANDSTONE, fine-grained, thickly bedded, strong, fresh, conformable, clay interbeds.		
100	655						Connellsville, Dark Gray, SILTSTONE, fine-grained, laminated, moderate to strong, slightly decomposed, conformable.		
105	650	MR	NA				Connellsville, Gray, LIMESTONE, fine-grained, massive, moderate, fresh, conformable.		
110	645						Connellsville, Gray, SANDSTONE, fine-grained, thickly bedded, strong, fresh, conformable, clay interbeds.		
115	640								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Coal Sandstone Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Name: Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
120	635						Connellsville, Gray, SANDSTONE, fine-grained, thickly bedded, strong, fresh, conformable, clay interbeds. <i>(continued)</i>		<p>Well Riser (to 182 feet bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal</p>
125	630						Connellsville, Dark Red, MUDSTONE, fine-grained, thinly bedded, moderate, fresh, conformable.		
130	625	MR	NA				Connellsville, Gray, SANDSTONE, fine-grained, thinly bedded, strong, fresh, conformable, clay interbeds, micaceous.	NM	
135	620						Connellsville, Dark Gray, LIMESTONE, fine-grained, massive, strong, slightly decomposed, slightly disintegrated, conformable, inclusions.	NM	
140	615								
145	610								
150	605	MR	NA				Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, gravel and sand inclusions from 162 to 164 feet bgs.	NM	
155	600								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Coal Sandstone Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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 Telephone: +1 (617) 646-7800

Client: Gavin Power, LLC

Project Name: Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
160	595	RC (1)	54	50				NM	
165	590								
170	585	RC (3)	55	13			NM		
175	580								RC (4)
180	575	RC (5)	113	77				NM	
185	570								RC (5)
190	565	RC (5)	113	77			NM		
195	560								

182.5

188.5

194.5

195.0

Bottom of Boring @ 195.00 feet bgs

Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, gravel and sand inclusions from 162 to 164 feet bgs. (continued)

Morgantown, Dark Gray, SANDSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable, silt bands near 182.5 feet bgs, silt decreases with depth, micaceous, pyrite inclusions from 187 to 187.8 feet bgs, fracture at 183 feet bgs.

Morgantown, Gray To Red Brown, SILTSTONE, trace fine sand, fine-grained, thinly bedded, moderate, fresh to slightly decomposed, conformable.

Round Knob, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable.

Well Riser (to 182 feet bgs) (2" SCH 40 PVC)

Bentonite Grout Seal

Bentonite Seal

Filter Sand (#0 and #1)

Well Screen (182 to 192 feet bgs) (2" SCH 40 PVC/ 0.01 slot)

Sump

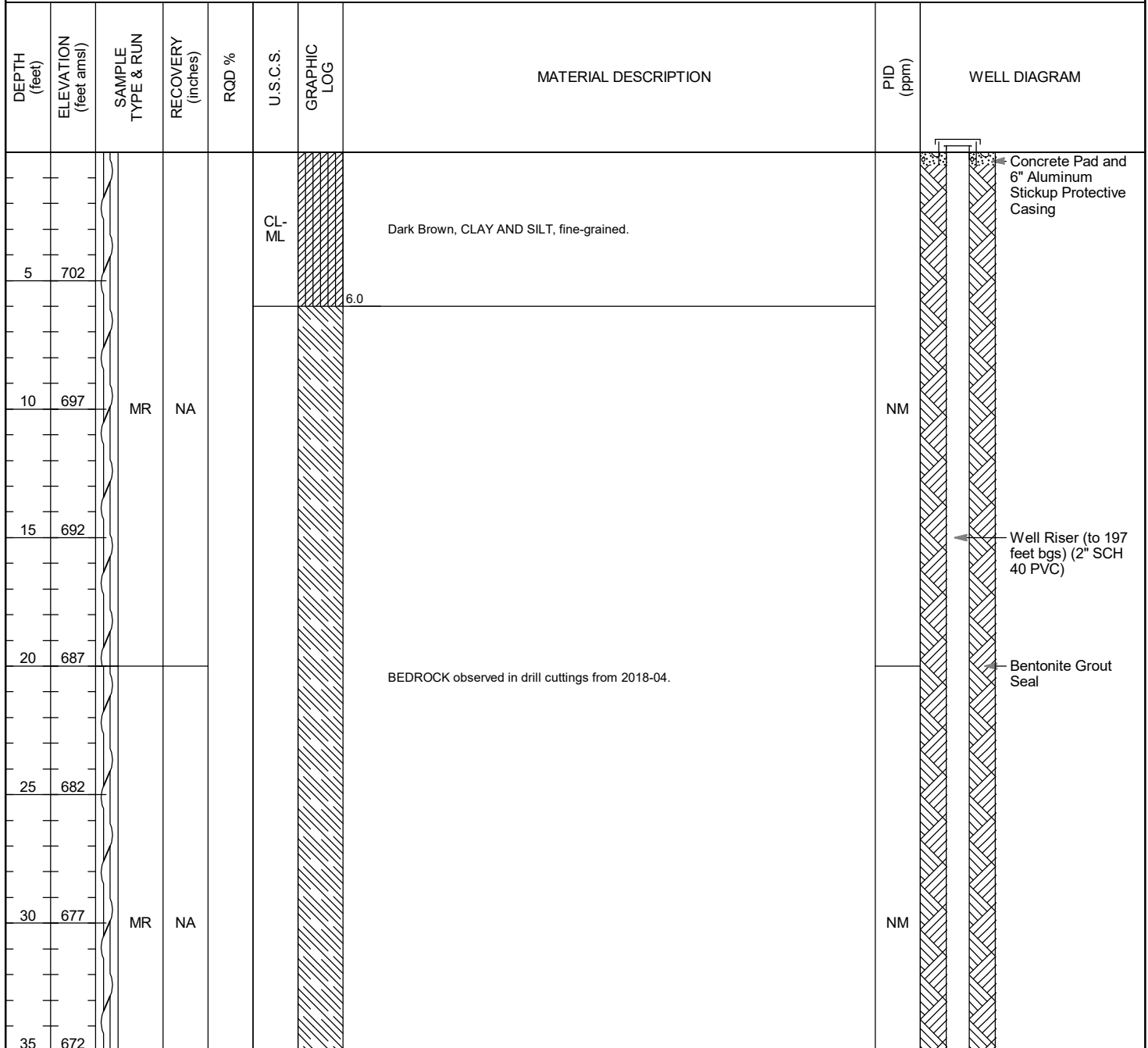
SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Sandstone Siltstone Coal Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342 **Project Location:** Cheshire, OH

DATE STARTED: <u>10/31/2018</u>	TOTAL DEPTH: <u>226 feet bgs</u>	WELL DEVELOPMENT
DATE COMPLETED: <u>11/19/2018</u>	DIAMETER: <u>4 inches</u>	METHOD(S): <u>Bailer</u>
DRILLING CONTRACTOR: <u>Terracon</u>	GROUND ELEVATION: <u>706.81 feet amsl (approx.)</u>	DATE STARTED: <u>11/29/2018 9:00:00 AM</u>
DRILLING METHODS: <u>Mud Rotary/ Rock Coring</u>	PVC ELEVATION: <u>708.81 feet amsl</u>	DATE ENDED: <u>11/29/2018 12:00:00 PM</u>
LOGGED BY: <u>R. Baisden</u>	NORTHING: <u>346131.471</u>	DTW AT START: <u>200.74 feet bgs</u>
CHECKED BY: <u>H. Usle</u>	EASTING: <u>2105235.482</u>	DTW AT END: <u>222 feet bgs</u>
NOTES: <u>Additional drilling and formation water removed during drawdown test prior to well installation.</u>		VOLUME PURGED: <u>9 gallons</u>



SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Siltstone Sandstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
40	667						BEDROCK observed in drill cuttings from 2018-04. (continued)	NM	<p>Well Riser (to 197 feet bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal</p>
45	662								
50	657	MR	NA						
55	652								
60	647								
65	642								
70	637	MR	NA						
75	632								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Siltstone Sandstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	627								
85	622								
90	617	MR	NA					NM	Well Riser (to 197 feet bgs) (2" SCH 40 PVC)
95	612								
100	607								Bentonite Grout Seal
105	602								
110	597	MR	NA					NM	
115	592								
						115.0	BEDROCK observed in drill cuttings from 2018-04. (continued)		
							Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition and disintegration fluctuate throughout, more competent from 125 to 125.9 feet bgs..		

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Siltstone Sandstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM	
120	587	MR	NA				Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition and disintegration fluctuate throughout, more competent from 125 to 125.9 feet bgs., (continued)	NM		
125	582						125.9			Morgantown, Gray, SILTSTONE, some fine sand, fine-grained, thinly bedded, strong, fresh, conformable.
130	577						127.8			Morgantown, Red, SILTSTONE, fine-grained, thinly bedded, strong, fresh, conformable.
							128.8			Morgantown, Red, SILTSTONE, fine-grained, thinly bedded, strong, fresh, conformable.
135	572						Morgantown, Gray, SANDSTONE, with silt, fine-grained, thinly bedded, strong, fresh, conformable.			
140	567	MR	NA				Round Knob, Reddish Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, pyrite inclusions from 135.5 to 139.5 feet bgs.	NM		
145	562						139.5			Round Knob, Reddish Brown, SHALE, lithology inferred from cuttings.
150	557									
155	552									

Well Riser (to 197 feet bgs) (2" SCH 40 PVC)

Bentonite Grout Seal

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Siltstone Sandstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
160	547								
165	542								
170	537	MR	NA					NM	Well Riser (to 197 feet bgs) (2" SCH 40 PVC)
175	532						Round Knob, Reddish Brown, SHALE, lithology inferred from cuttings. (continued)		Bentonite Grout Seal
180	527								
185	522	MR	NA					NM	
190	517								
195	512	RC (1)	110	10			Round Knob, Reddish Brown, SHALE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, grayish green with pyrite inclusions from 191.3 to 195.8 feet bgs.	NM	Bentonite Seal
									Filter Sand (#0 and #1)
							191.0 197.8 Cow Run, Dark Gray To Green, SILTSTONE, some fine sand, fine-grained, thinly bedded, moderate to strong, fresh, conformable, fluctuating fine sand content with sand lenses throughout, pyrite inclusions from 215 to 216 feet bgs.		

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Siltstone Sandstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Number: 0472342

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
200	507					X X X X X			<p>Well Screen (197 to 222 feet bgs) (2" SCH 40 PVC/ 0.01 slot)</p> <p>Sump</p>
205	502	RC (2)	111	23		X X X X X	Cow Run, Dark Gray To Green, SILTSTONE, some fine sand, fine-grained, thinly bedded, moderate to strong, fresh, conformable, fluctuating fine sand content with sand lenses throughout, pyrite inclusions from 215 to 216 feet bgs. <i>(continued)</i>	NM	
210	497					X X X X X		NM	
215	492	RC (3)	51	0		X X X X X		NM	
220	487					X X X X X	216.0 Dark Green, SILTSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable.		
225	482	RC (4)	112	12		X X X X X	221.5 Red Brown, SHALE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable.	NM	
230	477						226.0 <i>Bottom of Boring @ 226.00 feet bgs</i>		
235	472								
240	467								

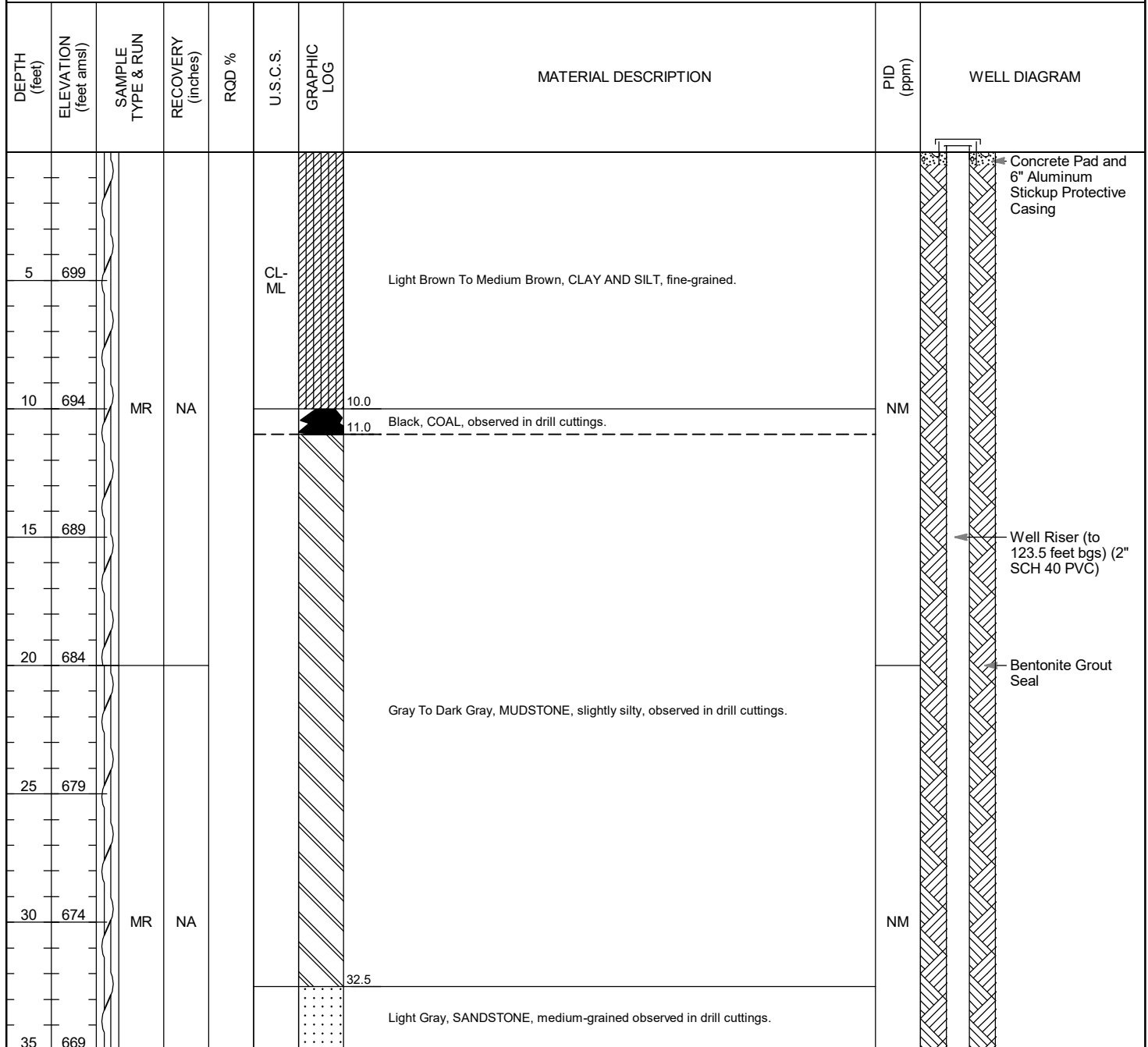
SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Bedrock Mudstone Siltstone Sandstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342 **Project Location:** Cheshire, OH

DATE STARTED: <u>10/25/2018</u>	TOTAL DEPTH: <u>140 feet bgs</u>	WELL DEVELOPMENT
DATE COMPLETED: <u>11/1/2018</u>	DIAMETER: <u>4 inches</u>	METHOD(S): <u>Bailer</u>
DRILLING CONTRACTOR: <u>Terracon</u>	GROUND ELEVATION: <u>704.38 feet amsl (approx.)</u>	DATE STARTED: <u>11/29/2018 12:15:00 PM</u>
DRILLING METHODS: <u>Mud Rotary/ Rock Coring</u>	PVC ELEVATION: <u>708.18 feet amsl</u>	DATE ENDED: <u>11/29/2018 12:45:00 PM</u>
LOGGED BY: <u>R.Baisden</u>	NORTHING: <u>346141.386</u>	DTW AT START: <u>132.19 feet bgs</u>
CHECKED BY: <u>H. Usle</u>	EASTING: <u>2105235.044</u>	DTW AT END: <u>133.5 feet bgs</u>
NOTES: <u>Additional drilling and formation water removed during drawdown test prior to well installation.</u>		VOLUME PURGED: <u>4.5 gallons</u>



SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Coal Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
							Light Gray, SANDSTONE, medium-grained observed in drill cuttings. <i>(continued)</i>		
40	664						38.0 Gray, SILTSTONE, medium sand lenses, observed in drill cuttings.		
45	659								
50	654	MR	NA				Gray, SILTSTONE, observed in drill cuttings.	NM	Well Riser (to 123.5 feet bgs) (2" SCH 40 PVC) Bentonite Grout Seal
55	649						55.0		
60	644						Red, MUDSTONE, observed in drill cuttings.		
65	639						64.0 SANDSTONE, fine to medium grained, observed in drill cuttings.		
70	634	MR	NA				66.0 Red Brown, MUDSTONE, drill slows down around 75 feet bgs, observed in drill cuttings.	NM	
75	629								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Coal Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	624						Red Brown, MUDSTONE, drill slows down around 75 feet bgs, observed in drill cuttings. <i>(continued)</i>		<p>Well Riser (to 123.5 feet bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal</p>
85	619							NM	
90	614	MR	NA						
95	609								
100	604						Clarksburg, Red Brown, SILTSTONE, observed in drill cuttings.		
105	599	MR	NA						NM
110	594								
115	589						Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, more competent from 125 to 125.9 feet bgs.		

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Coal Mudstone Sandstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
120	584	RC (1)	55	30				NM	
125	579	RC (2)	45	35			Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, more competent from 125 to 125.9 feet bgs. <i>(continued)</i>	NM	
						125.9			
						127.8	Morgantown, Gray, SILTSTONE, some fine sand, fine-grained, thinly bedded, strong, fresh, conformable.	NM	
						128.8	Morgantown, Red, SILTSTONE, fine-grained, thinly bedded, strong, fresh, conformable.	NM	
130	574	RC (3)	60	97				NM	
						132.5	Morgantown, Gray, SANDSTONE, with silt, fine-grained, thinly bedded, strong, fresh, conformable, unfractured.	NM	
135	569	RC (4)	58	88				NM	
140	564	RC (5)	60	82				NM	
							Round Knob, Reddish Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, pyrite inclusions from 135.5 to 139.5 feet bgs.		
							Bottom of Boring @ 140.00 feet bgs		
145	559								
150	554								
155	549								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Mud Rotary Wireline Rock Coring	Silty Clay Sandstone Coal Mudstone Siltstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PID = photoionization detector ppm = parts per million PVC = polyvinyl chloride



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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation
Project Number: 0488799 **Project Location:** Cheshire, OH

DATE STARTED: <u>2/14/2020</u>	TOTAL DEPTH: <u>178 ft bgs</u>	WELL DEVELOPMENT
DATE COMPLETED: <u>2/20/2020</u>	DIAMETER: <u>4-6 inches</u>	METHOD(S): <u>Air Lift, Grundfos & Buffalo Pump</u>
DRILLING CONTRACTOR: <u>Frontz Drilling, Inc.</u>	GROUND ELEVATION: <u>739.55 ft amsl (approx.)</u>	DATE STARTED: <u>3/2/2020</u>
DRILLING METHODS: <u>Sonic Drilling/ Rock Coring</u>	PVC ELEVATION: <u>742.35 ft amsl</u>	DATE ENDED: <u>4/21/2020</u>
LOGGED BY: <u>L. Velasquez</u>	NORTHING: <u>345950.995</u>	DTW AT START: <u>29.9 ft bgs</u>
CHECKED BY: <u>H. Usle</u>	EASTING: <u>2101809.107</u>	DTW AT END: <u>141.4 ft bgs</u>
NOTES: <u>Steel casing (6") advanced to 148 ft bgs; 4" rock coring to termination depth.</u>		VOLUME PURGED: <u>48.5 gallons</u>

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
5	735	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs.	<p>Concrete Pad and 6" Aluminum Stickup Protective Casing</p> <p>Well Riser (to 158 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 150 ft bgs)</p>
10	730							
15	725	SC						
20	720							
25	715							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation
Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
30	710	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. <i>(continued)</i>	<p>Well Riser (to 158 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 150 ft bgs)</p>
35	705	SC						
40	700							
45	695	SC						
50	690							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Project Number: 0488799

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
55	685	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. <i>(continued)</i>	<p>Well Riser (to 158 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 150 ft bgs)</p>
60	680							
65	675	SC						
70	670							
75	665	SC						
80	660							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
85	655	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. <i>(continued)</i>	<p>Well Riser (to 158 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 150 ft bgs)</p>
90	650							
95	645	SC						
100	640							
105	635	SC						
110	630							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	625	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. <i>(continued)</i>	<p>Well Riser (to 158 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 150 ft bgs)</p>
120	620							
125	615	SC						
130	610							
135	605	SC						
140	600							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Client: Gavin Power, LLC

Project Name: Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
145	595	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. <i>(continued)</i>	
							148.0	
							NO RECOVERY. 149.0	
150	590	RC (1)	108	68			Reddish Brown, SANDSTONE TO SILTSTONE, fine-grained, moderate strength, 10% bedding planes. (Clarksburg), soft.	
							153.0	
							Grayish Green, SILTSTONE AND SANDSTONE, very fine-grained, interbedded, moderate strength, fresh, competent, 20% bedding planes at 154 ft bgs. (Morgantown), hard.	
							154.5	
155	585						Grayish Green, SANDSTONE, fine-grained, strong, healed fracture/joint observed at 155 ft bgs. (Morgantown).	
							155.5	
							Grayish Green, SILTSTONE AND SANDSTONE, interbedded, moderate strength, fresh, competent, 10% bedding planes. (Morgantown).	
							157.0	
							Grayish Green, SHALE, minor siltstone, moderate strength, (Morgantown), soft.	
							158.0	
160	580	RC (2)	72	35			NO RECOVERY.	
							162.0	
							Grayish Green, SANDSTONE, minor siltstone, fine-grained, interbedded, fresh, competent.	
							164.0	
							Reddish Brown, SANDSTONE TO SILTSTONE, fine-grained, interbedded, moderate strength, soft.	
							165.0	
165	575						Grayish Green, SANDSTONE, minor shale, fine-grained, interbedded, fresh, competent, hard.	
							166.0	
							Grayish Green, SHALE, minor siltstone, interbedded, moderate strength, soft.	
							168.0	
170	570						NO RECOVERY.	

← Bentonite Seal (150 to 156 ft bgs)

← Filter Sand (#0 and #1) (156 to 178 ft bgs)

← Well Screen (158 to 178 ft bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
175	565	RC (3)	NR				NO RECOVERY. (continued)	<p>Well Screen (158 to 178 ft bgs) (2" SCH 40 PVC/ 0.01" slot)</p> <p>End Cap</p>
180	560						Bottom of Boring @ 178.00 feet bgs	
185	555							
190	550							
195	545							
200	540							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation
Project Number: 0488799 **Project Location:** Cheshire, OH

DATE STARTED: <u>1/20/2020</u>	TOTAL DEPTH: <u>228 ft bgs</u>	WELL DEVELOPMENT
DATE COMPLETED: <u>1/28/2020</u>	DIAMETER: <u>4-6 inches</u>	METHOD(S): <u>Air Lift, PVC Bailer</u>
DRILLING CONTRACTOR: <u>Frontz Drilling, Inc.</u>	GROUND ELEVATION: <u>813.07 ft amsl (approx.)</u>	DATE STARTED: <u>3/5/2020</u>
DRILLING METHODS: <u>Sonic Drilling/ Rock Coring</u>	PVC ELEVATION: <u>815.92 ft amsl</u>	DATE ENDED: <u>5/22/2020</u>
LOGGED BY: <u>L. Velasquez</u>	NORTHING: <u>347851.285</u>	DTW AT START: <u>86.4 ft bgs</u>
CHECKED BY: <u>H. Usle</u>	EASTING: <u>2100292.973</u>	DTW AT END: <u>191.6 ft bgs</u>
NOTES: <u>Steel casing (6") advanced to 178 ft bgs; 4" rock coring to termination depth.</u>		VOLUME PURGED: <u>33.5 gallons</u>

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
5	808	SC						<p>Concrete Pad and 6" Aluminum Stickup Protective Casing</p> <p>Filter Sand (#0 and #1) (0.3 to 7 ft bgs)</p> <p>Well Riser (to 192 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Seal (7 to 82 ft bgs)</p>
10	803						Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs.	
15	798	SC						
20	793							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
25	788	SC						
30	783						Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i>	
35	778	SC						
40	773							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	768	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i>	<p>Well Riser (to 192 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Seal (7 to 82 ft bgs)</p>
50	763							
55	758	SC						
60	753							
65	748	SC						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	743							
75	738	SC						Well Riser (to 192 ft bgs) (2" SCH 40 PVC)
80	733						Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. (continued)	Bentonite Seal (7 to 82 ft bgs)
85	728	SC						Bentonite Grout Seal (82 to 120 ft bgs)
90	723							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
95	718	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i>	<p>Well Riser (to 192 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (82 to 120 ft bgs)</p>
100	713							
105	708	SC						
110	703							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	698	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i>	<p>Well Riser (to 192 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Seal</p>
120	693							
125	688	SC						
130	683							
135	678	SC						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	673							
145	668	SC						<p>Well Riser (to 192 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (82 to 120 ft bgs)</p>
150	663						Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i>	
155	658	SC						
160	653							

SAMPLE TYPE
Sonic Drilling Wireline Rock Coring

GRAPHIC LOG LEGEND		
SANDSTONE Sandstone	SILTSTONE Siltstone	SHALE Shale

ACRONYM LEGEND
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
165	648	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i>	<p>"Well Riser (to 192 ft bgs) (2" SCH 40 PVC)"</p> <p>Bentonite Grout Seal (82 to 120 ft bgs)</p>
170	643	SC						
175	638	SC						
180	633	RC (1)	96	52			178.0 NO RECOVERY. 180.0 Reddish Brown, SANDSTONE TO SILTSTONE, with interbedded shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration, soft. 183.0 Grayish Green, SANDSTONE TO SILTSTONE, with interbedded shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration from 186 to 188 ft bgs, soft.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE SILTSTONE SHALE	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	628						Grayish Green, SANDSTONE TO SILTSTONE, with interbedded shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration from 186 to 188 ft bgs, soft. (continued)	
							188.0	
190	623	RC (2)	96	61			Reddish Brown, SANDSTONE TO SILTSTONE, with shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration, soft.	
							192.0	
195	618						Grayish Green, SANDSTONE, with interbedded claystone and shale, fine- to medium-grained, moderate strength, moderately decomposed, competent, red and light green discoloration, thinly laminated from 193 to 196 ft bgs, rubble zone from 192 to 198 ft bgs. (Morgantown), hard.	
							200.0	
200	613	RC (3)	108	64			Grayish Green to Reddish Brown, SANDSTONE, with interbedded shale, fine- to medium-grained, weak to moderate strength, competent, fresh from 200 to 202 ft bgs, moderately decomposed from 202 to 204 ft bgs, thinly laminated (possibly drilling induced), extends 2 millimeters within, hard.	
							204.0	
205	608						Reddish Brown, SILTSTONE WITH SHALE, interbedded weak to moderate strength, moderately decomposed, rubble zone, soft.	
							205.5	
							Grayish Green, SILTSTONE WITH SHALE, interbedded moderate strength, soft.	
							207.0	
							NO RECOVERY.	
							208.0	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
210	603	RC (4)	120	50			Reddish Brown, SILTY SANDSTONE, with interbedded shale, fine-grained, moderate strength, moderately decomposed. <i>(continued)</i>	<p>Filter Sand (#0 and #1) (192 to 228 ft bgs)</p> <p>Well Screen (194 to 224 ft bgs) (2" SCH 40 PVC/ 0.01" slot)</p> <p>End Cap</p>
					212.0	Grayish Green, SANDSTONE, some interbedded claystone, fine- to medium-grained, fresh, competent, hard.		
					213.5			
215	598					Grayish Green, SILTSTONE WITH SHALE, interbedded moderate strength, soft.		
							Grayish Green, SHALE, moderate strength, soft.	
							Grayish Green, SILTSTONE WITH SHALE, interbedded moderate strength, soft.	
220	593	RC (5)	111	48			Grayish Green, SANDSTONE, interbedded fine- to medium-grained, fresh, competent, hard.	
					224.0			
225	588					Grayish Green, CLAYSTONE AND SHALE, moderate strength, pyrite mineralization, soft.		
							NO RECOVERY.	
							Bottom of Boring @ 228.00 feet bgs	
230	583							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Project Number: 0488799 **Project Location:** Cheshire, OH

DATE STARTED: <u>1/6/2020</u>	TOTAL DEPTH: <u>278 ft bgs</u>	WELL DEVELOPMENT
DATE COMPLETED: <u>1/20/2020</u>	DIAMETER: <u>4-6 inches</u>	METHOD(S): <u>Air Lift, Grundfos Pump</u>
DRILLING CONTRACTOR: <u>Frontz Drilling, Inc.</u>	GROUND ELEVATION: <u>812.91 ft amsl (approx.)</u>	DATE STARTED: <u>3/5/2020</u>
DRILLING METHODS: <u>Sonic Drilling/ Rock Coring</u>	PVC ELEVATION: <u>815.91 ft amsl</u>	DATE ENDED: <u>5/22/2020</u>
LOGGED BY: <u>L. Velasquez</u>	NORTHING: <u>347854.684</u>	DTW AT START: <u>225.1 ft bgs</u>
CHECKED BY: <u>H. Usle</u>	EASTING: <u>2100289.463</u>	DTW AT END: <u>269.6 ft bgs</u>
NOTES: <u>Steel casing (6") advanced to 80 ft bgs; 4" sonic casing to 198 ft bgs; 4" rock coring to termination depth.</u>		VOLUME PURGED: <u>15.5 gallons</u>

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
5	808	SC						<p>Concrete Pad and 6" Aluminum Stickup Protective Casing</p> <p>Filter Sand (#0 and #1) (0 to 10 ft bgs)</p> <p>Well Riser (to 250 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Seal (10 to 83 ft bgs)</p>
10	803							
15	798	SC						
20	793							
25	788							
							Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
30	783	SC					<p>Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i></p>	<p>Well Riser (to 250 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Seal (10 to 83 ft bgs)</p>
35	778	SC						
40	773							
45	768	SC						
50	763							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
55	758	SC						<p>Well Riser (to 250 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Seal (10 to 83 ft bgs)</p>
60	753							
65	748	SC						
70	743							
75	738	SC						
80	733							

Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. (continued)

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- CLAYSTONE Claystone
- SHALE Shale

ACRONYM LEGEND

- amsl = above mean sea level
- bgs = below ground surface
- ft = feet
- DTW = depth to water
- NA = not applicable
- NM = not measured
- NR = no recovery
- PVC = polyvinyl chloride
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
85	728	SC						<p>Well Riser (to 250 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (83 to 241 ft bgs)</p>
90	723							
95	718	SC						
100	713							
105	708	SC						
110	703							

Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. (continued)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	698	SC					<p>Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i></p>	<p>Well Riser (to 250 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (83 to 241 ft bgs)</p>
120	693							
125	688	SC						
130	683							
135	678	SC						
140	673							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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 Telephone: +1 (617) 646-7800

Client: Gavin Power, LLC

Project Name: Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
145	668	SC					<p>Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. <i>(continued)</i></p>	<p>Well Riser (to 250 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (83 to 241 ft bgs)</p>
150	663							
155	658	SC						
160	653							
165	648	SC						
170	643							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
175	638	SC						<p>Well Riser (to 250 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (83 to 241 ft bgs)</p>
180	633							
185	628	SC				Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. (continued)		
190	623							
195	618	SC						
198.0							Light Grayish Green, SANDSTONE, coarse-grained, fresh, competent, hard.	
199.5								
200	613						Green and Red, SILTSTONE, fine-grained, laminated, some organics.	
							Dark Grayish Green, SANDSTONE, with silt, coarse-grained, laminated, weak to moderate, some red discoloration, soft.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM	
205	608	RC (1)	108	23			Dark Grayish Green, SANDSTONE, with silt, coarse-grained, laminated, weak to moderate, some red discoloration, soft. <i>(continued)</i>		
							202.5		Reddish Brown, SILTY SANDSTONE, with clay, fine- to coarse-grained, laminated, weak to moderate, conchoidal breakage, rubble zone.
							205.0		Reddish Brown, SANDSTONE, with silt, very fine- to fine-grained, conchoidal, clay nodules present, rubble zone.
							207.0		
210	603	RC (2)	102	51			NO RECOVERY.		
							209.5		Grayish Green to Reddish Brown, SANDSTONE WITH SHALE, interbedded very fine- to fine-grained, weak, moderately decomposed, red and light green discoloration, vertical healed joint from 210.5 to 211 ft bgs, soft.
							212.5		Dark Green to Reddish Brown, CLAYSTONE, fine-grained.
							213.5		
215	598	RC (3)	120	75			Grayish Green, SANDSTONE, fine- to medium-grained, competent, fresh, thin laminations, red and light green discoloration, hard.		
							217.5		Grayish Green to Reddish Brown, CLAYSTONE, very fine- to fine-grained.
							218.0		Grayish Green, SANDSTONE, medium-grained, strong, fresh, competent, hard.
220	593								
							226.0		
							228.0		
225	588						Grayish Green, SANDSTONE, with interbedded claystone, fine- to medium-grained, fresh, competent, some coarse pyrite mineralization, hard.		
230	583						NO RECOVERY.		

Well Riser (to 250 ft bgs) (2" SCH 40 PVC)

Bentonite Grout Seal (83 to 241 ft bgs)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
235	578	RC (4)	84	22			231.0 Grayish Green, SANDSTONE, with interbedded claystone, very fine- to fine-grained, fresh, competent, some coarse pyrite mineralization, hard.	
							235.0 Reddish Brown, SILTSTONE, very fine-grained, strong, slightly decomposed, competent, hard.	
240	573	RC (5)	84	33			238.0 NO RECOVERY.	
245	568						241.0 Reddish Brown, SILTSTONE, very fine-grained, strong, slightly decomposed, competent, some green discoloration, soft.	
250	563	RC (6)	120	38			243.0 Grayish Green, SHALE, some silt, some coarse-grained, moderate to weak, slightly decomposed, some red discoloration, soft.	
255	558						248.0 Grayish Green to Reddish Brown, SHALE, interbedded massive, moderate to weak, moderately decomposed, some yellow green discoloration, soft.	
260	553						253.0 Grayish Green to Reddish Brown, SHALE, moderately decomposed, rubble.	
							254.0 Grayish Green to Reddish Brown, WEATHERED SHALE, massive, moderate to weak, moderately decomposed, some yellow green discoloration, easily crumbled, some coarse pyrite mineralization, soft.	
							258.0 258.5 NO RECOVERY.	
							Grayish Green to Reddish Brown, WEATHERED SHALE, laminated, moderate to weak, moderately decomposed, some yellow green discoloration, soft.	

← Bentonite Seal (241 to 247 ft bgs)

← Filter Sand (#0 and #1) (247 to 272 ft bgs)

← Well Screen (250 to 270 ft bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SANDSTONE Sandstone SILTSTONE Siltstone CLAYSTONE Claystone SHALE Shale	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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							Grayish Green to Reddish Brown, WEATHERED SHALE, laminated, moderate to weak, moderately decomposed, some yellow green discoloration, soft. <i>(continued)</i>	
265	548	RC (7)	114	67				
							Grayish Green to Reddish Brown, SANDSTONE, with silt, very fine-grained, massive, moderate strength, moderately decomposed, competent, soft.	
								Well Screen (250 to 270 ft bgs) (2" SCH 40 PVC/ 0.01" slot)
270	543						Grayish Green to Reddish Brown, WEATHERED SHALE, laminated, moderate to weak, moderately decomposed, some yellow green and purple discoloration, healed joint at 269.5 ft bgs, shear fracture with slickensides at 271.5 ft bgs (30° dip), soft.	End Cap
275	538	RC (8)	48	12			NO RECOVERY.	Native Material Not Recovered (272 to 278 ft bgs)
280	533						Bottom of Boring @ 278.00 feet bgs	
285	528							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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DATE STARTED: <u>11/19/2019</u>	TOTAL DEPTH: <u>238 ft bgs</u>	WELL DEVELOPMENT
DATE COMPLETED: <u>11/26/2019</u>	DIAMETER: <u>4-6 inches</u>	METHOD(S): <u>PVC Bailer, Grundfos & Buffalo Pump</u>
DRILLING CONTRACTOR: <u>Frontz Drilling, Inc.</u>	GROUND ELEVATION: <u>747.77 ft amsl (approx.)</u>	DATE STARTED: <u>4/22/2020</u>
DRILLING METHODS: <u>Sonic Drilling/ Rock Coring</u>	PVC ELEVATION: <u>750.77 ft amsl</u>	DATE ENDED: <u>5/22/2020</u>
LOGGED BY: <u>L. Velasquez</u>	NORTHING: <u>349139.275</u>	DTW AT START: <u>162.0 ft bgs</u>
CHECKED BY: <u>H. Usle</u>	EASTING: <u>2099336.769</u>	DTW AT END: <u>206.0 ft bgs</u>
NOTES: <u>Steel casing (6") advanced to 188 ft bgs; 4" rock coring to termination depth.</u>		VOLUME PURGED: <u>17.7 gallons</u>

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
5	743	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs.	<p>Concrete Pad and 6" Aluminum Stickup Protective Casing</p> <p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
10	738							
15	733							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20	728	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	<p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
25	723	SC						
30	718							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35	713	SC						
40	708						Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	<p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
45	703	SC						
50	698							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
55	693	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	<p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
60	688							
65	683	SC						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	678							
75	673	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	<p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
80	668							
85	663	SC						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
90	658							
95	653	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
100	648							Bentonite Grout Seal (0.3 to 192 ft bgs)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SHALE Shale SANDSTONE Sandstone	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
105	643	SC						<p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
110	638					<p>Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i></p>		
115	633	SC						
120	628							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
125	623	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	<p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
130	618							
135	613	SC						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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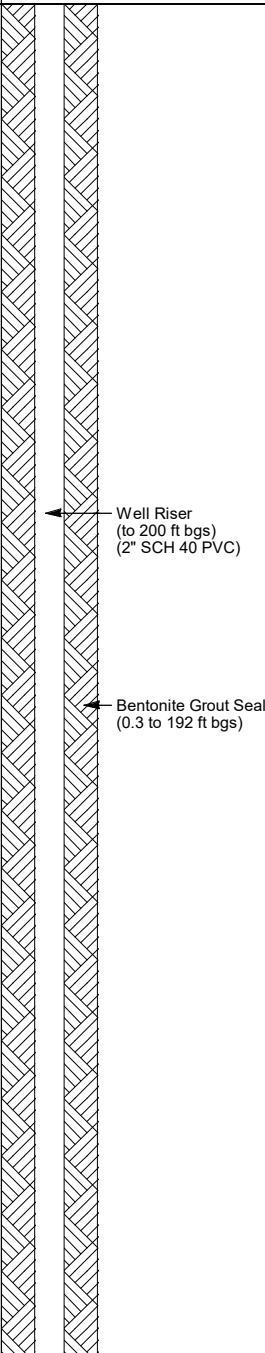
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

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	608							
145	603	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	 <p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
150	598							
155	593	SC						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
 Sonic Drilling  Wireline Rock Coring	 SHALE  Shale  SANDSTONE  Sandstone	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
160	588							
165	583	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. (continued)	<p>Well Riser (to 200 ft bgs) (2" SCH 40 PVC)</p> <p>Bentonite Grout Seal (0.3 to 192 ft bgs)</p>
170	578							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE
Shale
- SANDSTONE
Sandstone

ACRONYM LEGEND

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
175	573	SC						
180	568						Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. <i>(continued)</i>	
185	563	SC						
188.0							NO RECOVERY.	
190	558							
							190.5 Grayish Green, SHALE, massive, moderate strength, fresh, competent.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SHALE Shale SANDSTONE Sandstone	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



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							Grayish Green, SHALE, massive, moderate strength, fresh, competent. <i>(continued)</i>	
		RC (1)	94.8	43			192.5 Grayish Green, SANDSTONE, fine-grained, massive, fresh, competent.	
							194.0 Grayish Green, SHALE, massive, moderate strength, fresh, competent.	
195	553						198.0 Grayish Green, SHALE, massive, moderate strength, fresh, competent.	← Bentonite Seal (192 to 198 ft bgs)
							199.5 Grayish Green, SHALE, massive, moderate strength, fresh, competent.	
200	548						201.5 Grayish Green, SANDSTONE, massive, possible horizontal joint at approximately 200 ft bgs (rough fractured surface).	← Filter Sand (#0 and #1) (198 to 238 ft bgs)
		RC (2)	120	64			208.0 Grayish Green, SHALE, massive, moderate strength, fresh, competent.	
205	543							← Well Screen (200 to 220 ft bgs) (2" SCH 40 PVC/ 0.01" slot)
							Grayish Green, SHALE, laminated, weak, fresh, easily crumbled.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
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210	538	RC (3)	120	10			Grayish Green, SHALE, laminated, weak, fresh, easily crumbled. <i>(continued)</i>		
							211.0		Grayish Green, SANDSTONE, with silt, very fine-grained, competent.
							211.5		Grayish Green, SHALE, very weak.
							212.0		Grayish Green, SANDSTONE, with silt, very fine-grained, competent.
							212.3		Grayish Green, SHALE, laminated, weak, fresh, easily crumbled.
215	533	RC (4)	120	20			Grayish Green, SANDSTONE, with silt, very fine-grained, fresh, competent, closely spaced joints from 216 to 217 ft bgs, rough fracture surface.	<p>Filter Sand (#0 and #1) (198 to 238 ft bgs)</p> <p>Well Screen (200 to 220 ft bgs) (2" SCH 40 PVC/ 0.01" slot)</p> <p>End Cap</p>	
							217.3		Grayish Green, SHALE, very weak, easily crumbled.
							218.0		Grayish Green, SHALE, laminated, very weak, easily crumbled.
							219.0		Grayish Green, SHALE, strong, fresh, competent.
							219.5		Grayish Green, SHALE, strong, fresh, competent.
220	528	RC (4)	120	20			Grayish Green, SHALE, laminated, very weak, easily crumbled.		
							221.5		Grayish Green, SHALE, strong, fresh, competent.
							222.8		Grayish Green, SHALE, strong, fresh, competent.
							223.8		Grayish Green, SHALE, tight, strong, fresh, competent, possible joint, horizontal, rough texture.
							224.8		Grayish Green, SHALE, moderate strength, fresh, competent, broken fragments.
225	523								

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SHALE Shale SANDSTONE Sandstone	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System



ERM
 1 Beacon Street: 5th Floor
 Boston, MA 02108
 Telephone: +1 (617) 646-7800

Client: Gavin Power, LLC

Project Name: Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
							Grayish Green, SHALE, moderate strength, fresh, competent, broken fragments. <i>(continued)</i>	
							228.0	
							Grayish Green, SHALE, very weak, clayey clusters of fragments, easily crumbled.	
							229.6	
230	518						Grayish Green, SHALE, moderate to strong, fresh, competent.	<p>Filter Sand (#0 and #1) (198 to 238 ft bgs)</p>
							231.6	
							Grayish Green, SHALE, strong, fresh, competent.	
							232.6	
							Grayish Green, SHALE, laminated, weak to moderate, fresh, competent.	
							234.5	
235	513						Grayish Green, SHALE, very weak, easily crumbled.	
							238.0	
							<i>Bottom of Boring @ 238.00 feet bgs</i>	
240	508							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling Wireline Rock Coring	SHALE Shale SANDSTONE Sandstone	amsl = above mean sea level bgs = below ground surface ft = feet DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride U.S.C.S. = Unified Soil Classification System

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 345,099.1 E 2,103,287.5**

GROUND ELEVATION **612.0** SYSTEM **STATE PLANE**

Water Level, ft	▽ 25.9	▽ 10.2	▽ 5.7
TIME	0700	2:30	7:30
DATE	7-7-94	7-11-94	7-12-94

BORING NO. **R-93100** DATE **11/24/10** SHEET **1** OF **5**

BORING START **7/6/94** BORING FINISH **7/20/94**

PIEZOMETER TYPE _____ WELL TYPE **OW**

HGT. RISER ABOVE GROUND **2.04** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **72.1** BOTTOM **111.0**

WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**

FIELD PARTY **TJH RLY** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	0.0	2.0	1-2-8-6	1.2					BROWN GRAY CLAY Moist, fill.		Hole was drilled using a 5 7/8" roller bit.
2	SS	2.0	4.0	5-8-10-14	1.0					BROWN RED SANDY CLAY Moist fill.		
3	SS	4.0	6.0	5-7-17-14	1.0					RED CLAY Moist ,shale, fill.		
4	SS	6.0	8.0	5-6-7-9	1.2		5			MULTI-COLORED RED AND BROWN CLAY Moist, fill.	▼	
5	SS	8.0	10.0	2-3-5-7	.8					MULTI-COLORED BROWN CLAY Moist, fill.		
6	SS	10.0	12.0	1-2-3-5	1.0		10			REDDISH BROWN CLAY Moist, fill.	▼	
7	SS	12.0	14.0	3-5-6-9	1.2					MULTI-COLORED BROWN AND GRAY SANDY CLAY Moist, trace of gravel.		
8	SS	14.0	16.0	4-6-7-9	1.2							
9	SS	16.0	18.0	4-4-5-6	1.5		15			DARK GRAY CLAY Moist to wet natural material.		
10	SS	18.0	20.0	3-4-5-7	1.6					BROWN AND GRAY CLAY Moist.		

TYPE OF CASING USED

X	NQ-2 ROCK CORE
	6" x 3.25 HSA
X	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
	AIR HAMMER 8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **RLY**

AEP_R1R2.GPJ_AEP.GDT_11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93100** DATE **11/24/10** SHEET **2** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD		DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%							
11	SS	20.0	22.0	3-3-5-8	2.0								
12	SS	22.0	24.0	3-5-5-5	2.0						GRAY CLAY Moist to wet.		
13	SS	24.0	26.0	2-4-5-6	2.0			25			GRAY CLAY Wet to moist.		
14	SS	26.0	28.0	4-6-12-13	1.5						RED CLAYSTONE Weathered, moist.		
15	SS	28.0	30.0	10-14-24-40	1.4								
16	SS	30.0	31.0	24-50	.6			30					
17	NQ	31.0	34.8		3.8	100					RED CLAYSTONE Soft.		
											GRAY AND RED SANDY SHALE Soft.		
18	NQ	34.8	44.8		9.7	87		35			GRAY SANDSTONE Fine grain, well cemented, hard with vertical cracks 36.2 to 37.1 broken clay on joint.		
											RED AND GRAY SANDY SHALE Medium soft.		
								40			RED CLAYSTONE Soft.		
											GRAY SANDSTONE Hard, well cemented, clay on joint, pyrite.		
19	NQ	44.8	49.8		5.0	96		45			RED AND GRAY CLAYSTONE Medium soft.		

AEP_R1R2.GPJ_AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93100** DATE **11/24/10** SHEET **3** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
										GRAY SHALE Medium soft, large amount pyrite.		
										RED CLAY SHALE Medium hard.		
20	NQ	49.8	54.8		5.0	100	50					
										RED AND LIGHT BROWN CLAYSTONE With limestone nodules.		
21	NQ	54.8	59.8		5.0	96	55					
										RED TO LIGHT GRAY CLAY SHALE Well cemented.		
22	NQ	59.8	64.8		5.0	84	60					
												61.6 Top bentonite seal.
										68.2 to 68.4 soft		
23	NQ	64.8	69.8		5.0	74	65					
												68.4 Top of sand.
24	NQ	69.8	74.8		4.9		70			RED CLAY SHALE Well cemented, medium hard.		

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93100** DATE **11/24/10** SHEET **4** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
25	NQ	74.8	79.8		4.9	76	75			GRAY SILTY CLAY SHALE Well cemented, medium hard.	72.1 Top screen.	
26	NQ	79.8	84.8		4.7	84	80			LIGHT GRAY TO RED CLAY SHALE Well cemented, medium hard.		
27	NQ	84.8	89.8		5.0	58	85			RED CLAYSTONE Medium hard.		
28	NQ	89.8	94.8		5.0		90					
29	NQ	94.8	104.8		10.0	100	95					

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93100** DATE **11/24/10** SHEET **5** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							100			GRAY SILTY LIMESTONE Medium hard , well cemented some pyrite. GRAY SILTY SHALE GRAY SILTY SANDSTONE GRAY SILTY CLAY SHALE		
30	NQ	104.8	113.7		8.1		105			RED AND GRAY SHALE Medium hard. GRAY SHALEY SANDSTONE Hard.		
							110			GRAY SHALE Medium hard.		111.0 Bottom of screen. 113.5 Bottom of sand.
<p>8-4-94 DEVELOPED WELL AND PURGED DRY. 9-07-94 SWL 14.18 8:58 PURGED DRY 9:30 9-08-94 56 56 pH 7.80 7.85 COND 1445 1386 PUMP INSTALLED 8-04-94 AT APPROXIMATELY 110.5' WELL WAS DEVELOPED USING A RED-FLO PUMP CONTINUOUS FLOW</p>												

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY _____
 PROJECT **GAVIN FGD CONVERSION PROJECT**
 COORDINATES **N 345,307.0 E 2,104,199.8**
 GROUND ELEVATION **716.7** SYSTEM **STATE PLANE**

BORING NO. **R-93108** DATE **11/24/10** SHEET **1** OF **7**
 BORING START **8/4/93** BORING FINISH **8/10/93**
 PIEZOMETER TYPE _____ WELL TYPE **OW**
 HGT. RISER ABOVE GROUND **1.69** DIA **2.0**
 DEPTH TO TOP OF WELL SCREEN **129.9** BOTTOM **149.9**
 WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**
 FIELD PARTY **TJH-GCF** RIG **CME-75**

Water Level, ft	▽ 20.8	▽ 88.4	▽
TIME	8:20	1:30	
DATE	8-6-93	8-9-93	

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	4.2	5.7	6-7-13	.9		5			<u>GRAY/BROWN SILTY SHALE</u> Road bed, dry.		Hole drilled using a 5 7/8" roller bit. Well 9398 bottom of screen 83.90. Well 93108 bottom of screen 149.9.
2	SS	9.2	10.7	11-17-19	.5		10			<u>GRAY SHALE</u> Mica, dry.		
3	SS	14.2	15.7	7-5-8	.8		15			<u>BROWN/GRAY SILTY SHALE</u> Dry.		
4	SS	19.2	20.1	26-50/3	.6					<u>GRAY SHALE</u> Dry.		

TYPE OF CASING USED	
<input checked="" type="checkbox"/>	NQ-2 ROCK CORE
<input checked="" type="checkbox"/>	6" x 3.25 HSA
	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
<input checked="" type="checkbox"/>	SW CASING 6"
	AIR HAMMER 8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER _____

AEP_R1R2.GPJ_AEP.GDT_11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93108** DATE **11/24/10** SHEET **2** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
5	NQ	22.5	30.4		7.9	87				GRAY SHALE Weathered, soft to medium.		
							25			COAL GRAY SHALE Weathered, soft to medium.		
6	NQ	30.4	35.4		5.0	56						
							35			BLACK SHALEY COAL Medium to hard.		
7	NQ	35.4	43.5		8.0	72				GRAY SHALE Weathered.		
							40			GRAY LIMESTONE Hard.		
							45			MULTI-COLORED RED/GRAY/GREEN SHALE Weathered, soft to medium.		
8	NQ	43.5	45.4		1.9	57						
9	NQ	45.4	55.1		7.0							

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93108** DATE **11/24/10** SHEET **3** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							50					50.0 Top of bentonite seal.
										GRAY SHALEY SANDSTONE Mica.		
10	NQ	55.1	65.4		10.2	96	55					55.0 Top of gravel pack. Partial loss of drill water.
							60					2000 gallons of water used.
										GREEN SANDY SHALE Weathered, medium.		
										GRAY/RED/GREEN SHALE Weathered, medium.		
11	NQ	65.4	75.4		9.7	91	65					64.55 Top of screen. Water return back to normal.
							70					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93108** DATE **11/24/10** SHEET **4** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
12	NQ	75.4	85.4		9.4	89	75					
							80			GRAY SANDY SHALE Medium to hard.		4000 gallons of water used.
										GRAY/RED/GREEN SHALE Weathered, medium changing to soft to medium at 85.4.		83.90 Bottom of screen.
13	NQ	85.4	95.4		10.0	89	85					86.10 Bottom of gravel pack.
							90					
14	NQ	95.4	105.4		10.0	66	95					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93108** DATE **11/24/10** SHEET **5** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							100					
15	NQ	105.4	110.4		4.3	11	105					
16	NQ	110.4	115.4		3.4	17	110					
17	NQ	115.4	124.8		8.7	21	115					6000 gallons of water used.
							120					
												123.0 Top of bentonite seal.

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93108** DATE **11/24/10** SHEET **6** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD		DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%	%						
18	NQ	124.8	134.7		9.0			125					8000 gallons of water used.
								130			<u>DARK GRAY SANDSTONE</u>		128.50 Top of gravel pack.
											<u>RED/MULTI-COLOR SHALE</u>		129.9 Top of screen.
19	NQ	134.7	143.0		8.3	86		135			<u>RED CLAY SHALE</u> Hard.		
								140					
20	NQ	143.0	145.4		100	91							
								145					
21	NQ	145.4	155.4		9.9						<u>GRAY CLAY SHALE</u>		
											<u>GRAY SANDSTONE</u>		

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93108** DATE **11/24/10** SHEET **7** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							155					149.9 Bottom of screen.
										GRAY SANDY SHALE Hard.		
										RED/GRAY CLAY SHALE Hard.		152.0 Top of bentonite seal.
										<u>6-8-94 SWL 120.02</u> <u>8-24-94 SWL 98.22</u> <u>8-25-94 SWL 99.04</u> <u>8-29-94 SWL 123.07</u> <u>8-30-94 PURGED WELL DRY</u> <u>8-31-94 TEMP 60 59</u> <u>COND 2460 2480</u> <u>pH 7.69 7.84</u> <u>9-3-94 SWL 121.1</u> <u>PUMP INSTALLED 8-2-94 APPROXIMATELY 148.4</u> <u>WELL WAS DEVELOPED USING A RED-FLO CONTINUOUS FLOW PUMP.</u>		155.4 Bottom of boring.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY _____
 PROJECT **GAVIN FGD CONVERSION PROJECT**
 COORDINATES **N 347,038.0 E 2,104,957.2**
 GROUND ELEVATION **594.0** SYSTEM **STATE PLANE**

BORING NO. **R-94136** DATE **11/24/10** SHEET **1** OF **6**
 BORING START **8/30/94** BORING FINISH **9/8/94**
 PIEZOMETER TYPE _____ WELL TYPE **OW**
 HGT. RISER ABOVE GROUND _____ DIA **2.0**
 DEPTH TO TOP OF WELL SCREEN **75.4** BOTTOM **114.5**
 WELL DEVELOPMENT **SEE NOTE** BACKFILL **VOLCLAY**
 FIELD PARTY **TJH-RLY** RIG **CME-75**

Water Level, ft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TIME			
DATE			

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	0.0	1.5	8-8-8	.9					BROWN CLAY Moist.		Hole was drilled using a 8" air hammer.
2	SS	1.5	3.0	5-8-8	1.0							
3	SS	3.0	4.0	6-8-11	.7							
4	SS	4.5	6.0	4-4-4	.8		5					
5	SS	6.0	7.5	3-3-7	1.1							
6	SS	7.5	9.0	4-5-8								
7	SS	9.0	10.5	3-6-7	.6		10					
8	SS	10.5	12.0	4-4-6	.9							
9	SS	12.0	13.5	5-7-7	.7					LIGHT BROWN CLAY Moist.		
10	SS	13.5	15.0	5-9-11	.8					TOP .04 LIGHT BROWN CLAY With trace of lignite.		
										GRAY SAND Moist.		
11	SS	15.0	16.5	8-9-14	1.1		15			BROWN CLAYEY SAND Moist.		
12	SS	16.5	18.0	7-8-9	1.1					BROWN CLAY With sandstone gravel (mine spoil?)		
13	SS	18.0	19.5	4-5-5	.9							
14	SS	19.5	21.0	3-3-4	.7							

TYPE OF CASING USED

<input checked="" type="checkbox"/>	NQ-2 ROCK CORE
<input checked="" type="checkbox"/>	6" x 3.25 HSA
<input checked="" type="checkbox"/>	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
	AIR HAMMER 8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC
 WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **RLY**

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94136** DATE **11/24/10** SHEET **2** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES	
		FROM	TO			%							
15	SS	21.0	22.5	3-3-5	.8		25			BROWN CLAY Moist.			
16	SS	22.5	24.0	3-3-4	1.0								BROWN SAND Well graded, oxidized wet.
17	SS	24.0	25.5	2-3-4	.8								BROWN CLAY Moist.
18	SS	25.5	27.0	3-5-6	1.1		30			BROWN CLAYEY SILT Moist.			
19	SS	27.0	28.5	4-4-4	1.0								
20	SS	28.5	30.0	2-4-4									
21	SS	30.0	31.5	3-5-6	1.2								
22	SS	31.5	33.0	3-3-4	1.1		35			GRAY CLAY Moist.			
23	SS	33.0	34.5	3-3-5	1.2								
24	SS	34.5	36.0	3-4-6	1.0								
25	SS	36.0	37.5	3-3-4	1.3								
26	SS	37.5	39.0	3-5-7			40			BROWN CLAYEY SILT Moist			
27	SS	39.0	40.5	3-5-8	1.2								
28	SS	40.5	42.0	3-5-5	1.2								
29	SS	42.0	43.5	2-4-4	1.1		45			GRAY SILTY CLAY Moist.			
30	SS	43.5	45.0	2-2-3	1.2								
31	SS	45.0	46.5	2-2-4	1.0								

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94136** DATE **11/24/10** SHEET **3** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
32	SS	46.5	48.0	3-4-6	1.2		50					
33	SS	48.0	49.5	3-3-6	.9							
34	SS	49.5	51.0	2-4-4	.9							
35	SS	51.0	52.5	3-4-5	1.1							
36	SS	52.5	54.0	3-4-4	1.2		55					
37	SS	54.0	55.5	3-5-6	1.1							
38	SS	55.5	57.0	4-6-6	1.2							
39	SS	57.0	58.5	2-3-4	.9		60					
40	SS	59.5	61.0	3-3-7	1.1							
41	SS	61.0	62.5	6-6-6	.9							
42	SS	62.5	64.0	4-4-6	1.2							
43	SS	64.0	65.5	3-5-5	1.1		65					
44	SS	65.5	67.0	3-3-5								
45	SS	67.0	68.5	4-5-5								
46	SS	68.5	70.0	5-12-12	1.2		70					
47	SS	70.0	71.5	12-16-16	0							
48	SS	71.5	73.0	16-15-24	0							

TOP OF SAMPLE GRAY SILTY CLAY
BOTTOM SAND AND SHALE GRAY

69.1 Top of bentonite seal.

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94136** DATE **11/24/10** SHEET **4** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
49	NQ	74.2	80.0		5.8	74	75			GRAY CLAY SHALE Hard.		74.5 Top of sand. 75.4 Top of screen.
50	NQ	80.0	85.0		5.0	70	80			GRAY SANDSTONE		
51	NQ	85.0	95.0		10.0	0	85			GRAY CLAY SHALE		
52	NQ	95.0	105.0		10.0	39	95					

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94136** DATE **11/24/10** SHEET **5** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							100			<u>DARK REDDISH BROWN CLAY SHALE</u>		
53	NQ	105.0	110.0		5.0	60	105					
54	NQ	110.0	115.0		5.0	92	110					
55	NQ	115.0	120.0		5.0	92	115					
												114.5 Bottom of screen.
												116.0 Bottom of sand.
										<u>GRAY SANDY SHALE</u>		
56	NQ	120.0	125.0		5.0	74	120			<u>REDDISH BROWN CLAY SHALE</u>		

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94136** DATE **11/24/10** SHEET **6** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
57	NQ	125.0	130.0		5.0	54	125			<u>GRAY CLAY SHALE</u>		
58	NQ	130.0	135.0		5.0	86	130		<u>REDDISH BROWN CLAY SHALE</u>			
							135			<u>10-6-94 SWL 27.3 PURGED DRY</u> <u>10-7-94 SWL 27.8</u> <u>10-7-94 TEMP 58 58</u> <u>COND 1859 1849</u> <u>pH 7.34 7.45</u> <u>PUMP INSTALLED 10-6-94 APPROXIMATELY 114.0'</u> <u>WELL WAS DEVELOPED USING A RED-FLO CONTINUOUS FLOW PUMP</u>		135.0 Bottom of seal.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY _____
 PROJECT **GAVIN FGD CONVERSION PROJECT**
 COORDINATES **N 347,033.7 E 2,104,959.4**
 GROUND ELEVATION **594.0** SYSTEM **STATE PLANE**

BORING NO. **R-94137** DATE **11/24/10** SHEET **1** OF **6**
 BORING START **9/6/94** BORING FINISH **9/7/94**
 PIEZOMETER TYPE _____ WELL TYPE **OW**
 HGT. RISER ABOVE GROUND _____ DIA **2.0**
 DEPTH TO TOP OF WELL SCREEN **40.0** BOTTOM **48.9**
 WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**
 FIELD PARTY **TJH-REY** RIG **CME-75**

Water Level, ft	▽ 21.6	▼	▼
TIME			
DATE	9-6-94		

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							5			BROWN CLAY Moist.		Hole was drilled using a 5 7/8" roller bit.
							10			LIGHT BROWN CLAY Moist. TOP .04 LIGHT BROWN CLAY With trace of lignite.		
							15			GRAY SAND Moist. BROWN CLAYEY SAND Moist.		
										BROWN CLAY With sandstone gravel (mine spoil?)		

TYPE OF CASING USED	
	NQ-2 ROCK CORE
	6" x 3.25 HSA
X	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
	AIR HAMMER 8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC
 WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON
 RECORDER **REY**

AEP_R1R2.GPJ_AEP.GDT_11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94137** DATE **11/24/10** SHEET **2** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							25			BROWN CLAY Moist. BROWN SAND Well graded, oxidized wet. BROWN CLAY Moist.		
							30			BROWN CLAYEY SILT Moist.		
							35			GRAY CLAY Moist.		33.3 Top bentonite seal.
							40			BROWN CLAYEY SILT Moist. GRAY SILTY CLAY Moist.		36.0 Top of gravel. 40.0 Top of screen.
							45					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94137** DATE **11/24/10** SHEET **3** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							50					48.9 Bottom of screen.
							55					50.0 Bottom of gravel.
							60					
							65					
							70			<u>TOP OF SAMPLE GRAY SILTY CLAY</u> <u>BOTTOM SAND AND SHALE GRAY</u>		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94137** DATE **11/24/10** SHEET **4** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							75			GRAY CLAY SHALE Hard.		
							80			GRAY SANDSTONE		
							85			GRAY CLAY SHALE		
							90					
							95					

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94137** DATE **11/24/10** SHEET **5** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							100			<u>DARK REDDISH BROWN CLAY SHALE</u>		
							105					
							110					
							115					
										<u>GRAY SANDY SHALE</u>		
							120			<u>REDDISH BROWN CLAY SHALE</u>		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94137** DATE **11/24/10** SHEET **6** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							125			<u>GRAY CLAY SHALE</u>		
							130		<u>REDDISH BROWN CLAY SHALE</u>			
							135			<u>10-6-94 SWL 28.92 PUMPED DRY</u> <u>10-7-94 SWL 30.52</u> <u>TEMP 58 58</u> <u>COND 1092 1099</u> <u>pH 7.09 7.03</u> <u>PUMP WAS INSTALLED 10-6-94</u> <u>APPROXIMATELY 48.4'</u> <u>WELL WAS DEVELOPED USING A RED-FLO</u> <u>CONTINUOUS PUMP</u>		

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY _____
 PROJECT **GAVIN FGD CONVERSION PROJECT**
 COORDINATES **N 345,099.4 E 2,103,292.9**
 GROUND ELEVATION **612.0** SYSTEM STATE PLANE

BORING NO. **R-94139** DATE **11/24/10** SHEET **1** OF **5**
 BORING START **7/21/94** BORING FINISH **7/21/94**
 PIEZOMETER TYPE _____ WELL TYPE **OW**
 HGT. RISER ABOVE GROUND _____ DIA **2.0**
 DEPTH TO TOP OF WELL SCREEN **40.0** BOTTOM **58.9**
 WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**
 FIELD PARTY **TJH REY** RIG **CME-75**

Water Level, ft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TIME			
DATE			

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
												9.25" HSA TO 31.0' AND 5 7/8" ROLLER BIT TO 61.0'.
										BROWN GRAY CLAY Moist, fill.		
										BROWN RED SANDY CLAY Moist fill.		
										RED CLAY Moist ,shale, fill.		
										MULTI-COLORED RED AND BROWN CLAY Moist, fill.		
										MULTI-COLORED BROWN CLAY Moist, fill.		
										REDDISH BROWN CLAY Moist, fill.		
										MULTI-COLORED BROWN AND GRAY SANDY CLAY Moist, trace of gravel.		
										DARK GRAY CLAY Moist to wet natural material.		
										BROWN AND GRAY CLAY Moist.		

TYPE OF CASING USED	
	NQ-2 ROCK CORE
	6" x 3.25 HSA
X	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
	AIR HAMMER 8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **REY**

AEP_R1R2.GPJ_AEP.GDT_11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94139** DATE **11/24/10** SHEET **2** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							25			<p>GRAY CLAY Moist to wet.</p> <p>GRAY CLAY Wet to moist.</p>		
							30			RED CLAYSTONE Weathered, moist.		
							35			<p>RED CLAYSTONE Soft.</p> <p>GRAY AND RED SANDY SHALE Soft.</p>		31.0 Top of bentonite seal.
							40			<p>GRAY SANDSTONE Fine grain, well cemented, hard with vertical cracks 36.2 to 37.1 broken clay on joint.</p> <p>RED AND GRAY SANDY SHALE Medium soft.</p>		37.3 Top of sand.
							45			<p>RED CLAYSTONE Soft.</p> <p>GRAY SANDSTONE Hard, well cemented, clay on joint, pyrite.</p>		40.0 Top of screen.
										RED AND GRAY CLAYSTONE Medium soft.		

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94139** DATE **11/24/10** SHEET **3** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							50			GRAY SHALE Medium soft, large amount pyrite.		
										RED CLAY SHALE Medium hard.		
							55			RED AND LIGHT BROWN CLAYSTONE With limestone nodules.		
							60			RED TO LIGHT GRAY CLAY SHALE Well cemented.		58.9 Bottom of screen.
							65			68.2 to 68.4 soft		61.0 Bottom of sand.
							70			RED CLAY SHALE Well cemented, medium hard.		

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94139** DATE **11/24/10** SHEET **4** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							75			GRAY SILTY CLAY SHALE Well cemented, medium hard.		
							80			LIGHT GRAY TO RED CLAY SHALE Well cemented, medium hard.		
							85			LIGHT GRAY AND RED CLAY SHALE Medium hard, well cemented.		
							90			RED CLAYSTONE Medium hard.		
							95					

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-94139** DATE **11/24/10** SHEET **5** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							100			<u>GRAY SILTY LIMESTONE</u> Medium hard , well cemented some pyrite. <u>GRAY SILTY SHALE</u> <u>GRAY SILTY SANDSTONE</u> <u>GRAY SILTY CLAY SHALE</u>		
							105			<u>RED AND GRAY SHALE</u> Medium hard. <u>GRAY SHALEY SANDSTONE</u> Hard.		
							110			<u>GRAY SHALE</u> Medium hard.		
										8-25-94 SWL 14.19 10:11 AM 9-7-94 SWL 13.83 7:30 AM <u>DEVELOPED, PURGED DRY</u> 9-8-94 SWL 14.95 TEMP 59 57 COND 1216 1219 pH 7.25 7.48 <u>WELL DEVELOPED USING A RED-FLO CONTINUOUS FLOW PUMP</u> <u>PUMP INSTALLED 9-25-94 AT APPROXIMATELY 58.5'</u>		

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**
 COMPANY **OHIO POWER COMPANY**
 PROJECT **GAVIN FGD RETROFIT PROJECT**
 COORDINATES **N 349,605.8 E 2,103,045.0**
 GROUND ELEVATION **609.8** SYSTEM **State Plane using NADA27**

BORING NO. **R-9801** DATE **11/24/10** SHEET **1** OF **6**
 BORING START **11/10/98** BORING FINISH **12/3/98**
 PIEZOMETER TYPE **N/A** WELL TYPE **OW**
 HGT. RISER ABOVE GROUND **1.6** DIA **2.0**
 DEPTH TO TOP OF WELL SCREEN **109.4** BOTTOM **129.0**
 WELL DEVELOPMENT **Yes** BACKFILL **Quick grout**
 FIELD PARTY **TJH-REB** RIG **CME-75**

Water Level, ft	▽ 30.9	▼	▼
TIME			
DATE	11-12-98		

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	2.4		2-3-4	1.2		5		CL	BROWN SANDY CLAY Moist.		
2	SS	7.4	8.9	4-5-7	1.1		10					
3	SS	12.4	13.9	4-7-7	1.2		15					
4	SS	17.4	18.9	4-5-7	1.1				CL	RED AND BROWN SANDY CLAY		

TYPE OF CASING USED

<input checked="" type="checkbox"/>	NQ-2 ROCK CORE
<input checked="" type="checkbox"/>	6" x 3.25 HSA
	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
<input checked="" type="checkbox"/>	AIR HAMMER 8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC
 WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **REB**

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

BORING NO. **R-9801** DATE **11/24/10** SHEET **2** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT**

BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
5	SS	22.4	23.9	2-4-5	1.2		25		CL	RED SANDY CLAY Soft.		
6	SS	27.4	28.9	3-5-7	1.2		30		CL	BROWN AND GRAY SANDY CLAY Dry		
7	SS	32.4	33.9	3-4-6	1.1		35		CL	MULTICOLORED RED GRAY BROWN SANDY CLAY Moist.		
8	SS	37.4	38.9	4-7-10	1.2		40		CL	RED, BROWN SANDY CLAY Moist.		
9	SS	42.4	43.9	13-25-33	1.2		45			MULTICOLORED RED, GRAY, YELLOWISH BROWN CLAY SHALE		

AEP_GAVIN_FGD_BORINGS.GPJ_AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

BORING NO. **R-9801** DATE **11/24/10** SHEET **3** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT**

BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
10	SS	47.4	48.9	30-30-30	1.2					RED AND GRAY CLAY SHALE Dry, weathered.		
11	NQ-2	48.9	55.0		6.0	100	50			MULTICOLORED RED, GRAY, YELLOWISH BROWN CLAY SHALE		
12	NQ-2	55.0	59.5		3.3	100	55			RED AND BROWN CLAY SHALE		
13	NQ-2	59.5	68.7		3.1	35	60			10R-4I2 GRAYISH RED CLAY SHALE		
14	NQ-2	68.7	70.0		1.1	100	65			RED AND GRAY CLAY SHALE		
15	NQ-2	70.0	75.0		3.5	100	70			10R 4I2 GRAYISH RED CLAY SHALE MULTICOLORED RED, GRAY, BROWN CLAY SHALE		

AEP_GAVIN_FGD_BORINGS.GPJ_AEP.GDT_11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

BORING NO. **R-9801** DATE **11/24/10** SHEET **4** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT**

BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
16	NQ-2	75.0	80.0		5.0	48	75			<p>N5 MEDIUM GRAY CLAY SHALE Pyrite.</p> <p>N5 MEDIUM GRAY LIMESTONE</p> <p>10R 4/2 GRAYISH RED CLAY SHALE</p> <p>N5 MEDIUM GRAY CLAY SHALE</p>		
17	NQ-2	80.0	85.0		5	44	80			<p>N5 MEDIUM GRAY SANDY CLAY SHALE With .3 limestone at 81.3'.</p> <p>N5 MEDIUM GRAY CLAY SHALE Soft clay seam at 94.1 to 94.7.</p>		
18	NQ-2	85.0	95.0		10	75	85					
19	NQ-2	95.0	101.5		6.4	60	95					

AEP_GAVIN_FGD_BORINGS.GPJ_AEP.GDT_11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

BORING NO. **R-9801** DATE **11/24/10** SHEET **5** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT**

BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							100					98.0 top of bentonite seal.
20	NQ-2	101.5	105.0		3.5	88				MULTICOLORED REDDISH, GREENISH, MEDIUM GRAY CLAY SHALE		
										N5 MEDIUM GRAY CLAY SHALE		
21	NQ-2	105.0	111.7		6.6	37	105					104.4 top of sand.
										N5 MEDIUM GRAY CLAY SHALE Soft.		
										REDDISH BROWN CLAY SHALE Soft, small .5-1.0 mm pyrite common just above limestone.		109.4 top of screen.
22	NQ-2	111.7	118.9		4	0	110					
23	NQ-2	118.9	120.0		1.1	100				N5 MEDIUM GRAY LIMESTONE		
24	NQ-2	120.0	125.0		3.9	58	120			N5 MEDIUM GRAY SANDY SHALE		
										N5 MEDIUM GRAY SANDSTONE		
										N5 MEDIUM GRAY SHALEY SANDSTONE		
										N5 MEDIUM GRAY CLAY SHALE		

AEP_GAVIN_FGD_BORINGS.GPJ_AEP_GDT_11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

BORING NO. **R-9801** DATE **11/24/10** SHEET **6** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT**

BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
25	NQ-2	125.0	130.0		4.3	46	125			10R 4/6 MODERATE REDDISH BROWN CLAY SHALE N7 LIGHT GRAY CLAY SHALE		
							130					129 bottom of screen. 130 bottom of well. 131 bottom of sand.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

BORING NO. **R-9802** DATE **11/24/10** SHEET **2** OF **2**

PROJECT **GAVIN FGD RETROFIT PROJECT**

BORING START **12/1/98** BORING FINISH **12/2/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
6	SS	27.9	29.4	4.4.7	1.2		30		CL	GRAY SANDY CLAY Soft.		
7	SS	32.9	34.4	5.11.15	1.2		35		CL	GRAY AND BROWN CLAY Stiff.		
8	SS	37.9	39.4	6.9.12	1.1		40			MULTI COLORED RED, GRAY, BROWNISH YELLOWISH WEATHERED CLAY SHALE.		35 top of bentonite seal. 37 top of sand.
9	SS	42.9	44.4	5.7.9	1.1		45					39 top of screen.
10	SS	47.9	49.4	15.25.30	1.1		50			MULTI COLORED RED, GRAY, BROWN SANDY CLAY With embedded gravel, moist.		48.5 bottom of screen. 49.6 bottom of well. 50 bottom of sand.

AEP_GAVIN_FGD_BORINGS.GPJ_AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN FGD RETROFIT PROJECT**

COORDINATES **N 349,056.1 E 2,103,324.6**

GROUND ELEVATION **718.3** SYSTEM **State Plane using NADA27**

BORING NO. **R-9806** DATE **11/24/10** SHEET **1** OF **7**

BORING START **12/22/98** BORING FINISH **12/29/98**

PIEZOMETER TYPE **N/A** WELL TYPE **OW**

HGT. RISER ABOVE GROUND **2.0** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **111.0** BOTTOM **140.0**

WELL DEVELOPMENT **Yes** BACKFILL **Quick grout**

FIELD PARTY **TJH-REB** RIG **CME-75**

Water Level, ft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TIME			
DATE			

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							5			See boring R-9805 for lithology.		
							10					
							15					

TYPE OF CASING USED

<input checked="" type="checkbox"/>	NQ-2 ROCK CORE	
<input checked="" type="checkbox"/>	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
<input checked="" type="checkbox"/>	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **TJH**

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER 1477

COMPANY OHIO POWER COMPANY

BORING NO. R-9806 DATE 11/24/10 SHEET 2 OF 7

PROJECT GAVIN FGD RETROFIT PROJECT

BORING START 12/22/98 BORING FINISH 12/29/98

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							25					
							30					
							35					
							40					
							45					

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER 1477

COMPANY OHIO POWER COMPANY

BORING NO. R-9806 DATE 11/24/10 SHEET 3 OF 7

PROJECT GAVIN FGD RETROFIT PROJECT

BORING START 12/22/98 BORING FINISH 12/29/98

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							50					
							55					
							60					
							65					
							70					

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER 1477

COMPANY OHIO POWER COMPANY

BORING NO. R-9806 DATE 11/24/10 SHEET 4 OF 7

PROJECT GAVIN FGD RETROFIT PROJECT

BORING START 12/22/98 BORING FINISH 12/29/98

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							75					
							80					
							85					
							90					
							95					

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER 1477

COMPANY OHIO POWER COMPANY

BORING NO. R-9806 DATE 11/24/10 SHEET 5 OF 7

PROJECT GAVIN FGD RETROFIT PROJECT

BORING START 12/22/98 BORING FINISH 12/29/98

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							100					
							105					
							110					103.5 Top of bentonite seal. 108.2 Top of sand pack. 111.0 Top of screen.
							115					
							120					

AEP_GAVIN_FGD_BORINGS.GPJ_AEP_GDT_11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER 1477

COMPANY OHIO POWER COMPANY

BORING NO. R-9806 DATE 11/24/10 SHEET 6 OF 7

PROJECT GAVIN FGD RETROFIT PROJECT

BORING START 12/22/98 BORING FINISH 12/29/98

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							125					
							130					
							135					
							140					
							145					
												140.0 Bottom of screen.
												141.0 Bottom of well and sand.
												149.4 Bottom of

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER 1477

COMPANY OHIO POWER COMPANY

BORING NO. R-9806 DATE 11/24/10 SHEET 7 OF 7

PROJECT GAVIN FGD RETROFIT PROJECT

BORING START 12/22/98 BORING FINISH 12/29/98

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
												bentonite seal.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

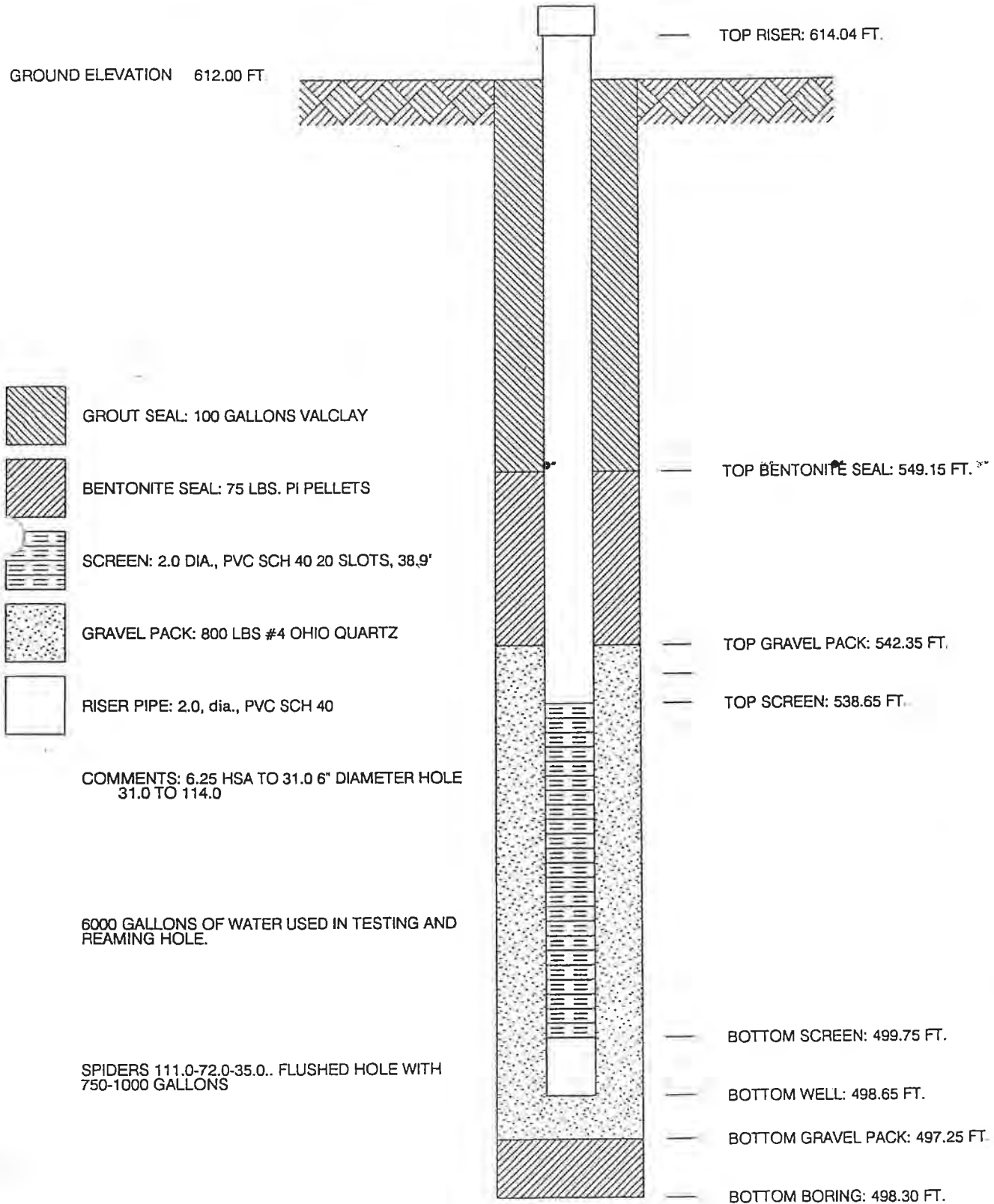
WELL No. R-93100 BORING No. R-93100 INSTALLED 07/20/94






PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 345,099.1 E 2,103,287.5

SYSTEM STATE PLANE

GROUND ELEVATION 612.00 FT.



-  GROUT SEAL: 100 GALLONS VALCLAY
-  BENTONITE SEAL: 75 LBS. PI PELLETS
-  SCREEN: 2.0 DIA., PVC SCH 40 20 SLOTS, 38.9'
-  GRAVEL PACK: 800 LBS #4 OHIO QUARTZ
-  RISER PIPE: 2.0, dia., PVC SCH 40

COMMENTS: 6.25 HSA TO 31.0 6" DIAMETER HOLE
 31.0 TO 114.0

6000 GALLONS OF WATER USED IN TESTING AND
 REAMING HOLE.

SPIDERS 111.0-72.0-35.0.. FLUSHED HOLE WITH
 750-1000 GALLONS

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

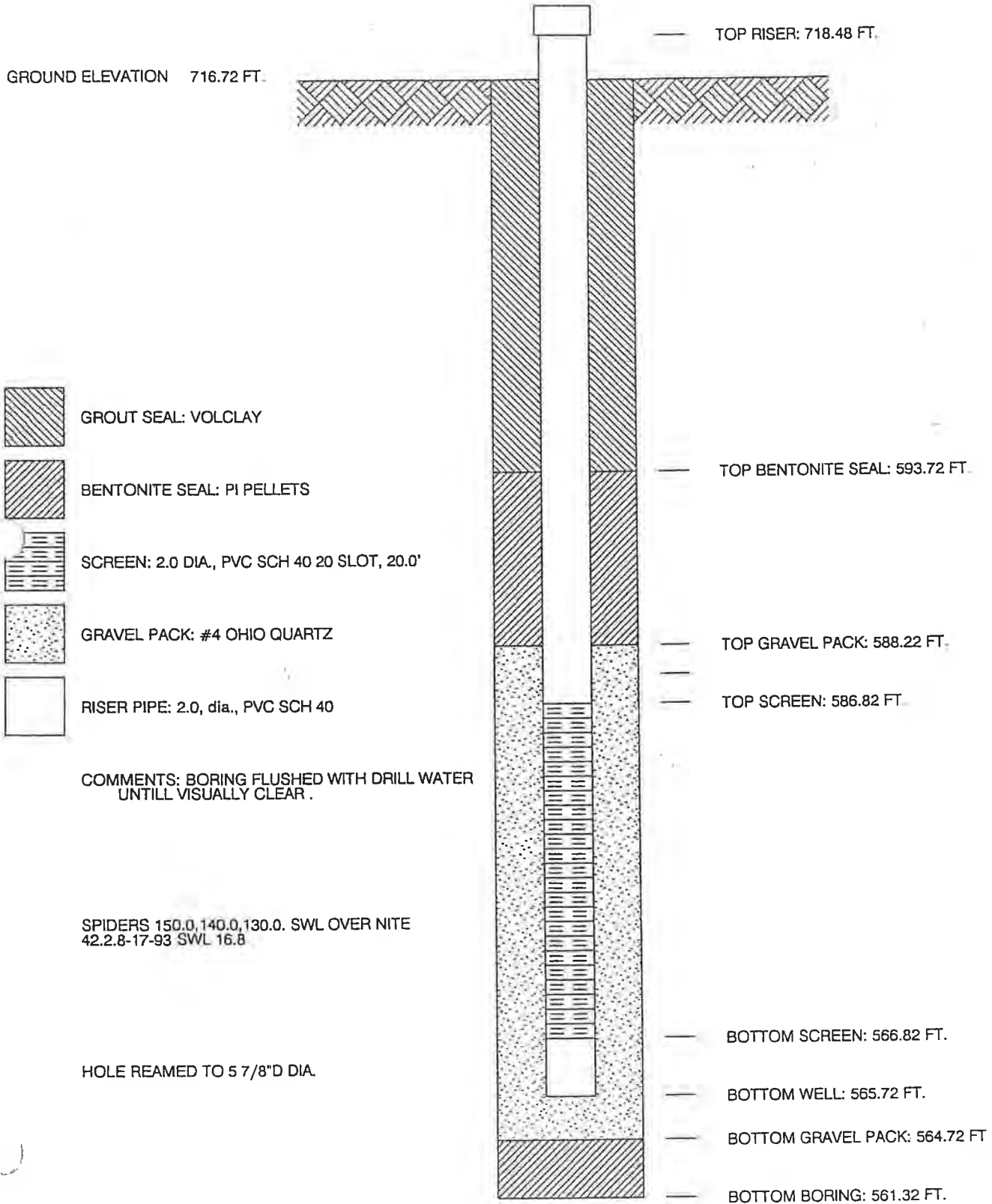
WELL No. R-93108 BORING No. R-93108 INSTALLED 08/10/93

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 345,307.0 E 2,104,199.8

SYSTEM STATE PLANE

GROUND ELEVATION 716.72 FT.



COMMENTS: BORING FLUSHED WITH DRILL WATER UNTILL VISUALLY CLEAR .

SPIDERS 150.0, 140.0, 130.0. SWL OVER NITE 42.2.8-17-93 SWL 16.8

HOLE REAMED TO 5 7/8" DIA.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

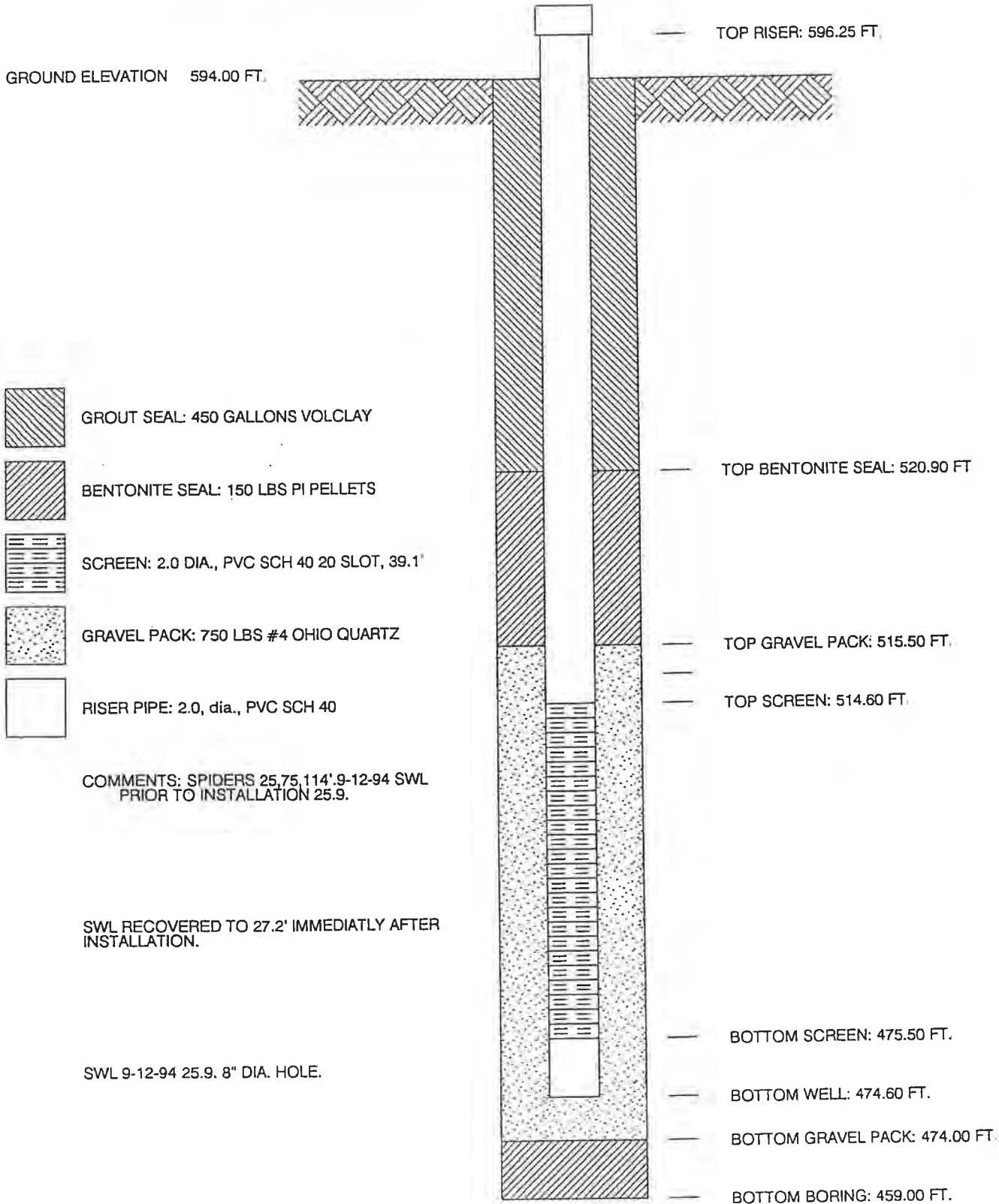
WELL No. R-94136 BORING No. R-94136 INSTALLED 09/08/94

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 347,038.0 E 2,104,957.2

SYSTEM STATE PLANE

GROUND ELEVATION 594.00 FT.



COMMENTS: SPIDERS 25.75, 114.9'-9-12-94 SWL
 PRIOR TO INSTALLATION 25.9.

SWL RECOVERED TO 27.2' IMMEDIATLY AFTER
 INSTALLATION.

SWL 9-12-94 25.9. 8" DIA. HOLE.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

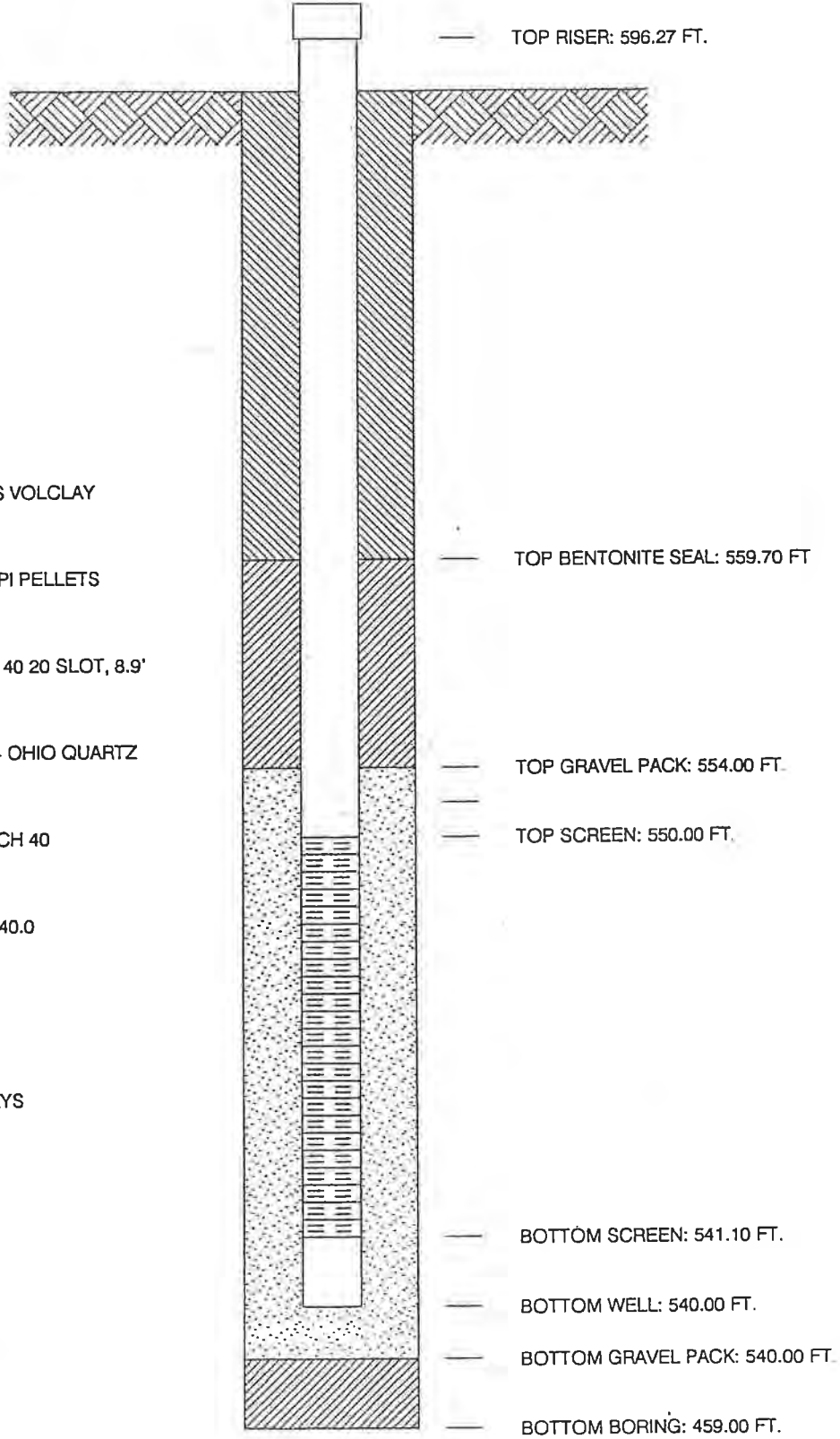
WELL No. R-94137 BORING No. R-94137 INSTALLED 09/07/94






PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 347,033.7 E 2,104,959.4

SYSTEM STATE PLANE

GROUND ELEVATION 594.00 FT



-  GROUT SEAL: 250 GALLONS VOLCLAY
-  BENTONITE SEAL: 150 LBS.PI PELLETS
-  SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 8.9'
-  GRAVEL PACK: 1150 LBS #4 OHIO QUARTZ
-  RISER PIPE: 2.0, dia., PVC SCH 40

COMMENTS: SPIDERS 49.0,40.0

9-6-94 SWL 21.6 AFTER 5 DAYS

5 7/8" DIA. HOLE.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

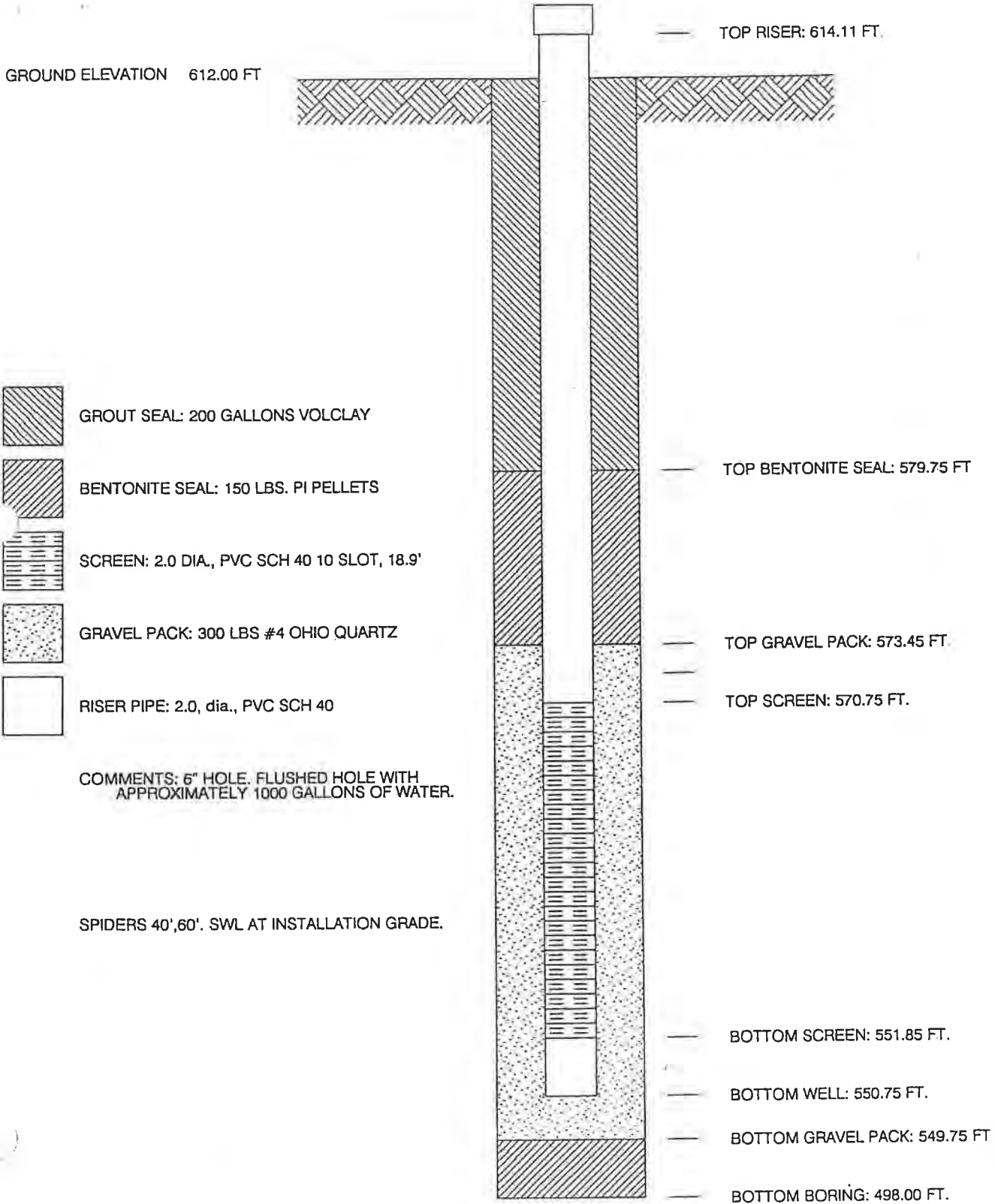
WELL No. R-94139 BORING No. R-94139 INSTALLED 07/21/94






PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 345,099.4 E 2,103,292.9

SYSTEM STATE PLANE

GROUND ELEVATION 612.00 FT



-  GROUT SEAL: 200 GALLONS VOLCLAY
-  BENTONITE SEAL: 150 LBS. PI PELLETS
-  SCREEN: 2.0 DIA., PVC SCH 40 10 SLOT, 18.9'
-  GRAVEL PACK: 300 LBS #4 OHIO QUARTZ
-  RISER PIPE: 2.0, dia., PVC SCH 40

COMMENTS: 6" HOLE. FLUSHED HOLE WITH APPROXIMATELY 1000 GALLONS OF WATER.

SPIDERS 40',60'. SWL AT INSTALLATION GRADE.







AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION

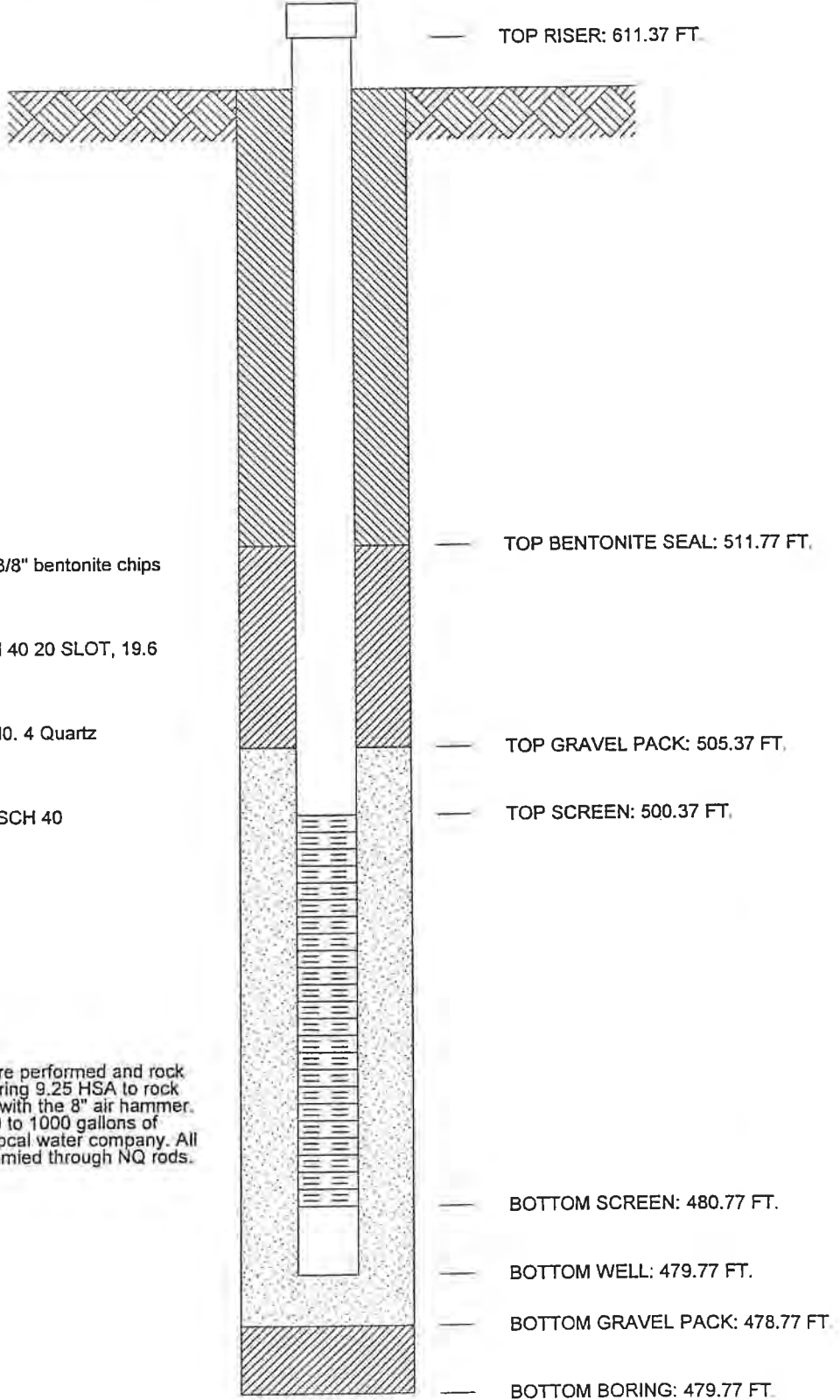


JOB NUMBER 1461
 COMPANY OHIO POWER COMPANY
 PROJECT GAVIN FGD RETROFIT PROJECT
 COORDINATES N 349,605.8 E 210,345.0
 SYSTEM State Plane using NADA27

WELL No. R-9801 BORING No. R-9801 INSTALLED 12/3/98

GROUND ELEVATION 609.77 FT.

-  GROUT SEAL: Quick Grout
-  BENTONITE SEAL: 150 lbs 3/8" bentonite chips
-  SCREEN: 2.0 dia., PVC SCH 40 20 SLOT, 19.6
-  GRAVEL PACK: 1550 Lbs. NO. 4 Quartz
-  RISER PIPE: 2.0, dia., PVC SCH 40
-  SPACERS, DEPTH:



Standard penetration test were performed and rock core taken prior to augering 9.25 HSA to rock and advancing the hole with the 8" air hammer. Used approximately 750 to 1000 gallons of potable water from the local water company. All back fill material was tremied through NQ rods.







AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION

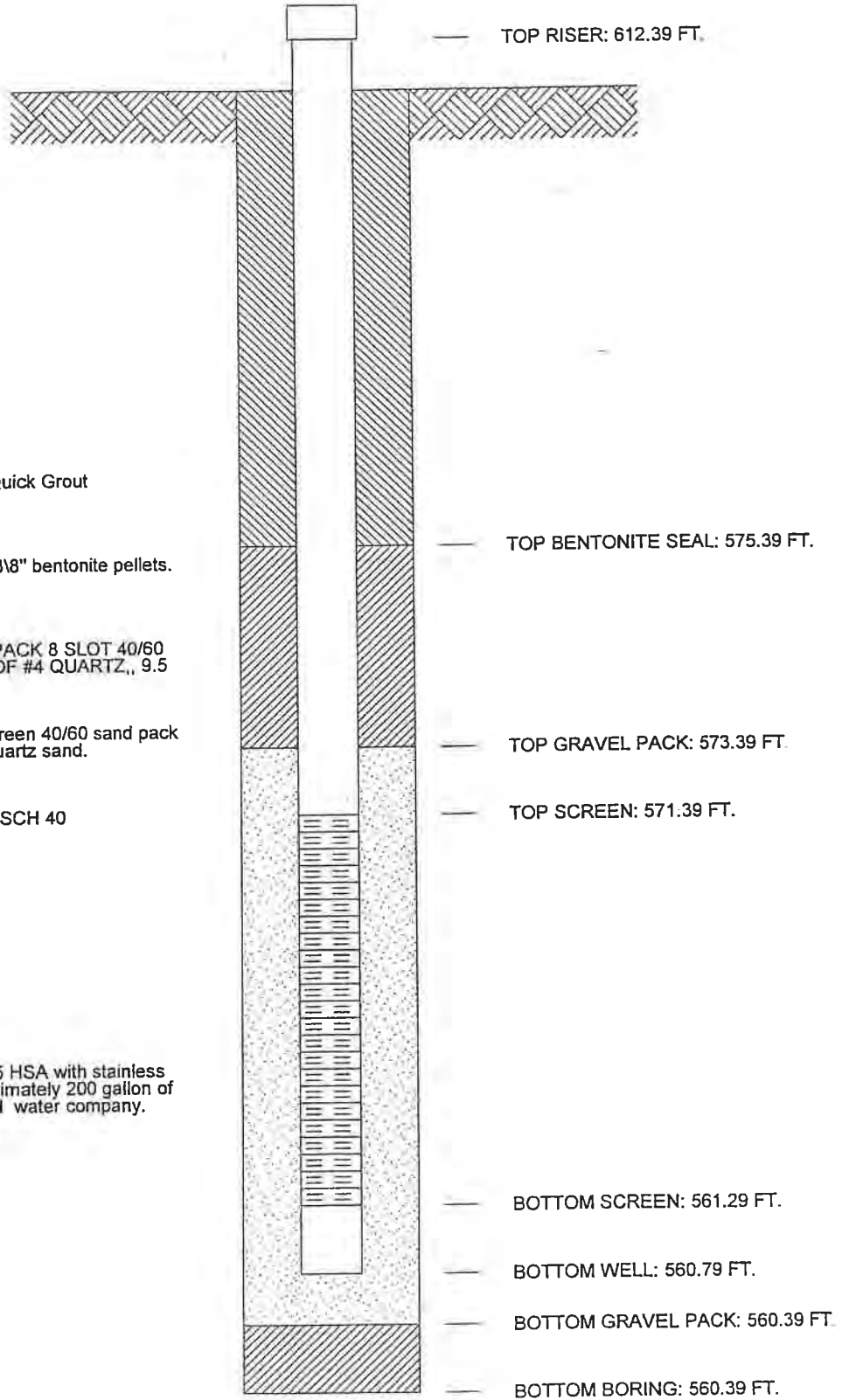


JOB NUMBER 1461
 COMPANY OHIO POWER COMPANY
 PROJECT GAVIN FGD RETROFIT PROJECT
 COORDINATES N 349,620.2 E 2,103,019.8
 SYSTEM State Plane using NADA27

WELL No. R-9802 BORING No. R-9802 INSTALLED 12/2/98

GROUND ELEVATION 610.39 FT.

-  GROUT SEAL: 50 Gallons Quick Grout
-  BENTONITE SEAL: 75 lbs. 3/8" bentonite pellets.
-  SCREEN: 4 x 5.2 dia., PREPACK 8 SLOT 40/60 PACK PLUS 400 LBS OF #4 QUARTZ,, 9.5
-  GRAVEL PACK: Prepack screen 40/60 sand pack with 400 lbs. of No. 4 quartz sand.
-  RISER PIPE: 4.0, dia., PVC SCH 40
-  SPACERS, DEPTH:



Well was installed using 9.25 HSA with stainless knock out plate. Approximately 200 gallon of potable water from local water company.







AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



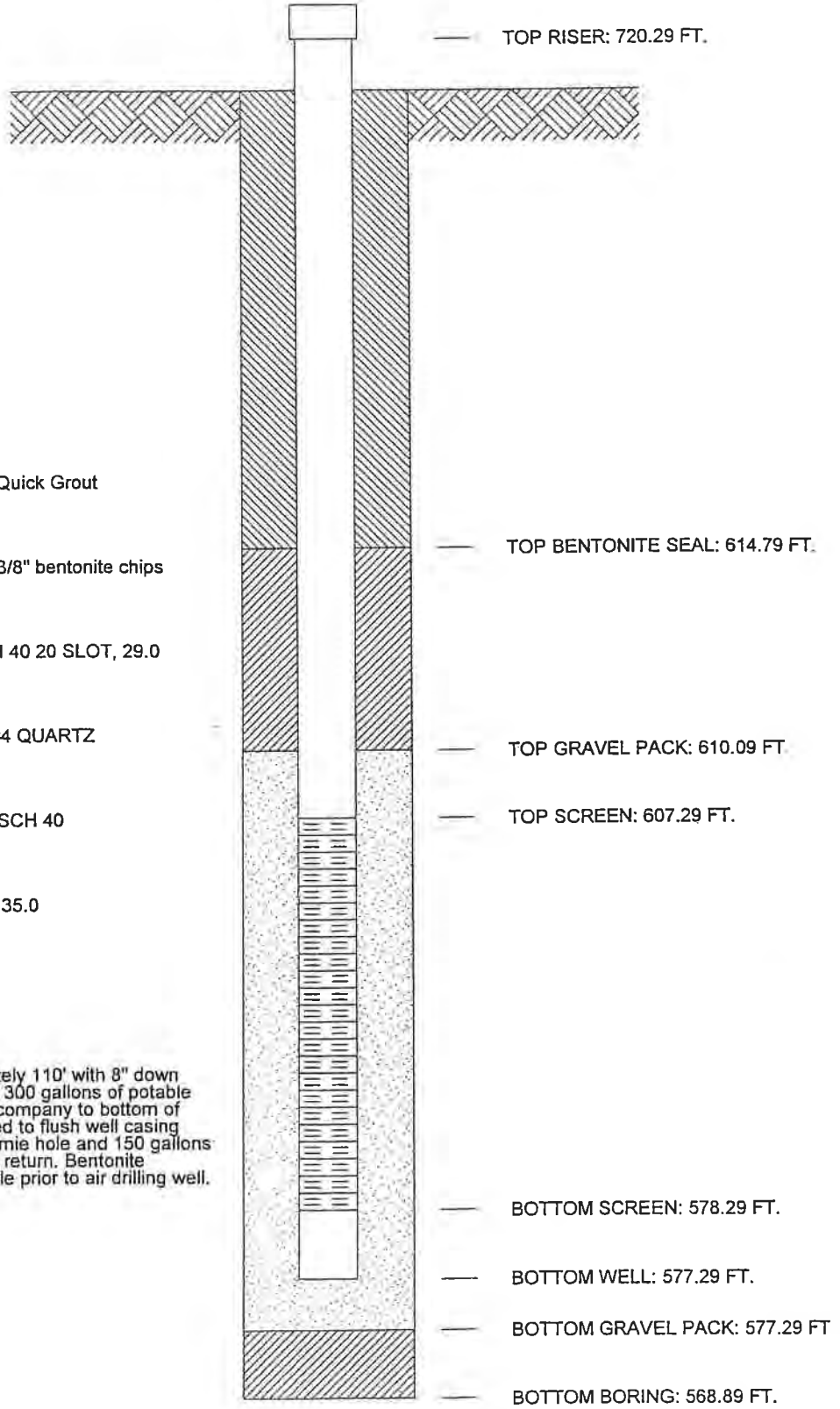
JOB NUMBER 1461
 COMPANY OHIO POWER COMPANY
 PROJECT GAVIN FGD RETROFIT PROJECT
 COORDINATES N 349,056.1 E 2,103,324.6
 SYSTEM State Plane using NADA27

WELL No. R-9806 BORING No. R-9806 INSTALLED 12/29/98

GROUND ELEVATION 718.29 FT.

-  GROUT SEAL: 300 Gallons Quick Grout
-  BENTONITE SEAL: 150 lbs 3/8" bentonite chips
-  SCREEN: 2.0 dia., PVC SCH 40 20 SLOT, 29.0
-  GRAVEL PACK: 1250 LBS #4 QUARTZ
-  RISER PIPE: 2.0, dia., PVC SCH 40
-  SPACERS, DEPTH: 116.0, 135.0

Well drilled dry to approximately 110' with 8" down hole hammer then used 300 gallons of potable water from local water company to bottom of hole. The crew attempted to flush well casing after installation with tremie hole and 150 gallons of potable water with no return. Bentonite backfilled 3' NQ core hole prior to air drilling well.



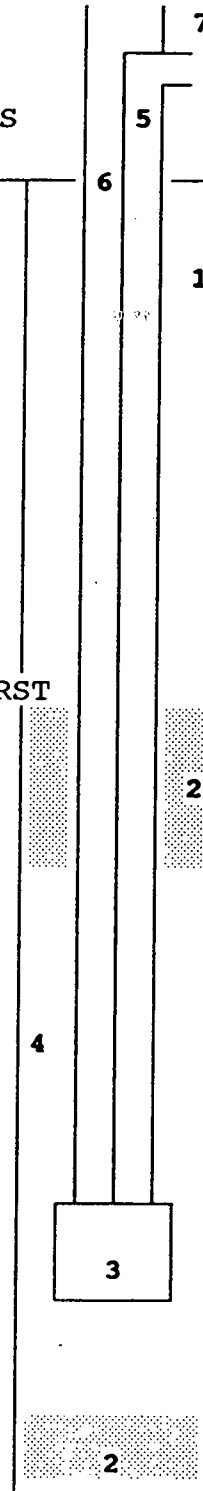
COMPANY OPCO GAVIN PLANT
 PROJECT FGD LANDFILL
 COORDINATES N.348462.47 E.2104474.65 ✓
 DATE INSTALLED 2-8-93

WELL CONSTRUCTION
 SUMMARY ELEVATION
 (ft. NGVD)
 WELL NO. R-9396
 REF. DATUM PT. 616.22
 GRADE 613.61

NOTE: CASING PROTECTOR DETAILS
 NOT SHOWN

- 1 GROUT SEAL
 - 2 BENTONITE SEAL
 - 3 GEOMON UNIT
 - 4 GRAVEL PACK
 - 5 CONTINUOUS UNKINKED NYLON TUBING EXTENDED TO TOP OF CHECK VALVE
 - 6 CASING
 - 7 BRASS 'Y' FITTING
- 2-9-93 8:40 SWL PRIOR TO FIRST PURGING 7.1.

RECOVERED TO 96.4 .
 SWL 8:10 AM 2-10-93 91.6



VOLCLAY GROUT FROM 523.71 TO GRADE.

TOP OF BENTONITE SEAL 523.71

TOP OF GRAVEL PACK 518.62

CHECK VALVE 499.41
 TOP OF SCREEN 498.81
 BOTTOM OF SCREEN 496.81
 GEOMON TIP 496.41

BOTTOM OF GRAVEL PACK 495.61

BOTTOM OF BORE HOLE 492.21

TECHNICAL ENGINEERING SECTION
 VIL ENGINEERING DESIGN

AMERICAN ELECTRIC POWER SERVICE CORPORATION

GEOMON
 WELL

CDS-04C

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY _____
 PROJECT **GAVIN FGD CONVERSION PROJECT**
 COORDINATES **N 348,462.4 E 2,104,474.6**
 GROUND ELEVATION **613.6** SYSTEM _____

BORING NO. **R-93096** DATE **11/24/10** SHEET **1** OF **5**
 BORING START **2/2/93** BORING FINISH **2/8/93**
 PIEZOMETER TYPE _____ WELL TYPE **GM**
 HGT. RISER ABOVE GROUND **616.22** DIA **1"**
 DEPTH TO TOP OF WELL SCREEN **498.81** BOTTOM **496.81**
 WELL DEVELOPMENT _____ BACKFILL **VOLCLAY**
 FIELD PARTY **TJH-TLS** RIG **CME-75**

Water Level, ft	▽ 19.4	▽	▽
TIME	8:38		
DATE	1-4-93		

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	3.7	5.2	4-6-7	.8		5			BROWN,TAN,GRAY SANDY SILT		
2	SS	8.7	10.2	4-7-9-	.9		10					
3	SS	13.7	15.2	3-7-12	.8		15			RED SILTY CLAY		
4	SS	18.7	20.2	4-10-22	1.3					RED,TAN,YELLOW CLAYSTONE weathered.		

TYPE OF CASING USED	
<input checked="" type="checkbox"/>	NQ-2 ROCK CORE
<input checked="" type="checkbox"/>	6" x 3.25 HSA
	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
	AIR HAMMER 8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER _____

AEP_R1R2.GPJ_AEP.GDT_11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93096** DATE **11/24/10** SHEET **2** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD		DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%	%						
5	SS	23.7	24.5	18-50/3	.8						<u>RED CLAY SHALE</u>		
6	NQ	24.5	25.0		0	0		25			<u>RED CLAYSTONE</u>		
7	NQ	25.0	35.0		10.0	74					<u>GRAY SANDY CLAYSTONE</u>		
8	NQ	35.0	45.0		10.0	86		35			<u>RED CLAYSTONE</u> <u>GRAY SHALEY CLAYSTONE</u>		
								40			<u>RED SHALEY CLAYSTONE</u>		
9	NQ	45.0	55.0		10.0	94		45			<u>RED, TAN, YELLOW CLAYSTONE</u> With limestone nodules.		

AEP R1R2.GPJ AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93096** DATE **11/24/10** SHEET **3** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							50					
10	NQ	55.0	65.0		7.1	37	55					
							60					
11	NQ	65.0	75.0		10.0	87	65					
							70					

AEP R1R2.GPJ AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93096** DATE **11/24/10** SHEET **4** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
12	NQ	75.0	85.0		10.0	63	75			RED CLAY SHALE		
							80					
13	NQ	85.0	95.0		10.0	71	85			RED, TAN, YELLOW CLAYSTONE		
							90			GRAY SHALEY LIMESTONE GRAY LIMESTONE RED SHALEY LIMESTONE GRAY SHALEY LIMESTONE Badly broken.		89.9 Top of bentonite seal.
							95			GRAY SILTY SHALE GRAY SANDY SHALE		95.0 Top of gravel pack.
14	NQ	95.0	100.0		4.8	90	95					

AEP R1R2.GPJ AEP.GDT 11/24/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-93096** DATE **11/24/10** SHEET **5** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
										RED AND GRAY SANDY SHALE		
15	NQ	100.0	105.0		5.0	98	100			GRAY SILTY SHALE Well cemented		
16	NQ	105.0	115.0		9.9	99	105					
							110					
17	NQ	115.0	121.4		6.4	89	115					114.2 Check value. 114.8 Top of screen. 116.8 Bottom of screen. 117.2 Tip of geomon. 118.0 Bottom of gravel pack.
							120			RED, TAN, YELLOW CLAYSTONE		124.4 Bottom of boring.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 345,817.3 E 2,104,954.5**

GROUND ELEVATION **706.7** SYSTEM **STATE PLANE**

BORING NO. **R-9631** DATE **11/29/10** SHEET **1** OF **10**

BORING START **10/14/96** BORING FINISH **10/17/96**

PIEZOMETER TYPE _____ WELL TYPE **OW**

HGT. RISER ABOVE GROUND _____ DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **187.1** BOTTOM **225.9**

WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**

FIELD PARTY **TJH-RLY-JCM** RIG **CME-75**

Water Level, ft	▽ 0.0	▽ 130.2	▽
TIME	07:30	07:15	
DATE	10-16-96	10-17-96	

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	0.0	1.5	4-6-9	1.0				SC	DARK BROWN SANDY CLAY Moist, with trace of coal and gravel size sandstone fragments (fill).		
2	SS	1.5	3.0	7-6-6	1.5				CL	GRAY CLAY Moist, with clayshale gravel size shale fragments (fill).		
3	SS	3.0	4.5	4-4-7	1.5							
4	SS	4.5	6.0	7-4-6	1.4		5					
5	SS	6.0	7.4	3-3-50/.4	1.4					GRAY CLAYSHALE Dry.		Bailed hole dry water recovered 148.8 to 130.6 30 minutes. Bailed hole dry water recovered 149.6 to 132.6 17 minutes. 6:00 static water level after installation hole dry. 10-30-96 7:45 swl 233.0' 10' solid pipe sealed in bottom of hole with bentonite below monitoring zone as a reservoir.
6	SS	7.5	7.9	50/.4	.4							
7	NQ	9.0	10.5		1.2	75	10			DARK GRAY CLAYSHALE Hard.		
8	NQ	10.5	15.5		5.0	63						
9	NQ	15.5	20.5		2.7	50	15			BLACK COAL DARK GRAY CLAYSHALE		

TYPE OF CASING USED

X	NQ-2 ROCK CORE
	6" x 3.25 HSA
	9" x 6.25 HSA
	HW CASING ADVANCER 4"
	NW CASING 3"
	SW CASING 6"
	AIR HAMMER 8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **JCM**

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **2** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
10	NQ	20.5	25.5		5.0	94						
11	NQ	25.5	35.5		9.9	85	25			BLACK CARBONACEOUS SHALE		
									GRAY LIMESTONE Hard.			
									GRAY CLAYSHALE Hard.			
									GRAY SANDY SHALE Hard, limestone nodules			
12	NQ	35.5	45.5		9.4	86	35					
									MOTTLED RED, GRAY, GREEN CLAYSHALE Hard.			
									GRAY SANDY CLAYSHALE Hard, limestone nodules, pyrite.			
13	NQ	45.5	55.5		10.0	100	45					

AEP R1R2.GPJ AEP.GDT 11/29/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **3** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
										LIGHT GRAY SANDSTONE Fine grain, well cemented.		
							50			BLUE GRAY SANDY SHALE Limestone nodules, pyrite, some shaley sandstone.		
										Changing to light gray.		
										BLUE GRAY SANDSTONE V-fine grain, well cemented.		
14	NQ	55.5	65.5		9.8	98	55			MOTTLED RED, PURPLE, GREEN, BLUE GREEN CLAYSHALES Hard, sandy in area, hard.		
							60			RED CLAYSHALES Hard, limestone.		
							65					
15	NQ	65.5	75.5		10.0	100				LIGHT BLUE GRAY SHALEY SANDSTONE Hard.		
										BLUE GRAY SANDSTONE Fine grain, well cemented, hard.		
							70					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **4** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
16	NQ	75.5	85.5		10.0	95	75			GRAY CLAYSHALE Hard. RED CLAYSHALE Hard.		
							80			MOTTLED BLACK, YELLOW, PURPLE, BROWN CLAYSHALE Medium hard. LIGHT GRAY SANDY CLAYSHALE Hard, more sand at bottom, soft layer 84.2, limestone nodules.		
17	NQ	85.5	95.5		10.0	100	85			RED, YELLOW BROWN CLAYSHALE Hard. MOTTLED PURPLE RED, YELLOW, BROWN CLAYSTONE Soft		
18	NQ	95.5	105.5		10.0	83	95					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **5** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							100					
19	NQ	105.5	111.8		5.5	0	105					
							110					
							115			RED, BLUE GRAY CLAYSHALE Hard, limestone nodules.		
21	NQ	115.5	125.5		10.0	100	115					
20	NQ	118.8	122.5		3.7	100	120					

AEP_R1R2.GPJ_AEP.GDT 11/29/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **6** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
22	NQ	125.5	135.5		10.0	100	125					
							130					
23	NQ	135.5	145.5		10.0	100	135					
							140					
24	NQ	145.5	155.5		10.0	100	145					

AEP R1R2.GPJ AEP.GDT 11/29/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **7** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
25	NQ	155.5	165.5		10.0	100	155			RED BLUE GREEN SANDY CLAYSTONE Medium hard, limestone nodules, changing to more red with depth.		
							160					
26	NQ	165.5	175.5		10.0	100	165					
							170					
							175					
27	NQ	175.5	185.5		10.0	95						

AEP R1R2.GPJ AEP.GDT 11/29/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **8** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							180					178.4 top of seal.
							185					185.1 top of sand.
							190			<u>4 LAYER GRAY SHALEY LIMESTONE</u>		187.1 top of screen.
							195					
29		195.5	205.5		10.0	100						
28	NQ	198.5	208.5		10.0	100				<u>BLUE GRAY SHALEY SANDSTONE</u> Hard, limestone nodules.		
							200			<u>RED CLAYSHALE</u> Hard, limestone nodules.		
										<u>BLUE GRAY CLAYSHALE</u> Hard, limestone		

AEP R1R2.GPJ AEP.GDT 11/29/10

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **9** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							205			nodules, changing to red 203.1 to 206.2.		
30	NQ	205.5	215.5		10.0	100				BLUE GRAY SANDSTONE Shale parting, v-fine grain, well cemented.		
							210			BLUE GRAY SANDY SHALE Sandstone partings, limestone.		
							215					
31	NQ	215.5	225.5		10.0	100						
							220					
							225					
32	NQ	225.5	235.3		9.8	100						
												225.9 bottom of screen. 227.0 bottom of sand.

AEP R1R2.GPJ AEP.GDT 11/29/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **R-9631** DATE **11/29/10** SHEET **10** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT**

BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
							230			RED AND GRAY CLAYSHALE Hard.		
							235			MOTTLED RED, GRAY, PURPLE SANDY CLAYSTONE Medium hard, limestone nodules.		
										<u>Longitude 38 56 56.36749 N</u> <u>Latitude 82 07 51.01131 W</u>		

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY **OHIO POWER COMPANY**
 PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**
 COORDINATES **N 355,372.6 E 2,065,722.5**
 GROUND ELEVATION **777.3** SYSTEM **STATE PLANE**

BORING NO. **96152** DATE _____ SHEET **1** OF **5**
 BORING START **06/25/96** BORING FINISH **06/27/96**
 PIEZOMETER TYPE _____ WELL TYPE **OW**
 HGT. RISER ABOVE GROUND **2.16** DIA _____
 DEPTH TO TOP OF WELL SCREEN **127.0** BOTTOM **166.0**
 WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**
 FIELD PARTY **MCR-REB-JCM** RIG **BK-81**

WATER LEVEL	▽ 23.7	▽	▽
TIME			
DATE	6-26-96		

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	S C U	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							5		SP	BROWN SANDSTONE Dry fine grain.		Latitude 38 58 30.76511 N. = Longitude 082 09 28.87729 W.
							10			BROWN AND GRAY SAND Fine grain, dry.		
							15		SC	BROWN SANDY CLAY Moist, fine grain with 3/4" gravel.		
							20		SP	BROWN SAND Moist, fine grain.		
							25					
							30					
							35			BROWN AND GRAY CLAY SHALE Dry.		
							40			NG MEDIUM LIGHT GRAY LIMESTONE Vertical crack from 37.8-38.8.		
							45			NG MEDIUM GRAY CLAY SHALE		

TYPE OF CASING USED				<i>Continued Next Page</i>			
X	NQ-2 ROCK CORE			PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC			
X	6" x 3.25 HSA			WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON			
	9" x 6.25 HSA			RECORDER REB			
	HW CASING ADVANCER	4"					
	NW CASING	3"					
	SW CASING	6"					

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY **OHIO POWER COMPANY** BORING NO. **96152** DATE _____ SHEET **2** OF **5**
 PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **06/25/96** BORING FINISH **06/27/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	SSCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
										10YR 4/6 MODERATE REDDISH BROWN CLAY SHALE		
							55			5YR 4/2 GRAYISH RED SANDY SHALE 5R 5/4 MODERATE RED CLAY SHALE N5 MEDIUM GRAY CLAY SHALE N7 LIGHT GRAY SANDY SHALE		
							60			MOTTLED GRAY, RED, GREEN CLAY SHALE		
							65			N7 LIGHT GRAY SANDY SHALE LIGHT GRAY CLAY SHALE		
							70			5R 4/2 GRAY REDDISH CLAYSTONE		
							75			RETURN WATER pH 7.22 COND 925 DRILL WATER pH 6.86 COND 869 N5 MEDIUM GRAY SANDY SHALE		
							80			RED AND GRAY CLAYSTONE With calcite. RED AND GRAY CLAY SHALE 5R 4/6 MODERATE RED CLAYSTONE		
							85			5R 4/6 MODERATE RED CLAY SHALE		
							90			MOTTLED RED, GREEN, GRAY CLAYSTONE <i>light gray is</i> MOTTLED GRAY, GREEN, RED CLAY SHALE		
							95			5GY 6/1 REDDISH GRAY CLAYSTONE		
							100			10R 4/2 GRAYISH GREENISH RED CLAY SHALE 10R3/4 DARK REDDISH BROWN CLAYSTONE		Lost all return water 97.0
							105			MOTTLED RED, GRAY, BROWN CLAY SHALE MOTTLED RED, BROWN, GRAY CLAYSTONE		
							110			10R 4/6 MODERATE REDDISH BROWN		

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

BORING NO. **96152**

DATE _____

SHEET **3** OF **5**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING START **06/25/96**

BORING FINISH _____

06/27/96

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	S S C S U	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
							120			CLAYSHALE 5R 4\6 MODERATE RED CLAYSTONE 5R 4\6 MODERATE RED CLAYSHALE		118.0 Top of seal.
							125			N6 MEDIUM LIGHT GRAY SANDY SHALE		124.1 Top of sand.
							130					
							135			N6 MEDIUM LIGHT GRAY SANDSTONE With shale streaks.		
							140					
							145			N6 MEDIUM LIGHT GRAY CLAYSHALE With pyrite. 10R 3\4 DARK REDDISH BROWN CLAYSHALE		
							150			N5 MEDIUM GRAY SANDY SHALE N7 LIGHT GRAY SANDSTONE Well cemented.		Regained all drill water.
							155			N7 LIGHT GRAY SANDY SHALE N7 MEDIUM DARK GRAY CLAYSHALE With calcite and limestone nodules.		Used 3500 gallons of drill water.
							160					
							165			N5 MEDIUM GRAY SANDY SHALE N7 LIGHT GRAY SANDSTONE		
							170			N4 MEDIUM DARK GRAY CLAYSHALE 5R 4\6 MODERATE RED AND GRAY CLAYSHALE		166.0 Bottom of screen.
							175			N5 MEDIUM GRAY CLAYSTONE With limestone nodules. 5R 4\6 MODERATE RED CLAYSTONE With limestone nodules.		169.1 Bottom of sand.
										N6 MEDIUM LIGHT GRAY CLAYSTONE GRAY LIMESTONE 10R 4\6 MODERATE REDDISH BROWN		

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

BORING NO. **96152** DATE _____ SHEET **4** OF **5**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING START **06/25/96** BORING FINISH **06/27/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
										CLAYSTONE N5 MEDIUM GRAY CLAYSHALE RED AND GRAY CLAYSHALE		
							185			MOTTLED RED, GRAY, BROWN CLAYSTONE With limestone nodules.		
							190					
							195					
							200					
							205			MOTTLED RED GRAY, BROWN CLAYSTONE With limestone nodules.		
							210					
							215			N6 MEDIUM LIGHT GRAY SANDY SHALE		
							220			N6 MEDIUM LIGHT GRAY CLAYSHALE With calcite and limestone nodules.		Used 5000 gallons of drill water.
							225					
							230			N7 LIGHT GRAY SANDSTONE		
							235			N7 LIGHT GRAY SANDY SHALE		
							240					







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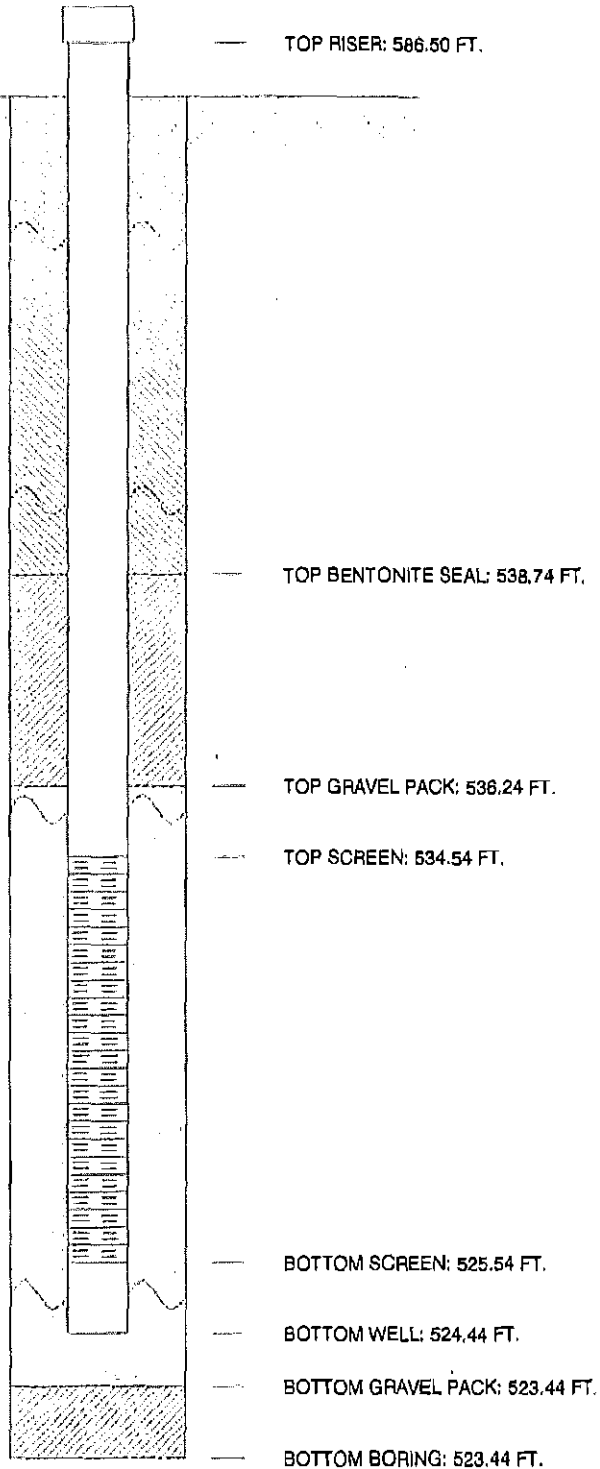
AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER _____
 COMPANY OHIO POWER COMPANY WELL No. 96158 BORING No. 96158 INSTALLED 11/29/95
 PROJECT GAVIN PLANT FLY ASH POND CLOSURE
 COORDINATES N 351,115.0 E 2,070,634.8
 SYSTEM STATE PLANE

GROUND ELEVATION 584.74 FT.

-  GROUT SEAL: 100 GALLONS QUICK GROUT
-  BENTONITE SEAL: 50 LBS PI PELLETS
-  SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 9.0
-  GRAVEL PACK: 150 LBS #4 OHIO QUARTZ
-  RISER PIPE: 2.0, DIA., PVC SCH 40
-  SPACERS, DPTH:



SWL over nite 7.3. Seal 1.5' into soil.

Hole reamed to 5 3/4" be fore installing well.







2000 gallons of potable water used to ream hole.

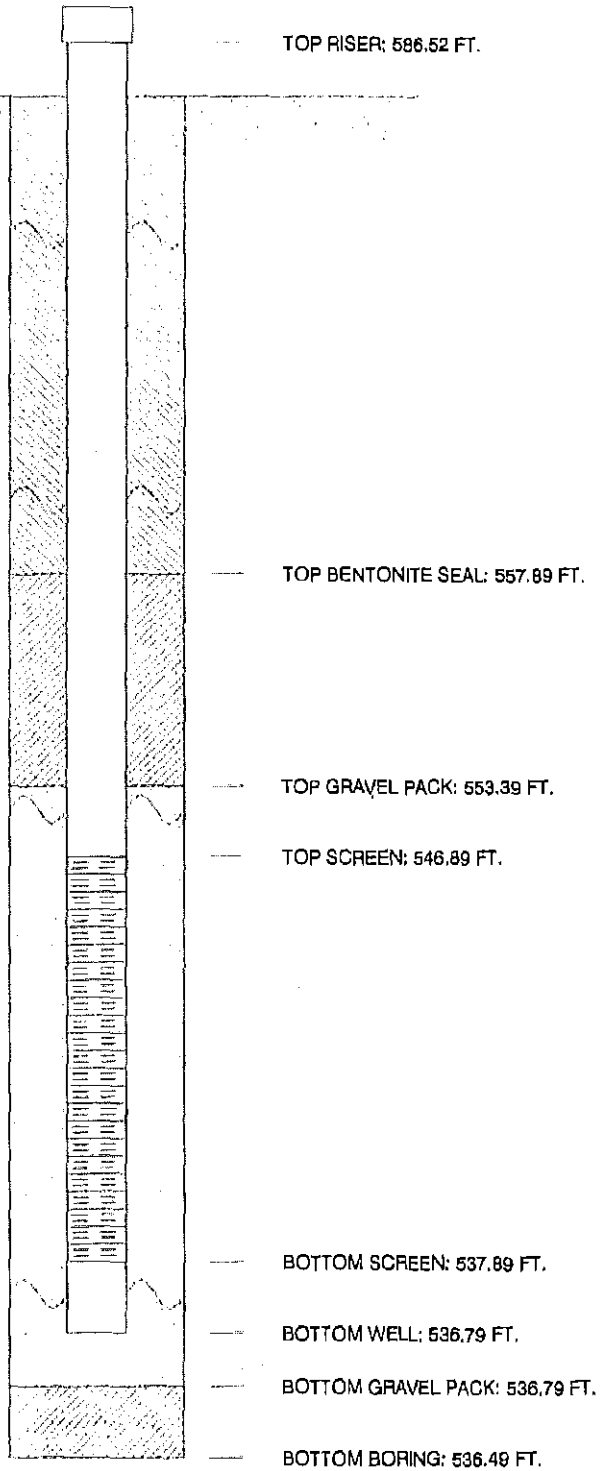
AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER _____
 COMPANY OHIO POWER COMPANY WELL No. 96157 BORING No. 96157 INSTALLED 11/21/95
 PROJECT GAVIN PLANT FLY ASH POND CLOSURE
 COORDINATES N 351,118.0 E 2,070,648.6
 SYSTEM STATE PLANE

GROUND ELEVATION 584.59 FT.

-  GROUT SEAL: 50 GALLONS QUICK GROUT
-  BENTONITE SEAL: 125 LBS PJ PELLETS
-  SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 9.0
-  GRAVEL PACK: 475 LBS #4 OHIO QUARTZ
-  RISER PIPE: 2.0, DIA., PVC SCH 40
-  SPACERS, DPTH:



Approximately 150 gallons of potable water to drill hole.

SWL 7.2 after 5 days.

SWL over nite 38.6. Hole drilled using 6.25 HSA.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY **OHIO POWER COMPANY**
 PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**
 COORDINATES **N 352,338.7 E 2,061,912.6**
 GROUND ELEVATION **851.8** SYSTEM **STATE PLANE**

BORING NO. **96156** DATE _____ SHEET **1** OF **6**
 BORING START **01/03/96** BORING FINISH **01/11/96**
 PIEZOMETER TYPE _____ WELL TYPE **GM**
 HGT. RISER ABOVE GROUND _____ DIA **1.0**
 DEPTH TO TOP OF WELL SCREEN **220.1** BOTTOM **222.1**
 WELL DEVELOPMENT **YSEE NOTES** BACKFILL **QUICK GROUT**
 FIELD PARTY **MCR-RLY-PDK** RIG **BK-81**

WATER LEVEL	▽ 72.2	▽ 66.9	▽ 77.3
TIME			
DATE	1-9-96	1-10-96	1-11-96

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	S U C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
1	SS	1.7	3.2	1-1-2	.1		5		CL	DECON AT GAVIN FAD 1-2-96 USING LEADING CREEK RUAL WATER BROWN CLAY	Latitude 38 58 00.91662 N. = Longitude 082 10 17.26120 W.	
2	SS	6.7	7.4	38-50/.2	.6		10			BROWN CLAY SHALE Dry.		
3	SS	11.7	11.7	50/0	0		15			N6 MEDIUM LIGHT GRAY CLAYSHALE		
4	SS	13.6	13.6	50/0	0	0				10YR 6\6 DARK YELLOWISH ORANGE SANDY CLAYSTONE		
5	NQ	13.7	15.0		1.3	51				10YR 6\6 DARK YELLOWISH ORANGE SANDSTONE		
6	NQ	15.0	24.0		9.0							
7	NQ	24.0	30.0		1.6	0						
8	NQ	30.0	35.0		5.0	46						
9	NQ	35.0	45.0		10.0	83						
10	NQ	45.0	55.0		10.0	86						

TYPE OF CASING USED				<i>Continued Next Page</i>			
<input checked="" type="checkbox"/>	NQ-2 ROCK CORE			PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC			
<input checked="" type="checkbox"/>	6" x 3.25 HSA			WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON			
	9" x 6.25 HSA			RECORDER MCR			
	HW CASING ADVANCER	4"					
	NW CASING	3"					
	SW CASING	6"					

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**
 PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING NO. **96156** DATE _____ SHEET **2** OF **6**

BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
11	NQ	55.0	65.0		10.0	70	55			10YR 5\4 MODERATE YELLOWISH BROWN SANDSTONE		
							60			5B 3 GRAY CLAY SEAM		
							65			5B 5\1 MEDIUM BLUISH GRAY SANDSTONE		
12	NQ	65.0	70.0		5.0	60	65			N5 MEDIUM GRAY SANDSTONE		
							70			N3 DARK GRAY CLAYSTONE		
13	NQ	70.0	75.0		5.0	60	70			N3 DARK GRAY CLAYSHALE		
14	NQ	75.0	79.0		4.0	50	75			N3 DARK GRAY CLAYSTONE Well cemented.		
							78			BLACK COAL		
15	NQ	79.0	79.2		.2	46	80			N4 MEDIUM DARK GRAY CLAYSHALE Soft.		
16	NQ	79.2	84.8		4.9		80			BLACK COAL		
							82			N4 MEDIUM DARK GRAY CLAYSHALE		
17	NQ	84.8	94.8		10.0	60	85					
							95			N4 MEDIUM DARK GRAY CLAYSHALE With limestone.		
18	NQ	94.8	97.3		2.5	0	95			DARK GRAY SANDY LIMESTONE Hard.		
19	NQ	97.3	104.8		7.0		100			Drill water pH 7.45, return water 7.20		<i>summit</i>
							100			GRAY CLAYSHALE		
20	NQ	104.8	113.8		9.0	62	105			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE Soft.		
21	NQ	113.8	119.8		6.0	83	110			5b 5\1 MEDIUM BLUISH GRAY CLAYSTONE		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

BORING NO. **96156** DATE _____ SHEET **3** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	S C U	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
										Well cemented.		
22	NQ	119.8	124.8		5.0	80	120			5rp 4\2 GRAYISH RED PURPLE CLAYSTONE With high angle fracture at 121.9. 5B 5\1 MEDIUM BLUISH SANDY CLAYSTONE Well cemented.		
23	NQ	124.8	134.8		10.0	90	125					Used approximately 3000 gallons of water to this point.
							130					
24	NQ	134.8	144.8		10.0	83	135			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE N5 MEDIUM GRAY SANDY CLAYSTONE		
							140			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE <i>CHARKSEWEE LS HORIZON</i>		
25	NQ	144.8	154.8		10.0	63	145			5YR 4\1 BROWNISH GRAY CLAYSHALE		
							150					
26	NQ	154.8	164.8		10.0	46	155			10YT 4\2 DARK YELLOWISH BROWN CLAYSHALE Soft.		
							160					
27	NQ	164.8	174.8		10.0	46	165			10R 3\4 DARK REDDISH BROWN CLAYSHALE Soft.		
							170					
28	NQ	174.8	178.8			58	175			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE Soft.		171.0 Top of bentonite seal. 175.5 Top of sand.
29	NQ	178.8	184.8			60				10R 4\6 MODERATE REDDISH BROWN		Used approximately

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

BORING NO. **96156** DATE _____ SHEET **4** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
										CLAYSTONE Hard.		5000 gallons of water to this point.
										GRAY SANDY CLAYSTONE Hard.		
30	NQ	184.8	192.8		8.0	98	185			5B 5\1 MEDIUM BLUISH GRAY SANDY SILTSTONE Fine grain, well cemented.		
							190					
31	NQ	192.8	198.8		6.0	100	195			SILTY SANDSTONE Medium to fine grain, well cemented, cross bedding throughout.		
							195					
32	NQ	198.8	208.8		9.9	99	200			N7 SANDY SILTSTONE Fine grain, well cemented.		
							205					
33	NQ	208.8	218.8		10.0	92	210			N7 LIGHT GRAY SANDSTONE Medium to fine grain, well cemented, cross bedding throughout.		
							215			GRAY LIMESTONE Hard.		
							215					
34	NQ	218.8	228.8		10.0	83	220			N6 MEDIUM LIGHT GRAY CLAYSTONE Well cemented. MEDIUM DARK GRAY CLAYSHALE Well cemented, hard.		219.6 Check valve. 220.1 Top of screen. 222.1 Bottom of screen. 224.0 Top of bottom seal.
							225			10R 4\2 GRAYISH RED CLAYSHALE		
							225					
35	NQ	228.8	238.8		9.4	81	230			10R 4\2 GRAYISH RED CLAYSHALE		Used approximately 6500 gallons of water to this point.
							235					
36	NQ	238.8	243.8		5.0	80	240			10 R 2\2 VERY DUSKY RED CLAYSHALE Hard.		
							240					
37	NQ	243.8	251.8		7.8	50				N6 MEDIUM LIGHT GRAY CLAYSHALE limestone nodules throughout.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

BORING NO. **96156** DATE _____ SHEET **5** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
										<p><u>N6 MEDIUM LIGHT GRAY SHALEY LIMESTONE</u> <i>Amie</i></p> <p><u>N6 MEDIUM LIGHT GRAY CLAYSHALE</u></p> <p><u>10R 2\2 VERY DUSKY RED CLAYSHALE</u></p>		
38	NQ	251.8	258.8		7.0	97	250			<p><u>5G 6\1 GREENISH GRAY CLAYSTONE</u> Hard with limestone nodules throughout.</p>		
39	NQ	258.8	268.8		10.0	93	255			<p><u>N6 MEDIUM LIGHT GRAY SILTSTONE</u> Fine grain, well cemented, hard.</p>		
							260			<p><u>5YR 4\1 BROWNISH GRAY CLAYSHALE</u></p>		
40	NQ	268.8	275.8		7.0	57	265			<p><u>10R 2\2 VERY DUSKY RED CLAYSHALE</u> Hard, soft weathered area at 270.4- 274.5.</p>		
41	NQ	275.8	283.8		7.6	38	270			<p><u>N6 MEDIUM LIGHT GRAY SILTY CLAY SHALE</u> Hard.</p>		
42	NQ	283.6	293.6		10.0	76	275			<p><u>N6 MEDIUM LIGHT GRAY LIMESTONE</u> Fracture bottom .3. <i>E.L.W. 1/6</i></p> <p><u>N5 MEDIUM GRAY SILTY CLAYSHALE</u> Medium hard, high angle fractures throughout.</p>		Used approximately 8500 gallons of water to this point.
43	NQ	293.8	303.8		10.0	93	280			<p><u>N5 MEDIUM GRAY SHALEY SANDSTONE</u> Hard, fine to medium grain, cross bedding throughout.</p>		
44	NQ	303.8	313.8		9.7	88	285					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING



JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

BORING NO. **96156**

DATE _____

SHEET **6** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING START **01/03/96**

BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
45	NQ	313.8	323.8		9.9	77	315			<p>N4 MEDIUM DARK GRAY SILTY CLAYSHALE Fracture.</p> <p>LIGHT GRAY SHALEY LIMESTONE</p> <p><i>PORTERSVILLE LS</i></p> <p>SILTY CLAY SHALE</p>		
46	NQ	323.8	333.8		10.0	96	320			<p>SANDY CLAYSTONE Hard, fine grain, limestone nodules throughout, calcite deposits 319.0.</p> <p>N5 MEDIUM GRAY SANDY CLAYSTONE Hard, fine grain, calcite throughout.</p>		
47	NQ	333.8	343.8		9.8	97	335			<p>N5 MEDIUM GRAY SILTY SANDSTONE Hard, well cemented, fine grain, cross bedding throughout.</p>		
48	NQ	343.8	353.8		10.0	99	345					
49	NQ	353.8	363.8		9.4	84	355			<p>N5 MEDIUM GRAY SANDSTONE Hard, well cemented, medium grain, some cross bedding.</p>		
							360			<p>N5 MEDIUM GRAY SANDY CLAYSTONE Fine grain, soft area at 361.2-361.5</p>		

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____
 COMPANY _____
 PROJECT **GAVIN FLY ASH POND CLOSURE**
 COORDINATES _____
 GROUND ELEVATION _____ SYSTEM _____

BORING NO. **9910** DATE **3/7/12** SHEET **1** OF **7**
 BORING START _____ BORING FINISH _____
 PIEZOMETER TYPE _____ WELL TYPE _____
 HGT. RISER ABOVE GROUND _____ DIA _____
 DEPTH TO TOP OF WELL SCREEN _____ BOTTOM _____
 WELL DEVELOPMENT _____ BACKFILL _____
 FIELD PARTY _____ RIG _____

Water Level, ft	▽ 10.2	▼ 97.8	▽
TIME	7:00AM		
DATE	8/4/99	9/9/99	

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO									
										NO SPT SAMPLES TAKEN Drilled 3.25" HSA to top of bedrock and started coring		Water for drilling and deconning came from G-5 belt station using Leading Creek Corp. water.
							5					Deconned all tools and drill before starting to drill on 8/2/99.
							10					Boring Geo-logged and grouted on 8/12/99
							15					

TYPE OF CASING USED

Continued Next Page

NQ-2 ROCK CORE	
6" x 3.25 HSA	
9" x 6.25 HSA	
HW CASING ADVANCER	4"
NW CASING	3"
SW CASING	6"
AIR HAMMER	8"

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC
 WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER _____

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **9910** DATE **3/7/12** SHEET **2** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE**

BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
1	NQ-2	23.9	29.8		5.6	45				10R 3/4 DARK REDDISH BROWN CLAY SHALE		
2	NQ-2	29.8	39.8		8.6	88				N3 DARK GRAY CLAY SHALE 10R 3/4 DARK REDDISH BROWN CLAY SHALE Slightly weathered		
										N4 MEDIUM DARK GRAY CLAY SHALE		
										10YR 5/4 MODERATE YELLOWISH BROWN & N5 MEDIUM GRAY CLAY SHALE		
3	NQ-2	39.8	49.8		7.1	99				10R 3/4 DARK REDDISH BROWN CLAY SHALE 10R 3/4 DARK REDDISH BROWN CLAY SHALE Slightly weathered		
										MULTI COLORED CLAY SHALE N5 MEDIUM GRAY, 10YR 6/6 DARK YELLOWISH ORANGE, & 5RP VERY DUSKY		

AEP_GAVIN_FLY_ASH_POND.GPJ_AEP.GDT_3/7/12

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **9910** DATE **3/7/12** SHEET **3** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE**

BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
4	NQ-2	49.8	56.8		4.7	83				RED PURPLE		
5	NQ-2	56.8	64.8		8.3	77				5YR 3/4 MODERATE BROWN CLAY SHALE With 5Y 5/6 LIGHT OLIVE GREEN & N6 MEDIUM LIGHT GRAY MARBLING THROUGHOUT Slightly weathered, semisoft		
6	NQ-2	64.8	74.8		9.9	94				10R 4/6 MODERATE REDDISH BROWN CLAY SHALE With N6 MEDIUM LIGHT GRAY MARBLING THROUGHOUT 10R 4/2 GRAYISH RED LIMESTONE NODULES AT 62.0' & 63.3'		
										10R 3/4 DARK REDDISH BROWN CLAY SHALE		
										N4 MEDIUM DARK GRAY FINE GRAIN SANDSTONE Well cemented, hard		
										N4 MEDIUM DARK GRAY & N6 MEDIUM LIGHT GRAY SILTSTONE With cross bedding, hard, well cemented		

AEP_GAVIN_FLY_ASH_POND.GPJ_AEP.GDT_3/7/12

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **9910** DATE **3/7/12** SHEET **4** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE**

BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
7	NQ-2	74.8	84.8		9.9	76		XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXX		Used 1800 gallons of drill water to this point - 74.8'		
<p>N5 MEDIUM GRAY SILTY CLAY SHALE Well cemented & bonded, hard</p>												
<p>10R 3/4 DARK REDDISH BROWN CLAY SHALE Slightly weathered from 80.8' - 84.2'</p>												
8	NQ-2	84.8	94.8		9.9	95	XXXXXXXXXX XXXXXXXXXX XXXXX					
<p>5B 5/1 MEDIUM BLUISH GRAY SILT STONE</p>												
<p>10R 3/4 DARK REDDISH BROWN CLAY SHALE With N5 MEDIUM GRAY LIMESTONE NODULES THROUGHOUT</p>												
<p>N6 MEDIUM LIGHT GRAY & N2 GRAYISH BLACK FINE GRAIN SILT STONE With cross bedding</p>												
9	NQ-2	94.8	104.8		10	93	XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXX					
<p>N4 MEDIUM DARK GRAY & N5 MEDIUM GRAY CLAY SHALE</p>												
<p>10R 3/4 DARK REDDISH BROWN & N3 DARK GRAY CLAY SHALE</p>												
<p>5B 5/1 MEDIUM BLUISH GRAY FINE GRAIN</p>												

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AEP_GAVIN_FLY_ASH_POND.GPJ_AEP.GDT_3/7/12

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **9910** DATE **3/7/12** SHEET **5** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE**

BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
10	NQ-2	104.8	114.8		9.8	60				SANDY SILT STONE Well cemented, hard		
										N4 MEDIUM DARK GRAY CLAY SHALE With pyrite throughout		
										10R 3/4 DARK REDDISH BROWN CLAY SHALE		
										MULTI COLORED WEATHERED CLAY SHALE 10R 3/4 DARK REDDISH BROWN, 5Y 6/4 DUSKY YELLOW, 5RP 2/2 VERY DUSKY RED PURPLE, 5Y 5/6 LIGHT OLIVE BROWN, & N3 DARK GRAY		
11	NQ-2	114.8	123.8		8.8	80				MULTI COLORED WEATHERED CLAY SHALE 10R 3/4 DARK REDDISH BROWN, 5Y 6/4 DUSKY YELLOW, 5RP 2/2 VERY DUSKY RED PURPLE, 5Y 5/6 LIGHT OLIVE BROWN, & N3 DARK GRAY With a lot of slick & slides		SWL at 10.2' on 8/4/99; NQ hole to 114.8'

AEP_GAVIN_FLY_ASH_POND.GPJ_AEP.GDT_3/7/12

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AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **9910** DATE **3/7/12** SHEET **6** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE**

BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
12	NQ-2	123.8	133.8		9.5	65						
13	NQ-2	133.8	143.8		9.5	55						
14	NQ-2	143.8	152.8		9.0					5RP 2/2 VERY DUSKY RED PURPLE CLAY SHALE With limestone nodules		
										10R 3/4 DARK REDDISH BROWN & 10Y 4/2 GRAYISH OLIVE CLAY SHALE With cross bedding, slightly weathered		

Used 3800 gallons of drill water to this

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AEP_GAVIN_FLY_ASH_POND.GPJ_AEP.GDT_3/7/12

AMERICAN ELECTRIC POWER SERVICE CORPORATION
AEP CIVIL ENGINEERING LABORATORY
 LOG OF BORING



JOB NUMBER _____

COMPANY _____

BORING NO. **9910** DATE **3/7/12** SHEET **7** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE**

BORING START _____ BORING FINISH _____

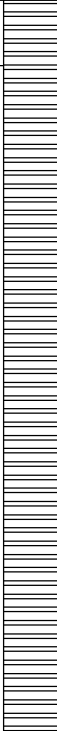
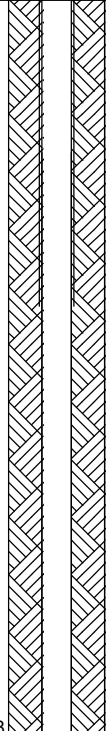
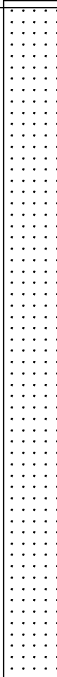
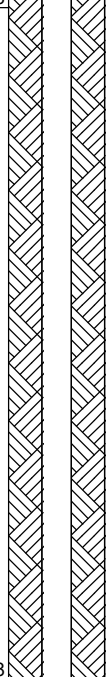
SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET		STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
		FROM	TO			%						
												point - 148.8'
										5BG 5/2 GRAYISH BLUE GREEN CLAY SHALE Well cemented		Stopped boring at 152.8' on 8/4/99 Flushed boring with approx. 700 gallons of water.

CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
 PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH
 DATE STARTED 5/8/12 COMPLETED 5/10/12 GROUND ELEVATION 771.8 ft HOLE SIZE 5.5 inches
 DRILLING CONTRACTOR Frontz Drilling GROUND WATER LEVELS:
 DRILLING METHOD Air Rotary/Rockcore AT TIME OF DRILLING ---
 LOGGED BY Jim Bannantine CHECKED BY J. Neil Couch AT END OF DRILLING ---
 NORTHING, EASTING 355665.7 N, 2063769.2 E AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					Casing Top Elev: 774.3 (ft) Casing Type: Schd. 80 PVC
0.5	SC 1	38" / 60"		CLAY (CL) -gray (7.5YR 5/1); some SILT and SAND; low to medium plastic; very stiff; moist SAND (SW-SC) -reddish yellow (7.5YR 6/6 to 7.5YR 5/8); some CLAY; trace COAL; fine grained; mostly quartz; loose	771.3
5.0	SC 2	45" / 60"		SAND (SW-SM) -light yellowish brown (2.5Y 6/3) to olive yellow (2.5Y 6/6); little silt; fine grained; mottled; stiff	766.8
8.3				COAL -dark gray (N3) to grayish black (N2); thinly bedded, soft	763.6
8.5				SHALE/CLAYSTONE - medium gray (N5); thinly to very thinly bedded; soft to very soft; damp	763.3
10.0	SC 3	48" / 48"		SHALE/CLAYSTONE - medium gray (N5); thinly to very thinly bedded; soft to very soft; damp	761.8
14.0				SHALE - thinly bedded; some calcareous nodules; iron staining on fractured surfaces; breaks easily along bedding planes; trace pyrite near top	757.8
15.0	RC 1	39" / 84"			
20.0					


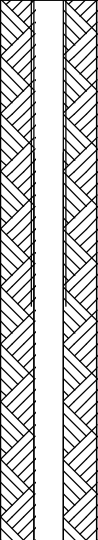

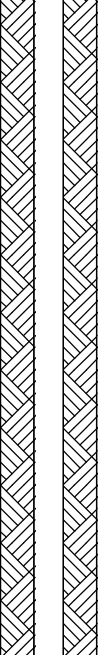
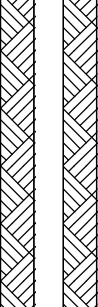
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CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20					
25	RC 2	60" / 120"		1 ft - SHALE - as above from 14.0 to 21.0 ft 1 ft - SHALE - medium gray; hard; massive; conformable with overlying unit 3 FT - MUDSTONE - greenish black (5 G 2/1); some carbonaceous clasts; massive; some wet mud on fracture planes	
30					
35	RC 3	39" / 120"		0.1 ft to 0.2 ft - CLAYSTONE - medium gray (N5) to medium dark gray (N4); very dark red (5 R 2/6) carbonaceous nodules 0.1 ft - Soft gray mud 1.25 ft - SHALE / CLAYSTONE - medium dark gray (N4); some olive brown (5 Y 4/4) carbonaceous nodules; massive; soft; many bedding planes have slickensided surfaces 1.58 ft - SANDSTONE - greenish gray (5GY 6/1) to dark gray (5 GY 4/1) to medium dark gray (N4); moderately hard	
40					
41.0					
740.8					
730.8					

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CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	RC 4	80" / 120"		4.33 ft - SANDSTONE TOP OF CONNELSVILLE SANDSTONE - as above FROM 31.0 to 41.0 ft; some reddish carbonaceous nodules and thin silt layers; moderately hard 4-inch SHALE; thinly bedded 1.33 ft - CLAYSTONE/SILTSTONE - medium gray (N5); massive; soft 0.67 ft - CLAYSTONE - very dusky purple (5 RP 2/2); massive; moderately soft (<i>continued</i>)	
50				51.0	
55	RC 5	100" / 120"		CLAYSTONE/MUDSTONE - as above; medium bluish gray (5 B 5/1) to very dusky purple (5 RP 2/2); some carbonaceous nodules; breaks easily across some bedding planes; several slickensided surfaces	
60				61.0	
65				1.1 ft - SANDY SILTY SHALE - medium dark gray (N4), little pyrite 3.3 ft - CLAYSTONE/SILTSTONE TOP OF CLARKSBURGH RED BEDS - very dark red (5 R 2/6); thinly bedded in sections, thickly bedded in others; occasional very finely bedded gray shale; some slickensided surfaces 0.25 ft - CLARKSBURGH LIMESTONE - black (N7); massive; non-crystalline	

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CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
 PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

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DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	RC 6	56" / 120"		1.1 ft - SANDY SILTY SHALE - medium dark gray (N4), little pyrite 3.3 ft - CLAYSTONE/SILTSTONE TOP OF CLARKSBURGH RED BEDS - very dark red (5 R 2/6); thinly bedded in sections, thickly bedded in others; occasional very finely bedded gray shale; some slickensided surfaces 0.25 ft - CLARKSBURGH LIMESTONE - black (N7); massive; non-crystalline (<i>continued</i>)	
75	RC 7	67" / 120"		71.0 SILTSTONE/MUDSTONE - light olive brown (5 Y 5/6) to dusky red (5 R 3/4); some calcareous nodules; massive; some slickensided surfaces 700.8	
80				81.0 No Recovery 690.8	
85	RC 8	0" / 120"			

CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
90				No Recovery (continued)	
				91.0 No Recovery 680.8	
95	RC 9	0" / 120"			
100				101.0 SANDSTONE MORGANTOWN SANDSTONE - dusky yellowish green (10 GY 3/2) and dusky red (5 R 3/4) at about 108 ft depth; some SILTSTONE/MUDSTONE; some CLAYSTONE; little pyrite; massive	
				670.8	Grout Seal
105	RC 10	113" / 120"			
110				111.0	Schd. 80 Solid Riser Pipe
				660.8	

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
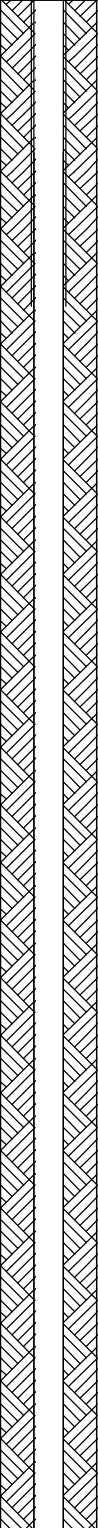

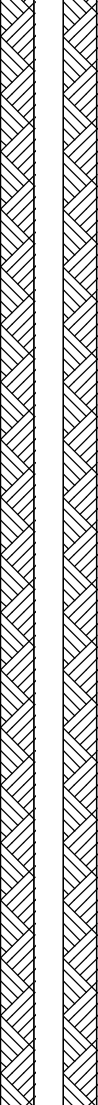

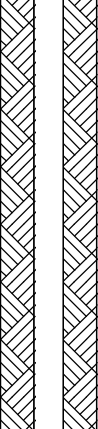
CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
 PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	RC 11	102" / 120"		2.2 ft - SANDSTONE - grayish blue green (5 BG 5/2); some pyrite nodules; micaceous 6.3 ft - SILTSTONE to MUDSTONE - MUDSTONE is very thinly bedded to massive; breaks easily along some bedding planes; several slickensided surfaces (continued)	
120				121.0 650.8	
125	RC 12	115" / 120"		0.4 ft - MUDSTONE - as above from 111.0 to 121.0 ft; pyrite rich at base 1.6 ft - CLAYSTONE - dark reddish brown (10 R 3/4) to dusky red (5 R 3/4); some SILTSTONE; massive; some slickensided surfaces 6.8 ft - SANDY SHALE - grayish green (10 G 4/2); trace pyrite; micaceous; very thickly bedded; slickensided surfaces	
130				131.0 640.8	
				SANDY SHALE - as above from 121.0 to 131.0 ft	

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CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
135	RC 13	120" / 120"		134.8 637.1 SANDSTONE - fine to medium grained quartz; micaceous; cross-bedded	
				135.3 636.6 CLAYSTONE - dolomite nodules; calcareous; non-crystalline	
140	RC 14	96" / 120"		141.0 630.8 4.0 ft - CLAYSTONE - as above from 135.25 to 141.0 ft 2.0 ft - CLAYSTONE - calcareous; limestone nodules; trace pyrite; medium bluish gray (5 B 5/1) 2.0 ft - CLAYSTONE - grayish red purple (5 RP 4/2) to very dusky purple (5 RP 2/2); dark greenish yellow (10 Y 6/6) SILTSTONE lenses; conformable contact; slickensided surfaces	
145				151.0 620.8 1.3 ft - CLAYSTONE - as above from 141.0 to 151.0 ft 0.4 ft - LIMESTONE - light gray (N7); fine grained; massive 0.7 ft - MUDSTONE - medium bluish gray (5 B 5/1) 0.9 ft - LIMESTONE - olive gray (5 Y 4/1); calcareous MUDSTONE 1.3 ft - SILTSTONE	
150	RC 15	56" / 120"		151.0 620.8 1.3 ft - CLAYSTONE - as above from 141.0 to 151.0 ft 0.4 ft - LIMESTONE - light gray (N7); fine grained; massive 0.7 ft - MUDSTONE - medium bluish gray (5 B 5/1) 0.9 ft - LIMESTONE - olive gray (5 Y 4/1); calcareous MUDSTONE 1.3 ft - SILTSTONE	
155					

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CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
 PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
160				1.3 ft - CLAYSTONE - as above from 141.0 to 151.0 ft 0.4 ft - LIMESTONE - light gray (N7); fine grained; massive 0.7 ft - MUDSTONE - medium bluish gray (5 B 5/1) 0.9 ft - LIMESTONE - olive gray (5 Y 4/1); calcareous MUDSTONE 1.3 ft - SILTSTONE (<i>continued</i>)	
161.0				610.8	
165	RC 16	91" / 120"		4.5 ft - CLAYSTONE/SILTSTONE - very dark red (5 R 2/6) to dusky yellow (5 Y 6/4) 0.3 ft - CLAYSTONE - grayish green (10 GY 5/2) 2.75 ft - SILTSTONE - SANDY calcareous	
170					
171.0				600.8	
175	RC 17	103" / 120"		4.75 ft - SANDSTONE to SANDY SHALE - dark greenish gray (5 G 4/1); carbonaceous 0.1 ft - LIMESTONE 0.9 ft - SANDSTONE/LIMESTONE - calcareous 2.9 FT - SANDSTONE - grayish green (10 GY 5/2); fine to medium grained quartz; hard; massive	
180					


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CLIENT AEP

PROJECT NAME Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273

PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
180					
181.0				0.7 ft - SANDSTONE - as above from 171.0 to 181.0 ft 0.7 ft - MUDSTONE - medium gray (N5) 0.7 ft - CLAYSTONE - grayish red purple (5 RP 4/2) to brownish gray (5 YR 4/1)	590.8
185	RC 18	26" / 120"			
190					
191.0				1.4 ft - SANDSTONE to SANDY SHALE - greenish black (5 GY 2/1) 0.9 ft - LIMESTONE - bluish white (5 B 9.1) to greenish gray (5 GY 6/1) 2.4 ft - MUDSTONE - medium bluish gray (5 B 5/1)	580.8
195	RC 19	57" / 120"			
200					
201.0					570.8
					


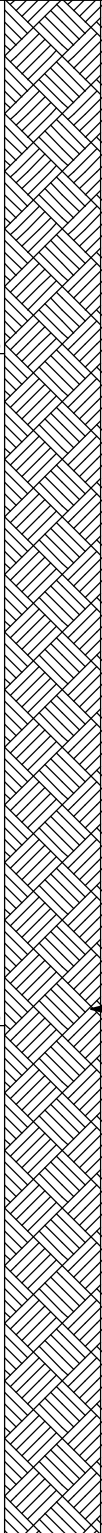


GENERAL BH / TP / WELL - GINT STD US.GDT - 6/25/12 15:54 - H:\GIS\GISPROJECTS\CHE8259-GAVIN\DATA\GINT\GAVIN FAR CLOSURE - SITE INVESTIGATION - MAY 2012.GPJ

CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
205	RC 20	90" / 120"		0.3 ft - MUDSTONE - as above from 191.0 to 201.0 ft	
				3.0 ft - SANDSTONE TOP OF COW RUN SANDSTONE - grayish blue green (5 BG 5/2); some SHALE	
210				4.2 ft - SHALE - grayish blue green (5 BG 5/2); some SAND (continued)	
215	RC 21	111" / 120"		211.0 SHALE and SANDY SHALE - grayish blue green (5 BG 5/2); some SANDSTONE; thinly to moderately bedded; moderately hard to hard	
220					
225					

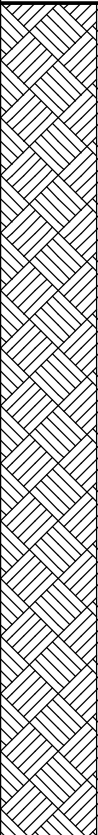
GENERAL BH / TP / WELL - GINT STD US.GDT - 6/25/12 15:54 - H:\GIS\PROJECTS\CHE8259-GAVIN\DATA\GINT\GAVIN FAR CLOSURE - SITE INVESTIGATION - MAY 2012.GPJ

CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
230	RC 22	93" / 120"		SHALE - medium dark gray (N4); SANDY in some areas; thinly bedded; breaks easily across some bedding planes; some slickensided surfaces (<i>continued</i>)	
235	RC 23	67" / 120"		231.0 540.8 2.5 ft - SHALE PORTERSVILLE LIMESTONE - grayish black (N2) 1.1 ft - MUDSTONE/SHALE TOP OF ANDERSON CLAY - medium bluish gray (5 B 5/1) 2.0 ft - SILTSTONE and CLAYSTONE - medium bluish gray (5 B 5/1); calcareous; 2-inch MUDSTONE seam	
240	RC 24	23" / 120"		241.0 530.8 0.3 ft - MUDSTONE/SHALE - as above from 231.0 to 241.0 ft 0.7 ft - LIMESTONE BLOOMFIELD LIMESTONE - light olive gray (5 Y 6/1) to medium bluish gray (5 B 5/1); massive 0.8 ft - CLAYSTONE/SHALE TOP OF BLOOMFIELD CLAY - medium bluish gray (5 B 5/1); calcareous	

GENERAL BH / TP / WELL - GINT STD US.GDT - 6/25/12 15:54 - H:\GIS\PROJECTS\CHE8259-GAVIN\DATA\GINT\GAVIN FAR CLOSURE - SITE INVESTIGATION - MAY 2012.GPJ

CLIENT AEP PROJECT NAME Gavin FAR Closure Site Investigation
 PROJECT NUMBER CHE8273 PROJECT LOCATION Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (ROD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
250				0.3 ft - MUDSTONE/SHALE - as above from 231.0 to 241.0 ft 0.7 ft - LIMESTONE BLOOMFIELD LIMESTONE - light olive gray (5 Y 6/1) to medium bluish gray (5 B 5/1); massive 0.8 ft - CLAYSTONE/SHALE TOP OF BLOOMFIELD CLAY - medium bluish gray (5 B 5/1); calcareous (<i>continued</i>)	
255	RC 25	18" / 120"		251.0 CLAYSTONE/SHALE - as above from 241.0 to 251.0 ft; very soft 520.8 261.0	

Bottom of borehole at 261.0 feet.

GENERAL BH / TP / WELL - GINT STD US.GDT - 6/25/12 15:54 - H:\GIS\PROJECTS\CHE8259-GAVIN\DATA\GINT\GAVIN FAR CLOSURE - SITE INVESTIGATION - MAY 2012.GPJ

Drilling Start Date: 03/18/2016 10:15	Boring Depth (ft): 75	Well Depth (ft): 52
Drilling End Date: 03/19/2016 10:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.11	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,727.9 E 2,101,388.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
0								Overburden. No samples collected. See 2016-04 log.		0
5										5
10										10
15										15
20										20

NOTES:

Drilling Start Date: 03/18/2016 10:15	Boring Depth (ft): 75	Well Depth (ft): 52
Drilling End Date: 03/19/2016 10:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.11	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,727.9 E 2,101,388.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
20								Overburden. No samples collected. See 2016-04 log.		20
25										25
30										30
35								(31') CLAYSTONE: moderately strong to weak, dusky red (10R 3/4), thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured. [CLARKSBURGH RED BEDS]		35
40								(34.5') SANDSTONE: moderately strong to strong, olive (5Y 5/6), fine grained, slightly decomposed, slightly disintegrated, intensely fractured, micaceous, non-calcareous. [MORGANTOWN]		40

NOTES:

Drilling Start Date: 03/18/2016 10:15	Boring Depth (ft): 75	Well Depth (ft): 52
Drilling End Date: 03/19/2016 10:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.11	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,727.9 E 2,101,388.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
40											40
45								84/120	86	(46') Red Mud/CLAYSHALE: weak to moderately strong, dusky red (10R 3/4), thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.	45
55								48/120	33	(55') SANDSTONE: strong, olive (5Y 5/6), fine grained, cross-bedded, slightly decomposed, slightly disintegrated, intensely fractured. [MORGANTOWN]	55
60										(59') Sandy CLAYSHALE: strong, bluish gray (5B 5/1), thickly bedded, slightly decomposed,	60

NOTES:

Drilling Start Date: 03/18/2016 10:15	Boring Depth (ft): 75	Well Depth (ft): 52
Drilling End Date: 03/19/2016 10:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.11	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,727.9 E 2,101,388.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
60								slightly disintegrated, slightly fractured, micaceous.		60
65				Run 5			24/120	50	(65.5') Round Knob Red-SHALE: moderately strong, dusky red (10R 3/4), thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.	65
70										70
75									End of borehole at 75 ft bgs. Well installed on 03/23/2016	75
80										80

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
0				SPT-1			2	16/24	0.75	(0') Silty CLAY, dusky red (7.5R 3/2), damp, soft.	0
2				SPT-2			2	16/24	0.75	(2') CLAY with sand, stiff, low plasticity, gray.	
4							4				
5							5				
5				SPT-3			8	24/24	1.0	(3') SAND, brownish yellow (10YR 6/8), fine to medium grained, damp, soft.	
9							9				
19				SPT-4			13	22/24	1.0	(6') Some clay lenses <1".	
19							10				
5				SPT-5			9	20/24	0.75		
9							9				
12							12				
8				SPT-6			3	16/24	4.5		
10							6				
7							7				
9				SPT-7			6	20/24	NA	(11') CLAY, dark brown (7.5YR 3/4), dry, stiff, low plasticity.	
10							10			(12') SAND lense, damp, low plasticity.	
13							13			(12.5') CLAY, gray (GLEYS 1 6/N), dry, stiff, no plasticity.	
15				SPT-8			10	18/24	1.5	(14') Fly ASH, gray (GLEYS 1 3/N), fine to medium grained, dry.	
15							11				
18							18				
16				SPT-9			22	20/24	1.25		
19							19				
19							19				
20				SPT-10			12	18/24	0.75		
15							15				
15							15				

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)				
20				SPT-11			9	20/24	0.5			20
				SPT-12			20	18/24	2.5			
				SPT-13			8	14/24	>5	(23.5') Red CLAY with secondary yellow (2.5YR 4/3 and 2.5Y 6/8), dry, stiff, non-cohesive. [CLARKSBURGH RED BEDS]		
				SPT-14			14	12/24	>5			
				SPT-15			9	16/24	>5			
				SPT-16			20	16/24	>5			
				Run 1			72	96	43	(32') CLAYSTONE/MUDSHALE: red (10R 3/4). [CLARKSBURGH RED BEDS]	Begin coring at 32'.	
										(34') SANDSTONE: calcareous near top (~2'), micaceous throughout, fine grained, olive gray (5Y 5/2), thickly bedded/cross-bedding, slightly to moderately decomposed, moderately disintegrated, intensely fractured. [MORGANTOWN]	Casing (6" PVC) set to 34'.	
40												40

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value				RQD (%)
40								60/120	92	(40.5') Repeating bands of Red MUDSHALE (10R 3/4) and Sandy SHALE, dark greenish gray (5G 4/1), pyritic/micaceous, weak to moderately strong, medium bedded, highly to moderately decomposed, moderately disintegrated, slightly fractured.		40
45										(44') MUDSHALE/CLAYSHALE: red (10R 3/4), weak to moderately strong, thickly bedded, moderately to highly decomposed, slightly disintegrated, slightly fractured.		45
50								60/120	68			50
55										(53.5') SANDSTONE: micaceous, pale olive (10Y 6/2), fine grained, cross-bedded, moderately strong to strong, slightly decomposed, slightly disintegrated, intensely fractured.		55
60												60

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
60				Run 4			60/120	58	(60') Sandy SHALE: very pyritic, bluish gray (5B 5/1), moderately strong to strong, fine grained, thickly bedded, some red mudshale lenses, slightly decomposed, slightly disintegrated, moderately to intensely fractured.		60
70				Run 5			48/120	46	(70') Round Knob Red SHALE: moderate red (5R 4/2), weak to moderately strong, fine grained, thickly bedded, highly decomposed, moderately to intensely disintegrated, intensely to very intensely fractured.		70
75											75
80											80

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
80							30/120	37	(80') As above.	80
90							30/120	73	(90') Round Knob Red SHALE: moderate red (5R 4/2) with secondary (5Y 5/6), moderately strong to weak, thickly bedded, moderately to highly decomposed, moderately to intensely disintegrated, moderately fractured.	90
95										95
100										100

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
100	[Brown shale pattern]	[Grey hatched pattern]	[Grey hatched pattern]	Run 8			78/120	59	(100') Round Knob Red SHALE: moderately strong, moderate red (5R 5/2), no secondary color, thickly bedded, moderately decomposed, moderately disintegrated, intensely fractured (100'-103').		100
110				Run 9			54/120	22	(110.5') SANDSTONE: calcareous, lightly micaceous. [COW RUN]		110
115	[Yellow dotted pattern]							(112') SANDSTONE: lightly micaceous, moderately strong to strong, fine grained, cross-bedded, slightly decomposed, slightly disintegrated, intensely fractured at 113'. [COW RUN]		115	
120										120	

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
120	[Yellow dotted pattern]		[Orange bar]							(120') SANDSTONE: strong to very strong, bluish gray (5B 5/1), fine grained, fresh to slightly decomposed, slightly disintegrated, slightly fractured, micaceous, lightly calcareous. [COW RUN]	120
125											
130	[Brown brick pattern]		[Orange bar]							(131') Sandy CLAYSHALE: moderately strong to strong, calcareous, bluish gray (5B 5/1), thickly bedded, slightly decomposed, slightly disintegrated, intensely fractured at ~132', moderate fractures throughout. [COW RUN]	130
135											
140											140

NOTES:

Drilling Start Date: 03/15/2016 08:30	Boring Depth (ft): 150	Well Depth (ft): 133
Drilling End Date: 03/17/2016 09:15	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 661.04	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 350,736.8 E 2,101,388.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)		
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value	RQD (%)
140							120/120	91	(140') Sandy CLAYSHALE: micaceous, moderately strong to strong, bluish gray (5B 5/1), thickly bedded, slightly decomposed, slightly disintegrated, slightly fractured. [COW RUN]		140	
145										End of [COW RUN]		145
150											(143') Layered CLAYSHALE/MUDSTONE: bluish gray (5B 5/1) and red (10R 3/4), moderately strong, medium bedded, slightly decomposed, slightly disintegrated, slightly fractured.	
155									End of borehole at 150 ft bgs. Well installed on 03/28/2016		155	

NOTES:

Drilling Start Date: 03/08/2016 14:00	Boring Depth (ft): 60	Well Depth (ft): 54
Drilling End Date: 03/09/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 650.97	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,787.1 E 2,101,641.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
0									Blind drilled 0-20'. See log 2016-06 for lithology.		0
5											5
10											10
15											15
20										Set 20' of 8" PVC casing.	20

NOTES:

Drilling Start Date: 03/08/2016 14:00	Boring Depth (ft): 60	Well Depth (ft): 54
Drilling End Date: 03/09/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 650.97	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,787.1 E 2,101,641.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
20				Run 1			104/120	47	(20') CLAYSTONE/CLAYSHALE: moderately strong, dark reddish brown (10R 3/4), moderately decomposed, moderately disintegrated. [CLARKSBURG RED BEDS] (20.1') SANDSTONE/Sandy SHALE: fine grained, cross-bedded, micaceous, light olive gray (5Y 5/2), strong, slightly decomposed, slightly disintegrated, moderately fractured. [MORGANTOWN]	Begin coring @ 16:00	20
25									(26') CLAYSTONE/CLAYSHALE: moderately strong, calcareous nodules, moderate red (5R 4/6) and very dark red (5R 2/6), massive, slightly to moderately decomposed, moderately disintegrated, moderately to intensely fractured. [INTER-MORGANTOWN]		25
30				Run 2		7/120	0	(30') Changes to intensely disintegrated, very intensely fractured.	30		
35										35	
40										40	

NOTES:

Drilling Start Date: 03/08/2016 14:00	Boring Depth (ft): 60	Well Depth (ft): 54
Drilling End Date: 03/09/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 650.97	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,787.1 E 2,101,641.7	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
40										40	
42.5							55/120	22	(42.5') Silty SANDSTONE: strong to very strong, pale olive (10Y 6/2) and olive gray (5Y 3/2), micaceous, strongly cross-bedded, fine grained, fresh to slightly decomposed, competent to slightly disintegrated, moderately fractured. [MORGANTOWN]		45
50							75/120	30	(50') SANDSTONE: very strong, light bluish gray (5B 7/1), fine grained, micaceous, calcareous, fresh, competent, moderately to intensely fractured. [MORGANTOWN] End of [MORGANTOWN]		50
52.5									(52.5') Sandy, silty SHALE: moderately strong to strong, dark greenish gray (5G 4/1), pyritic, slightly decomposed, intensely disintegrated, slightly fractured.		55
54									(54') CLAYSTONE/CLAYSHALE: weak to moderately strong, very dark red (5R 2/6), moderately decomposed, intensely disintegrated, intensely fractured.	17:15 Stop drilling for day @ 55'; out of water. Continue drilling on 03/09/2016	55
60									Well installed on 03/29/2016 End of borehole at 60 ft bgs.	Finish coring @ 08:50 03/09/2016	60

NOTES:

Drilling Start Date: 03/06/2016 14:20	Boring Depth (ft): 140	Well Depth (ft): 122
Drilling End Date: 03/08/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 651.10	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,789.1 E 2,101,632.9	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)			
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value	RQD (%)	
0				SS-1			2	12/24	1.5	(0') Lean CLAY (CL); soft, moist to wet, reddish brown, medium plasticity, trace fine to coarse sand, trace fine gravel.		0	
3						3							
6						3	10/24	3.5	(3') Changes to dry to moist, low plasticity, stiff.				
9						4	12/24	3					
12						6	14/24	2	(6') Changes to gray (10YR 6/1) with yellow (10YR 7/6) mottled.				
15						2	11/24	3.5					
18						3	10/24	4	(10') Changes to weak red (10R 4/3).				
21						31	16/24	>4	(12') Changes to hard, dry, dusky red (10R 3/3), trace to few fine to coarse sand, fine gravel, few to little silt.	12-16' possibly in Clarksburgh Red Beds.			
24						15	18/24	>4	(14') Changes to light reddish brown.				
27						25							
30						25	5/24	>4	(16') Changes to weak red (7.5R 4/3).				
33						50							
36						55							
19										(19') LIMESTONE: light gray (N7), ervescent, (logged from cuttings).			20

NOTES:

Drilling Start Date: 03/06/2016 14:20	Boring Depth (ft): 140	Well Depth (ft): 122
Drilling End Date: 03/08/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 651.10	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,789.1 E 2,101,632.9	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
20									(21') Interbedded, limestone and shale, likely weak to moderate.		20
25									(23') Silty SANDSTONE: fine grained, strong, greenish gray (5GY 6/1), medium bedded, slightly decomposed, slightly disintegrated, moderately fractured, micaceous, cross-bedded. [MORGANTOWN]	Begin coring @ 23' on 03/7/2016 @ 10:45	25
30									(25') SHALE and SILTSTONE: strong, dusky red (5R 3/4) and dusky yellow green (5GY 5/2), fine grained, thinly interbedded, moderately decomposed, moderately disintegrated, moderately fractured. [MORGANTOWN]		30
35								49/120	(30') CLAYSTONE/CLAYSHALE: weak to moderately strong, pale reddish brown (10R 5/4), very dusky purple, massive, calcareous nodules throughout, moderately decomposed, slightly disintegrated, moderately fractured, occasional slickensides. [INTER-MORGANTOWN]		35
40									(32') Changes to highly decomposed, intensely disintegrated, intensely fractured.		40




NOTES:

Drilling Start Date: 03/06/2016 14:20	Boring Depth (ft): 140	Well Depth (ft): 122
Drilling End Date: 03/08/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 651.10	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,789.1 E 2,101,632.9	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
40							101/120	79	(41') Changes to slightly to moderately fractured. (41.5') 3" 45° fracture.		40
45									(43.5') 45° slickenside.		45
50							70/120	14	(50') Silty SANDSTONE: fine grained, moderately strong, cross-bedded, micaceous, light olive gray (5Y 6/1), massive, fresh, slightly disintegrated, intensely fractured. [MORGANTOWN]		50
55									(52.5') Sandy, silty SHALE and Silty SANDSTONE: thinly bedded, pyritic, light olive gray (5Y 6/1), moderately strong, slightly decomposed, moderately to intensely disintegrated (shale), intensely fractured. (53.5') Changes to calcareous sandy, silty SHALE, pyritic.		55
60								(56') CLAYSTONE: moderately strong to strong, very dusky purple (5RP 2/2) and light olive green (5Y 5/6), calcareous limestone nodules throughout, many slickenside throughout, slightly to moderately fractured, moderately decomposed, moderately disintegrated.		60	




NOTES:

Drilling Start Date: 03/06/2016 14:20	Boring Depth (ft): 140	Well Depth (ft): 122
Drilling End Date: 03/08/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 651.10	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,789.1 E 2,101,632.9	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
60				Run 5			61/120	32			60
70				Run 6			40/120	12	(71') Changes to intensely disintegrated, intensely fractured.		70
75											75
80											80

NOTES:

Drilling Start Date: 03/06/2016 14:20	Boring Depth (ft): 140	Well Depth (ft): 122
Drilling End Date: 03/08/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 651.10	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,789.1 E 2,101,632.9	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
80				Run 7			66/120	37	(83') CLAYSTONE/CLAYSHALE: strong, dusky red (5R 3/4), massive, slightly decomposed, slightly disintegrated, moderately fractured. [ROUND KNOB RED SHALE]	80
90				Run 8			30/120	14		(98') Changes to moderately to highly decomposed, intensely disintegrated, intensely fractured.
95										95
100										100

NOTES:

Drilling Start Date: 03/06/2016 14:20	Boring Depth (ft): 140	Well Depth (ft): 122
Drilling End Date: 03/08/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 651.10	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,789.1 E 2,101,632.9	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
100							100/120	49	(103') Sandy SHALE: strong to very strong, dark greenish gray (5G 4/1), fine grained, massive, trace calcareous nodules, slightly decomposed, slightly to moderately disintegrated, slightly to moderately fractured. [COW RUN]	100
105										105
110							105/120	22	(112') Silty SANDSTONE: fine grained, very strong, medium light gray (N6), cross-bedded, fresh, competent, intensely fractured. [COW RUN]	110
115									(115') Sandy SHALE: strong to very strong, dark greenish gray (5G 4/1), fine grained, massive, trace calcareous nodules, slightly decomposed, slightly disintegrated, slightly to moderately fractured. [COW RUN]	115
120										120

NOTES:

Drilling Start Date: 03/06/2016 14:20	Boring Depth (ft): 140	Well Depth (ft): 122
Drilling End Date: 03/08/2016 08:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller:	Top of Casing Elev. (ft): 651.10	Seal Material(s): Bentonite Chips
Logged By: M. Muenich	Location (X,Y): N 351,789.1 E 2,101,632.9	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
120							110/120	38		120
125										125
130							49/120	14		130
135									(131') CLAYSTONE/SHALE: weak to moderately strong, dark reddish brown (10R 3/4) and light olive brown (5Y 5/6), massive, highly decomposed, intensely disintegrated, moderately to intensely fractured.	135
140									Well installed on 03/29/2016 End of borehole at 140 ft bgs.	140

NOTES:

Stop drilling for day.

Continue drilling on 03/08/2016 @ 08:50

Finish coring on 03/08/2016 @ 09:50

Drilling Start Date: 03/18/2016 11:00	Boring Depth (ft): 131	Well Depth (ft): 103
Drilling End Date: 03/18/2016 17:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.45	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 352,403.8 E 2,100,399.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
0									Overburden. No samples. See 2016-08.		0
5											5
10											10
15											15
20											20

NOTES:

Drilling Start Date: 03/18/2016 11:00	Boring Depth (ft): 131	Well Depth (ft): 103
Drilling End Date: 03/18/2016 17:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.45	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 352,403.8 E 2,100,399.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
20									Overburden. No samples. See 2016-08.		20
25											25
30											30
35											35
40											40

NOTES:

Drilling Start Date: 03/18/2016 11:00	Boring Depth (ft): 131	Well Depth (ft): 103
Drilling End Date: 03/18/2016 17:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.45	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 352,403.8 E 2,100,399.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
40									Overburden. No samples. See 2016-08.		40
45											45
50											50
55											55
60											60

NOTES:

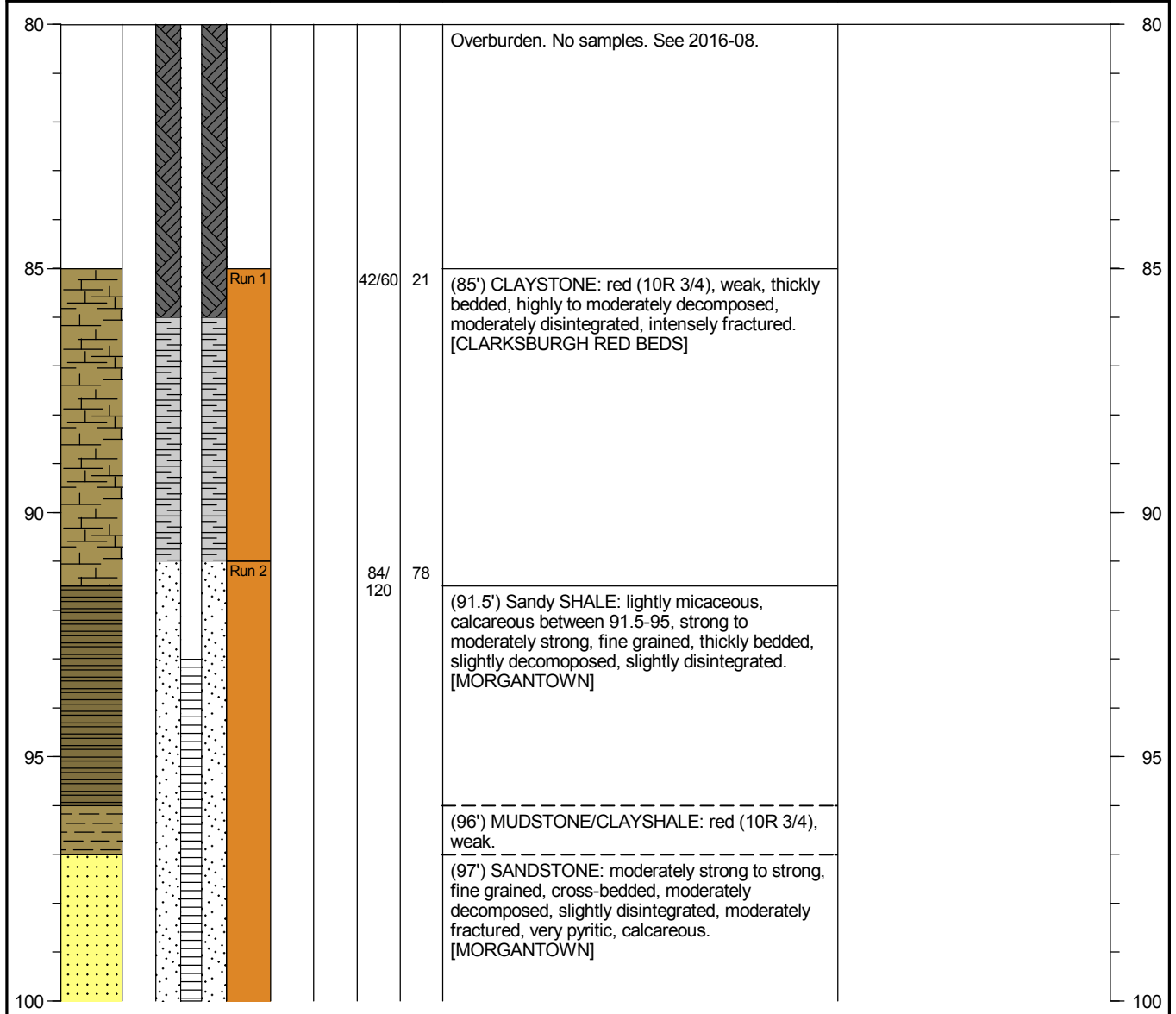
Drilling Start Date: 03/18/2016 11:00	Boring Depth (ft): 131	Well Depth (ft): 103
Drilling End Date: 03/18/2016 17:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.45	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 352,403.8 E 2,100,399.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
60									Overburden. No samples. See 2016-08.		60
65											65
70											70
75											75
80											80

NOTES:

Drilling Start Date: 03/18/2016 11:00	Boring Depth (ft): 131	Well Depth (ft): 103
Drilling End Date: 03/18/2016 17:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.45	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 352,403.8 E 2,100,399.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			



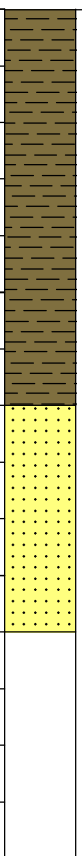
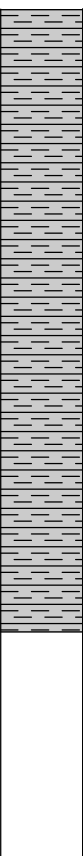
NOTES:

Drilling Start Date: 03/18/2016 11:00	Boring Depth (ft): 131	Well Depth (ft): 103
Drilling End Date: 03/18/2016 17:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.45	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 352,403.8 E 2,100,399.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
100											100
							96/120	27	(101.5-102.5') Highly fractured.		
									(104') Intensely fractured.		
105									(105') CLAYSHALE/MUDSTONE: very weak, red (10R 3/4), thickly bedded, highly decomposed, intensely disintegrated, very intensely fractured.		105
110											110
							90/120		(111') Red MUDSHALE with blue Sandy SHALE: red (10R 3/4) and blue (5B 5/1), calcareous, thickly bedded, moderately strong to strong, moderately decomposed, slightly disintegrated, slightly fractured.		
115											115
120											120

NOTES:

Drilling Start Date: 03/18/2016 11:00	Boring Depth (ft): 131	Well Depth (ft): 103
Drilling End Date: 03/18/2016 17:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.45	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 352,403.8 E 2,100,399.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
120										120	
125									(121') Layered red MUDSHALE with blue Sandy SHALE: red (10R 3/4) and blue (5B 5/1), moderately strong, thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.		125
130									(127') SANDSTONE: strong, very pyritic, blue (5B 5/1), cross-bedded, slightly decomposed, slightly disintegrated, moderately to intensely fractured, calcareous.		130
135								End of borehole at 131 ft bgs. Well installed on 03/29/2016		135	

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
0				SC			48/60	(0') Sandy CLAY (CL); medium plasticity, brown (5YR 4/4), some dark brown and yellowish mottling, dry, ppen 2.0.		0
5				SC			54/60			5
8								(8') Clayey SILT (ML); very dense, some very thin uneven bedding, dense clay inclusions.		8
10				SC			90/120	(10') As above: brown (5YR 4/2) to yellowish red (5YR 5/6).		10
15										15
20										20




NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
20							110/ 120	(20') Sandy CLAY (CL); brown (5YR 4/3), hard.	20-30' wet from drill fluids.	20	
25									(26') SAND (SP); fine grained, dark brown (5YR 2.5/2), loose. [BOTTOM ASH]		25
30									105/ 120	(26.5') SILT (ML); very dense, tan to gray to yellowish brown, some very thin bedding.	
35								(30') Silty, sandy CLAY (CL); brown (7.5YR 4/2), very stiff to hard, medium to high plasticity.	30-40' wet from drill fluids.	35	
40								(39.5') CLAYSTONE cobbles: moderately strong,		40	

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
40				Run 1			6/12	0	reddish brown.	40
				Run 2			103/120	88	(40') CLAYSTONE: very weak, light gray to moderate red (5R 4/6), intensely fractured, highly decomposed. (41') Changing to dusky red (5R 3/4) to medium gray (N5), weak, slightly fractured, moderately decomposed.	
				Run 3			84/120	85	(53') Changing to slightly sandy.	
45										45
50										50
55										55
60										60

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
60										60
				Run 4			28/120	32	(60') Changing to grayish black (N2) with few thin beds, light gray to yellowish brown to red.	
65									(61') LIMESTONE: dusky blue/green (5BG 3/2) to light olive brown (5Y 5/6), weak, highly decomposed, slickensides, clayey.	65
70				Run 5			40/120	50	(71') CLAYSTONE: dusky blue/green (5BG 3/2) to dark greenish yellow (10Y 6/6), weak, moderately decomposed, moderately disintegrated, few moderately brown clay nodules.	70
75										75
80										80

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
80	[Brownish-red clay shale with vertical fracture patterns]	[Water level indicator]	[Well completion pattern]	Run 6			58/120	52	(81.5') Slickensided fracture.		80
85									(82.5') Changing to moderate red (5R 4/6), some dusky blue/green (5BG 3/2) to greenish yellow (10Y 6/6) veins, intensely fractured, few slickensides. [LOWER CLARKSBURGH RED BEDS]		85
90								(89') Changing to slightly calcareous.		90	
95	[Yellowish silty sandstone with small dots]	[Water level indicator]	[Well completion pattern]	Run 7			117/120	98	(91') Silty SANDSTONE: fine grained, strong, slightly decomposed, slightly fractured, light to dark gray. [MORGANTOWN]		95
95.5									(95.5') CLAYSHALE: dark red (5R 2/6), strong.		
96.5								(96.5') SANDSTONE: light gray (N7), strong, slightly fractured, fine grained.			
98.5								(98.5') CLAYSHALE: medium to dark gray (N5 to N3), moderately strong, sandy.			
100										100	

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
100											100
							69/120	57	(100') SANDSTONE: fine grained, micaceous, thinly bedded, cross bedded, strong, light to medium gray, slightly fractured, slightly decomposed, very micaceous 102-104'.		
105									(104') Sandy CLAYSHALE: weak, medium gray to dark reddish brown, highly decomposed, highly disintegrated.		105
									(105') CLAYSTONE: weak, medium gray, limestone nodules, highly fractured, moderately decomposed, moderately disintegrated, changing to dark reddish brown (10R 3/4) at 106'.		
110											110
							112/120	87	(111') Silty SANDSTONE: gray, strong, fine grained. (112') As above: less silty. End of [MORGANTOWN]		
115									(113') CLAYSHALE: moderately strong, medium gray, limestone nodules, changing at 114.5' to dark reddish brown, strong, calcareous, slightly fractured.		115
									(118') Slickensided fracture.		
120									(119-120') Medium dark gray.		120

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
120				Run 10			120/120	78	(121') Changing to strong, very dark red (5R 2/6), moderately fractured.		120
125									(123.5') LIMESTONE: dark greenish gray (5G 4/1) to dark reddish brown, moderately decomposed, moderately disintegrated, sandy.		125
130									(124.5') Sandy CLAYSHALE: pyritic, dark greenish gray to light gray, calcareous, moderately fractured.		
									(129') Changing to dark reddish brown (10R 3/4), not pyritic, less calcareous.		
135				Run 11			69/84	83	(132') LIMESTONE: medium reddish brown, dark greenish yellow nodules (10Y 6/6), few white veins, many slickensides, clayey.		135
									(136') More frequent dusky blue green mottling (5BG 3/2).		
140									(138') No Recovery.		140

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
140				Run 13			82/120	73	(141') CLAYSTONE: calcareous, dark greenish yellow/light blue green/dusky blue green mottled, moderately fractured, many slickensides, strong.	Sonic crew cleared out borehole @ 141'	140
145									(149') No Recovery.		145
150				Run 14			80/120	43	(151') LIMESTONE: greenish gray (5G 6/1), strong, massive, moderately decomposed, moderately disintegrated, intensely fractured. (151.5') CLAYSTONE: calcareous, dusky blue green to dark greenish yellow, weak, intensely fractured, slickensided (152-153'), moderately decomposed, moderately disintegrated.		150
155											155
160											160

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
160				Run 15			60/60	57	(161') Changing to moderately strong, dark reddish brown.		160
165				Run 16			60/60	50	(167') Changing to very weak, intensely fractured, dusky blue green to dark greenish yellow.		165
170				Run 17			75/120	92	(171') Changing to moderately strong, dusky blue green to dark reddish brown, slickensided, highly fractured, white calcareous nodules.		170
175									(174') CLAYSHALE: strong, dark reddish brown to dusky blue green, white calcareous veins.		175
180									(176.5') Slickensided fracture. (177-178') Few thin sandstone beds.		180

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
180										180
							117/120	74	(181.5') SANDSTONE: medium dark gray (N4), thinly bedded, cross-bedded, strong, fine grained. [COW RUN]	
									(182') Sandy SHALE: medium dark gray to grayish black, moderately fractured, weak to moderately strong, occasional interbedded sandstone.	
185										185
									(191') Changing to pyritic.	
									(194-195') Intensely fractured (shale).	
190										190
									(196-197') Very weak.	
195										195
200										200



NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
200				Run 20			102/120	75	(202') Changing to weak, intensely fractured, wet.	200
205									(204') Changing to medium reddish brown and medium gray layers, less sandy, more clayey.	205
									End of [COW RUN]	
210									(208') CLAYSTONE: dark reddish brown to grayish purple (5P 4/2), calcareous, moderately strong, no pyrite.	210
									(209') MUDSTONE: medium gray (N5), very weak, very soft.	
				Run 21			80/120	66	(210') CLAYSTONE: moderately reddish brown, calcareous, moderately strong.	
215									(213') Changing to claystone with many small limestone nodules, very calcareous, weak.	215
220										220

NOTES:

Drilling Start Date: 03/14/2016 13:00	Boring Depth (ft): 221	Well Depth (ft): 192
Drilling End Date: 03/16/2016 16:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 731.39	Seal Material(s): Bentonite Chips
Logged By: Chad Gregory	Location (X,Y): N 352,403.8 E 2,100,409.0	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
220										220
								End of borehole at 221 ft bgs. Well installed on 03/23/2016		
225										225

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
0				SS			3	18/24	(0') TOPSOIL, light brown (10YR 4) with organic.	0
6				SS			6		(1') Sandy SILT, medium firm, some sand lenses <1", dry, 7.5YR 6.	
8				SS			8			
13				SS			13	24/24		
9				SS			9		(3') Silty/sandy CLAY, dry, stiff, yellowish brown (10YR 5/6).	
10				SS			10			
4				SS			4	21/24		
6				SS			6			
7				SS			7			
9				SS			9			
12				SS			12	24/24		
12				SS			12			
13				SS			13			
12				SS			12			
3				SS			3	24/24		
7				SS			7			
8				SS			8			
10				SS			10		(10') Silty/sandy CLAY, grayish/yellow (10R 6/3), dry, stiff.	10
2				SS			2	24/24		
6							6			
9							9			
10							10			
19							19		(19') CLAYSTONE: red/gray (10R 4/6), very decomposed, unable to core.	20

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
20										20
25								(25') Sandy SILTSTONE: light brown/yellow, very decomposed, unable to core.		25
30								(27') CLAYSTONE with silt: red, less decomposed.		30
35								(32') SANDSTONE: fine grained, dry, light gray (N7), slightly decomposed, competent, moderately fractured.		35
40								(32.5') CLAYSTONE with silt: brown (5YR 4/4), moderately strong, limestone nodules near top, intensely fractured, competent.		40

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value				RQD (%)
40											40	
45										(40') CLAYSTONE with silt: greenish black (5GY 2/1), moderately strong, thickly bedded, slightly decomposed, intensely fractured.		45
50										(43') LIMESTONE: gray (N5), strong, microcrystalline, thickly bedded, moderately decomposed, competent, moderately fractured.		50
55								Limestone grades into red beds at ~50.5'. (50.5') MUDSTONE/CLAYSTONE: reddish brown (5YR 3/2), highly decomposed, intensely fractured. [CLARKSBURGH RED BEDS]		55		
60										60		

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
60	[Patterned Lithology]	[Patterned Lithology]	[Patterned Lithology]	Run 4			19/120	37	(60') MUDSTONE: reddish brown (5YR 3/2), lightly decomposed, intensely fractured. [CLARKSBURGH RED BEDS]		60
70				Run 5			92/120	73			(72.5') SANDSTONE: micaceous/pyritic, fine grained, medium light gray, thickly bedded, fresh, slightly fractured. [MORGANTOWN]
75	[Patterned Lithology]	[Patterned Lithology]	[Patterned Lithology]								
80	[Patterned Lithology]	[Patterned Lithology]	[Patterned Lithology]								80

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
80										80
							103/120	67	(81') Clayey MUDSTONE: reddish brown (5YR 3/2), weak, thickly bedded, highly decomposed, intensely fractured.	
									(83.5') Silty SANDSTONE: micaceous, greenish gray (5G 6/1), cross-bedding at 85.5', thickly bedded, slightly decomposed, moderately disintegrated.	
85										85
									(90') Silty/sandy SHALE: greenish gray (5G 6/1), moderately strong, fissile, moderately decomposed, intensely fractured.	
90							76/120	58		90
									(92.5') MUDSTONE: dusky red (5R 2/2), weak to moderately strong, thickly bedded, highly decomposed, calcite veins, moderately disintegrated, moderately fractured.	
95										95
100										100

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
100	[Patterned Lithology]	[Water Level]	[Well Completion]	Run 8			58/120	16	(110') Repeating sequence of Silty MUDSTONE to SANDSTONE: micaceous, fine grained, 100-105' strong to moderately strong, slightly decomposed, slightly disintegrated, intensely fractured.		100
110				Run 9			100/120	89	(110') Shaly SILTSTONE: micaceous, moderately strong, thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.		110
115											115
120									(118.5') SILTSTONE: gray (N4), moderately strong, thickly bedded, moderately decomposed, slightly disintegrated, intensely fractured.		120

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
140				Run 12			96/120	63	(140') MUDSTONE/CLAYSTONE: red (5R 3/4) - matrix and olive (5Y 5/6) - secondary, moderately strong to strong.		140
145									(144') CLAYSHALE: greenish gray (5G 4/1), weak, moderately fissile, thickly bedded, moderately to highly decomposed, slightly disintegrated, slightly fractured.		145
150				Run 13			100/120	52	(151') Silty MUDSTONE: greenish gray (5G 4/1), with limestone nodules, thickly bedded, highly to moderately decomposed, moderately disintegrated, moderately fractured.		150
155									(158.5') Silty MUDSTONE: greenish gray (5G 4/1), thickly bedded, moderately decomposed, moderately disintegrated, moderately fractured,		155
160										160	

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
160							54/120	28	limestone nodules.	160
170							48/120	92	(170') SILTSTONE: greenish gray (5G 4/1), not calcareous, thickly bedded, fresh to slightly decomposed, slightly fractured.	170
175									(171.5') Silty SANDSTONE: greenish gray (5G 4/1), fresh to slightly decomposed, moderately fractured, lightly micaceous.	175
180										180

NOTES:

Drilling Start Date: 02/09/2016 12:45	Boring Depth (ft): 200	Well Depth (ft): 187
Drilling End Date: 02/12/2016 14:00	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 739.22	Seal Material(s): Bentonite Chips
Logged By: CC & CG	Location (X,Y): N 353,180.4 E 2,095,686.6	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)		
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value				RQD (%)	
180	[Yellow dotted pattern]	[Water level indicator]	Run 16				102/120	29	(180') SANDSTONE: micaceous, fine grained, greenish gray (5G 4/1), thickly bedded, fresh to slightly decomposed, moderately disintegrated, moderately fractured, limestone nodules 180-183', cross-bedding 186-188.5'.		180		
185												185	
190						Run 17			114/120	62	(190') SANDSTONE: fine grained, micaceous, some beddings/bending, fresh to slightly decomposed, moderately disintegrated, moderately fractured.		190
195											(194.5') SANDSTONE: medium grained, light gray (N6), fresh to slightly decomposed, moderately disintegrated, moderately fractured.		195
200	[Orange cross-hatched pattern]							(196.5') SILTSTONE: with limestone nodules, greenish gray (5G 4/1), slightly decomposed, moderately disintegrated, moderately fractured.		200			
								Well installed on 03/03/2016 End of borehole at 200 ft bgs.					

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
0				RS-0-5			60/60	(0') Lean CLAY (CL); reddish brown (2.5YR 3/3), moist, low plasticity, trace fine gravel, little silt.		0
2.5							60/60	(2.5') Clayey SILT (ML); reddish brown (10YR 7/4) with redox features, platy structure, friable, trace to few fine sand, dry, loose.		
5				RS-5-10			60/60	(5') Changes to yellowish brown (2.5Y 6/3).		5
6.5-7.5'								(6.5-7.5') Changes to reddish brown (2.5YR 4/4).		
7.5'								(7.5') Changes to light yellowish brown (2.5Y 6/4).		
10				RS-10-15			52/60	Trace cobbles from 5-10 ft. (10') Changes to yellowish brown (10YR 5/4), few fine to coarse gravel, trace cobbles, from 10-14' ft.		10
14-14.5'				RS-15-20			60/60	(14-14.5') SILT (ML); dense, trace to few red cobbles, light brownish gray (10YR 6/2) with some brownish yellow mottling (10YR 6/5), dry, platy, friable, trace fine sand.		15
20										20

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
20				RS-20-30			120/120	(20') SILT (ML); reddish brown (2.5YR 4/4), dry, friable, medium stiff, trace fine sand, weak platy structure.		20
22.5								(22.5') Changes to light yellowish brown (10YR 6/4).		
24.5								(24.5') Changes to light reddish brown (2.5YR 7/3).		
27.5								(27.5') Changes to reddish brown (2.5YR 5/4).		
30				RS-30-39			103/103	(28.5') Changes to light gray (2.5Y 7/2) with few to little brownish yellow (10YR 6/3) mottled, very hard, dry, trace dark reddish brown (10YR 3/3) clay film.		30
30								(30') Changes to light gray (5Y 7/2), hard, weak, platy structure.		
37								(37') Silty SHALE: strong, light gray (N7), planar (massive), slightly to moderately decomposed, competent.	Sampled with sonic core barrel, not boxed.	

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
40				Run 1			10/30	22	(40') Sandy, silty SHALE: medium light gray (N6), strong, white (N9) laminations throughout, fresh to slightly decomposed, slightly disintegrated, moderately fractured, calcite veins at 41'.	02/11/2016 begin coring @ 09:45	40
45				Run 2			118/120	62	(42.5') SANDSTONE: fine grained, strong, medium gray (N5) with medium dark gray (N4) laminations, micaceous, cross-bedded, slightly decomposed, slightly disintegrated, moderately fractured. (46-46.5') Moderately disintegrated. (47-48.5') Changes to moderate yellowish brown (10YR 5/4). (48.5') Changes to medium gray (N5) with medium dark gray (N4) laminations, fresh, competent, unfractured. (51') Slightly decomposed, slightly disintegrated, moderately fractured.		45
50				Run 3			119.5/120	73	(58.4') Two converging fractures: 110° (extremely narrow) and 225° (narrow). (58.5') Changes to dark yellowish orange (10YR		50
55											55
60											60

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)				
60									6/6) with moderate brown (5YR 4/4) laminations. (59.6-60.6') Medium gray (N5) with moderate dark gray (N4) laminations. (60.6') Dark yellowish orange (10YR 6/6) with moderate brown (5YR 4/4) laminations. (62.5') Changes to intensely fractured.		60	
							114.5/120	70	(63.2') SANDSTONE: micaceous, medium grained, strong, very light gray (N8), massive, fresh, competent, slightly fractured.		65	
65										(68.3-69') Moderately wide fracture 80°, changes to coarse grained, weak, highly decomposed, iron oxide staining. (69') Changes to medium grained, light gray (N7) with reddish orange staining, strong, slightly decomposed, competent.		70
70										(74.5') Silty SANDSTONE: micaceous, strong, very light gray (N8) with medium dark gray (N4) laminations, cross-bedding, fine grained, slightly decomposed, slightly disintegrated, slightly fractured. (75-77.5') Dark yellowish orange (10YR 6/6) with moderate brown (5YR 4/4) cross bedding. (77.5') Changes back to gray found at 74.3'. (78.8-79') Mud inclusions, otherwise same as above.		75
75											80	

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
80										80
							115.5/120	83	(81.8-82.5') Moderately narrow fracture at 80°.	
85									(86.4') SANDSTONE: fine grained, micaceous, very strong, medium gray (N5), massive, fresh, competent, unfractured.	85
							117/120	89		
90										90
									(97.5-98.3') Dark yellowish orange (10YR 6/6).	
95										95
100										100

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
100											100
									(101.4') CLAYSTONE: very weak, dark gray (N3), massive, highly decomposed, very intensely fractured.		
							98/120	27	(102.5') Silty SHALE: weak, grayish black (N2), fissile, moderately to highly decomposed, slightly disintegrated, intensely fractured, slightly micaceous.		
105									(105') SANDSTONE: with interbedded silty shale, medium light gray (N6) and grayish black (N2), micaceous, moderately strong, laminations of shale, slightly to moderately decomposed, slightly disintegrated, intensely fractured.		105
									(108.9') Sandy SHALE: micaceous, moderately strong, medium dark gray (N4), slightly to moderately decomposed, moderately disintegrated, moderately to intensely fractured, fissile.		
110									(112') Shaly SANDSTONE: micaceous, moderately strong, medium light gray (N6) and grayish black (N2), moderately to highly decomposed, moderately disintegrated, intensely fractured.		
							50/120	19	(114.2') Sandy SHALE: micaceous, moderately strong, medium dark gray (N4), slightly to moderately decomposed, moderately disintegrated, moderately to intensely fractured.		
115									(116') COAL: moderately strong, black (N1), orange reddish staining, highly decomposed, very intensely fractured.		115
120											120

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
120											120
123							120/120	35	(123') Silty SANDSTONE: micaceous, light gray (N7) with medium dark gray (N4) cross bedding and laminations, mud inclusions, strong, fine grained, slightly decomposed, slightly to moderately disintegrated, slightly to moderately fractured, mud infillings in fractures.		125
128									(128') Sandy CLAYSHALE: micaceous, strong, medium dark gray (N4), fine grained, fissile, slightly decomposed, moderately to intensely disintegrated, intensely fractured, coal inclusions.		130
130.9									(130.9') Grades to claystone, highly decomposed, intensely disintegrated, very intensely fractured.		135
132-132.5							91/120	42	(132-132.5') Grades to slightly decomposed, slightly disintegrated.		135
133									(133') CLAYSHALE: moderately strong, grayish black (N2), fissile, slightly pyritic, slightly decomposed, intensely disintegrated, very intensely fractured.		140
136									(136') Clayey LIMESTONE: strong, medium gray (N5), massive, slightly decomposed, slightly disintegrated, unfractured.		140

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
140									(140') No Recovery.		140
142.5				Run 12			47/120	10	(142.5') CLAYSTONE: strong, slightly calcareous, dark greenish gray (5G 4/1), micaceous, massive, moderately decomposed, moderately disintegrated, very intensely fractured.		145
145									(145') Changes to moderately strong to weak, grayish red (10R 4/2) and dark reddish brown (10R 3/4), not calcareous, highly decomposed, highly disintegrated, intensely to very intensely fractured.		150
152.5				Run 13			80/120	51	(152.5') Grades to sandy silty claystone, grayish olive (10Y 4/2), not micaceous, chert nodules, moderately decomposed, moderately disintegrated, intensely fractured, clay infillings in fractures, slickensides.		155
157.5									(157.5') SILTSTONE to silty SANDSTONE: moderately strong, micaceous, medium dark gray (N4) with reddish orange staining, massive, slightly decomposed, slightly to moderately disintegrated, moderately fractured, fine grained, slickensides.		160

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
160											160
							92/120	32	(162') Silty SANDSTONE: moderately strong to strong, micaceous, medium gray (N3), cross-bedded laminations, slightly decomposed, slightly disintegrated to competent, moderately fractured, fine grained. (163.7-166.5') Changes to medium dark gray (N4), laminations, no cross beddings, moderately decomposed, intensely disintegrated, intensely fractured.		
165									(166.5') CLAYSTONE: weak, dark reddish brown (10R 3/4) and grayish red (10R 4/2), massive to slightly fissile, moderately to highly decomposed, moderately disintegrated, intensely fractured.		165
									(170.6') SANDSTONE: moderately strong to weak, medium dark gray (N4), fine grained, micaceous, mostly massive, minor cross bedding, fresh to slightly decomposed, slightly disintegrated, slightly fractured.		
170							90/90	51	(174.3') Grades to Shaly SANDSTONE, moderately decomposed, moderately disintegrated, intensely fractured.		170
									(175.7') CLAYSHALE: strong, moderate brown (5YR 3/4), fissile, slightly decomposed, intensely disintegrated, intensely fractured.		
175									(176.8') Shaly SANDSTONE: strong, medium dark gray (N4) and grayish black (N2), fissile, fine grained, slightly decomposed, slightly disintegrated, intensely fractured, slightly micaceous.		175
									(178.5') Changes to SANDSTONE: not fissile,		
180											180

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
180											180
										fresh and competent, slightly fractured.	
				Run 16			49/60	53		(183') CLAYSHALE: strong, dusky brown (5YR 2/2), fissile, slightly decomposed, intensely disintegrated, intensely fractured.	
185											185
				Run 17			60/60	27		(187.5') CLAYSTONE: moderately strong to weak, dark reddish brown (10R 3/4), light olive brown (5Y 5/6), dusky yellow (5Y 6/4) and very dusky purple (5RP 2/2), highly decomposed, highly disintegrated, intensely to very intensely fractured, fractures at 45° and 135° angles, slickensides present. [CLARKSBURGH RED BEDS]	
190											190
				Run 18			32/60	7			
195											195
200											200

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
200										200
							35/120	0		
205										205
210										210
215							77/120	10	(212') Very dusky purple (5RP 2/2) and dusky yellow (5Y 6/4) grade out, grades to moderately decomposed, intensely fractured.	215
220										220

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
220											220
							32.5/60	50	(221.5') Silty SANDSTONE: strong, medium bluish gray (5B 5/1), fine grained, massive, micaceous, fresh, competent, slightly fractured, calcareous nodules. [MORGANTOWN FRM]	Reamed hole with 6" sonic casing and set 6" PVC casing to 228 ft.	
225							22/24	0	(225.5') CLAYSHALE: moderately strong, medium gray (N5), fissile, fresh to slightly decomposed, moderately disintegrated, intensely fractured, very micaceous, clay infillings in fractures, calcareous nodules. [MORGANTOWN FRM]		225
									(230') Shaly SANDSTONE: moderately strong, medium gray (N5), fissile, cross bedding, fresh, slightly disintegrated, moderately to intensely fractured, very micaceous. [MORGANTOWN FRM]		
230							88/120	38	(234.2') CLAYSHALE: weak, medium gray (N5) and dark greenish gray (5G 4/1), fissile, slightly decomposed, highly disintegrated, moderately to intensely fractured, pyritic, micaceous, 2" lenses of limestone at 234.1 and 235 ft. [MORGANTOWN FRM]		230
									(236.5') CLAYSTONE: moderately strong to strong, dark reddish brown (10R 3/4), light olive brown (5Y 5/6) and very dusky purple (5RP 2/2), massive, moderately decomposed, slightly disintegrated, slightly to moderately fractured, calcareous nodules, slickensides. [MORGANTOWN FRM]		
235											235
240											240

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
240							80/120	53	(241.2') Sandy SILTSTONE: strong, dark greenish gray (5G 4/1) [silt] and light gray (N7) [sand], massive, mainly fissile, slightly decomposed, slightly disintegrated, slightly fractured, clay infillings in fractures, fine grained (sandy parts). [MORGANTOWN FRM]	240	
245											245
250						115/120	79	(252') SANDSTONE: strong, light gray (N7), fine grained, slightly micaceous, massive, fresh, competent, unfractured to slightly fractured. [MORGANTOWN FRM]	250		
255								(256.3') Sandy silty SHALE: moderately strong, greenish gray (5G 6/1) and medium dark gray (N4), fissile, sand content grades out at 258 ft, slightly to highly decomposed, moderately disintegrated, pyritic, moderately fractured, clay infillings in fractures.	255		
260									260		

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
260				Run 26			120/120	70	(262') Slickensides appear through rest of unit.	260
265									(264') Grades to CLAYSTONE, slightly decomposed, slightly disintegrated, slightly fractured, with limestone nodules and lenses. (264.7') Pyrite grades out. (266.2') Changes to very dusky purple (5RP 2/2) with some light olive brown (5Y 5/6). (267.2') Changes to dark greenish gray (5G 4/1).	265
270				Run 27			101.5/120	63	(268') Changes to light olive brown (5Y 5/6) with some very dusky purple (5RP 2/2). (269') Changes to highly decomposed, intensely fractured.	270
275									(271') Changes to slightly decomposed, slightly fractured. (272.6') Changes to dark greenish gray (5G 4/1) with light olive brown (5Y 5/6) secondary staining.	275
280									(275.5-277.9') Changes to very dusky purple (5RP 2/2) and light olive brown (5Y 5/6). (277.9') Grades to limestone nodules and lenses, strong to very strong.	280

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
280							64/120	17	(282') Changes to very dusky purple (5RP 2/2) and light olive brown (5Y 5/6).	280
285									(285') Clayey LIMESTONE: strong to very strong, olive gray (5Y 4/1), microcrystalline, massive, with dark greenish gray (5G 4/1) secondary staining, slightly decomposed, slightly to moderately disintegrated, intensely to moderately fractured.	285
290									(287.7') Shaly CLAYSTONE: moderately strong, medium dark gray (N4), slightly fissile, intensely fractured, chert lenses.	290
295							120/120	85	(291.2') SANDSTONE: strong, dark greenish gray (5G 4/1), calcareous with calcite nodules, fine grained, massive, fresh, competent, slightly fractured to unfractured, slightly micaceous. [COW RUN FRM]	295
300									(297-297.9') Changes to sandy shale with significant white limestone nodules.	300



NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value				RQD (%)
300											300	
							117/120	42	(300.2-302') Changes to Shaly SANDSTONE: fissile, intensely fractured.			
305									(304.1') Sandy SHALE: moderately strong, dark greenish gray (5G 4/1), fine grained, fissile, large limestone nodules, slightly decomposed, slightly disintegrated, intensely to moderately fractured, clay infillings in fractures. [COW RUN FRM]			305
									(307.1') SANDSTONE: strong, dark greenish gray (5G 4/1), fine grained, massive, significant clay lenses, slightly decomposed, slightly disintegrated, moderately fractured.			
310						120/120	74	(310.8') Clay lenses grade out, changes to fresh, competent and unfractured to slightly fractured, cross bedding. [COW RUN FRM]			310	
315											315	
320								(318.3') Changes to Shaly SANDSTONE: fissile, moderately disintegrated, intensely fractured.			320	

NOTES:

Drilling Start Date: 02/09/2016 15:50	Boring Depth (ft): 330	Well Depth (ft): 304.6
Drilling End Date: 02/17/2016 15:25	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Sonic & Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.98	Seal Material(s): Bentonite Chips
Logged By: D. Mateas & M. Muenich	Location (X,Y): N 351,068.1 E 2,096,227.1	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
320				Run 32			120/120	81	(319.7') CLAYSTONE: moderately strong, dark greenish gray (5G 4/1), massive, yellowish gray (5Y 8/1), limestone nodules, slightly decomposed, slightly disintegrated, slightly fractured.		320
325									(328.5') Grades to Sandy CLAYSTONE.		325
330								End of borehole at 330 ft bgs. Well installed on 03/04/2016		330	
335										335	

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
0									See log 2016-10 for 0-215 ft bgs.	4" rods dropped from 110-114 ft. See log for 2016-10. Blind drilled from 0-215 ft bgs. 6" PVC casing set from 0-219 ft bgs before geophysical analysis.	0
5											5
10											10
15											15
20											20

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
20									See log 2016-10 for 0-215 ft bgs.		20
25											25
30											30
35											35
40											40

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
40									See log 2016-10 for 0-215 ft bgs.		40
45											45
50											50
55											55
60											60

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
60									See log 2016-10 for 0-215 ft bgs.		60
65											65
70											70
75											75
80											80

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
80									See log 2016-10 for 0-215 ft bgs.		80
85											85
90											90
95											95
100											100

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
100									See log 2016-10 for 0-215 ft bgs.		100
105											105
110											110
115											115
120											120

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
120								See log 2016-10 for 0-215 ft bgs.		120
125										125
130										130
135										135
140										140

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
140									See log 2016-10 for 0-215 ft bgs.		140
145											145
150											150
155											155
160											160

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
160									See log 2016-10 for 0-215 ft bgs.		160
165											165
170											170
175											175
180											180

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
180									See log 2016-10 for 0-215 ft bgs.		180
185											185
190											190
195											195
200											200

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
200								See log 2016-10 for 0-215 ft bgs.		200	
205										205	
210										210	
215								(215') CLAYSTONE: very weak to weak, dark reddish brown (10R 3/4) [primary color] with dusky yellow (5Y 6/4) and very dusky purple (5RP 2/2) [secondary colors], highly decomposed, intensely disintegrated, intensely to very intensely fractured, slickensides. [CLARKSBURGH RED BEDS]		215	
220				Run 1			58/72	22.2	(219') Silty SANDSTONE: strong, medium bluish gray (5G 5/1), fine grained, massive, micaceous,	6" of Split Spoon lost down hole.	220

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
220								109/120	63.3	<p>calcareous nodules, fresh, competent, slightly fractured. [MORGANTOWN FRM]</p> <p>(221') Cross-bedding appears.</p>	220
225										<p>(223.3') CLAYSHALE: dark reddish brown (10R 3/4) to greenish gray (5GY 6/1), moderately strong, fissile, slightly decomposed, moderately disintegrated, intensely fractured, micaceous and sandy to 223.8 ft, calcareous nodules, clay infillings in fractures. [MORGANTOWN FRM]</p> <p>(225.2') SANDSTONE to Shaly SANDSTONE: moderately strong to strong, medium bluish gray (5B 5/1), massive, fresh, competent to slightly disintegrated, unfractured to moderately fractured, very micaceous. [MORGANTOWN FRM]</p> <p>(228.8') Changes to Shaly SANDSTONE: cross-bedding, pyritic, clay infillings in fractures.</p>	225
230										<p>(231') Grades to very intensely fractured.</p>	230
235										<p>(232.9') Sandy CLAYSHALE: weak to strong, medium bluish gray (5B 5/1) and medium dark gray (N4), fissile, fine grained, pyritic, micaceous, slightly decomposed, intensely disintegrated, intensely fractured, calcareous nodules. [MORGANTOWN FRM]</p>	235
240										<p>(237.3') CLAYSTONE: moderately strong to strong, dark reddish brown (10R 3/4), light olive brown (5Y 5/6) and dusky purple (5RP 2/2), massive, slightly fissile at top, moderately decomposed, slightly disintegrated, moderately fractured, calcareous nodules, slickensides.</p>	240



NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
240								[MORGANTOWN FRM]		240	
							61/120	49.2	(242.2') Sandy SILTSTONE: strong, dark greenish gray (5G 4/1) [silt] and light gray (N7) [sand], massive, locally fissile, slightly decomposed, slightly disintegrated, slightly fractured, slickensides, pyritic. [MORGANTOWN FRM]		
245										245	
250										250	
							108/120	69.6	(253.6') SANDSTONE: strong, light gray (N7), fine grained, slightly silty, micaceous, massive, fresh, competent to slightly disintegrated, slightly fractured. [MORGANTOWN FRM]		
255										255	
260										260	
									(258.1') Sandy silty SHALE: moderately strong, greenish gray (5G 6/1) and medium dark gray (N4), fissile, slightly decomposed, moderately disintegrated, moderately fractured, clay infillings		

NOTES:

Drilling Start Date: 02/17/2016 17:15	Boring Depth (ft): 261	Well Depth (ft): 255
Drilling End Date: 02/20/2016 14:45	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Sonic	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment: Versa-Sonic	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Rob Hamilton	Top of Casing Elev. (ft): 866.88	Seal Material(s): Bentonite Chips
Logged By: Doug Mateas	Location (X,Y): N 351,060.5 E 2,096,240.3	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
260									in fractures, pyritic.		260
									End of borehole at 261 ft bgs. Well installed on 03/04/2016		
265											265

NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
0									(0') Overburden. Sandy Clay, wet.		0
5											5
10											10
15									(15') Clayey SHALE: dark gray, dry. (cuttings)		15
20											20










NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
20											20
25											25
30											30
35											35
40											40




NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
40									(40') Sandy SHALE: dark gray with some red bed.		40
45											
50									(50') CLAYSTONE: red. (cuttings)		50
55											
60											60
60											

NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)		
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)					
60											60		
65												65	
70													70
75													75
80											80		

NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
80	[Patterned Lithology]	[Patterned Water Level]	[Patterned Well Completion]							80
85										
90				Run 1			72/120	46	(90') CLAYSTONE: dark reddish brown (10R 3/4) [primary] and light olive brown (5Y 5/6) [secondary], moderately strong to weak, thickly/massive bedding, slightly decomposed, moderately disintegrated, moderately to intensely fractured. [LOWER CLARKSBURGH RED BEDS]	90
95										95
100										100

NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)		
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value	RQD (%)
100	[Dotted pattern]	[Vertical line]	Run 2				66/120	36	(100') SANDSTONE: pyritic, with calcite nodules, fine grained, dark greenish gray (5G 4/1). [MORGANTOWN]		100	
105										(103') Interbedded Silt/mud, dark reddish brown (10R 3/4) and dark greenish gray (5G 4/1). (104-105.5') Silty SANDSTONE: very pyritic, micaceous.		105
110											(110') SANDSTONE: medium bluish gray (5B 5/1), calcareous, micaceous, fine to medium grained, strong, thickly bedded, fresh to slightly decomposed, competent, moderately fractured. [MORGANTOWN]	
115	[Cross-hatched pattern]	[Vertical line]	Run 3				90/120	81	(115') Sandy SILTSTONE: pyritic, dark greenish gray (5G 4/1), strong to moderately strong, thickly bedded, slightly decomposed, slightly disintegrated, moderately to intensely fractured. [MORGANTOWN]		115	
120												120

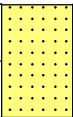
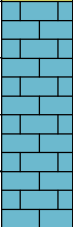

NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value				RQD (%)
120								96/120	60	(120') Sandy MUDSHALE: dark reddish brown (10R 3/4), moderately strong, medium bedded, moderately to slightly decomposed, slightly disintegrated, intensely fractured, non calcareous. [MORGANTOWN]		120
122.5										(122.5') Silty SANDSTONE: dark greenish gray (5G 4/1), micaceous, slightly calcareous, strong, thickly bedded, fresh to slightly decomposed, slightly disintegrated, moderately fractured. [MORGANTOWN]		125
130								108/120	78	(130') Silty SANDSTONE: some calcite nodules, strong, dark greenish gray (5G 4/1), thickly bedded, fresh to slightly decomposed, slightly disintegrated, moderately fractured, pyritic, micaceous. [MORGANTOWN]		130
133-134										(133-134') Bands of sandy mudstone.		135
136-137.5										(136-137.5') Intensely fractured.		140
137.5										(137.5') SANDSTONE: medium grained, micaceous, gray (N5), strong. [MORGANTOWN]		140

NOTES:

Drilling Start Date: 02/18/2016 09:35	Boring Depth (ft): 150	Well Depth (ft): 112
Drilling End Date: 02/20/2016 12:30	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 773.89	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 355,633.4 E 2,095,228.4	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
140							93/120	54	(140') SANDSTONE: fine to medium grained, gray (N6), calcareous, strong, thickly bedded, fresh, competent to slightly disintegrated, moderately fractured.	140
145									(142') LIMESTONE: dark greenish gray (5G 4/1), shaly, strong to moderately strong, thickly bedded, slightly to moderately disintegrated, moderately decomposed, intensely fractured.	145
150									(146') MUDSTONE/CLAYSHALE: dark reddish brown (10R 3/4) [primary] and light olive brown (5Y 5/6) [secondary], thickly bedded, moderately strong, moderately decomposed, moderately disintegrated, intensely to moderately fractured.	150
155									End of borehole at 150 ft bgs. Well installed on 02/29/2016	155

NOTES:

Drilling Start Date: 02/15/2016 12:30	Boring Depth (ft): 125	Well Depth (ft): 96
Drilling End Date: 02/17/2016 14:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 738.22	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 353,185.4 E 2,095,695.2	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
0								Overburden.	Auger no SPT or logging.	0
5										5
10										10
15										15
20										20

NOTES:

Drilling Start Date: 02/15/2016 12:30	Boring Depth (ft): 125	Well Depth (ft): 96
Drilling End Date: 02/17/2016 14:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 738.22	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 353,185.4 E 2,095,695.2	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
20									(22.5') Mudstone/decomposed sandstone.		20
25											25
30											30
35											35
40											40

NOTES:

Drilling Start Date: 02/15/2016 12:30	Boring Depth (ft): 125	Well Depth (ft): 96
Drilling End Date: 02/17/2016 14:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 738.22	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 353,185.4 E 2,095,695.2	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
40											40
45											45
50											50
55											55
60											60

NOTES:

Drilling Start Date: 02/15/2016 12:30	Boring Depth (ft): 125	Well Depth (ft): 96
Drilling End Date: 02/17/2016 14:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 738.22	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 353,185.4 E 2,095,695.2	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
60											60
65				Run 1			48/120	50	(65') MUDSTONE [CLARKSBURGH RED BEDS]		65
70									(67.5') Silty MUDSTONE [CLARKSBURGH RED BEDS]		70
75				Run 2			112/120	70	(75') SANDSTONE: medium bluish gray (5B 5/1), calcareous, micaceous, pyritic, calcite nodules near 80', strong, thickly bedded, fresh to slightly decomposed, slightly disintegrated, slightly fractured. [MORGANTOWN]		75
80											80

NOTES:

Drilling Start Date: 02/15/2016 12:30	Boring Depth (ft): 125	Well Depth (ft): 96
Drilling End Date: 02/17/2016 14:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 738.22	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 353,185.4 E 2,095,695.2	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
80								(80') Shaly MUDSTONE: dusky red (5R 4/2), slightly calcareous with sand lenses, moderately strong to weak, thickly bedded, moderately decomposed, moderately disintegrated, moderately fractured.		80	
85				Run 3			80/120	7	(84') SANDSTONE: pyritic, fine grained, medium bluish gray (5B 5/1), strong, medium thick bedded, slightly decomposed, not calcareous, slightly disintegrated, moderately to intensely fractured. [MORGANTOWN]		85
90									(85') SANDSTONE: pyritic, micaceous, fine to medium grained, medium bluish gray (5B 5/1), strong, medium/thick bedded, slightly decomposed, slightly disintegrated, intensely fractured. Medium grained Sandstone for 85-97' (very fractured). Then alternating bands of sandy siltstone and sandstone, cross bedding near top.		90
95				Run 4			96/120	84	(95') MUDSTONE: dusky red (5R 4/2), with sandy inclusions, moderately strong, thickly bedded, slightly decomposed, moderately disintegrated, moderately fractured.		95
100									(97.5') Sandy SILTSTONE: dark greenish gray (5G 4/1), some sandstone lenses, moderately strong, medium bedded, fresh to slightly decomposed, slightly to moderately disintegrated, slightly fractured.		100

NOTES:

Drilling Start Date: 02/15/2016 12:30
Drilling End Date: 02/17/2016 14:50
Drilling Company: Frontz Drilling
Drilling Method: Air Rotary
Drilling Equipment:
Driller: Aaron Mackey
Logged By: C. Christensen

Boring Depth (ft): 125
Boring Diameter (in): 6
Sampling Method(s): Rock Core
DTW During Drilling (ft):
DTW After Drilling (ft):
Top of Casing Elev. (ft): 738.22
Location (X,Y): N 353,185.4 E 2,095,695.2

Well Depth (ft): 96
Well Diameter (in): 2
Screen Slot (in): 0.010
Riser Material: Sch 80 PVC
Screen Material: Sch 80 PVC 4" Pre-packed
Seal Material(s): Bentonite Chips
Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			

100										100
105								(101.5') SANDSTONE: micaceous, fine grained, gray (N8/N4) bedding, thinly bedded, strong, fresh, slightly fractured.		105
110			Run 5				84/ 120	64	(105') Alternating SANDSTONE and SILTSTONE: micaceous, bedded, calcareous, fine grained, fresh, slightly disintegrated, moderately fractured.	110
115			Run 6				102/ 120	52	(115') Sandy SILTSTONE: pyritic, micaceous (light), dark greenish gray (5G 4/1), some calcite nodules, moderately strong, thickly bedded, slightly decomposed, moderately disintegrated, intensely fractured.	115
120									(118') Shaly SILTSTONE: with calcite nodules, dark greenish gray (5G 4/1), moderately strong, thickly bedded, moderately decomposed, moderately fractured, moderately disintegrated.	120

NOTES:

Drilling Start Date: 02/15/2016 12:30	Boring Depth (ft): 125	Well Depth (ft): 96
Drilling End Date: 02/17/2016 14:50	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Frontz Drilling	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Air Rotary	DTW During Drilling (ft):	Riser Material: Sch 80 PVC
Drilling Equipment:	DTW After Drilling (ft):	Screen Material: Sch 80 PVC 4" Pre-packed
Driller: Aaron Mackey	Top of Casing Elev. (ft): 738.22	Seal Material(s): Bentonite Chips
Logged By: C. Christensen	Location (X,Y): N 353,185.4 E 2,095,695.2	Filter Pack: Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
120								(122') LIMESTONE: gray (N4), with calcareous nodules, strong, thickly bedded, slightly decomposed, moderately disintegrated, moderately fractured.		120
125								End of borehole at 125 ft bgs. Well installed on 03/03/2016		125
130										130

NOTES:

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER _____

COMPANY OHIO POWER COMPANY

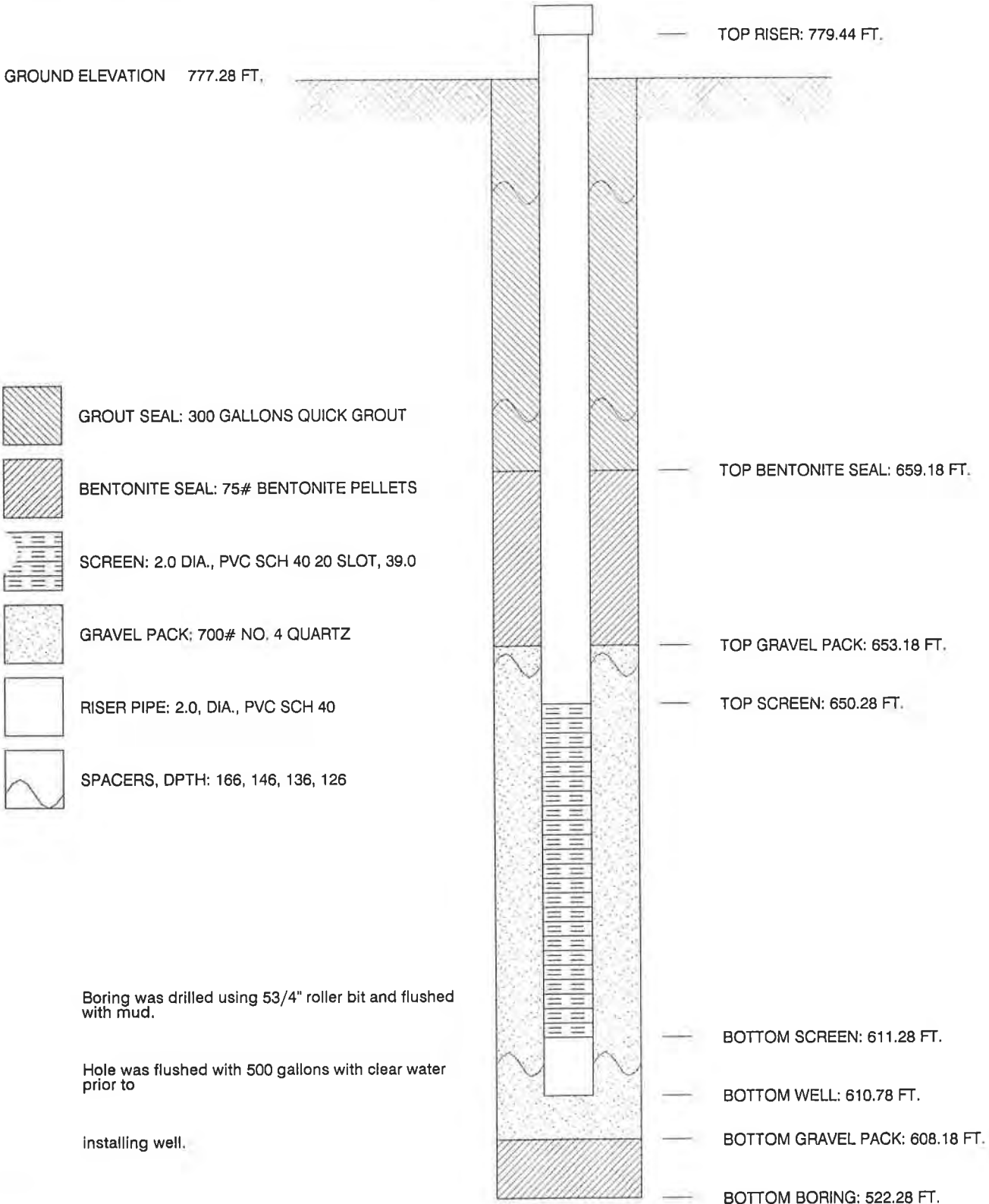
WELL No. 96152 BORING No. 96152 INSTALLED 06/27/96

PROJECT GAVIN PLANT FLY ASH POND CLOSURE

COORDINATES N 355,372.6 E 2,065,722.5

SYSTEM STATE PLANE

GROUND ELEVATION 777.28 FT.



Boring was drilled using 53/4" roller bit and flushed with mud.

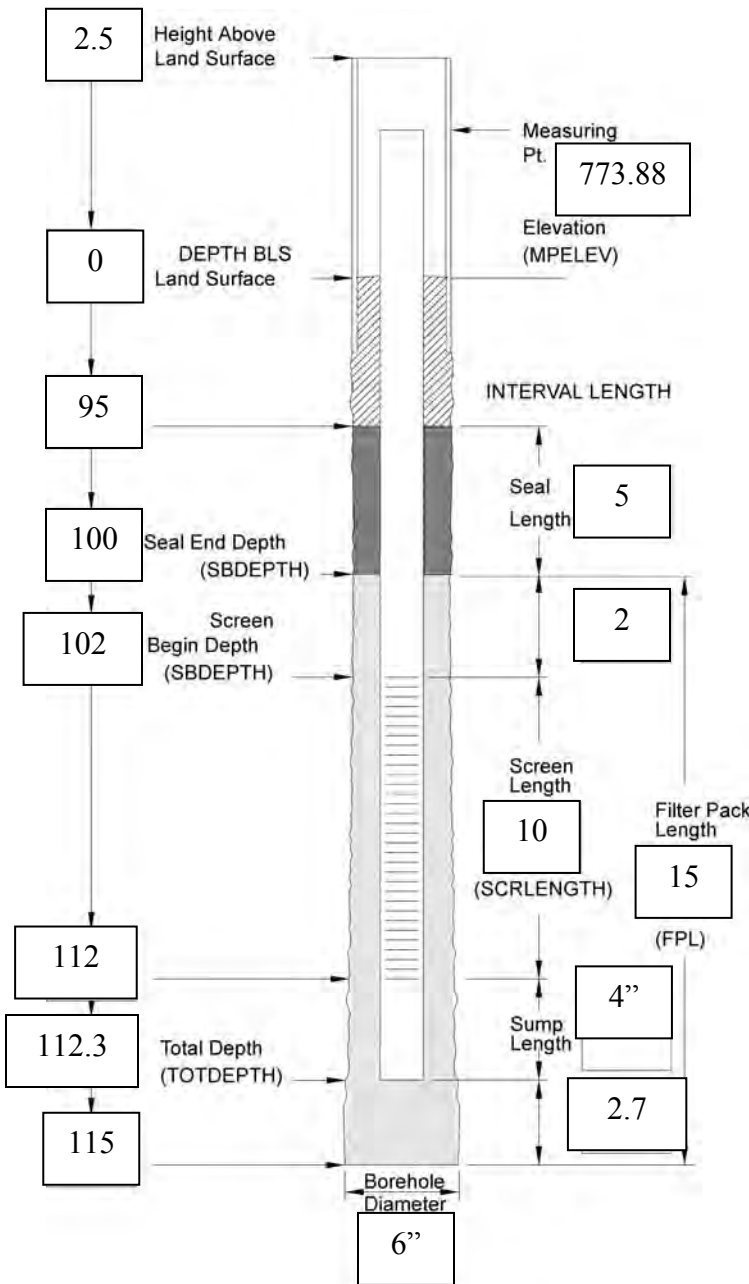
Hole was flushed with 500 gallons with clear water prior to

installing well.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 96153R
 Drilling Company: Frontz Drilling
 Drillers: Aaron Mackey
 Geologist/Engineer: Chad Gregory
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Air Rotary
 Casing Installation Date (INSDATE): 2/29/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
 Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)
GROUT
 Composition/Proportions: 150 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 2/29/16
 Type: 3/8" med. crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (2 bags)
 Set-up/Hydration Time: 2 hours
 Placement Method: Poured, Gravity
 Vol. Fluid Added: N/A, submerged

Filter Pack

Type: Sidley #5 & #7 above screen (Choker Sand)
 Source: Sidley
 Amount Used: 3 – 50 lb bags #5, 0.5 – 50 lb bag #7
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N)

Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug (Y / N)

Material: Bentonite chips (8 - 50 lb bags)
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/016

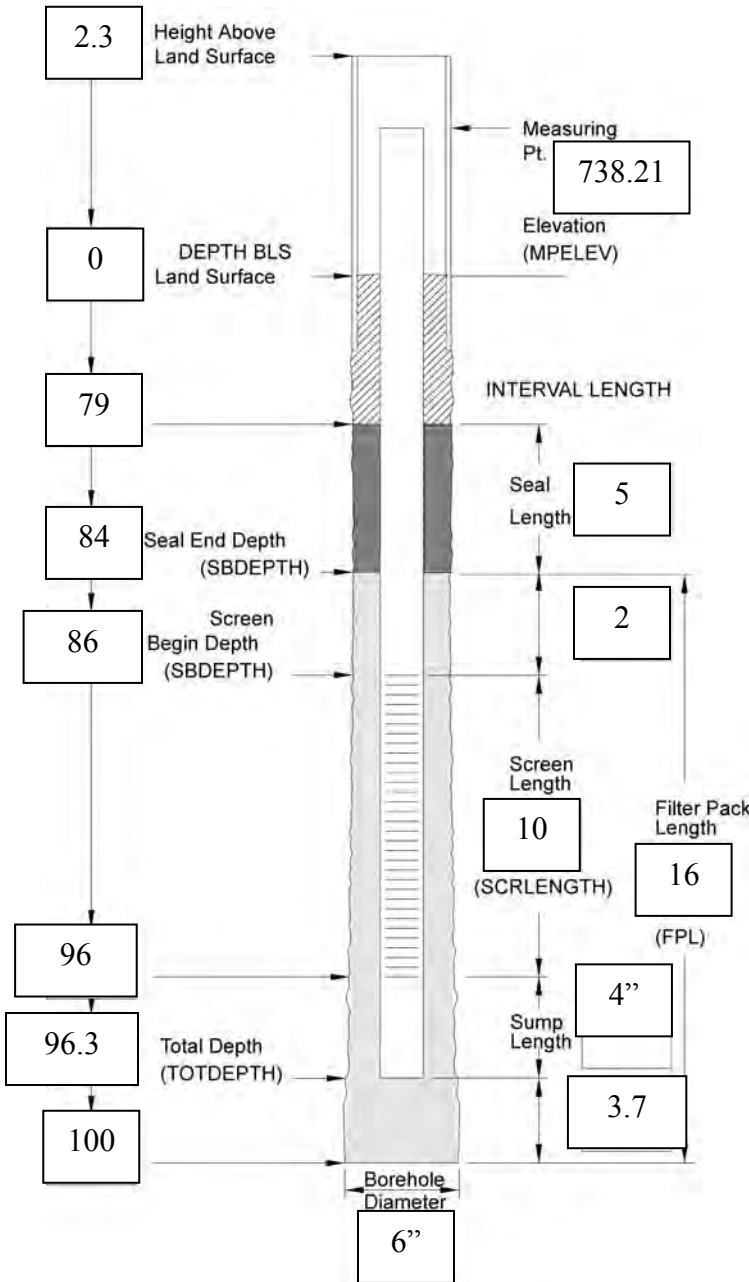
Comments

Original borehole 150'. Backfilled w/ Bentonite chips to 115'.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 96154R
 Drilling Company: Frontz Drilling
 Drillers: Aaron Mackey
 Geologist/Engineer: Chad Gregory
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Air Rotary
 Casing Installation Date (INSDATE): 3/3/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
 Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)
GROUT
 Composition/Proportions: 150 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/2/16
 Type: 3/8" med. crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (1 bag)
 Set-up/Hydration Time: >12 hours
 Placement Method: Poured, Gravity
 Vol. Fluid Added: 5 Gallons

Filter Pack

Type: Sidley #5 & #7 above screen (Choker Sand)
 Source: Sidley
 Amount Used: 4.5 – 50 lb bags #5, 0.5 – 50 lb bag #7
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N)

Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug (Y / N)

Material: Bentonite chips (5 - 50 lb bags)
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

Comments

Original borehole 125'. Backfilled w/ Bentonite chips to 100'. 70' of 6" PVC surface casing left in hole, (10' to 80' bgs)

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 GEOMON CONSTRUCTION



JOB NUMBER _____

COMPANY OHIO POWER COMPANY







WELL No. 96156 BORING No. 96156 INSTALLED 01/11/96

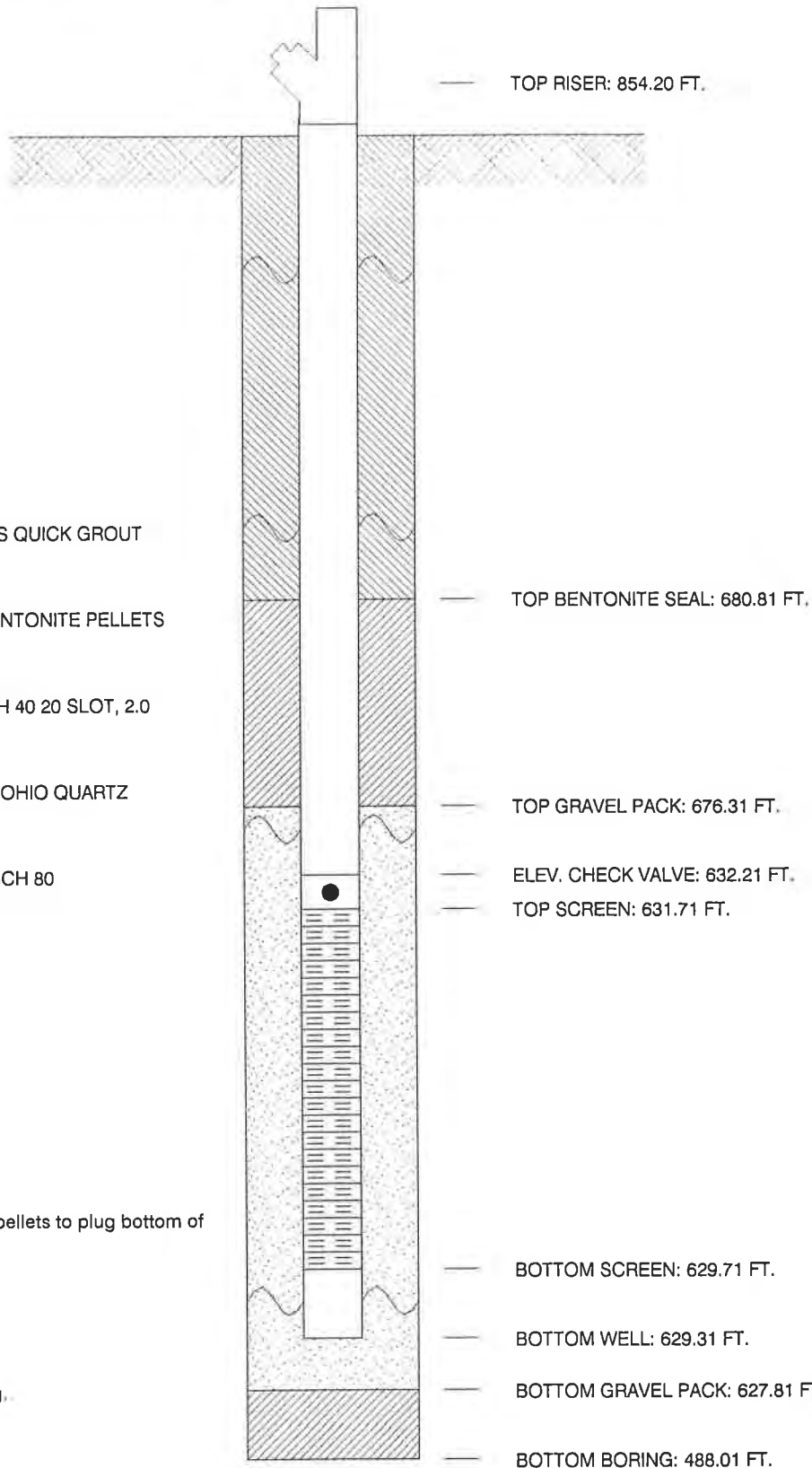
PROJECT GAVIN PLANT FLY ASH POND CLOSURE

COORDINATES N 352,338.7 E 2,061,912.6

SYSTEM STATE PLANE

GROUND ELEVATION 851.81 FT.

-  GROUT SEAL: 100 GALLONS QUICK GROUT
-  BENTONITE SEAL: 450# BENTONITE PELLETS
-  SCREEN: 1.25 dia., PVC SCH 40 20 SLOT, 2.0
-  GRAVEL PACK: 100# NO. 4 OHIO QUARTZ
-  RISER PIPE: 1.0, dia., PVC SCH 80
-  SPACERS, dpth: n\`a



Tremied 450# of bentonite pellets to plug bottom of hole.

SWL at installation 76.3.

Brass weight on 3/16 tubing.

AMERICAN ELECTRIC POWER SERVICE CORPORATION
 AEP CIVIL ENGINEERING LABORATORY
 MONITORING WELL CONSTRUCTION



JOB NUMBER _____

COMPANY _____

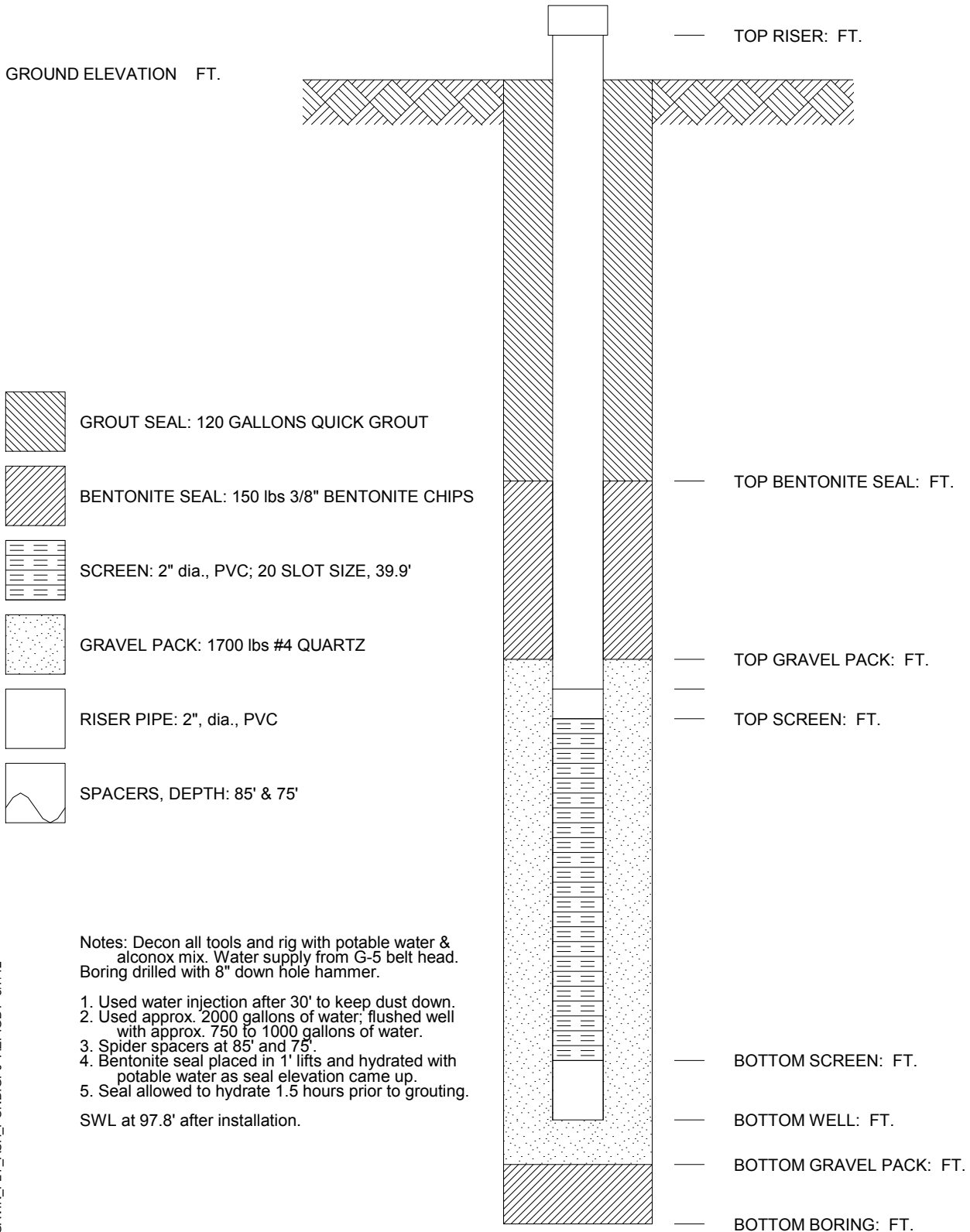
WELL No. **9910** BORING No. **9910** INSTALLED _____

PROJECT **GAVIN FLY ASH POND CLOSURE**

COORDINATES _____

SYSTEM _____

GROUND ELEVATION FT. _____



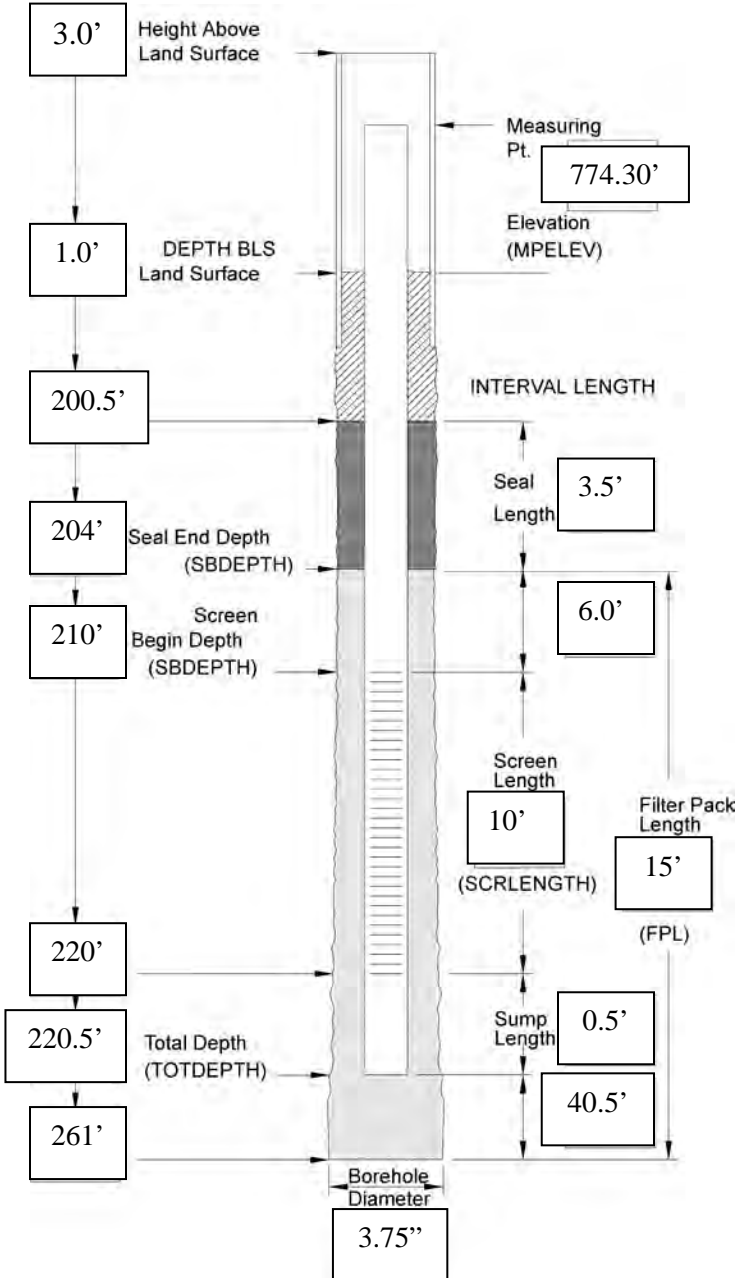
Notes: Decon all tools and rig with potable water &alconox mix. Water supply from G-5 belt head. Boring drilled with 8" down hole hammer.

1. Used water injection after 30' to keep dust down.
 2. Used approx. 2000 gallons of water; flushed well with approx. 750 to 1000 gallons of water.
 3. Spider spacers at 85' and 75'.
 4. Bentonite seal placed in 1' lifts and hydrated with potable water as seal elevation came up.
 5. Seal allowed to hydrate 1.5 hours prior to grouting.
- SWL at 97.8' after installation.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): MW-20
 Drilling Company: Frontz Drilling Company
 Drillers: D. Schrecengost/R. VanDyne
 Geologist/Engineer: J. Bannantine
 Signature: _____

Site: AEP Gavin FAR Closure
 Installation Method: Sonic – Rock Coring
 Casing Installation Date (INSDATE): 05/08/2012
 Well Type (WTCCODE): Monitoring
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: 5/17/2012
 Surface Pad Size: 2.0 ft x 2.0 ft

Protective Casing or Cover

Diameter/Type: 5.5-inch steel Procasing
 Depth BGS: _____ Weep Hole (/ N)

Grout

Composition/Proportions: 3.5 bags per 100 gallons water
Quik-Grout
 Placement Method: _____
Tremie

Seal

Date: 5/16/12
 Type: 3/8-inch bentonite chips
 Source: Haliburton
 Set-up/Hydration Time: 16 hours
 Placement Method: Gravity
 Vol. Fluid Added: None

Filter Pack

Type: Filter sand #5
 Source: RW Sidley, Inc
 Amount Used: 5 bags (50 lb bags)
 Placement Method: Gravity

Well Riser Pipe

Casing Material (CMACODE): Schedule 40 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Pre-pack schedule 40 PVC
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.020 in.
 Percent Open Area (PCTOPEN): _____
 Sump or Bottom Cap (/ N)
 Type/Length: Schedule 40 PVC/0.4 feet

Backfill Plug (/ N)

Material: Bentonite chips
 Placement Method: Gravity
 Set-up/Hydration Time: 16 hours

Total Water Volume During Construction

Introduced (Gal): 0 Recovered (Gal): 30

Reviewed

By: _____ Date: _____

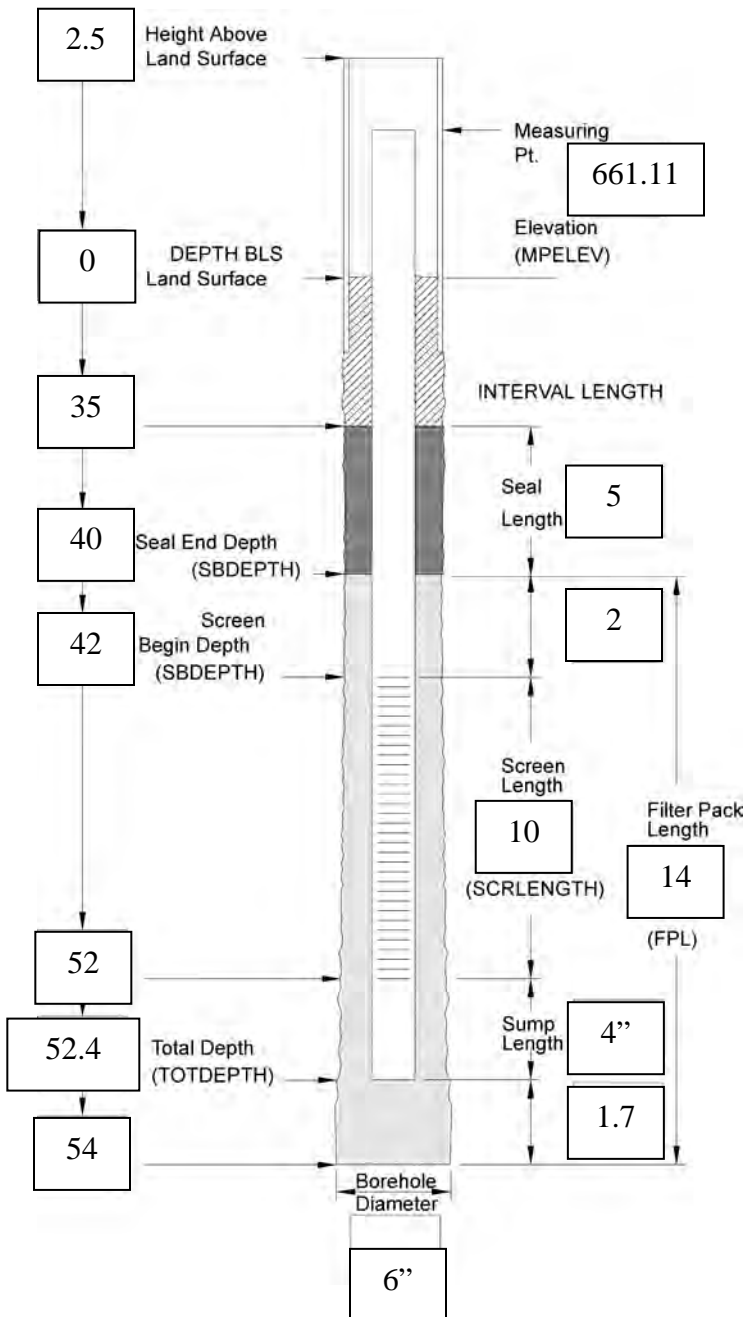
Comments

Pre-packed, 20-slot screen.
Borehole cored and logged from 0-261 ft. bgs prior to well construction.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-03
 Drilling Company: Frontz Drilling
 Drillers: Aaron Mackey
 Geologist/Engineer: Chase Christenson
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: HSA
 Casing Installation Date (INSDATE): 3/23/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover

Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)

GROUT

Composition/Proportions: 120 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/22/16

Type: 3/8" Med, crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (1 bag)
 Set-up/Hydration Time: 2 Hours
 Placement Method: Poured, Gravity
 Vol. Fluid Added: 5 gal

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 2 – 50 lb bags #5, 0.5 – 50 lb bag #7
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" Pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N) Y N
 Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug (Y / N) Y N

Material: Bentonite Chips, 2 – 50 lb bags
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

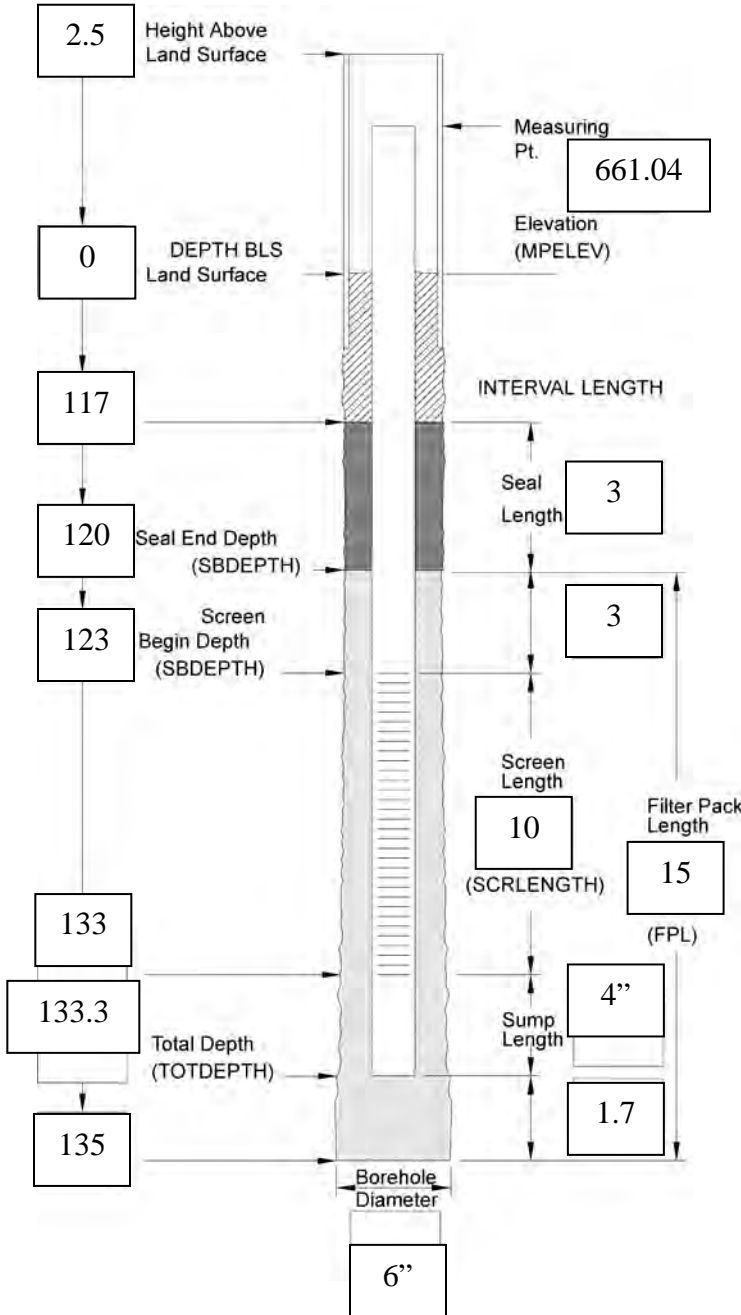
Comments

Feet unless otherwise indicated. Original borehole 75'
Backfilled w/ bentonite chips to 54', 2' of sand below
Well.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-04
 Drilling Company: Frontz Drilling
 Drillers: Aaron Mackey
 Geologist/Engineer: C. Christenson / M. Muenich
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Air Rotary
 Casing Installation Date (INSDATE): 3/28/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover

Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)

GROUT

Composition/Proportions: _____
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/28/16 @ 1230
 Type: 3/8" med. crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (1 bag)
 Set-up/Hydration Time: 2 Hours
 Placement Method: Poured, Gravity
 Vol. Fluid Added: N/A, submerged

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 1 – 50 lb bags #5, 3 – 50 lb bag #7
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" Pre-packed

Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N) Y N
 Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug (Y / N) Y N

Material: Bentonite Chips (2 – 50 lb bags)
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

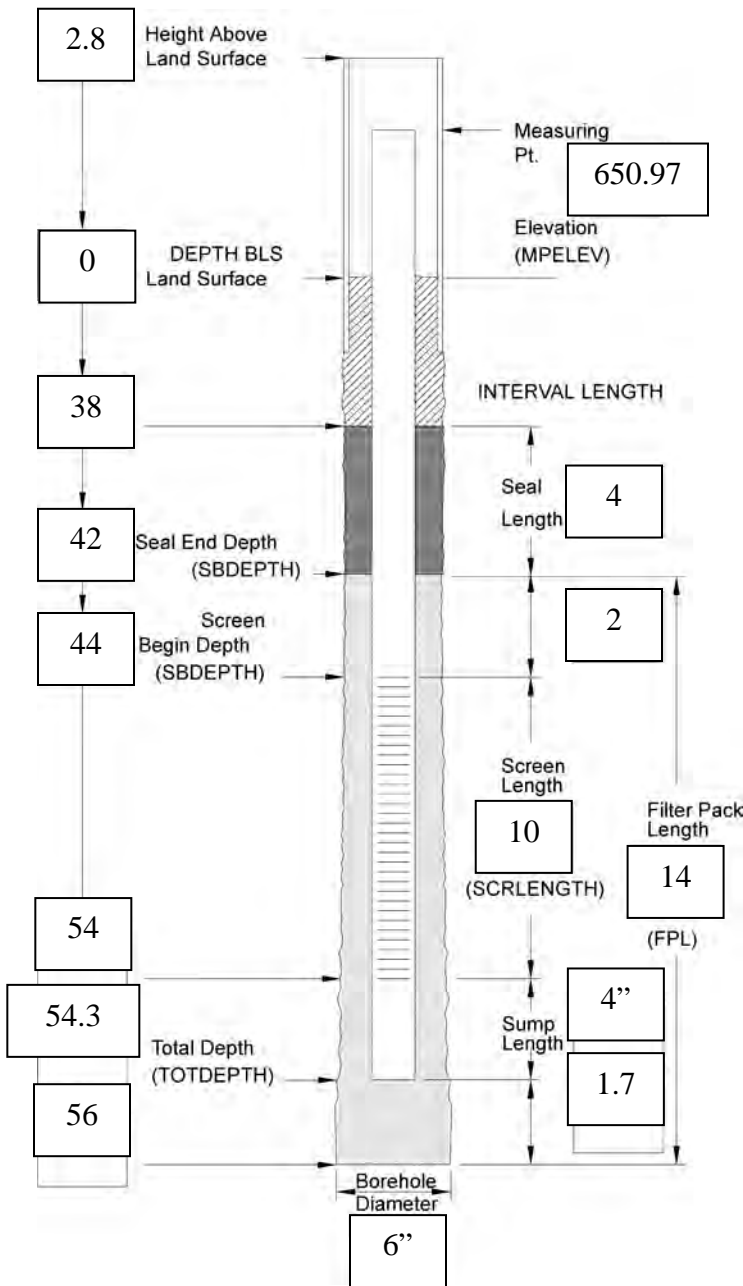
Comments

Feet unless otherwise indicated; Original borehole 150'.
 Backfilled w/ Bentonite chips to 135'; used 1 centralizer
 For riser; removed 10' of 6" surface casing, 24' still in
 ground.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-05
 Drilling Company: Frontz Drilling
 Drillers: Aaron Mackey
 Geologist/Engineer: Mike Muenich
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Air Rotary
 Casing Installation Date (INSDATE): 3/29/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover

Diameter/Type: 6'' Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)

GROUT

Composition/Proportions: _____
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/29/16 @ 1115
 Type: 3/8'' med. crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (1 bag)
 Set-up/Hydration Time: Overnight
 Placement Method: Poured, Gravity
 Vol. Fluid Added: 1 – 50 lb bag + 5 gal.

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 3 – 50 lb bags #5, 1 – 50 lb bag #7
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4'' Pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N)

Type/Length: _____ Sch. 80 PVC 2''

Backfill Plug (Y / N)

Material: Bentonite Chips (2 – 50 lb bags)
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

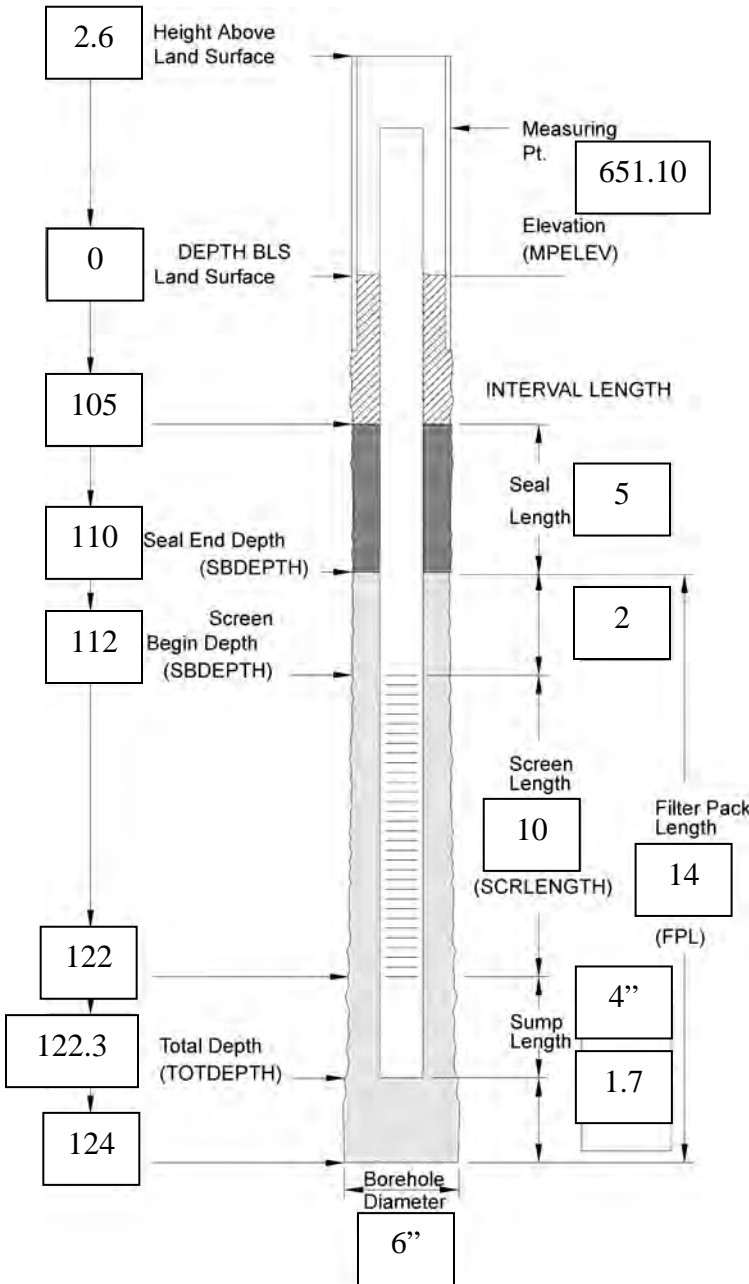
Comments

Feet unless otherwise indicated; total boring depth was 60'. Backfilled to 56' w/ bentonite chips.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-06
 Drilling Company: Frontz Drilling
 Drillers: Aaron Mackey
 Geologist/Engineer: Mike Muenich
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Air Rotary
 Casing Installation Date (INSDATE): 3/29/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
 Diameter/Type: 6'' Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)
GROUT
 Composition/Proportions: _____
6 gal water: 94 lbs portland cement: 5 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/29/16 @ 1615
 Type: 3/8'' med. crushed bentonite chips
 Source: Baroid – Wyoming Bentonite (1 bag)
 Set-up/Hydration Time: Overnight
 Placement Method: Poured, Gravity
 Vol. Fluid Added: 1 – 50 lb bag + 5 gal.

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 3 – 50 lb bags #5, 1 – 50 lb bag #7
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4'' pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N)

Type/Length: _____ Sch. 80 PVC 2''

Backfill Plug (Y / N)

Material: Bentonite Chips (1 – 50 lb bag)
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

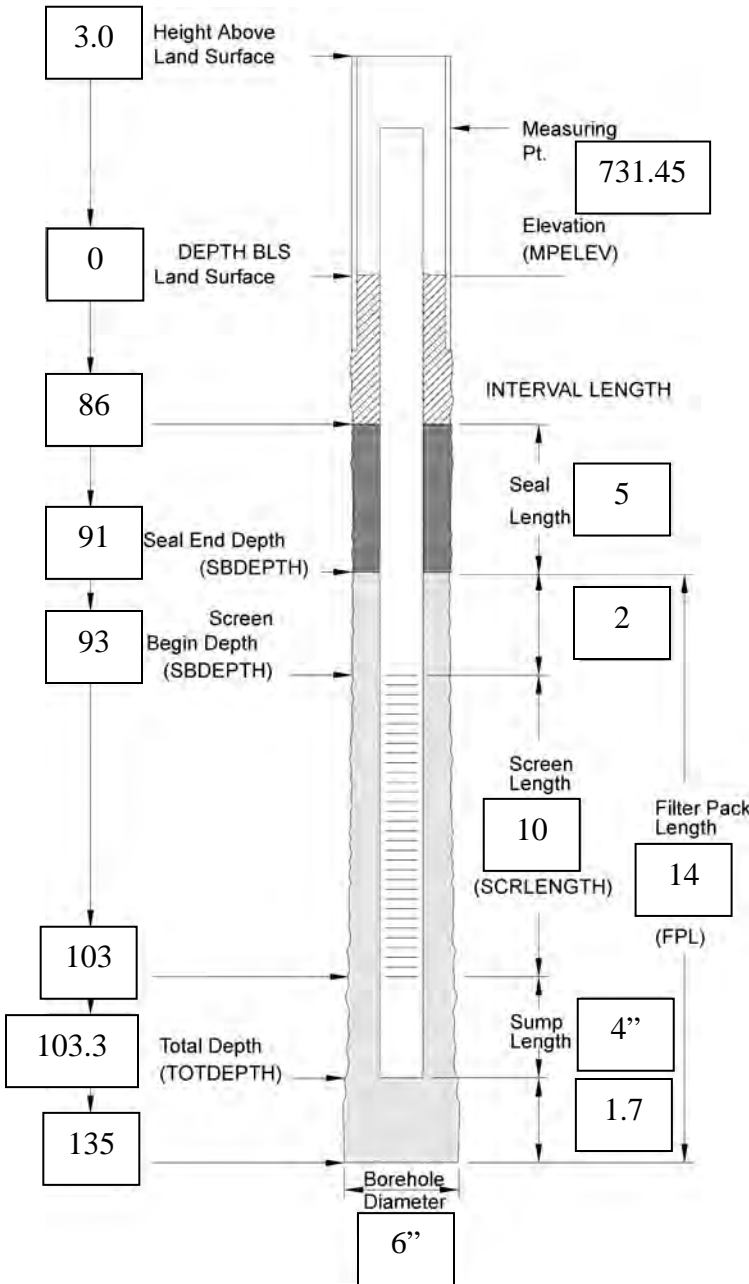
Comments

Feet unless otherwise indicated. Original borehole 140'.
Collapse to ~105', reamed out to 125'.
Backfilled w/ Bentonite chips to 124'.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-07
 Drilling Company: Frontz Drilling
 Drillers: Rob Hamilton
 Geologist/Engineer: Chase Christenson
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Air Rotary
 Casing Installation Date (INSDATE): 3/29/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts / N) Date: _____
 Surface Pad Size: 2' x 2' ft x 0.5 ft

Protective Casing or Cover

Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)

GROUT

Composition/Proportions: 245 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/22/16
 Type: 3/8" med. crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (1 bag)
 Set-up/Hydration Time: Overnight
 Placement Method: Poured, Gravity
 Vol. Fluid Added: 1 – 50 lb bag + 5 gal.

Filter Pack

Type: Sidley #5 & #7 above screen (Choker Sand)
 Source: Sidley
 Amount Used: 8 – 50 lb bags
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" Pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap / N)

Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug / N)

Material: Bentonite Chips
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

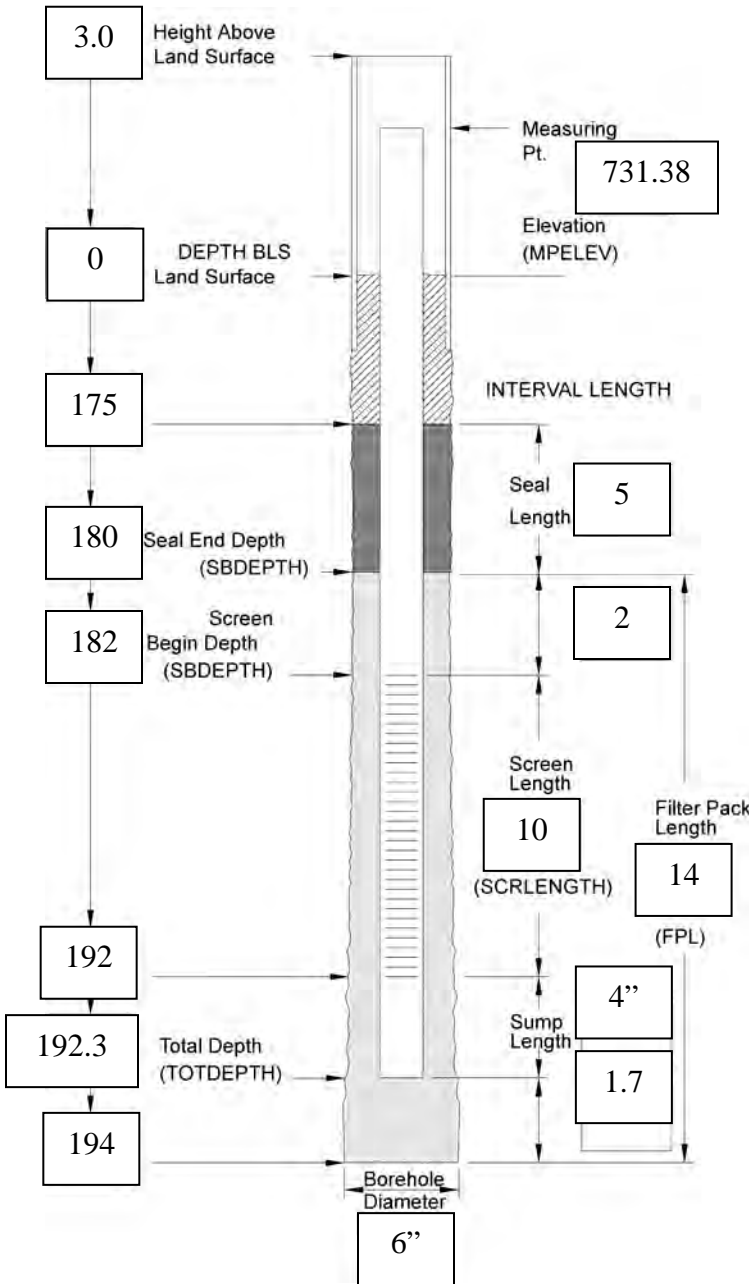
Comments

Feet unless otherwise indicated. Original borehole 135'
Backfilled w/ bentonite chips to 105'. #5 Sidley
Sand 105' – 103.3'.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-08
 Drilling Company: Frontz Drilling
 Drillers: Rob Hamilton
 Geologist/Engineer: Chase Christenson
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Sonic
 Casing Installation Date (INSDATE): 3/23/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts Y / N Date: 3/30/16
 Surface Pad Size: 2' x 2' ft x 0.5 ft

Protective Casing or Cover

Diameter/Type: 6'' Steel, 5' length
 Depth BGS: 2 Weep Hole (Y / N)

GROUT

Composition/Proportions: 460 gal
6 gal water: 94 lbs portland cement: 5 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/23/16
 Type: 3/8'' med. crushed bentonite chips
 Source: Baroid – Wyoming Bentonite
 Set-up/Hydration Time: 2 days
 Placement Method: Poured, Gravity
 Vol. Fluid Added: N/A, submerged

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 4 – 50 lb bags #5, 1 – 50 lb bag #7
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4'' Pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap Y / N

Type/Length: _____ Sch. 80 PVC 2''

Backfill Plug Y / N

Material: Bentonite, Holeplug
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

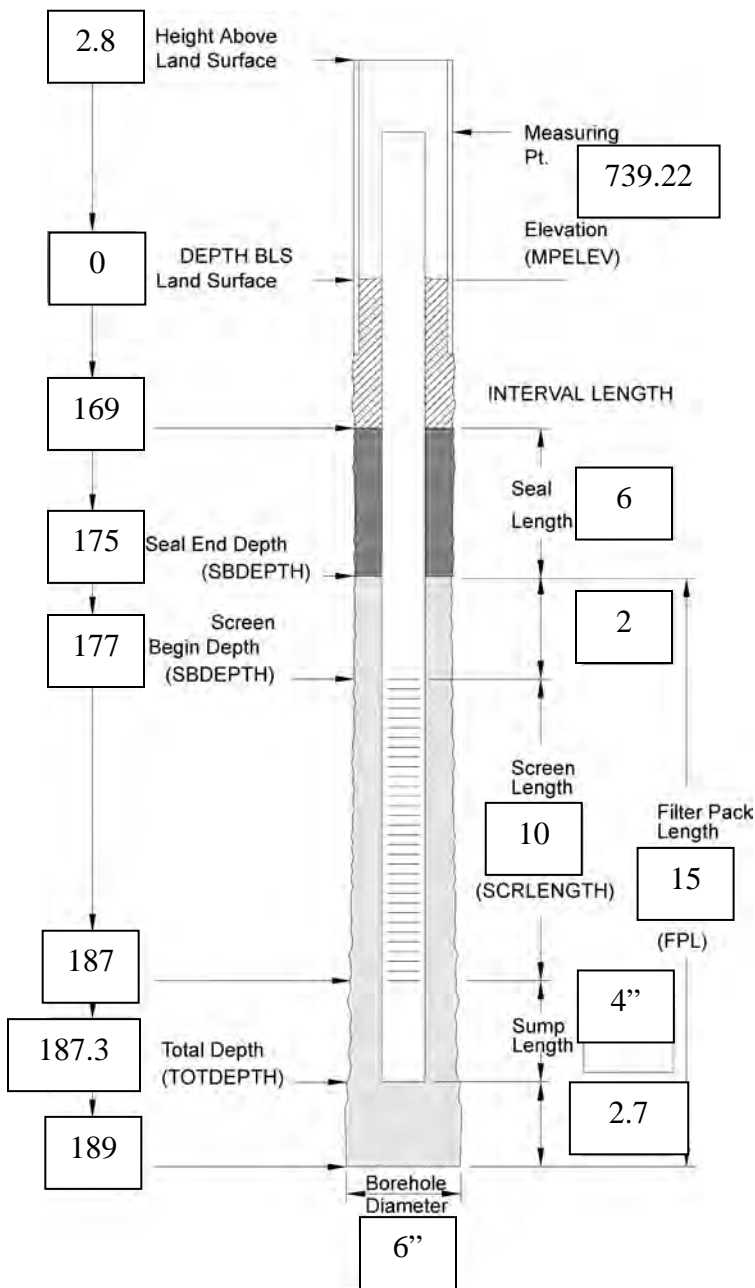
Comments

Feet unless otherwise indicated. Original borehole 221'.
 Backfilled w/ bentonite chips to 194'.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-09
 Drilling Company: Frontz Drilling
 Drillers: Aaron Mackey
 Geologist/Engineer: Chad Gregory
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Air Rotary
 Casing Installation Date (INSDATE): 3/3/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover

Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)

GROUT

Composition/Proportions: 150 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/3/16
 Type: 3/8" med. crushed bentonite chips – 2 bags
 Source: Baroid – Wyoming Sodium Bentonite
 Set-up/Hydration Time: 2 hours
 Placement Method: Poured, Gravity
 Vol. Fluid Added: N/A, submerged

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 4 – 50 lb bags #5
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N) Y N
 Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug (Y / N)

Material: Bentonite chips (2 – 50 lb bags)
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ Recovered _____ (Gal): _____

Reviewed By: J. Couch Date: 4/13/2016

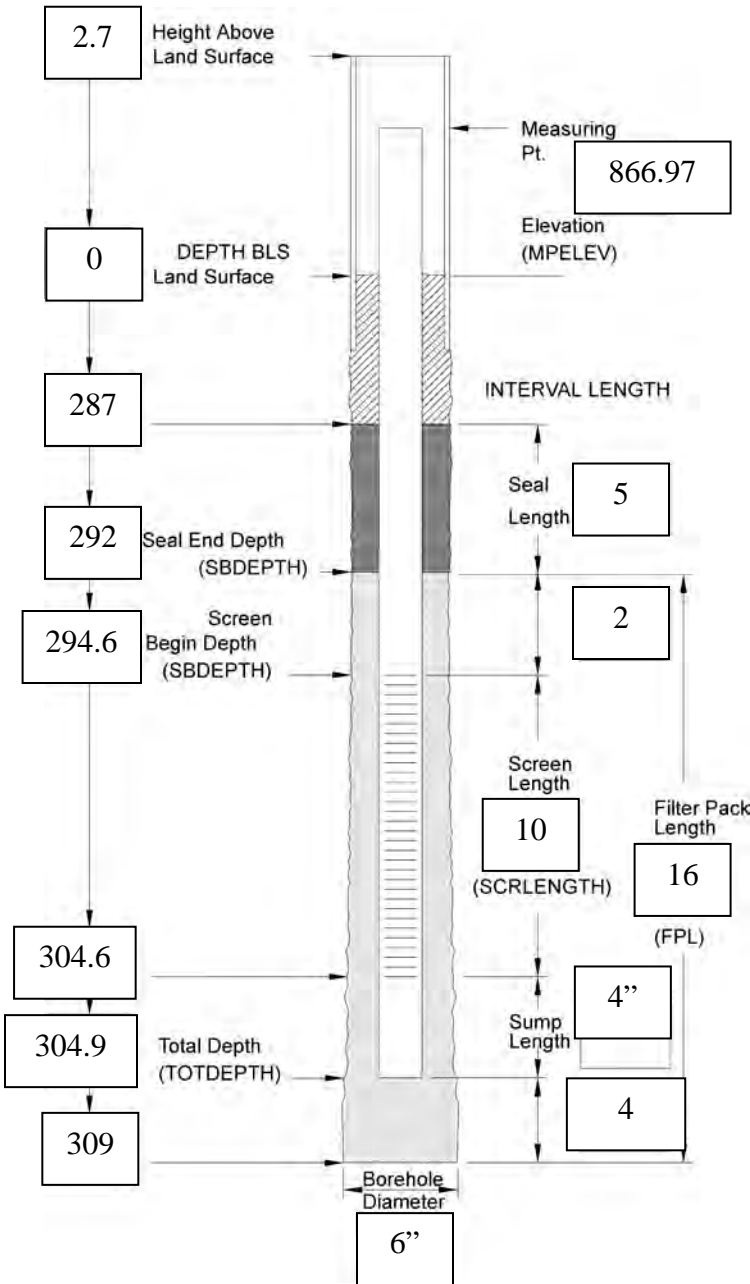
Comments

Feet unless otherwise indicated. Original borehole 200'. Backfilled w/ Bentonite chips to 189'. 70' of 6" PVC surface casing left in hole 10 – 80' bgs.

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-10
 Drilling Company: Frontz Drilling
 Drillers: Rob Hamilton
 Geologist/Engineer: Chad Gregory
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Sonic
 Casing Installation Date (INSDATE): 3/4/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
 Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)
GROUT
 Composition/Proportions: 625 gal
6 gal water: 94 lbs portland cement: 7 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/4/16
 Type: 3/8" med. crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (4 bags)
 Set-up/Hydration Time: >2 hours
 Placement Method: Poured, Gravity
 Vol. Fluid Added: N/A, submerged

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 9 – 50 lb bags
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N)

Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug (Y / N)

Material: Bentonite, Holeplug (10 bags)
 Placement Method: Poured, Gravity
 Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): 250 Recovered _____
 (Gal): 200

Comments

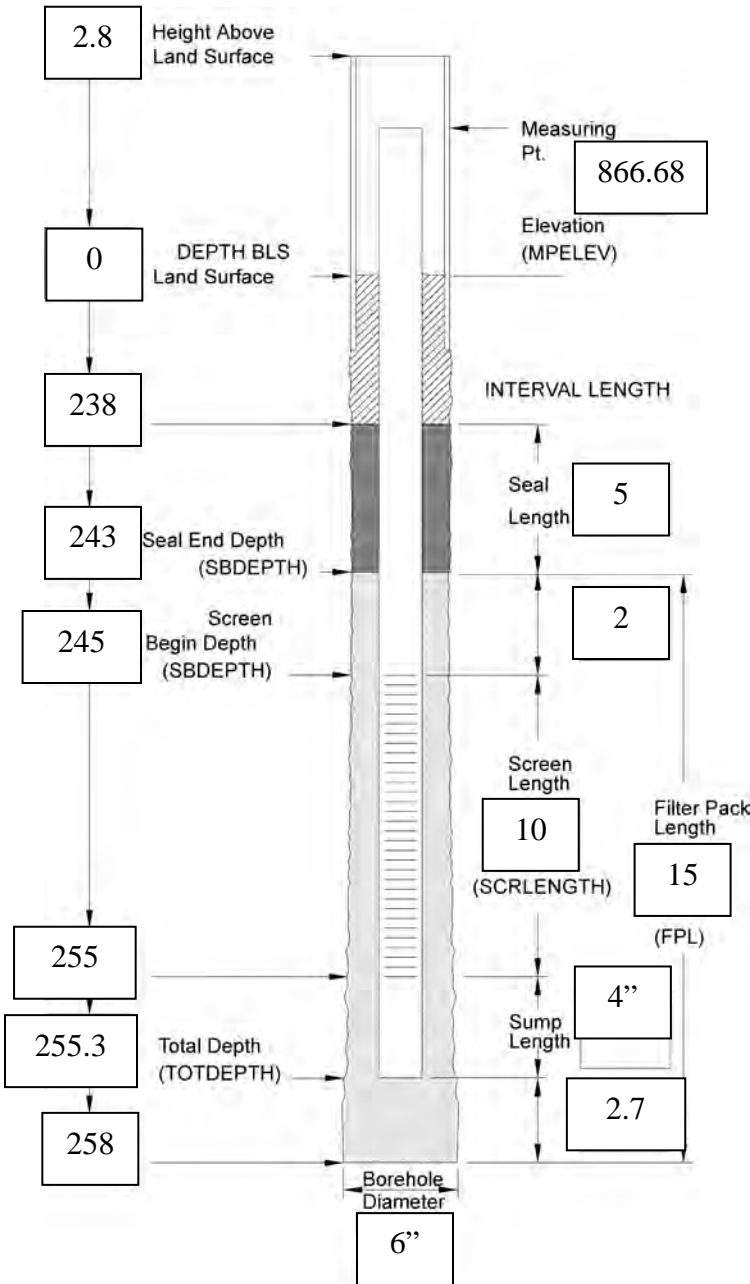
Feet unless otherwise indicated. Original borehole 330'.
 Backfilled w/ Bentonite Chips to 309'. Water
 introduced during construction to clear out unsettled
 Sand. 6" PVC surface casing left in place 20'-230' bgs.

Reviewed By: J. Couch Date: 4/13/2016

**WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION**

Well I.D. (LOCID): 2016-11
 Drilling Company: Frontz Drilling
 Drillers: Rob Hamilton
 Geologist/Engineer: Chad Gregory
 Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
 Installation Method: Sonic
 Casing Installation Date (INSDATE): 3/4/16
 Well Type (WTCCODE): Monitoring Well
 Well Completion Method (WCMCODE): _____
 Geologic Completion Zone (GZCODE): _____



Well Completion

Guard Posts (Y / N) Date: _____
 Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover

Diameter/Type: 6" Steel, 5' length
 Depth BGS: _____ Weep Hole (Y / N)

GROUT

Composition/Proportions: 575 gal
6 gal water: 94 lbs portland cement: 7 lbs bentonite grout
 Placement Method: Pressure Tremie

Seal

Date: 3/3/16

Type: 3/8" med. crushed bentonite chips
 Source: Baroid – Wyoming Sodium Bentonite (4 bags)
 Set-up/Hydration Time: 24 hours
 Placement Method: Poured, Gravity
 Vol. Fluid Added: N/A, submerged

Filter Pack

Type: Sidley #5 & #7 (Choker Sand)
 Source: Sidley
 Amount Used: 9 – 50 lb bags
 Placement Method: Poured Gravity

Well Riser Pipe

Casing Material (CMACODE): Sch. 80 PVC
 Casing Inside Diameters (CASDIAM): 2.0 in.

Screen

Material: Sch. 80 PVC 4" pre-packed
 Inside Diameter (SCRDIAM): 2.0 in.
 Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
 Percent Open Area (PCTOPEN): _____

Sump or Bottom Cap (Y / N)

Type/Length: _____ Sch. 80 PVC 2"

Backfill Plug (Y / N)

Material: Bentonite, Holeplug (1 bag)

Placement Method: Poured, Gravity

Set-up/Hydration Time: N/A

Total Water Volume During Construction

Introduced (Gal): _____ - _____ Recovered _____
 (Gal): _____

Reviewed By: J. Couch

Date: 4/13/2016

Comments

Feet unless otherwise indicated. Original borehole 261'.
 Backfilled w/ Bentonite holeplug to 258'. 6" PVC
 surface casing left in place 10'-230' bgs.

Drilling Start Date: 10/03/2016 16:20	Boring Depth (ft): 134.1	Well Depth (ft): 119.4
Drilling End Date: 10/05/2016/ 09:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.961	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.757	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,987.86 E 2,102,252.07	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
0								Overburden.	0-2 ft: #2 Gravel.	0
									2-3 ft: #57 Gravel	
5									Advanced through overburden and incompetent rock with 8" hollow-stem auger to 87 ft bgs.	5
									Before well installation, AEP Service Corp. reamed 6" diameter borehole to 121 ft bgs.	
10										10
15										15
20										20

- NOTES:**
- 1) Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
 - 2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
 - 3) Geophysical logging used to interpret best depth interval to set the well screen.
 - 4) Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 10/03/2016 16:20	Boring Depth (ft): 134.1	Well Depth (ft): 119.4
Drilling End Date: 10/05/2016/ 09:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.961	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.757	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,987.86 E 2,102,252.07	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
20								Overburden.		20
25										25
30										30
35										35
40										40

- NOTES:
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 - 3) Geophysical logging used to interpret best depth interval to set the well screen.
 - 4) Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 10/03/2016 16:20	Boring Depth (ft): 134.1	Well Depth (ft): 119.4
Drilling End Date: 10/05/2016/ 09:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.961	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.757	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,987.86 E 2,102,252.07	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
40								Overburden.		40
45										45
50									Centralizer set at 50' bgs.	50
55										55
60										60

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 - 3) Geophysical logging used to interpret best depth interval to set the well screen.
 - 4) Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 10/03/2016 16:20	Boring Depth (ft): 134.1	Well Depth (ft): 119.4
Drilling End Date: 10/05/2016/ 09:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.961	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.757	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,987.86 E 2,102,252.07	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
60								Overburden.		60
65										65
70										70
75										75
80										80

- NOTES:
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 - 2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
 - 3) Geophysical logging used to interpret best depth interval to set the well screen.
 - 4) Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 10/03/2016 16:20	Boring Depth (ft): 134.1	Well Depth (ft): 119.4
Drilling End Date: 10/05/2016/ 09:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.961	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.757	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,987.86 E 2,102,252.07	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
80									Overburden.		80
85											85
90											90
95											95
100				Run 1			43/58	42.7	(99.3') CLAYSTONE: weak, dark reddish brown	Advanced with 4" advancer (4" casing cutting edge and roller bit) from 87 to 99.3 ft bgs. Set 4" steel casing through overburden and incompetent rock to 99.3 ft bgs. Cored with NQ-size core barrel with wireline system from 99.3 to 134.1 ft bgs.	100

- NOTES:
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 - 3) Geophysical logging used to interpret best depth interval to set the well screen.
 - 4) Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 10/03/2016 16:20	Boring Depth (ft): 134.1	Well Depth (ft): 119.4
Drilling End Date: 10/05/2016/ 09:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.961	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.757	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,987.86 E 2,102,252.07	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
100										100
105								(103.6') CLAYSHALE: strong, dark greenish gray (5G 4/1) with secondary grayish red (10R 4/2), massive, slightly decomposed, competent, unfractured.		105
								(104.7') Sandy silty SHALE: strong to very strong, light greenish gray (5G 4/1) with secondary grayish red (10R 4/2), massive, micaceous, fresh, competent, unfractured. [MORGANTOWN FRM.]		
								(106.1') Changes to intensely fractured.		
								(107.9') Silty shaley SANDSTONE: strong to very strong, dark greenish gray (5G 4/1), massive, micaceous to very micaceous, fine to medium grained, fresh, competent, unfractured. [MORGANTOWN FRM.]		
								(108.4') Sandy CLAYSTONE: very weak, dark greenish gray (5G 4/1), massive, micaceous, highly decomposed, moderately disintegrated, intensely fractured. [MORGANTOWN FRM.]		
								(109.3') Silty shaley SANDSTONE: strong to very strong, dark greenish gray (5G 4/1), cross bedded, micaceous to very micaceous, fine to medium grained, fresh, competent, moderately to intensely fractured. [MORGANTOWN FRM.]		
								(113.5') Silty SHALE: moderately strong, grayish red (10R 4/2), massive, slightly micaceous, fresh to slightly decomposed, competent, slightly fractured, slightly calcareous. [MORGANTOWN FRM.]		
								(114.4') Changes to dark greenish gray (5G 4/1), clay content increases until 115.8 ft.		
								(118.4') CLAYSTONE: very weak to weak, grayish red (10R 4/2), massive, slickensides, highly decomposed, intensely disintegrated,		
120										120

- NOTES:
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 - 2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
 - 3) Geophysical logging used to interpret best depth interval to set the well screen.
 - 4) Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 10/03/2016 16:20	Boring Depth (ft): 134.1	Well Depth (ft): 119.4
Drilling End Date: 10/05/2016/ 09:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.961	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.757	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,987.86 E 2,102,252.07	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
120								intensely fractured. [MORGANTOWN FRM.]		120
125			Run 4				120/120	67.8	(121.4') Silty SHALE: strong, grayish red (10R 4/2) with minor secondary variegated colors of grayish red purple (5RP 4/2) and light olive brown (5Y 5/6), slickensides, slightly decomposed, slightly disintegrated, moderately to intensely fractured, calcareous nodules. [MORGANTOWN FRM.] (124.1') Changes to moderately fractured.	125
130									(127.8') Silty sandy SHALE: strong, medium bluish gray (5B 5/1) and dark greenish gray (5G 4/1), massive, very micaceous, fresh, competent, slightly fractured, cross bedded. [MORGANTOWN FRM.] (129.1') Changes to very sandy.	130
135									(130.1') CLAYSHALE: moderately strong to strong, dark greenish gray (5G 4/1), massive, slightly decomposed, slightly disintegrated, intensely fractured, clay infillings in fractures. (130.7') Changes to grayish red (10R 4/2). (132.1') Sandy silty SHALE: strong, dark greenish gray (5G 4/1), massive, micaceous, fresh, competent, unfractured.	135
140									(133.1') CLAYSHALE: moderately strong to strong, dark greenish gray (5G 4/1), massive, slightly decomposed, slightly disintegrated, intensely fractured, clay infillings in fractures. End of boring at 134.1 ft bgs. Well installed on 10/25/2016	140

- NOTES:
- Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
 - "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
 - Geophysical logging used to interpret best depth interval to set the well screen.
 - Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 09/28/2016 12:50	Boring Depth (ft): 229.3	Well Depth (ft): 213.4
Drilling End Date: 10/03/2016 14:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.725	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.638	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,980.08 E 2,102,247.86	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
0									0-2 ft: #2 Gravel.	0
									2-3 ft: #57 Gravel.	
									Advanced through overburden with 4" hollow stem auger to 58 ft bgs. Sampled every 5 ft with 1.5' split spoon. Before well installation, AEP Service Corp. reamed 6" diameter borehole to 217 ft bgs.	5
8				SPT-1		8	10.5/18	15	(6.5') Shaley GRAVEL (GW); medium gray (N5), fine to coarse grained, well-graded, some clay, trace sand, moist, medium dense, subrounded to angular micaceous shaley gravel. [FILL]	
9				SPT-2		5	9/18	20	(11.5') Gravelly CLAY (CL); medium gray (N5), low plasticity, some subangular to angular micaceous shaley gravel, medium stiff, moist. [FILL]	
12.5						11			(12.5') Shaley GRAVEL (GW); medium light gray (N6), fine to coarse grained, well-graded, angular shaley gravel, micaceous, some sand, medium dense, dry. [FILL]	
16.5				SPT-3		7	10.5/18	40	(16.5') SAND (SW); moderately yellow (5Y 7/6) with secondary colors of medium light gray (N6) and very light gray (N8), fine to medium grained, well-graded, little subrounded sandstone gravel, dense, dry. [FILL]	
20						17				20

- NOTES:
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 - 2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
 - 3) Geophysical logging used to interpret best depth interval to set the well screen.
 - 4) Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 09/28/2016 12:50	Boring Depth (ft): 229.3	Well Depth (ft): 213.4
Drilling End Date: 10/03/2016 14:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.725	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.638	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,980.08 E 2,102,247.86	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)			
20									Centralizer at 20' bgs.	20
12				SPT-4	7/17	8/18	29	(21.5') Silty SAND (SM); very light gray sand (N7) and medium gray (N5), fine grained, poorly graded, some silt with platy/shaley structure, medium dense, dry to moist, sand content decreases and silt content increases down section. [FILL]		
14				SPT-5	10/18	11/18	32	(26.5') SAND (SW); dark yellowish orange (10YR 6/6) and grayish orange (10YR 7/4), fine to medium grained, well-graded, dense, moist. [FILL]		
12				SPT-6	14/41	8.5/18	53	(31.5') Shaley GRAVEL (GW); medium light gray (N6) with some dusky yellow (5Y 6/4), fine to coarse grained angular shaley gravel, well-graded, trace sand, micaceous, very dense, moist. [FILL]		
7				SPT-7	18/9	9/18	16	(36.5') Shaley GRAVEL (GW); medium gray (N5), fine to coarse grained subangular to angular shaley gravel, well-graded, few clay, trace sand, medium dense, dry. [FILL]		

- NOTES:
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 - Geophysical logging used to interpret best depth interval to set the well screen.
 - Monitoring well screened in Morgantown Sandstone.

Drilling Start Date: 09/28/2016 12:50	Boring Depth (ft): 229.3	Well Depth (ft): 213.4
Drilling End Date: 10/03/2016 14:40	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: AEP Service Corp.	Sampling Method(s): SPT & Rock Core	Screen Slot (in): 0.010
Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.725	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.638	Seal Material(s): Bentonite Pellets and Grout
Logged By: Doug Mateas	Location (X,Y): N 349,980.08 E 2,102,247.86	Filter Pack: Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT					SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
40											40
41.5				SPT-8	12/14/14	5/18	28		(41.5') SAND (SP); dark yellowish orange (10YR 6/6) and very light gray (N8), medium grained, poorly graded, few poorly cemented sandstone gravel, medium dense, moist. [FILL]		
46.5				SPT-9	11/27/33	15/18	60		(46.5') CLAYSHALE: moderately brown (5YR 3/4), slickensides, hard, dry to moist, fissile.		
51.5				SPT-10	50/4	1/4	50/4		(51.5') CLAYSHALE: moderately brown (5YR 4/4), fissile, hard, moist.		
56.5				SPT-11	50/5	5/5	50/5		(56.5') Sandy CLAYSHALE: medium light gray (N6) and pale reddish brown (10R 5/4), fissile, hard, moist.		
58				Run 1	78.5/76		65.8		(58') SANDSTONE: light gray (N7) with medium gray (N5), cross bedded, strong, fine grained, fresh and competent, intensely fractured, very micaceous.	Auger refusal at 57.9 ft bgs. Cored with NQ-size core barrel with wireline system from 58 to 229.3 ft bgs.	60

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				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
60									(58.8') Shaley silty SANDSTONE: strong, medium bluish gray (5B 5/1), fine grained, slightly fissile, fresh, competent, unfractured.		60
									(60.4') CLAYSTONE/CLAYSHALE: very weak, medium gray (N5), fissile, highly decomposed, moderately disintegrated, intensely fractured.		
									(61.4') Changes to grayish red (5R 4/2).		
65			Run 2				110.5/120	61.7	(64.3') MUDSTONE: very weak to weak, dark yellowish brown (10YR 4/2), fissile, very highly decomposed (residual soil), intensely disintegrated, intensely fractured.		65
									(66.1') Sandy silty SHALE: strong, dark yellowish brown (10YR 4/2), massive, locally fissile, fresh, competent, slightly fractured, micaceous, slickensides.		
70									(70.4') MUDSTONE: very highly decomposed, grayish olive (10Y 4/2).		70
									(71.7') Carbonaceous SHALE: strong, grayish olive (10Y 4/2), massive, slickensides, calcareous, moderately decomposed, slightly disintegrated, moderately to intensely fractured.		
75			Run 3				74/120	27.9	(76.3') Transitions to variegated colors of grayish red (5R 4/2) with some grayish olive (10Y 4/2) and light olive brown (5Y 5/6).		75
									(77.2') MUDSTONE: grayish red (10R 4/2), very highly decomposed.		
80											80

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				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
80	[Lithology Column]	[Water Level Column]	[Well Completion Column]	Run 4			70/120	42.5	(80.7') CLAYSTONE: very weak, pale reddish brown (10R 5/4), massive, highly decomposed, slightly disintegrated, intensely fractured, slightly calcareous. (82.2') Changes to not calcareous.	Centralizer at 90' bgs.	80
85									(84.3') CLAYSTONE: weak, grayish red (5R 4/2) with some variegated colors of very dusky purple (5RP 2/2), light olive brown (5Y 5/6) and dark greenish gray (5G 4/1), highly decomposed, moderately disintegrated, slightly to moderately fractured, clay infillings in fractures, slickensides.		85
90									(88.6') Changes to moderately strong, moderately decomposed.		90
95	[Lithology Column]	[Water Level Column]	[Well Completion Column]	Run 5			70/120	20.4	(94.3') Changes to primary color of pale reddish brown (10R 5/4), highly decomposed, intensely fractured, weak. (96.3') Changes to medium brown (5YR 4/4), moderately decomposed, moderately fractured.		95
100									100		

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Drilling Method: Rotary	DTW After Drilling (ft): 107.8	Riser Material: Sch 40 PVC
Drilling Equipment: Diedrich D-120	Ground Surface Elev. (ft): 727.725	Screen Material: Sch 40 PVC Slotted
Driller: Zach Racer	Top of Casing Elev. (ft): 730.638	Seal Material(s): Bentonite Pellets and Grout
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				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)			
100											100
105									(104.3') CLAYSHALE: weak, medium bluish gray (5B 5/1), massive to locally fissile, highly decomposed, intensely disintegrated, intensely fractured. (105.1') Changes to strong, fresh, competent, slightly fractured. (106.7') Sandy silty SHALE: strong, medium bluish gray (5B 5/1), massive, micaceous, fresh, competent, slightly fractured. [MORGANTOWN FRM.] (108.1') SANDSTONE: strong, medium bluish gray (5B 5/1), cross bedded, very micaceous, fine grained, fresh, competent, moderately fractured with vertical fracture from 108.5-109.4'. [MORGANTOWN FRM.]	After coring, advanced with 4" advancer (4" casing cutting edge and roller bit) to 110 ft bgs to set 4" steel casing through overburden and incompetent rock.	105
110								(111.7') CLAYSHALE: moderately strong, medium bluish gray (5B 5/1), fissile, moderately decomposed, slightly disintegrated, intensely fractured. [MORGANTOWN FRM.] (112.2') Changes to grayish red (5R 4/2). (114.1') Changes to medium bluish gray (5B 5/1). (114.8') Changes to grayish red (5R 4/2).	110		
115								(118.1') Changes to grayish red (10R 4/2) with some variegated colors of grayish red purple (5RP 4/2) and light olive brown (5Y 5/6), slickensides appear, intensely disintegrated,	115		
120											120

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Driller: Zach Racer	Top of Casing Elev. (ft): 730.638	Seal Material(s): Bentonite Pellets and Grout
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DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)	
				Sample Type	Date & Time	Blow Counts	Recovery (in)				N Value
120								minor calcareous nodules, massive. (119.8') Changes to strong, slightly disintegrated.		120	
125				Run 8			120/120	57.5	(127.2') Silty sandy SHALE: strong, medium bluish gray (5B 5/1), massive to slightly fissile, very micaceous, fresh, competent, slightly fractured, some clay infillings in fracture at top. [MORGANTOWN FRM.]		125
130									(130.5') CLAYSHALE: moderately strong, grayish red (10R 4/2), fissile, moderately decomposed, slightly disintegrated, intensely fractured, clay infillings in fractures.		130
135				Run 9			119.5/120	57.1	(134.3') Silty SHALE: strong to very strong, medium bluish gray (5B 5/1), massive, locally sandy from 135.0-136.5', slightly decomposed, competent, slightly fractured, pyritic, micaceous, minor calcareous nodules.		135
140									(137.6') CLAYSHALE/CLAYSTONE: strong, medium bluish gray (5B 5/1), massive, slightly decomposed, competent, moderately fractured. (138.6') Changes to weak, fissile, moderately to highly decomposed, moderately disintegrated,		140

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				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
140									intensely fractured, clay infillings in fractures.		140
145									(140.2') CLAYSHALE: moderately strong, grayish red (5R 4/2), fissile, highly decomposed, slightly disintegrated, intensely fractured, clay infillings in fractures.		145
									(142.6') Carbonaceous SHALE: strong, grayish red (10R 4/2) with variegated colors of light olive brown (5Y 5/6) and grayish red purple (5RP 4/2), massive, slickensides, calcareous, slightly decomposed, moderately disintegrated, moderately to intensely fractured.		
									(144.3') Changes to slightly calcareous.		
									(146.2') MUDSTONE: moderately strong, grayish red (5R 4/2) and medium bluish gray (5B 5/1), massive, slickensides, large amount of mud inclusions, moderately decomposed, moderately disintegrated, moderately fractured.		
150									(149.2') CLAYSHALE: strong, variegated colors of very dusky purple (5P 2/2), light olive brown (5Y 5/6), dark reddish brown (10R 3/4) and moderately red (5R 5/4), massive, slickensides, moderately decomposed, moderately disintegrated, moderately fractured.	Centralizer at 150' bgs.	150
155									(155.1') CLAYSTONE: moderately strong to weak, grayish red (10R 4/2) with secondary medium bluish gray (5B 5/1), massive, slickensides, highly decomposed, moderately disintegrated, intensely fractured with clay infillings in fractures, slightly calcareous.		155
160											160

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				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
160											160
165				Run 12			119.5/120	51.3	(164.3') CLAYSHALE/CLAYSTONE: moderately strong, variegated colors of very dusky purple (5P 2/2), light olive brown (5Y 5/6) and dark reddish brown (10R 3/4), massive, slickensides, moderately decomposed, moderately disintegrated, intensely fractured.		165
170									(167.1') Clayey LIMESTONE: weak to moderately strong, dark reddish brown (10R 3/4) with secondary light olive brown (5Y 5/6) and very dusky purple (5RP 2/2), microcrystalline, slickensides, moderately to intensely decomposed, moderately disintegrated, moderately to intensely fractured.		170
175				Run 13			119/120	47.5	(171.7') CLAYSHALE: very strong, dark reddish brown (10R 3/4), massive, slickensides, fresh, competent, slightly fractured.		175
									(174.3') Large amount of competently healed fractures with mud infillings.		
									(176.8') Changes to intensely fractured.		
180									(177.4') CLAYSTONE: weak to moderately strong, grayish red (5R 4/2) with minor secondary colors of light olive brown (5Y 5/6) and grayish red purple (5RP 4/2), massive, slickensides, moderately to highly decomposed, moderately disintegrated, intensely fractured.		180

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				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
180									(178.6') Changes to strong, slightly decomposed, slightly disintegrated. (178.8') Calcareous nodules appear.	180	
185			Run 14				105/120	38.8	(186.9') Large calcareous nodule. (187.2') Calcareous nodules disappear, changes to strong, fissile, moderately decomposed, competent.	185	
190									(188.3') Changes to medium bluish gray (5B 5/1), weak, highly decomposed, moderately disintegrated. (188.8') Carbonaceous SHALE: very strong, greenish gray (5G 6/1), massive, slickensides, pyritic at unit top, micaceous, fresh to slightly decomposed, competent, unfractured, calcareous.	190	
195			Run 15				112/112	95.1	(189.9') CLAYSHALE: moderately strong, grayish brown (5YR 3/2) with thin laminations of light olive brown (5Y 5/6), fissile, moderately decomposed, competent to slightly disintegrated, intensely fractured. (194.3') Sandy silty SHALE: strong, dark greenish gray (5G 4/1), massive, very fine grained sand, micaceous, fresh, competent, unfractured. [COW RUN FRM.]	195	
200										200	

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				Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value			
200									(200.3') Changes to intensely fractured, some clay infillings in fractures until 200.7 ft.		200
205				Run 16			120/120	70.0	(205.3') Changes to moderately to intensely fractured. (206.1') Some clay infillings in fractures. (207.4') Changes to moderately fractured.		205
210									(210.7') Changes to intensely fractured. (212.3-213.6') Vertical fracture.		210
215				Run 17			115/120	48.8	(213.6-214.3') No recovery. (214.3') Changes to slightly fractured, no clay infillings in fractures [COW RUN FRM.] (215.5') 0.8 ft section with thin laminations of grayish red (10R 4/2) clayshale. (216.1') Changes to unfractured. (216.4-217') Changes to dark yellowish orange (10YR 6/6), slightly decomposed. (218.2') Thin grayish red (10R 4/2) laminations of clayshale. (219') CLAYSHALE: moderately strong, grayish		215
220											220

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				Sample Type	Date & Time	Blow Counts	Recovery (in)			
220								red (10R 4/2), massive, slightly decomposed, slightly disintegrated, intensely fractured, slickensides.		220
225								(220.5') CLAYSTONE: moderately strong, grayish red (10R 4/2), massive, moderately decomposed, intensely disintegrated, intensely fractured.		225
225				Run 18			57/60	(221.8') Clayey LIMESTONE: moderately strong, moderately brown (5YR 3/4), microcrystalline, slickensides, calcareous nodules, moderately decomposed, moderately disintegrated, intensely fractured.		225
230								End of boring at 229.3 ft bgs.		230
235								Well installed on 10/27/2016		235

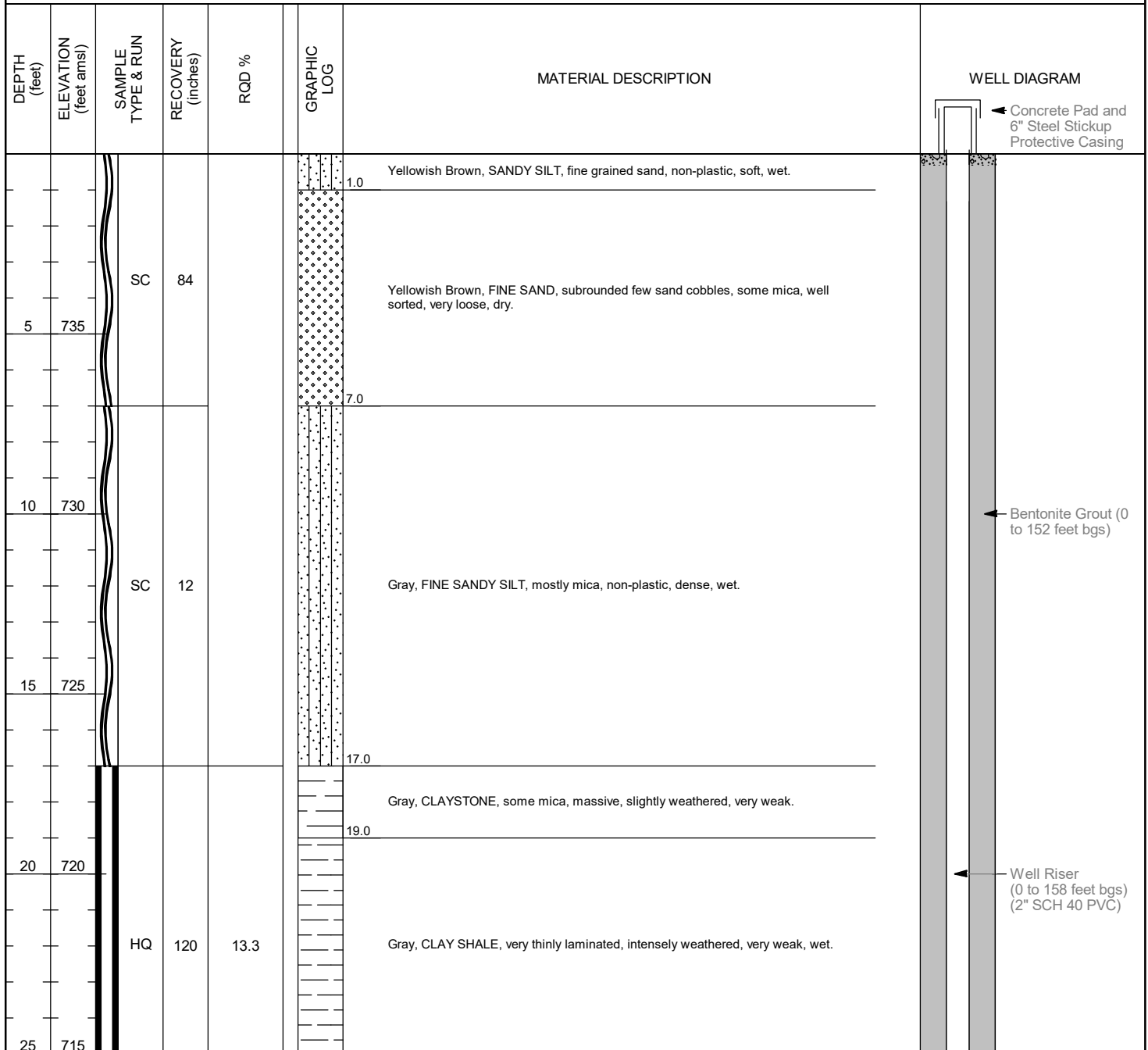
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ERM
 1 Beacon Street: 5th Floor
 Boston, MA 02108
 Telephone: + 1 (617) 646-7800

Client: Gavin Power, LLC **Project Name:** RWL/FAR Monitoring Well Installation
Project Number: 0643653 **Project Location:** Cheshire, OH

DATE STARTED: 7/23/2022 **TOTAL DEPTH:** 184 feet bgs **WELL DEVELOPMENT**
DATE COMPLETED: 7/24/2022 **DIAMETER:** 6 inches **METHOD(S):** Mega Monsoon & Bailer
DRILLING CONTRACTOR: Cascade Drilling **GROUND ELEVATION:** 740.42 **DATE STARTED:** 9/7/2022
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring **PVC ELEVATION:** 743.04 **DATE ENDED:** 11/6/2022
LOGGED BY: J. Maag **NORTHING:** 345975.5035 **DTW AT START:** 163.63 feet bgs
CHECKED BY: A. Harford **EASTING:** 2070349.795 **DTW AT END:** 179.38 feet bgs
NOTES: 6" Steel Stickup Protective Casing. Screen location based on results of downhole geophysical survey. **VOLUME PURGED:** 15.1 gallons



SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Sandy Silt Well-graded Sand Claystone Interbedded Shale Shale Limestone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Gray, CLAY SHALE, very thinly laminated, intensely weathered, very weak, wet. (continued)	
30	710	HQ	120	0			
35	705					Gray, CLAY SHALE, very thinly laminated, intensely weathered-disintegrated, very weak, dry.	
40	700	HQ	78	5.1		Gray, CLAY SHALE, very thinly laminated, moderately weathered, weak, wet.	
45	695						
50	690	HQ	48			Gray, CLAY SHALE, little mica and pyrite, very thinly laminated, very weathered, weak, wet.	
						Gray, LIMESTONE, very fine grained, massive, intensely weathered, moderate strength, wet.	
						Red, CLAY SHALE, orange, greenish-gray, purple, very thinly laminated, very weathered, weak, wet.	

← Bentonite Grout (0 to 152 feet bgs)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Sandy Silt Well-graded Sand Claystone Interbedded Shale Shale Limestone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Client: Gavin Power, LLC

Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
55	685					Red, CLAY SHALE, orange, greenish-gray, purple, very thinly laminated, very weathered, weak, wet. (continued)	
60	680	HQ	60	6.7		Blue Gray, SANDSTONE, Fine grained, massive, little pyrite, slightly weathered, fracture from 60.5-62' (60 degrees), strong, wet.	Well Riser (0 to 158 feet bgs) (2" SCH 40 PVC)
65	675					Blue Gray, CLAYSTONE, very thinly laminated, little mica, slightly weathered, weak, wet.	
70	670	HQ	96	20.8			
75	665					Blue Gray, SANDSTONE, fine grained, little mica, massive, fresh, 85 degree fracture (73.5' - 74.5'), strong, wet.	Bentonite Grout (0 to 152 feet bgs)
80	660	HQ	114	44.7		Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Sandy Silt Shale Well-graded Sand Limestone Claystone Interbedded Shale Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
85	655						
90	650						
95	645	HQ	240	47.1		Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet. (continued)	
100	640						← Bentonite Grout (0 to 152 feet bgs)
105	635						
110	630						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Sandy Silt Well-graded Sand Claystone Interbedded Shale Shale Limestone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	625	HQ	156	57.7		Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet. (continued)	
120	620						
125	615						
130	610	HQ	234	48.3			
135	605						
140	600						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Sandy Silt Well-graded Sand Claystone Interbedded Shale Shale Limestone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
145	595						
150	590					Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet. (continued)	
155	585						
160	580	HQ	240	48.3		Blue Gray, SANDSTONE, fine grained, some mica, massive, fresh, strong, wet.	Bentonite Seal (152 to 156 feet bgs) Filter Sand (156 to 180 feet bgs) (Global #5)
165	575						
170	570					Red, CLAYSTONE, purple, bluish gray, massive, fresh, 60 degree fracture at 173', 90 degree (4") fracture at 175', strong, wet.	Well Screen (158 to 178 feet bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Sandy Silt Well-graded Sand Claystone Interbedded Shale Shale Limestone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
175	565	HQ	96	61.5		Red, CLAYSTONE, purple, bluish gray, massive, fresh, 60 degree fracture at 173', 90 degree (4") fracture at 175', strong, wet. <i>(continued)</i>	<p>Sump (2" SCH 40 PVC/2' long) (178 to 180 feet bgs)</p> <p>Backfilled (180-184 feet bgs)</p>
					176.0	Red, CLAYSTONE, purple, bluish gray, massive, intensely weathered, strong, wet.	
					177.0		
180	560	HQ	84	15.5		CLAYSTONE, purple, bluish-gray, orange, massive, slightly weathered, moderate strength, wet.	
					180.5		
					183.5	Blue Gray, CLAYSTONE, purple, orange, massive, intensely weathered, very weak, wet.	
					184.0	Light Gray, CLAYSTONE, intensely disintegrated, dry.	
185	555					Bottom of Boring @ 184.00 feet bgs	
190	550						
195	545						
200	540						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Sandy Silt Shale Well-graded Sand Limestone Claystone Interbedded Shale Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Client: Gavin Power, LLC **Project Name:** RWL/FAR Monitoring Well Installation
Project Number: 0643653 **Project Location:** Cheshire, OH
DATE STARTED: 8/5/2022 **TOTAL DEPTH:** 195 feet bgs **WELL DEVELOPMENT**
DATE COMPLETED: 8/5/2022 **DIAMETER:** 6 inches **METHOD(S):** Mega Monsoon, Wattera, Bailer
DRILLING CONTRACTOR: Cascade Drilling **GROUND ELEVATION:** 729.55 **DATE STARTED:** 9/7/2022
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring **PVC ELEVATION:** 732.09 **DATE ENDED:** 11/6/2022
LOGGED BY: L. Stodden **NORTHING:** 352451.0853 **DTW AT START:** 22.16 feet bgs
CHECKED BY: A. Harford **EASTING:** 2068926.25 **DTW AT END:** 190.66 feet bgs
NOTES: 6" Steel Stickup Protective Casing, 2016-08 replacement well. **VOLUME PURGED:** 25.4 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		SC	23			Light Brown, CLAY, some silt and fine sand, roots, orange yellow mottling, poorly sorted, medium plasticity, dry to moist.	
5	725	SC	36			Light Brown, CLAY, some silt and fine to medium sand, red to orange yellow mottling, poorly sorted, medium plasticity, dry to moist.	
10	720	SC	48			Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.	
15	715	SC	40			Gray Brown, CLAY, some silt and fine to medium sand, trace gravel, 0.5"-1" claystone fragments, thin medium to coarse dark gray sandy lenses, orange yellow mottling, poorly sorted, medium plasticity, dry to moist.	
20	710	SC	36			Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.	
						Dark Gray To Black, FINE TO MEDIUM SAND, some silt.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Poorly-Graded Sand Siltstone Sandstone Claystone Interbedded Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						moderately sorted, loose, dry to moist.	
		SC	48			Brown To Red Brown, CLAY, some silt and fine sand, red bed layer at 21.5' to 22', varving, poorly sorted, low plasticity, dry. (continued)	
						24.0	
25	705	SC	36			Brown To Light Brown, CLAY, some silt and fine sand, mechanically crushed, varving, poorly sorted, low plasticity, dry.	
						27.0	
		SC	36			Red, CLAY, some subangular silt and fine sand, (1-3" diameter), gray-brown, gray shale rock fragments throughout, moderate gravel, yellow orange mottling, poorly sorted, medium plasticity, dense, moist.	
30	700					30.0	
		SC	55			Red Brown, CLAY, some subangular silt and fine sand, (1-3" diameter), gray shale rock fragments throughout, moderate gravel, yellow orange mottling, poorly sorted, medium plasticity, dense, moist.	
						35.0	
		SC	24			Red Brown, CLAY, some subangular silt and fine sand, (1-3" diameter), gray shale and tan claystone rock fragments throughout, moderate gravel, yellow orange mottling, poorly sorted, medium plasticity, moist.	
						37.0	
		HQ	28	92.9		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.	
40	690					42.0	
						Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Siltstone Poorly-Graded Sand Sandstone Claystone Interbedded Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	685	HQ	38	90.8		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation. (continued)	<p>Bentonite Grout (0 to 80 feet bgs)</p> <p>Well Riser (0 to 182 feet bgs) (2" SCH 40 PVC)</p>
50	680	HQ	38	78.9		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.	
55	675	HQ	36	63.9		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.	
57.0						Dark Gray, CLAYSTONE, interbedded light gray to dark gray beds, flame structures, transitional zone, high cementation, hard.	
57.8							
60	670	HQ	44	93.2		SILTSTONE, little rounded clasts, (<0.5" diameter), fine gravel, blue-olive-gray, graywacke, moderate natural fractures, yellow orange mottling, oxidized veins, moderate cementation.	
62.0							
65	665	HQ	20	55		SILTSTONE, little rounded clasts, (<0.5" diameter), fine gravel, blue-olive-gray, graywacke, moderate natural fractures, yellow -orange to red-purple mottling, low cementation.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Poorly-Graded Sand Claystone Interbedded Shale Siltstone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						SILTSTONE, little rounded clasts, (<0.5" diameter), fine gravel, blue-olive-gray, graywacke, moderate natural fractures, yellow -orange to red-purple mottling, low cementation. (continued)	
70	660	HQ	0			No recovery, washed out and fall out.	
75	655	HQ	40	76.3		Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, tan-red bed from 76'-77', yellow orange mottling, poorly sorted, medium plasticity, moist.	
80	650	HQ	0			No Recovery.	
85	645	HQ	27	51.9		Red Brown, CLAY, some silt and fine to medium sand, 82'-85' washout/no recovery, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.	
						Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard.	
90	640	HQ	11	100		No Recovery.	

Well Riser

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Clay
- Siltstone
- Poorly-Graded Sand
- Sandstone
- Claystone Interbedded Shale

ACRONYM LEGEND

- amsl = above mean sea level
- bgs = below ground surface
- DTW = depth to water
- NA = not applicable
- NM = not measured
- NR = no recovery
- PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						91.0 No Recovery. (continued)	<p>(0 to 182 feet bgs) (2" SCH 40 PVC)</p>
						92.0 Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard.	
						94.0 Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard.	
95	635	HQ	48	48.96		95.5 Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.	
						97.0 Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard.	
100	630	HQ	40	73.5		102.0 Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium, decrease in carbonate/increase in sand, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard.	
						107.0	
105	625	HQ	50	56		No recovery.	
						112.0	
110	620	HQ	0			114.0 Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Poorly-Graded Sand Siltstone Sandstone Claystone Interbedded Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	615	HQ	41	60.98		Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium grain, decrease in carbonate/increase in sand, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard. <i>(continued)</i>	<p>Bentonite Chips (80 to 176 feet bgs)</p>
120	610	HQ	51	68.6		Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium grain, Thick interbedding (Red claystone from 118.5' to 120.5'), carbonate veins, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard.	
125	605	HQ	34	79.4		Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium grain sandstone, thick interbedding (Red claystone from 122 to 122.5'), carbonate veins, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard.	
130	600	HQ	43	47.7		Red Brown, CLAYSTONE, interbedded with fine sand, dark brown, highly decomposed/ weathered, medium cementation.	
135	595	HQ	45	48.9		Olive, SANDSTONE, blue-gray, calcareous, thin layering, increasing sand content with depth, fine-medium grained crossbedding, pyrite nodules, moderate fracturing, medium cementation.	
137.0						Red Brown, CLAYSTONE, rubble zone from 136' to 137' with increased sand content, yellow orange to purple mottling, low cementation.	
						No Recovery.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Poorly-Graded Sand Siltstone Sandstone Claystone Interbedded Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	590	HQ	0			No Recovery. (continued)	
145	585	HQ	35	84.3		Red Brown, CLAYSTONE, gray-brown, moderate natural fracturing, yellow-tan-orange mottling, moderate cementation, hard.	
150	580	HQ	60	90		Red Brown, CLAYSTONE, gray-brown, moderate natural fracturing, thin fine-medium grained sandstone crossbeds, yellow-tan-orange mottling, moderate cementation, hard.	
155	575	HQ	40	62.5		Red Brown, CLAYSTONE, gray-brown, moderate natural fracturing, thin fine-medium grained sandstone crossbeds, blue-gray sandstone clasts, yellow tan orange mottling, moderate cementation, hard.	
160	570					No Recovery.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Poorly-Graded Sand Claystone Interbedded Shale Siltstone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



Client: Gavin Power, LLC

Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
165	565	HQ	0			No Recovery. (continued)	
170	560	HQ	46	91.3		Red Brown, CLAYSTONE, moderate natural fracturing, thin fine-medium grained sand and silt lenses, yellow orange to purple mottling, moderate cementation, moderately decomposed/weathered.	
175	555	HQ	28	91.1		Red Brown, CLAYSTONE, moderate natural fracturing, thin fine-medium grained sand and silt lenses, yellow orange to purple mottling, moderate cementation, moderately decomposed/weathered.	
180	550	HQ	60	60		Red Brown, CLAYSTONE, moderate natural fracturing, thin fine-medium grained sand and silt lenses, yellow orange to purple mottling, moderate cementation, moderately decomposed/weathered.	
						Olive, SANDSTONE, blue-gray, calcareous, thin layering (brittle), increasing clay content with depth, very fine-fine grained crossbedding, moderate fracturing, medium cementation. [Cow Run Sandstone]	

Bentonite Seal (176 to 180 feet bgs)

Filter Sand (180 to 195 feet bgs) (Global #5)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Poorly-Graded Sand Claystone Interbedded Shale Siltstone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	545	HQ	43	74.4		Olive, SANDSTONE, blue-gray, calcareous, thin layering (brittle), increasing clay content with depth, very fine-fine grained crossbedding, moderate fracturing, medium cementation. [Cow Run Sandstone] <i>(continued)</i>	<p>Well Screen (182 to 192 feet bgs) (2" SCH 40 PVC/ 0.01" slot)</p> <p>Sump (2" SCH 40 PVC/2' long) (192 to 194 feet bgs)</p>
190	540	HQ	42	55.95		Olive, SANDSTONE, blue-gray, calcareous, thin layering (brittle), increasing clay content with depth, very fine-fine grained crossbedding, moderate fracturing, medium cementation. [Cow Run Sandstone]	
195	535					189.0 ----- 195.0	
200	530					Bottom of Boring @ 195.00 feet bgs	
205	525						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Clay Poorly-Graded Sand Claystone Interbedded Shale Siltstone Sandstone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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2022-16

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Client: Gavin Power, LLC Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653 Project Location: Cheshire, OH

DATE STARTED: 8/7/2022 TOTAL DEPTH: 189 feet bgs WELL DEVELOPMENT

DATE COMPLETED: 8/9/2022 DIAMETER: 6 inches METHOD(S): Mega Monsoon & Bailer

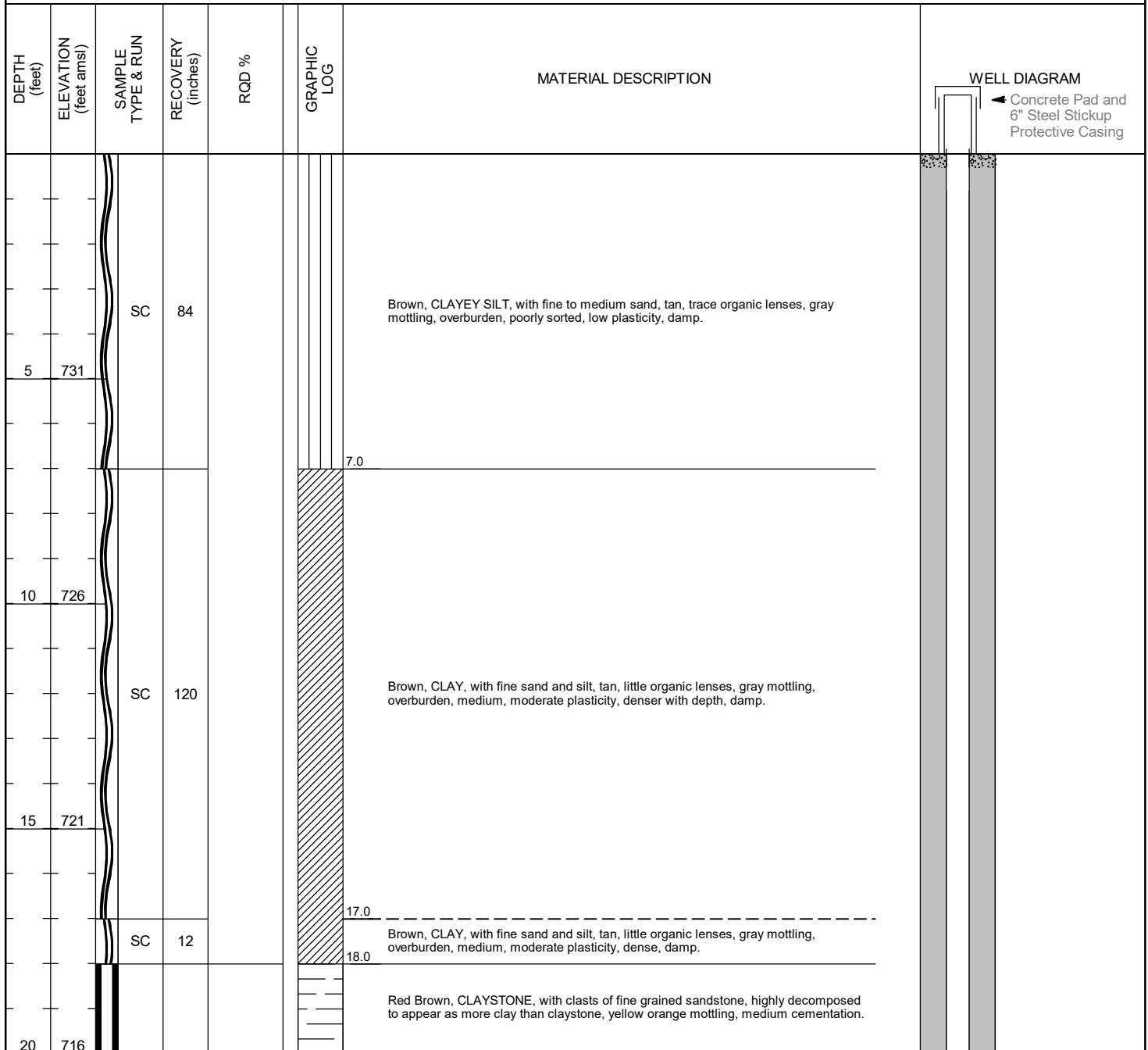
DRILLING CONTRACTOR: Cascade Drilling GROUND ELEVATION: 736.19 DATE STARTED: 9/7/2022

DRILLING METHODS: Sonic Drilling & Wireline Rock Coring PVC ELEVATION: 738.37 DATE ENDED: 11/6/2022

LOGGED BY: L. Stodden NORTHING: 353206.6888 DTW AT START: 124.95 feet bgs

CHECKED BY: A. Harford EASTING: 2064228.927 DTW AT END: 187.0 feet bgs

NOTES: 6" Steel Stickup Protective Casing, 2019-09 replacement well. VOLUME PURGED: 12.25 gallons



SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Sandstone Siltstone	Claystone Interbedded Shale Shale amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		HQ	48	41.7		Red Brown, CLAYSTONE, with clasts of fine grained sandstone, highly decomposed to appear as more clay than claystone, yellow orange mottling, medium cementation. (continued)	
					22.0		
		HQ	24	0		Brown, SANDSTONE, tan, thin crossbedding throughout, lithics and micas, very fine to fine grained, orange-dark brown oxidation along natural fractures, rubble zone, medium cementation.	
					24.0		
25	711				25.5	Brown, SANDSTONE, tan, thin crossbedding throughout, lithics and micas, very fine to fine grained, orange-dark brown oxidation along natural fractures, rubble zone, medium cementation.	
		HQ	36	50		Red Brown, CLAYSTONE, fine grain tan sandstone clasts, highly decomposed to appear as more clay than claystone, yellow orange mottling, medium cementation.	
					27.0		
		HQ	36	51.4		Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, Moderately decomposed, yellow orange mottling, medium cementation.	
					29.0		
30	706				30.0	Olive, SILTSTONE, with clay, blue-gray, Moderately decomposed, fissile, medium cementation.	
		HQ	34	89.7		Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, moderately decomposed, yellow orange mottling, medium cementation.	
					31.0		
					32.0	Olive, SHALE, some silt, blue-gray, moderately decomposed, fissile, red claystone clasts, medium cementation.	
					33.0	Red Brown, CLAYSTONE, fine grained olive-blue-gray sandstone clasts, moderately decomposed, yellow orange mottling, medium cementation.	
35	701						
		HQ	48	76		Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, moderately decomposed (increased weathering with depth), (olive/blue-gray sandstone bed from 34.5' to 35'), yellow orange mottling, medium cementation.	
					38.0		
40	696					No Recovery.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Sandstone Siltstone Claystone Interbedded Shale Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Client: Gavin Power, LLC

Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	691	HQ	0			No Recovery. (continued)	<p>Bentonite Grout (0 to 92 feet bgs)</p>
50	686						
55	681	HQ	48	33.3	53.0 54.0 55.0 57.0	Olive, SHALE, some silt, blue-gray, highly decomposed, fissile, medium cementation. Light Gray, CLAYSTONE, with red brown claystone clasts, highly decomposed, yellow orange to purple mottling, low cementation. Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, highly decomposed to appear as more clay than claystone, yellow orange mottling, medium cementation.	<p>Well Riser (0 to 177 feet bgs) (2" SCH 40 PVC)</p>
60	676					No recovery.	
65	671	HQ	0				

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Sandstone Siltstone Claystone Interbedded Shale Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	666					No recovery. (continued)	
		HQ	44	77.3		Red Brown, CLAYSTONE, fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, yellow orange to purple mottling, low cementation.	
75	661					Red Brown, CLAYSTONE, fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, yellow orange to purple mottling, low cementation.	
		HQ	36	52.8		Olive, SANDSTONE, blue-gray, fine-medium grained, micaceous, thin carbonate vein, moderately fractured, high cementation, hard.	
80	656					Olive, SANDSTONE, with silty clay, blue-gray, increasing silt-clay with depth, fine-medium grained, micaceous, (pyritic at 80-82ft), thin carbonate nodules, fine grained cross-beds, (fissile with depth), moderately fractured, high cementation, hard.	
		HQ	60	81.7		Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, low cementation.	
85	651					Olive, SANDSTONE, blue-gray, fine-medium grained, micaceous, pyritic, thin carbonate nodules, fine grained cross-beds, (fissile with depth), moderately fractured, high cementation, hard.	
		HQ	46	70.7		Olive, SANDSTONE, blue-gray, fine-medium grained, micaceous, pyritic, thin carbonate nodules, fin-medium grained cross-beds, highly fractured, high cementation, hard.	
90	646						Well Riser (0 to 177 feet bgs) (2" SCH 40 PVC)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Claystone Interbedded Shale Sandstone Siltstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		HQ	30	48.3	91.0	Olive, SANDSTONE, blue-gray, fine grained, micaceous, pyritic, fine grained cross-beds, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard. <i>(continued)</i>	
					93.0	Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, low cementation.	
95	641	HQ	24	41.7	96.0	Red Brown, CLAYSTONE, highly decomposed to appear as more clay than claystone, yellow orange mottling, low cementation.	
					97.0	Red Brown, CLAYSTONE, highly decomposed to appear as more clay than claystone, yellow orange mottling, low cementation.	
100	636	HQ	45	54.4	101.0	Olive, SANDSTONE, blue-gray, fine grained, micaceous, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard.	
					105.0	Olive, SANDSTONE, blue-gray, fine grained, micaceous, interbedded fine grained cross-beds and fissile silty clay beds, moderately fractured, moderate silt-clay content, high cementation, hard.	
105	631	HQ	42	57.1	107.0	Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, pyritic, fine to medium grained cross beds, moderately fractured, high cementation, hard.	
					112.0	Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, pyritic, fine to medium grained cross-beds transition to fissile silt-clay layers with depth, moderately fractured, moderate silt-clay content, high cementation, hard.	
110	626	HQ	45	84.4		Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, pyritic, fine to medium grained cross-beds transition to fissile silt-clay layers with depth, moderately fractured, moderate silt-clay content, high cementation, hard.	
						Olive, SANDSTONE, blue-gray, fine grained, micaceous, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard.	

Bentonite Chips (92 to 122 feet bgs)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Claystone Interbedded Shale Sandstone Siltstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	621	HQ	34	89.7		Olive, SANDSTONE, blue-gray, fine grained, micaceous, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard. <i>(continued)</i>	
					117.0		
		HQ	36	37.5		Olive, SHALE, some silt to fine sand, blue-gray, highly decomposed, fissile, pyritic, thin carbonate nodules (interbedded red claystone from 119.5-120' Bgs), medium cementation.	
120	616				120.0		
					121.0	Olive, SHALE, some silt to fine sand, medium cementation, highly decomposed, fissile, pyritic, thin carbonate nodules (interbedded red claystone from 119.5' to 120').	
		HQ	48	75		Gray, SILTSTONE, transitional zone, carbonate nodules (0.2-0.5" diameter), medium cementation.	
					123.5		
125	611				125.0	Red Brown, CLAYSTONE, highly decomposed, yellow orange to purple mottling, medium cementation.	
		HQ	38	56.6		Red Brown, CLAYSTONE, highly decomposed, moderately fractured, yellow orange to purple mottling, medium cementation.	
					130.0		
135	601					Red Brown, CLAYSTONE, with beds of olive-blue-gray silty claystone, highly decomposed, moderate fracturing, rubble zones present at 130-131' bgs and 136-138' bgs, yellow orange to purple mottling, low cementation.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Sandstone Siltstone Claystone Interbedded Shale Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	596	HQ	23	95.7	138.0 - 143.0	Red Brown, CLAYSTONE, with clasts, tan claystone, highly decomposed, yellow orange to purple mottling, low cementation.	<p>Bentonite Grout (122 to 171 feet bgs)</p>
145	591	HQ	47	90.4	143.0 - 148.0	Red Brown, CLAYSTONE, with clasts, tan claystone, moderately decomposed, yellow orange to purple mottling, low cementation.	
150	586	HQ	45	57.8	148.0 - 153.0	Olive, SHALE, some some silt to fine sand, blue-gray, thin carbonate veins, alternating light brown fine grained sand and dark gray silt beds, medium cementation.	
155	581	HQ	40	16.3	148.5 - 158.0	Red Brown, CLAYSTONE, with clasts, tan claystone, moderately decomposed, yellow orange to purple mottling, low cementation. Olive, SHALE, some some silt to fine sand, blue-gray, thin carbonate veins, alternating light brown fine grained sand and dark gray silt beds, medium cementation.	
160	576	HQ	40	67.5	149.5 - 158.0	Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, medium cementation.	
						Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, yellow orange-red purple mottling, medium cementation.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Sandstone Siltstone Claystone Interbedded Shale Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, yellow orange-red purple mottling, medium cementation. <i>(continued)</i>	
165	571	HQ	36	79.2		Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, yellow orange-red purple mottling, medium cementation.	
170	566	HQ	51	54.9		Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, medium cementation.	
175	561	HQ	24	100		Olive, SANDSTONE, some silt, blue-gray, fine grained, micaceous, little carbonate nodules (0.2-0.5" diameter), increasing sand content with depth, natural fracture (165-170 degrees), high cementation, hard. [Cow Run Sandstone]	
180	556	HQ	46	95.7		Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, little fine grained cross-beds, thin carbonate veins (<0.5" diameter) carbonate nodules, moderately fractured (165-170 degrees), high cementation, hard. [Cow Run Sandstone]	
						Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, fine to medium grained cross-beds, moderately fractured (155-165 degrees), high cementation, hard. [Cow Run Sandstone]	

Bentonite Seal (171 to 175 feet bgs)

Filter Sand (175 to 189 feet bgs) (Global #5)

Well Screen (177 to 187 feet bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Silt Clay Claystone Interbedded Shale Sandstone Siltstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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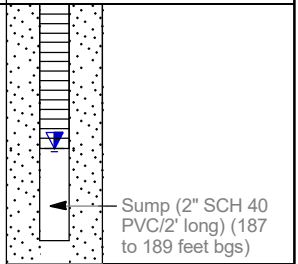
Client: Gavin Power, LLC

Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	551	HQ	52	78.8		Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, fine to medium grained cross-beds, moderately fractured (155-165 degrees), high cementation, hard. [Cow Run Sandstone] (continued)	
190	546					Bottom of Boring @ 189.00 feet bgs	
195	541						
200	536						
205	531						



SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Silt
- Clay
- Claystone Interbedded Shale
- Sandstone
- Siltstone
- Shale

ACRONYM LEGEND

- amsl = above mean sea level
- bgs = below ground surface
- DTW = depth to water
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Client: Gavin Power, LLC **Project Name:** RWL/FAR Monitoring Well Installation
Project Number: 0643653 **Project Location:** Cheshire, OH

DATE STARTED: 9/13/2022 **TOTAL DEPTH:** 258 feet bgs **WELL DEVELOPMENT**
DATE COMPLETED: _____ **DIAMETER:** 6 inches **METHOD(S):** Wattera
DRILLING CONTRACTOR: Cascade Drilling **GROUND ELEVATION:** 733.39 **DATE STARTED:** 10/5/2022
DRILLING METHODS: Wireline Rock Coring **PVC ELEVATION:** 735.83 **DATE ENDED:** 10/5/2022
LOGGED BY: J. Maag **NORTHING:** 345353.3472 **DTW AT START:** 78.96 feet bgs
CHECKED BY: A. Harford **EASTING:** 2072913.835 **DTW AT END:** 248.26 feet bgs
NOTES: 6" Steel Stickup Protective Casing. 2018-01 replacement well. **VOLUME PURGED:** 36 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
201							
		HQ	84		1.0	Gray Brown, SILT, soft, orange mottling, with coarse black shale pieces, low plasticity, wet.	<p>Concrete Pad and 6" Steel Stickup Protective Casing</p>
					3.0	Gray Brown, SILTSTONE, little mica, dark gray, orange, massive, slightly disintegrated, very weathered, with fine black shale pieces, very weak, dry.	
5	728				6.0	Dark Gray, SILTSTONE, interbedded shale, some mica, massive, weak, very weathered, wet.	
10	723	HQ	120	62.5	15.0	Gray Brown, CLAYSTONE, trace mica, orange, yellow, black, gray, massive, slightly weathered, very weak, wet.	
15	718				17.0	Yellow Brown, FINE SILTY SAND, with coarse gravel, orange mottling, some mica, trace organic matter (roots).	
20	713					Yellow Brown, SILTSTONE, sandy, orange-red-gray mottling, trace organic matter (roots), little mica, massive, very weathered, very weak, wet.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Silty Sand Shale	Claystone Interbedded Shale Limestone amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
25	708	HQ	204	0		Yellow Brown, SILTSTONE, sandy, orange-red-gray mottling, trace organic matter (roots), little mica, massive, very weathered, very weak, wet. <i>(continued)</i>	
26.0	Dark Gray, SILTSTONE, little mica, orange-red-gray mottling, roots, massive, very weathered, very weak, wet.						
29.0	Gray, SHALE, very thinly laminated, moderately weathered, moderately disintegrated, moderately strong, dry.						
35	698					Gray, SHALE, very thinly laminated, moderately weathered, moderately strong, wet.	
37.0							← Bentonite Grout (0 to 72 feet bgs)
40	693						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level PVC = polyvinyl chloride bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	688	HQ	168	44.6		Gray, SHALE, very thinly laminated, moderately weathered, moderately strong, wet. <i>(continued)</i>	
50	683						
55	678						
60	673						
65	668					Gray, SILTSTONE, massive, slightly weathered, moderately strong, wet.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	663	HQ	54	59.3		Gray, SILTSTONE, massive, slightly weathered, moderately strong, wet. <i>(continued)</i>	
						72.5 Gray, LIMESTONE, fine grained veins of quartz and mica, very weathered, strong, wet.	
75	658					73.5 Bluish Gray, SANDSTONE, few mica, trace pyrite, massive, fine grained, strong, wet.	
						76.5 Bluish Gray, SHALE, few mica, purple-yellow, very thinly laminated, weak, moderately weathered, wet.	
80	653					79.5 Light Bluish Gray, SANDSTONE, few mica, fine grained, massive, strong, wet.	
85	648					83.0 Bluish Gray, CLAYSTONE, interbedded siltstone, purple-yellow, little mica, massive, weak, moderately weathered, wet.	
90	643	HQ	228	55.3		88.0 Red, CLAYSTONE, interbedded siltstone, purple-yellow blue-gray, little mica, massive, weak, moderately weathered, wet.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Silty Sand Claystone Interbedded Shale Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM	
95	638	HQ	228	67.1		Red, CLAYSTONE, interbedded siltstone, purple-yellow blue-gray, little mica, massive, weak, moderately weathered, wet. <i>(continued)</i>		
						97.0		Bluish Gray, SILTSTONE, interbedded shale, purple-red, some mica, very thinly laminated, slightly weathered, moderately strong, wet.
100	633					101.5		
105	628							Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet.
110	623				112.5	Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet.		

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Silty Sand Claystone Interbedded Shale Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	618						
120	613						
125	608	HQ	162	66		Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet. (continued)	Well Riser (0 to 235 feet bgs) (2" SCH 40 PVC) Bentonite Grout (114 to 124 feet bgs)
130	603						
135	598						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM	
140	593	HQ	120	72.5		Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet. (continued)		
145	588					148.5		Bluish Gray, SANDSTONE, few mica, purple-red, fine grained, massive, strong, wet.
150	583					150.5		Red, CLAYSTONE, trace mica, purple-red, massive, slightly weathered, moderately strong, wet.
155	578							
160	573							

Bentonite Chips (124 to 178 feet bgs)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
165	568	HQ	216	58.3	161.5	Bluish Gray, SILTSTONE, interbedded shale, purplish-red staining, trace pyrite, few mica, very thinly laminated, moderately weathered, moderately strong, wet.	
					166.5	Red, CLAYSTONE, purple-red, bluish-gray, massive, slightly weathered, moderately strong, wet.	
170	563				169.5	Bluish Gray, SILTSTONE, interbedded sandstone, fine grained, little pyrite, trace mica, massive, slightly weathered, moderately strong, wet.	
175	558				177.0	Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet.	
180	553						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Client: Gavin Power, LLC

Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	548	HQ	186	63.98		Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet. (continued)	
190	543						
195	538						
200	533	HQ	72	37.5			
205	528						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level PVC = polyvinyl chloride bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
210	523						
215	518						
220	513	HQ	222	32.4		Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet. (continued)	
225	508						
230	503						

Bentonite Seal (229 to 233 feet)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
235	498	HQ	204	62.3		Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet. <i>(continued)</i> 234.5	<p>Filter Sand (233 to 257 feet bgs) (Global #5)</p> <p>Well Screen (235 to 255 feet bgs) (2" SCH 40 PVC/ 0.01" slot)</p>
240	493					Bluish Gray, SANDSTONE, interbedded siltstone, fine grained, little mica, trace pyrite, massive, grades into dark gray, (45 degree) fracture at 237 ft, (10 degree) fracture at 240.5 ft, (180 degree) fracture at 243 ft, and (180 degree) fracture at 245.5 ft, wet. [Cow Run Sandstone]	
245	488						
250	483						
255	478						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Bluish Gray, SANDSTONE, interbedded siltstone, fine grained, little mica, trace pyrite, massive, grades into dark gray, (45 degree) fracture at 237 ft, (10 degree) fracture at 240.5 ft, (180 degree) fracture at 243 ft, and (180 degree) fracture at 245.5 ft, wet. [Cow Run Sandstone] 257.0 (continued)	<p>Sump (2" SCH 40 PVC/2' long) (255 to 257 feet bgs)</p>
						Dark Gray, SHALE, bluish-gray, very thinly laminated, slightly weathered, moderately strong, wet. 258.0	
260	473						
265	468						
270	463						
275	458						
Bottom of Boring @ 258.00 feet bgs							

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
HQ Wireline Rock Coring (HQ)	Silt Siltstone Claystone Interbedded Shale Silty Sand Shale Limestone	amsl = above mean sea level PVC = polyvinyl chloride bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery



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Client: Gavin Power, LLC **Project Name:** RWL/FAR Monitoring Well Installation
Project Number: 0643653 **Project Location:** Cheshire, OH

DATE STARTED: 8/11/2022 **TOTAL DEPTH:** 223 feet bgs **WELL DEVELOPMENT**
DATE COMPLETED: 8/18/2022 **DIAMETER:** 6 inches **METHOD(S):** Mega Monsoon & Bailer
DRILLING CONTRACTOR: Cascade Drilling **GROUND ELEVATION:** 852.04 **DATE STARTED:** 9/7/2022
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring **PVC ELEVATION:** 854.41 **DATE ENDED:** 11/6/2022
LOGGED BY: L. Stodden **NORTHING:** 352327.0836 **DTW AT START:** 128.19 feet bgs
CHECKED BY: A. Harford **EASTING:** 2061913.471 **DTW AT END:** 211.0 feet bgs
NOTES: 6" Steel Stickup Protective Casing. 96156 replacement well. **VOLUME PURGED:** 21.25 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		SC	36			Brown, CLAYSTONE, little silt, tan, orange mottling, thin organic lenses, moderate, moderate plasticity.	
5	847	HQ	48	0		Brown, SANDSTONE, some silt, tan, orange-red mottling, fine grained rubble zone, low cementation.	
10	842					Brown, SANDSTONE, some silt, tan, fine grained rubble zone, highly layered, moderate cementation.	
15	837	HQ	120	6.7		Light Gray, SANDSTONE, some silt, very fine to fine grained rubble zone, highly layered, moderate cementation.	
20	832	HQ	36	27.8		Light Brown, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderate cementation.	
						Light Brown, SANDSTONE, interbedded sandstone, fine to coarse grained, highly cross bedded (alternating lithic beds), alternating light gray, highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), moderate cementation.	
						Light Gray, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Light Gray, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation. <i>(continued)</i>	<p>← Bentonite Grout (0 to 62 feet bgs)</p>
		HQ	43	55.8		Light Gray, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation.	
25	827						
		HQ	55	43.6		Light Gray, SANDSTONE, thin sandstone beds (0.5-1"), fine to coarse grained, highly cross bedded (alternating lithic beds), interbedded tan-brown coarse grained sandstone, highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation.	
30	822						
		HQ	48	46.9		Light Gray, SANDSTONE, thick sandstone beds (10-12"), fine to coarse grained, highly cross bedded (alternating lithic beds), interbedded tan-brown coarse grained sandstone, highly micaceous, moderately natural fractured, (along bedding planes 150-160 degrees), high cementation.	
35	817						
		HQ	34	0		Brown, SANDSTONE, tan, medium to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured/weathered (along bedding planes 150-160 degrees), moderate cementation.	
40	812					No Recovery/Washout.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	807	HQ	0			No Recovery/Washout. (continued)	
50	802						
55	797						
		HQ	15	0		56.0 Brown, SANDSTONE, tan, medium to coarse grained, highly cross bedded (alternating lithic beds), interbedded light gray fine to medium grained sandstone, highly micaceous, highly decomposed, low cementation.	
						57.0	
60	792	HQ	0			No Recovery/Washout.	
65	787						

Well Riser (0 to 199 feet bgs) (2" SCH 40 PVC)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	782					No Recovery/Washout. (continued)	
75	777						
		HQ	12	37.5		76.0 Brown, SANDSTONE, tan, medium to coarse grained, highly cross bedded (alternating lithic beds), interbedded light gray fine to medium grained sandstone, highly micaceous, highly decomposed, low cementation.	
						77.0 Black, COAL, rubble zone, low density, possibly bituminous.	
80	772	HQ	72	24.3		79.0 Gray, SHALE, sandstone (1' thick), alternating light to dark gray beds, interbedded light gray fine grained cross bedded sandstone, few thin pyritic lenses occur with depth, moderate cementation.	
85	767						
						87.0 Gray, SHALE, few alternating light to dark gray beds with depth, moderate cementation.	
90	762						

Bentonite Chips (62 to 91 feet bgs)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
95	757	HQ	73	35.6		Gray, SHALE, few alternating light to dark gray beds with depth, moderate cementation. <i>(continued)</i>	 Well Riser (0 to 199 feet bgs) (2" SCH 40 PVC)
100	752	HQ	72	34		Dark Gray, CLAYSTONE, rubble zone, moderate cementation.	
105	747	HQ	72	34		Light Bluish Gray, CLAYSTONE, some medium to coarse sand and gravel, carbonate inclusions (<0.5"), few thin pyrite lenses, fine grained gravel, moderately fractured, moderate cementation.	
110	742	HQ	86	60.5		Red to Black, CLAYSTONE, dark gray and purple, yellow orange mottling, red and black alternating beds from 108 to 110 and transitions to dark gray/ purple with yellow mottling 110 to 115, low cementation.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	737					Red to Black, CLAYSTONE, dark gray and purple, yellow orange mottling, red and black alternating beds from 108 to 110 and transitions to dark gray/ purple with yellow mottling 110 to 115, low cementation. <i>(continued)</i>	
						Blue to Green Gray, SANDSTONE, little silt to clay, slight yellow to purple mottling that decreases with depth, fine grained, micaceous, few thin pyrite lenses, faint thin dark to light gray bedding, high cementation, hard.	
						Blue to Green Gray, SANDSTONE, little silt to clay, fine grained, micaceous, few thin pyrite lenses, faint thin dark to light gray bedding, high cementation, hard.	
120	732	HQ	94	76.1		Blue Gray, CLAYSTONE, some fine sand and silt, yellow - orange to red - purple mottling, layered, moderately fractured, slightly decomposed, moderate cementation.	
						Blue to Green Gray, SANDSTONE, fine to medium grained, alternating carbonate beds and fine grained cross beds, micaceous, calcareous, high cementation, hard.	
125	727						
						Blue to Green Gray, SANDSTONE, fine to medium grained, alternating carbonate beds and fine grained cross beds, micaceous, calcareous, high cementation, hard.	
130	722	HQ	120	57.9			
						Red Brown, CLAYSTONE, some fine sand and silt, slight yellow mottling, sharp contact at 136', partial rubble zone at base, low cementation.	
135	717						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM		
140	712	HQ	120	58.3		Red Brown, CLAYSTONE, yellow-orange mottling, interbedded olive-blue-gray micaceous sandstone, sandstone bed 1ft foot, sandstone clasts throughout claystone, high cementation. (continued)			
145	707					141.0		Red Brown, CLAYSTONE, yellow-orange to red-purple mottling, layered, moderately fractured, slightly decomposed, moderate cementation.	← Bentonite Grout (91 to 193 feet bgs)
146.0						145.0		Brown, CLAYSTONE, rubble zone, fragmented claystone rock within a clay/mud matrix, broken down to mud from drill, high plasticity.	
147.0						146.0		Dark Gray, CLAYSTONE, rubble zone, fragmented claystone rock within a clay/mud matrix, broken down to mud from drill, low cementation.	
150	702	HQ	100	46		Green Gray, SILTSTONE, some coarse sand and fine gravel, yellow mottling, moderately fractured, moderate decomposition, moderate cementation, hard.			
155	697					153.0	Red Brown, CLAYSTONE, yellow and purple mottling, 155' to 157' highly weathered into a clay with rock fragments, low cementation.		
160	692					Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation.			
						157.0			

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
165	687	HQ	90	45		Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation. <i>(continued)</i>	
170	682	HQ	108	44.9		Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation.	
175	677	HQ	102	59.3		Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation.	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	667					185.0 Light Gray to Dark Gray, SANDSTONE, some silt and clay, very fine to fine grained, micaceous and pyritic, moderate cementation. [Morgantown Sandstone]	
190	662	HQ	120	77.5		187.0 Light Gray to Dark Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, scouring/cross bedding/clasts (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone]	
195	657					197.0 Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, interbedded dark gray siltstone beds, scouring/cross bedding/clasts (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone]	Bentonite Seal (193 to 197 feet bgs)
200	652	HQ	120	73.3		207.0 Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, cross bedding (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone]	Filter Sand (197 to 212 feet bgs) (Global #5)
205	647						Well Screen (199 to 209 feet bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
210	642	HQ	132	43.6		Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, cross bedding (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone] <i>(continued)</i>	<p>Sump (2" SCH 40 PVC/2' long) (209 to 211 feet bgs)</p> <p>Backfilled (211 to 223 feet bgs)</p>
215	637					Dark Gray, LIMESTONE, moderate clay, highly weathered, moderate layers, carbonate, nodules (<0.5"), claystone and sandstone clasts (<0.5"), low cementation.	
220	632					Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, cross bedding (light gray, coarse grained) throughout, high cementation, hard.	
		HQ	36			Dark Gray, SHALE, rubble zone, shale fragment mixed into rock flour mud, low cementation.	
225	627					Bottom of Boring @ 223.00 feet bgs	
230	622						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Claystone Interbedded Shale Sandstone Coal Shale Siltstone Limestone	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Client: Gavin Power, LLC Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653 Project Location: Cheshire, OH

DATE STARTED: 7/25/2022 TOTAL DEPTH: 119 feet bgs WELL DEVELOPMENT

DATE COMPLETED: 7/26/2022 DIAMETER: 6 inches METHOD(S): Mega Monsoon, Hurricane Pump & Bailor

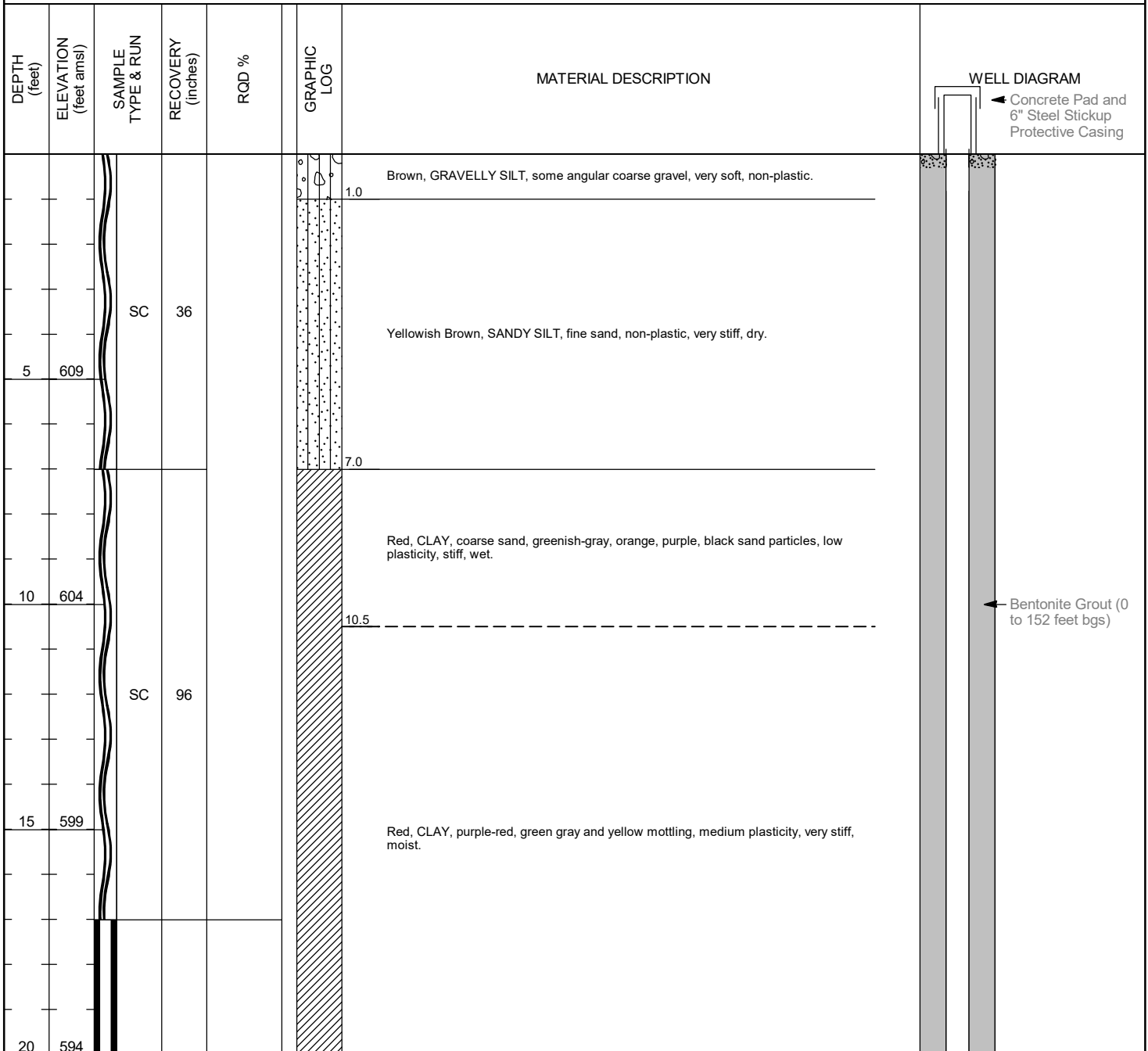
DRILLING CONTRACTOR: Cascade Drilling GROUND ELEVATION: 613.58 DATE STARTED: 9/7/2022

DRILLING METHODS: Sonic Drilling & Wireline Rock Coring PVC ELEVATION: 616.04 DATE ENDED: 11/6/2022

LOGGED BY: J. Maag NORTHING: 348497.3409 DTW AT START: 112.65 feet bgs

CHECKED BY: A. Harford EASTING: 2072997.258 DTW AT END: 119.0 feet bgs

NOTES: 6" Steel Stickup Protective Casing. 9396 replacement well. VOLUME PURGED: 3.8 gallons



SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Gravelly Silt Sandy Silt Clay Claystone Interbedded Shale Siltstone Shale	amsl = above mean sea level PVC = polyvinyl chloride bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery



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Client: Gavin Power, LLC

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Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		HQ	120	0		Red, CLAY, purple-red, green gray and yellow mottling, medium plasticity, very stiff, moist. (continued)	
25	589						
						Red, CLAYSTONE, purple-red, intensely weathered, moist.	
30	584						
		HQ	96	29.2		Green Gray, SILTSTONE, slightly weathered, very thin laminated, weak.	
35	579						
						Red, SILTSTONE, purple-red, slightly weathered, very thin laminated, weak.	
40	574						
		HQ	120	35		Green Gray, CLAYSTONE, little pyrite, very thin laminated, slightly weathered, weak.	
						Red, CLAYSTONE, little pyrite, purple-red, very thin laminated, slightly weathered, weak.	

← Bentonite Grout (0 to 36)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Gravelly Silt Sandy Silt Clay Claystone Interbedded Shale Siltstone Shale	amsl = above mean sea level PVC = polyvinyl chloride bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	569	HQ	96			Red, CLAYSTONE, little pyrite, purple-red, very thinly laminated, slightly weathered, weak. (continued)	
						45.0	
		HQ	96			47.0	
						50.0	
55	559	HQ	96			57.0	
						61.0	
65	549	HQ	84	0		Red, CLAY SHALE, purple-red, orange, greenish gray, very thinly laminated, intensely weathered, very weak, wet.	

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Gravelly Silt
- Sandy Silt
- Clay
- Claystone
- Interbedded Shale
- Siltstone
- Shale

ACRONYM LEGEND

- amsl = above mean sea level
- bgs = below ground surface
- DTW = depth to water
- NA = not applicable
- NM = not measured
- NR = no recovery
- PVC = polyvinyl chloride



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Client: Gavin Power, LLC

Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	544	HQ	72	27.8		Red, CLAY SHALE, purple-red, orange, greenish gray, very thinly laminated, intensely weathered, very weak, wet. (continued)	
75	539					Red, CLAYSTONE, purple-red, greenish gray, yellow, massive, moderately weathered, weak, wet.	
80	534	HQ	48	18.8		Red, SHALE, purple-red, greenish gray, sandy, very thinly laminated, intensely weathered, weak, wet.	
85	529					Red, CLAYSTONE, purple-red, greenish gray, orange, massive, very weathered, weak, wet.	
90	524						

← Bentonite Grout (56 to 101 feet bgs)

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Gravelly Silt Sandy Silt Clay Claystone Interbedded Shale Siltstone Shale	amsl = above mean sea level PVC = polyvinyl chloride bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery



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Client: Gavin Power, LLC

Project Name: RWL/FAR Monitoring Well Installation

Project Number: 0643653

Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
95	519	HQ			91.0	Green Gray, SANDSTONE, trace mica, fine grained, very thinly laminated, moderately weathered, moderately strong, wet.	
					97.0	Red, CLAY SHALE, purple-red, greenish gray, very thinly laminated, moderately weathered, very weak, wet.	
100	514	HQ	102		98.0	Green Gray, SANDSTONE, trace mica and pyrite, massive, slightly weathered, moderately strong, wet.	
105	509				105.0	Green Gray, CLAY SHALE, very thinly laminated, very weathered, weak, wet.	
110	504	HQ	120	26.7	107.0	Green Gray, SANDSTONE, dark gray, fine grained, massive, fresh, moderately strong, wet. [Cow Run Sandstone]	

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Gravelly Silt Sandy Silt Clay Claystone Interbedded Shale Siltstone Shale	amsl = above mean sea level bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery PVC = polyvinyl chloride



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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	499					115.0 Green Gray, SANDSTONE, dark gray, fine grained, massive, fresh, moderately strong, wet. [Cow Run Sandstone] (<i>continued</i>)	<p>Sump (2" SCH 40 PVC/2' long) (117 to 119 feet bgs)</p>
						117.0 Green Gray, CLAYSTONE, dark gray, intensely weathered, intensely disintegrated, wet.	
						119.0 Not Recovered.	
120	494					Bottom of Boring @ 119.00 feet bgs	
125	489						
130	484						
135	479						

SAMPLE TYPE	GRAPHIC LOG LEGEND	ACRONYM LEGEND
Sonic Drilling (SC) HQ Wireline Rock Coring (HQ)	Gravelly Silt Sandy Silt Clay Claystone Interbedded Shale Siltstone Shale	amsl = above mean sea level PVC = polyvinyl chloride bgs = below ground surface DTW = depth to water NA = not applicable NM = not measured NR = no recovery



APPENDIX C ANALYTICAL DATA SUMMARY

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
		2016-08-24 N	2016-10-06 N	2016-12-01 N	2017-02-02 N	2017-03-23 N	2017-05-01 N	2017-06-12 N	2017-07-17 N	2018-03-15 N	2018-09-13 N	2019-03-12 N	2019-09-24 N	2020-03-24 N	2020-09-22 N	2021-03-22 FD
Alkalinity, Total as CaCO3	mg/L			417	424					380	370	380	380	390	380	390
Aluminum	mg/L					7.8 J	0.18	1.4 B	0.32							
Antimony	mg/L	2E-05 J	1E-05 J	3E-05	0.0001	0.002 U	0.002 U	0.002 U	0.002 U							
Arsenic	mg/L	0.0018	0.00177	0.00153	0.00192	0.0042 J	0.0017 J	0.0024 J	0.0017 J							
Barium	mg/L	0.0244	0.0233	0.019	0.0245	0.078 B	0.022	0.036	0.024							
Beryllium	mg/L	2E-05 U	5E-06 J	5E-06	2E-05 U	0.00042 J	0.001 U	0.001 U	0.001 U							
Bicarbonate Alkalinity as CaCO3	mg/L									350	330		340	350	350	350
Bicarbonate Alkalinity as HCO3	mg/L											350				
Boron	mg/L	0.289	0.278	0.296	0.283	0.33	0.33	0.34	0.35 JB	0.32		0.34	0.31	0.29	0.32	0.37
Bromide	mg/L			0.412	0.334	0.41 J	5 U	2.5 U	2.5 U							
Cadmium	mg/L	2E-05 U	5E-06 J	1E-05	5E-05	0.001 U	0.001 U	0.001 U	0.001 U							
Calcium	mg/L	2.7	2.78	2.64	2.57	3.9 B	2.5	3.2	2.6	2.6	2.8	2.6	2.6	2.5	2.7	3.1
Carbonate Alkalinity as CaCO3	mg/L									34	34	34	38	41	29	39
Chloride	mg/L	83.9	92	96.9	96.3	96	60	79	62	86	96	93	100	110	87	90
Chromium	mg/L	0.0018	0.0033	0.0007	0.00263	0.06	0.0019 J	0.0081	0.0019 J							
Cobalt	mg/L	0.00011	0.000202	4.6E-05	0.000151	0.0052	0.00026 J	0.0011	0.00042 J							
Conductivity, Field	uS/cm	2068	2149	2094	2158					2079				2014	1990	2005
Copper	mg/L					0.01 B	0.002 U	0.0048 B	0.002 U							
Dissolved Oxygen, Field	mg/L	0.88	3.16	1.59	1.86					0.2						
Dissolved Solids, Total	mg/L	1220	1300	1290	1290	1300 J	1200 J	1300	1300 J	1300		1300	1300	1300	1200	1300
Fluoride	mg/L	1.86	2	2.26	2.13	2.6	2.2	2.4	2.2	2.2	2.3	2.2	2.5	2.4	2.1	2.2
Iron	mg/L					8.3 JB	0.19	1.5	0.39							
Lead	mg/L	3.9E-05	9.6E-05	4.9E-05	0.000237	0.0052 J	0.00056 J	0.0011	0.00058 J							
Lithium	mg/L	0.02	0.023	0.017	0.014	0.021	0.016	0.018	0.016							
Magnesium	mg/L			0.724	0.723	2.4 B	0.75 J	1.1	0.8 J	0.66 J	0.69 J	0.76 J	0.74 J	0.73 J	0.64 J	0.82 J
Manganese	mg/L					0.084	0.01	0.026	0.014							
Mercury	mg/L	5E-06 U	5E-06 U	2E-06	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U							
Molybdenum	mg/L	0.0389	0.0349	0.0331	0.0345	0.037	0.033	0.033	0.032							
Nickel	mg/L					0.039	0.002 U	0.0056	0.0018 J							
Oxidation-Reduction Potential, Field	mV															
pH, Field	pH units	7.28	8.89	8.6	8.59	8.69	8.58	8.55	8.61	8.71	8.6	8.85	8.83	8.85	8.79	8.68
Potassium	mg/L			1.05	1.49	2.6 B	0.92 J	1.2	0.91 J	0.84 J	1	0.93 J	0.9 J	0.98 J	0.87 J	1.1
Radium-226	pCi/L	0.356	0.547	0.32	0.257	0.303	0.116	0.147	0.171							
Radium-226/228	pCi/L	1.348	1.827	0.595	0.701	0.497	0.339	0.539	0.53							
Radium-228	pCi/L	0.992	1.28	0.275	0.444	0.194 U	0.224 U	0.393	0.359							
Redox Potential, Field	mV	167.6	70.5	-68	88.2											
Selenium	mg/L	7E-05 J	4E-05 J	5E-05	0.0001 U	0.00073 J	0.005 U	0.005 U	0.005 U							
Silver	mg/L					0.0005 J	0.001 U	0.001 U	0.001 U							
Sodium	mg/L			414	405	440 JB	480 B	460 B	440 JB	440	460	470	490	430	450	470
Strontium	mg/L			0.199	0.19	0.22 B	0.19 B	0.2 B	0.19							
Sulfate	mg/L	493	516	567	521	560 J	570	560	560	560	570	570	540	540	530	430
Temperature, Field	deg C	15.16	18.6	15.2	12.4					13.1				13	16	14
Thallium	mg/L	2E-05 J	4E-05 J	1E-05	5.2E-05	0.001 U	0.001 U	0.001 U	0.001 U							
Turbidity, Field	NTU	3.3	5.1	6.7	1.9	61.2	28.9	31.1	5.7	1.2	1.96		3	16.5	0.3	4.3
Vanadium	mg/L					0.013			0.005 U							
Zinc	mg/L					0.026	0.02 U	0.02 U	0.02 U							

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	Location	2000	2000	2000	2000	2000	2000	2003	2003	2003	2003	2003	2003	2003	2003
		Date	2021-03-22	2021-09-19	2022-03-23	2022-09-20	2023-04-05	2023-09-25	2016-12-01	2017-02-08	2017-03-27	2017-05-01	2017-06-12	2018-10-29	2019-09-21	2020-03-24
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Alkalinity, Total as CaCO3	mg/L	390	360	210 J	380	410	400	709	680				730	740	750	760
Aluminum	mg/L			0.064						61 J	34	27	28			
Antimony	mg/L			0.002 U		0.002 U	0.002 U	0.00029	0.0002	0.0014 JB	0.00087 J	0.00074 J	0.00058 J			
Arsenic	mg/L			0.0024		0.0019 J	0.0013 J	0.00826	0.0074	0.03	0.019	0.02	0.021			
Barium	mg/L			0.028		0.027	0.024	0.175	0.145	0.41 B	0.39	0.29	0.2			
Beryllium	mg/L			0.001 U		0.001 U	0.001 U	0.000166	0.000162	0.0031	0.0022	0.0016	0.0011			
Bicarbonate Alkalinity as CaCO3	mg/L	350	320	170 J	320	350	360						710	710	710	730
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.37	0.32	0.37 J	0.35	0.32	0.3	0.461	0.462	0.46	0.48	0.51	0.48	0.44	0.41	0.45
Bromide	mg/L							2.7	2.25	2.6 J	2.4 J	2 J				
Cadmium	mg/L			0.00019		0.001 U	0.001 U	8E-05	6E-05	0.001 U	0.001 U	0.001 U	0.001 U			
Calcium	mg/L	3	2.7	2.9	2.4	2.4	2.6	8.98	8.37	12 B	15	12	7.5	5.8	5	5.7
Carbonate Alkalinity as CaCO3	mg/L	41	38	42	54	64	40						27	21	34	28
Chloride	mg/L	87	110	120	110	130	89	643	700	650	690	560	430	390	500	440
Chromium	mg/L			0.012 J		0.0046 J	0.0019 J	0.0011	0.0839	0.11 B	0.058	0.055	0.037			
Cobalt	mg/L			0.00027 J		0.00034 J	0.001 U	0.00251	0.00382	0.023	0.014	0.013	0.0075			
Conductivity, Field	uS/cm	2005	2047	2124	2145	2229	2053	3638	3676						2692	2760
Copper	mg/L			0.005 U						0.023 B	0.018 B	0.019 B	0.0076			
Dissolved Oxygen, Field	mg/L			1.62	1.01	0.76	0.76	1.03	1.28							
Dissolved Solids, Total	mg/L	1300	1400	1200	1200	1300	1200	1950	1960	2100 J	2400 J	2100	1800	1600	1400	1600
Fluoride	mg/L	2.1	2.5	2.5	2.4 U	2.4	2.4	2.7	2.36	2.9	2.8	2.7	3.2	3.6	3.4	3.2
Iron	mg/L			0.18 J						67 JB	38	36	19			
Lead	mg/L			0.0005 U		0.001 U	0.001 U	0.00144	0.00165	0.031 J	0.019	0.018	0.0097			
Lithium	mg/L			0.016		0.015	0.017	0.024	0.019	0.084	0.05	0.051	0.051			
Magnesium	mg/L	0.76 J	0.7 J	0.77	0.71 J	0.73 J	0.72 J	2.26	2.65	9.6 B	7.3	5.9	4	1.5	1.3	1.6
Manganese	mg/L			0.027 J						0.21 B	0.17	0.13	0.062			
Mercury	mg/L			0.0002 U	0.0002 U	0.0002 U	0.0002 U	1.7E-05	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U			
Molybdenum	mg/L			0.034		0.03	0.032	0.105	0.125	0.12	0.1	0.12 J	0.16			
Nickel	mg/L			0.0019 J						0.074 B	0.039	0.04	0.025			
Oxidation-Reduction Potential, Field	mV			-57.5	-35.5	-45.2	-110.8									
pH, Field	pH units	8.68	8.68	8.75	8.7	8.66	8.72	8.02	7.84	7.94	7.87	7.83	8.06	8.19	8.26	8.21
Potassium	mg/L	0.98 J	0.78 J	1	0.83 J	0.9 J	0.88 J	2.61	3.22	11 B	7.2	6	5.9	1.8	1.5	2
Radium-226	pCi/L			0.674	0.156	0.113 U	0.144 U	0.555	0.193	0.937	0.45	1.48	0.909			
Radium-226/228	pCi/L			1.1	0.857 J	0.449 U	1.45 J	0.975	1.483	2.93	0.95	2.05	1.71			
Radium-228	pCi/L			0.421 U	0.701 J	0.337 U	1.31 J	0.42	1.29	2 G	0.5 U	0.57 U	0.797			
Redox Potential, Field	mV							4	-122.2							
Selenium	mg/L			0.0012 J		0.005 U	0.005 U	0.0013	0.0011	0.0068	0.0034 J	0.0046 J	0.0017 J			
Silver	mg/L			0.001 U						0.00074 J	0.00023 J	0.00061 J	0.0005 J			
Sodium	mg/L	470	460	460	460	430	470	605	628	730 JB	740 B	730	630	620	590	610
Strontium	mg/L			0.21				0.593	0.567	0.84 B	0.94 B	0.69 B	0.52			
Sulfate	mg/L	490	530	500	530	550	550	77.8	65.3	84 J	84	86	73	74	72	84
Temperature, Field	deg C	14	15	16	17.7	16.7	17.7	12.5	13.1						14	16
Thallium	mg/L			0.001 U		0.001 U	0.001 U	4E-05	3E-05 J	0.00031 J	0.001 U	0.001 U	0.0002 J			
Turbidity, Field	NTU	4.3	0.4	0.1	8.86	11.8	6.76	123.9	265.2	530.1	336.7	236.9	1000	60	24.3	43.1
Vanadium	mg/L															
Zinc	mg/L			0.28 J						0.11	0.07	0.059	0.041			

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

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Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	2003 2021-04-15 N	2003 2021-09-29 N	2003 2022-03-23 N	2003 2022-05-10 N	2003 2022-09-20 N	2003 2023-04-05 N	2003 2023-09-22 N	2016-03 2016-08-24 N	2016-03 2016-10-03 N	2016-03 2016-12-01 N	2016-03 2017-01-31 N	2016-03 2017-03-27 N	2016-03 2017-04-27 N	2016-03 2017-06-07 N	2016-03 2017-07-14 N	
Alkalinity, Total as CaCO3	mg/L	780	770	330	750	780	870	830			482	443					
Aluminum	mg/L			2.6									0.03 J	0.05 U	0.05 U	0.045 J	
Antimony	mg/L			0.002 U	0.002 U		0.00065 J	0.002 U	0.00096	0.00041	0.0004	0.00026	0.002 U	0.002 U	0.002 U	0.002 U	
Arsenic	mg/L			0.018	0.019		0.031	0.028	0.00059	0.00092	0.0007	0.00063	0.00058 J	0.001 J	0.00082 J	0.00088 J	
Barium	mg/L			0.13	0.13		0.18	0.15	0.0321	0.0383	0.0256	0.0241	0.026 JB	0.024	0.026	0.025	
Beryllium	mg/L			0.001 U	0.001 U		0.00072 J	0.001 U	1E-05 J	7.2E-05	1E-05 J	6E-06 J	0.001 U	0.001 U	0.001 U	0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L	740	750	330	740	770	850	820									
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.45	0.44	0.59 J		0.45	0.5	0.46	0.43	0.35	0.361	0.416	0.43	0.44 B	0.45	0.44	
Bromide	mg/L										0.614	3.5	0.4 J	2.5 U	2.5 UJ	2.5 U	
Cadmium	mg/L			0.0001 U	0.001 U		0.001 U	0.001 U	0.00012	0.0001	0.00016	6E-05	0.001 U	0.001 U	0.001 U	0.001 U	
Calcium	mg/L	9	5.8	7.7		23	7.1	7.1	149	129	128	134	140 B	140	150	140	
Carbonate Alkalinity as CaCO3	mg/L	34	23	5 U	9.5	8.8	14	17									
Chloride	mg/L	440	480	390		430	390	440	21.7	21.8	22.7	867	22	23	22 J	22	
Chromium	mg/L			0.014 J	0.011		0.026	0.014	0.0002	0.0002	0.000162	0.000852	0.00064 JB	0.002 U	0.002 U	0.002 U	
Cobalt	mg/L			0.00094	0.0028		0.0072	0.0038	0.000403	0.000563	0.0005	0.000246	0.00029 J	0.00055 J	0.00019 J	0.00034 J	
Conductivity, Field	uS/cm	2783	2824	2641	2619	3094	2975	2941	1564	1599	1595	1328					
Copper	mg/L			0.005 U									0.0018 JB	0.002 U	0.002 U	0.002 U	
Dissolved Oxygen, Field	mg/L			1.4	0.96	1.95	0.84	1.18	4.38	1.15	1.77	2.38					
Dissolved Solids, Total	mg/L	1800	1700	1600		2700	1800	1700	1090	1080	1020	1990	1100	1100 J	1000	1000 J	
Fluoride	mg/L	3.3	3.5	3.8	3.6	3 U	3.4	3.5	0.2	0.18	0.16	2.33	0.21 J	0.19 J	0.21 J	0.19 J	
Iron	mg/L			1.9									0.087 JB	0.068 J	0.064 J	0.087 J	
Lead	mg/L			0.0011 J	0.0027		0.0079	0.0038	0.000324	0.000456	0.000213	0.000105	0.00026 J	0.001 U	0.001 U	0.001 U	
Lithium	mg/L			0.024	0.026		0.038	0.03	0.03	0.03	0.034	0.031	0.029	0.034	0.029	0.034	
Magnesium	mg/L	4.2	1.6	1.9	2.2	18	3.4	2.7			38.6	40.5	40 B	40	46	40	
Manganese	mg/L			0.02 J									0.051 B	0.1	0.11	0.061	
Mercury	mg/L			0.0002 U	0.00013 J	0.0002 U	0.0002 U	0.0002 U	1.1E-05	4E-05	3.9E-05	1.8E-05	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Molybdenum	mg/L			0.14	0.13		0.14	0.13	0.0154	0.00646	0.00649	0.00523	0.0049 J	0.0043 J	0.004 J	0.0038 J	
Nickel	mg/L			0.0035 J									0.0015 JB	0.002 U	0.002 U	0.002 U	
Oxidation-Reduction Potential, Field	mV			12.2	42.5	138.4	132.1	90.4									
pH, Field	pH units	8.08	8.08	7.91	8	7.92	7.94	8.06	7.07	7.92	6.91	6.99	6.93	6.93	6.9	6.88	6.93
Potassium	mg/L	5.1	1.8	2.3	2.7	18	4.2	3.2			4.63	5.03	4.3 JB	4.4	4.8	4.6	
Radium-226	pCi/L			1.19	0.169 U	2.62	-0.309 U	0.274 U	0.306	0.225	0.266	0.854	0.194	0.195	0.201	0.207	
Radium-226/228	pCi/L			1.7 U	0.68 U	5.52 J	3.11 U	1.69	0.409	1.295	0.44	1.121	0.456	0.541	0.59	1.02	
Radium-228	pCi/L			0.506 U	0.511 U	2.9 J	3.42 U	1.41	0.103	1.07	0.174	0.267	0.262 U	0.347	0.389	0.816	
Redox Potential, Field	mV							20.9	48.2	50.5	73.5						
Selenium	mg/L			0.0025 J	0.0026 J		0.0091	0.008	0.0002	0.0003	0.0001	0.0001	0.005 U	0.005 U	0.005 U	0.005 U	
Silver	mg/L			0.001 U									3E-05 J	0.001 U	0.00041 J	0.00044 J	
Sodium	mg/L	630	640	600	610	660	640	700			171	156	150 JB	160 B	150 B	150 B	
Strontium	mg/L			0.47							2.95	3.25	3.6 JB	3.7	4.4 B	3.4 J	
Sulfate	mg/L	76	70	61		66	72	72	446	445	362	132	390	420	440 J	400	
Temperature, Field	deg C	13	14	15	14.8	18	14.9	16.8	15.8	15.6	12.8	13					
Thallium	mg/L			0.001 U	0.001 U		0.001 U	0.001 U	2E-05 J	3E-05 J	2E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	
Turbidity, Field	NTU	683	19.7	70.7	122	1077.17	160.41	127.73	6.4	9	8.1	4.9	2.1	1.3	1.4	6.4	
Vanadium	mg/L																
Zinc	mg/L			0.3 J									0.02 U	0.02 U	0.02 U	0.02 U	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	2016-03 2018-03-21 N	2016-03 2018-09-25 N	2016-03 2019-03-15 N	2016-03 2019-09-24 N	2016-03 2020-03-25 N	2016-03 2020-09-21 N	2016-03 2021-03-16 N	2016-03 2021-09-24 N	2016-03 2022-03-28 N	2016-03 2022-09-12 N	2016-03 2022-12-02 N	2016-03 2023-03-29 N	2016-03 2023-09-18 N	2016-04 2016-08-24 N	2016-04 2017-01-31 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	430	430	440 B	450	500	340	340	320	250	290		250	270		50.7
Aluminum	mg/L									0.036 J						
Antimony	mg/L									0.002 U			0.002 U	0.002 U	0.00116	0.00033
Arsenic	mg/L									0.0021			0.0014 J	0.0022 J	0.00421	0.00259
Barium	mg/L									0.025			0.028	0.023	0.117	0.065
Beryllium	mg/L									0.001 U			0.001 U	0.001 U	4E-05 U	2.2E-05
Bicarbonate Alkalinity as CaCO3	mg/L	430	430	440 B	450	500	340	340	320	250	290		250	270		
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.43	0.43	0.41	0.39	1.6	1.7	1.7	2.1	2.2 J	2.8		2.5	2.4	0.343	0.227
Bromide	mg/L															0.896
Cadmium	mg/L									0.0001 U			0.001 U	0.001 U	5E-05	7E-05
Calcium	mg/L	140	140	120	130	290	330	370	450	450	490		460	470	9.88	47.6
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 U	5 U		
Chloride	mg/L	24	23	23	24	32	50	38	30	24	26		22	18	1060	204
Chromium	mg/L									0.005 U			0.005 U	0.005 U	0.0305	0.00651
Cobalt	mg/L									0.0019			0.0011	0.0012	0.000641	0.000173
Conductivity, Field	uS/cm	1511				2101	2232	2462	2700	2738	2781		2505	2148	6270	1328
Copper	mg/L									0.005 U						
Dissolved Oxygen, Field	mg/L	0.26								0.76	0.4		0.93	1.84	1.04	2.38
Dissolved Solids, Total	mg/L	1100	1000	1000	1000	1300	1800	2100	2300	2300 J		2300	2500	2300	2630	952
Fluoride	mg/L	0.24	0.22	0.19	0.23	0.19	0.13	0.18	0.19	0.15	0.13		0.11	0.094	1.28	0.5
Iron	mg/L									1.8						
Lead	mg/L									0.0005 U			0.001 U	0.001 U	0.000238	0.000454
Lithium	mg/L									0.036			0.034	0.038	0.236	0.035
Magnesium	mg/L	40	41	40	42	81	81	94	110	97	110		100	98		6.97
Manganese	mg/L									3						
Mercury	mg/L									0.0002 U	0.0002 U		0.0002 U	0.0002 U	1.3E-05	7E-06
Molybdenum	mg/L									0.0022 J			0.0016 J	0.0016 J	0.0864	0.0728
Nickel	mg/L									0.003 J						
Oxidation-Reduction Potential, Field	mV									-52.7	-30.2		-8.7	61.8		
pH, Field	pH units	7.03	7	7.13	7.27	6.93	6.82	6.79	6.65	6.73	6.59		6.65	6.92	8.4	6.93
Potassium	mg/L	4.6	4.6	8.4	5.3	6.2	6.3	7.2	6.9	6.9	7.1		7.1	7.4		7.01
Radium-226	pCi/L									0.689	0.107 U		0.303	0.35	0.656	0.617
Radium-226/228	pCi/L									2.16	0.939		0.825	1.42	1.08	1.328
Radium-228	pCi/L									1.47	0.832		0.522	1.07	0.424	0.711
Redox Potential, Field	mV														-174.3	73.5
Selenium	mg/L									0.00099 J			0.005 U	0.005 U	0.0021	0.0007
Silver	mg/L									0.001 U						
Sodium	mg/L	160	150	190	190	150	110	130	130	93	96		95	89		219
Strontium	mg/L									8.3						1.34
Sulfate	mg/L	400	410	400	360	980	1200	1300	1500	1500	1700		1600	1800	252	326
Temperature, Field	deg C	12.6				14	14	14	14	12	14.5		13.5	14.6	15.2	13
Thallium	mg/L									0.001 U			0.001 U	0.001 U	3E-05 J	1E-05 J
Turbidity, Field	NTU	1	1.68		4	1	4	6.5	5.1	2.7	11.34		5.01	5.48	9.1	4.9
Vanadium	mg/L															
Zinc	mg/L									0.02 U						

Notes:
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N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	Location Date Sample Type	2016-04 2017-03-27 N	2016-04 2017-04-27 N	2016-04 2017-06-07 N	2016-04 2017-07-14 N	2016-04 2018-03-22 N	2016-04 2018-09-11 N	2016-04 2019-03-15 N	2016-04 2019-09-24 N	2016-04 2020-03-25 N	2016-04 2020-09-21 N	2016-04 2021-04-15 N	2016-04 2021-11-03 N	2016-04 2022-03-28 N	2016-04 2022-09-12 N	2016-04 2022-12-02 N
Alkalinity, Total as CaCO3	mg/L							250	290 B	300	340	280	300	280	260	290	
Aluminum	mg/L		0.39 J	0.05 U	0.058	0.05 U									0.23		
Antimony	mg/L		0.00067 JB	0.00087 J	0.002 U	0.00097 J		0.002 U	0.002 U						0.002 U		
Arsenic	mg/L		0.0054	0.0044 J	0.0019 J	0.0039 J		0.0016 J	0.0015 J						0.00091 J		
Barium	mg/L		0.14 JB	0.16	0.41	0.24		0.091	0.077						0.053		
Beryllium	mg/L		0.001 U	0.001 U	0.001 U	0.00038 J		0.00058 J	0.00085 J						0.001 U		
Bicarbonate Alkalinity as CaCO3	mg/L							250	290 B	300	340	280	300	280	260	290	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L		0.27	0.27 B	0.36	0.3		0.38	0.39	0.39	0.87	0.75	2.3	3.3	3 J	3	
Bromide	mg/L		4 J	7.4 J	9.3 J	4.8 J			1								
Cadmium	mg/L		0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.00021 J						0.0001 U		
Calcium	mg/L		22 B	18	33	24		87	93	96	120	120	520	540	560	460	
Carbonate Alkalinity as CaCO3	mg/L							5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Chloride	mg/L		820	1700	2100 J	1100		240	180	200	380	1000	46	29	25	26	
Chromium	mg/L		0.0054 JB	0.0027	0.002 U	0.0016 J		0.002 U	0.002 U						0.0046 J		
Cobalt	mg/L		0.00026 J	0.001 U	0.001 U	0.00027 J		0.001 U	0.00031 J						0.0014		
Conductivity, Field	uS/cm						2138				2822	6404	2948	2831	3032	2858	
Copper	mg/L		0.0024 B	0.002 U	0.002 U	0.002 U									0.0071 J		
Dissolved Oxygen, Field	mg/L						3.92								1.74	0.52	
Dissolved Solids, Total	mg/L		1900	3300 J	3600	2400 J		1100	1200	920	1500	2400	2600	2700	2400 J		2500
Fluoride	mg/L		1.4	1.2	1.2 J	1.1		0.36	0.29	0.32	0.45	0.73	0.15	0.15	0.15	0.13	
Iron	mg/L		0.38 JB	0.1 U	0.1 U	0.1 U									0.86		
Lead	mg/L		0.00043 J	0.001 U	0.001 U	0.00055 J		0.001 U	0.001 U						0.0005 U		
Lithium	mg/L		0.044	0.072	0.066	0.066		0.053	0.05						0.035		
Magnesium	mg/L		3.8 B	4.2	13	5.8				38	39	36	110	100	110	90	
Manganese	mg/L		0.0083 B	0.005	0.022	0.01									1.7		
Mercury	mg/L		0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U						0.0002 U	0.0002 U	
Molybdenum	mg/L		0.12 J	0.11	0.051	0.093		0.015	0.01						0.002 U		
Nickel	mg/L		0.0034 B	0.002 U	0.002 U	0.0015 J									0.0037 J		
Oxidation-Reduction Potential, Field	mV														69.2	79.2	
pH, Field	pH units		7.79	7.82	7.8	8.22	7.75	7.62	7.62	7.71	7.76	8.56	6.73	6.61	6.68	6.56	
Potassium	mg/L		7.3 JB	13	7.2	9.3				8.6	7.4	16	9.3	8.2	8.3	7	
Radium-226	pCi/L		0.823	0.651	0.481	0.552 J		0.247	0.307						0.595	0.385 U	
Radium-226/228	pCi/L		1.51	1.27	1.19	1.21		0.512	0.482						1.37	1.22 U	
Radium-228	pCi/L		0.689	0.614	0.71	0.663		0.265 U	0.175 U						0.772	0.839 U	
Redox Potential, Field	mV																
Selenium	mg/L		0.0026 J	0.0022 J	0.005 U	0.0032 J		0.005 U	0.005 U						0.005 U		
Silver	mg/L		0.00016 J	0.001 U	0.00017 J	7E-05 J									0.001 U		
Sodium	mg/L		670 JB	710	1400 B	880 B				260	380	980	100	77	73	57	
Strontium	mg/L		0.94 JB	1.3	1.5 B	1.5									7.6		
Sulfate	mg/L		330	230	190 J	290		420	410	390	520	750	1800	1800	1800	1700	
Temperature, Field	deg C						12.3				13	14	12	14	11	15.5	
Thallium	mg/L		0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U						0.001 U		
Turbidity, Field	NTU		6.4	2.8	2.8	6.4	3	1.28		4	60.9		253	143	71.7	18.98	
Vanadium	mg/L																
Zinc	mg/L		0.02 U	0.02 U	0.02 U	0.02 U									0.02 U		

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
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B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date	2016-04 2023-03-29	2016-04 2023-09-18	2016-05 2016-06-08	2016-05 2016-08-25	2016-05 2016-10-05	2016-05 2016-12-01	2016-05 2017-02-01	2016-05 2017-03-27	2016-05 2017-04-27	2016-05 2017-06-08	2016-05 2017-07-14	2016-05 2023-03-29	2016-05 2023-09-19	2016-06 2016-08-25	2016-06 2016-10-03
Analyte	Unit	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Alkalinity, Total as CaCO3	mg/L	250	270				229	211					210	190		
Aluminum	mg/L								0.3 J	0.05 U	0.5	0.55				
Antimony	mg/L	0.002 U	0.002 U		0.00015	0.0001 J	8E-05	4E-05 J	0.002 U	0.00072 J	0.00067 J	0.002 U	0.002 U	0.002 U	0.00019	0.00025
Arsenic	mg/L	0.005 U	0.005 U		0.00078	0.00074	0.00051	0.00028	0.005 U	0.005 U	0.00088 J	0.00079 J	0.0055	0.0018 J	0.00225	0.0023
Barium	mg/L	0.048	0.042		0.052	0.0432	0.0382	0.0331	0.049 JB	0.043	0.044 B	0.038	0.056	0.035	0.0707	0.0649
Beryllium	mg/L	0.001 U	0.001 U		0.000107	6E-05 J	3.4E-05	8E-06 J	0.001 U	0.001 U	0.00067 J	0.001 U	0.001 U	0.001 U	0.000198	0.000143
Bicarbonate Alkalinity as CaCO3	mg/L	250	270										210	190		
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	2.9	2.9		0.116	0.088	0.088	0.11	0.1	0.1 JB	0.11	0.1	0.08 J	0.088 J	0.501	0.424
Bromide	mg/L						0.552	0.155	0.17 J	0.15 J	0.23 J	0.26 J				
Cadmium	mg/L	0.001 U	0.001 U		3E-05	2E-05 J	1E-05 J	8E-06 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	1E-05 J	2E-05 J
Calcium	mg/L	550	550		40.2	35.8	45	39.7	66 B	53	40	31	59	39	5.87	5.51
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U										5 U	5 U		
Chloride	mg/L	20	17		16.3	17.2	16.9	11.4	9.2	9.6	14	16	6.2	12	545	560
Chromium	mg/L	0.0031 J	0.0028 J		0.0015	0.0012	0.000802	0.000582	0.0017 JB	0.002 U	0.0033	0.0025	0.0041 J	0.0024 J	0.0092	0.077
Cobalt	mg/L	0.00043 J	0.00035 J		0.00299	0.00267	0.00158	0.000274	0.00042 J	0.00028 J	0.0011	0.00088 J	0.0027	0.00067 J	0.00208	0.00283
Conductivity, Field	uS/cm	2548	2168		717	670	694	708						648	2898	2931
Copper	mg/L								0.00073 JB	0.002 U	0.0039	0.0042 B				
Dissolved Oxygen, Field	mg/L	0.69	1.32		7.62	8.64	7.9	9.83						9.82	0.6	0.58
Dissolved Solids, Total	mg/L	2600	2400		474	406	430	388	500	460 J	410	400 J	410	400	1560	1560
Fluoride	mg/L	0.1	0.096		0.19	0.19	0.19	0.18	0.2	0.21	0.22	0.22	0.13	0.14	5.28	5.09
Iron	mg/L								0.45 JB	0.1 U	0.93	0.78				
Lead	mg/L	0.001 U	0.001 U		0.00194	0.00137	0.000848	0.000206	0.00036 J	0.001 U	0.0012	0.00077 J	0.0036	0.00092 J	0.00371	0.00151
Lithium	mg/L	0.03	0.03		0.019	0.016	0.011	0.012	0.011	0.013	0.012	0.014	0.01	0.011	0.029	0.024
Magnesium	mg/L	94	89				18.1	19.6	22 B	20	19	16	24	19		
Manganese	mg/L								0.0099 B	0.005 U	0.022	0.02				
Mercury	mg/L	0.0002 U	0.0002 U		8E-06	1E-05	1.7E-05	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	5E-06 J	1.1E-05
Molybdenum	mg/L	0.0016 J	0.0011 J		0.00109	0.00115	0.00231	0.00071	0.00064 J	0.01 U	0.0012 J	0.01 U	0.0014 J	0.005 U	0.0595	0.0952
Nickel	mg/L								0.0013 JB	0.002 U	0.0026	0.0027				
Oxidation-Reduction Potential, Field	mV	183.8	189.7											185.7		
pH, Field	pH units	6.56	6.95	7.88	7.89	7.93	7.79	7.8	7.48	7.82		8.01		7.99	8.51	8.36
Potassium	mg/L	8.6	8.4				2.72	2.35	2.4 JB	2.3	2.5	2.3	2.5	2.2		
Radium-226	pCi/L	0.186 U	0.231		0.5	0.369	0.299	0.4	0.176	0.14	0.0681 U	0.13	0.151 U	0.175 U	0.325	0.818
Radium-226/228	pCi/L	0.763	0.881		1.027	0.703	1.429	0.40713	0.365 U	0.0784 U	0.0846 U	0.575	0.33 U	J	0.756	2.268
Radium-228	pCi/L	0.577	0.65		0.527	0.334	1.13	0.00713	0.189 U	-0.0618 U	0.0165 U	0.445	0.178 U	0.413 U	0.431	1.45
Redox Potential, Field	mV				162.5	206.5	119.4	162.7							72.2	60.6
Selenium	mg/L	0.005 U	0.005 U		0.0005	0.0005	0.0002	0.0001	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0003	0.0002
Silver	mg/L								0.001 U	0.001 U	0.001 U	0.0013				
Sodium	mg/L	63	61				84.5	69.3	71 JB	74 B	82	74 B	58	74		
Strontium	mg/L						0.879	0.89	1.1 JB	1.1	0.87 B	0.81				
Sulfate	mg/L	1700	1500		138	120	116	132	150	160	140	130	150	140	103	96.5
Temperature, Field	deg C	12.8	14.4		18.2	16.8	13	11.8						18.1	19.1	16
Thallium	mg/L	0.001 U	0.001 U		2E-05 J	0.0002 U	2E-05 J	3E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	3E-05 J	2E-05 J
Turbidity, Field	NTU	7.41	5.59	8.5	280.1	160.9	56.6	9.6	5.4	13.6		7.7		18.91	99.6	45.2
Vanadium	mg/L															
Zinc	mg/L								0.02 U	0.02 U	0.02 U	0.02 U				

Notes:
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Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	2016-06 2016-12-01 N	2016-06 2017-02-01 N	2016-06 2017-03-27 N	2016-06 2017-04-27 N	2016-06 2017-06-08 N	2016-06 2017-07-14 N	2016-06 2018-03-22 N	2016-06 2018-09-25 FD	2016-06 2018-09-25 N	2016-06 2019-03-26 N	2016-06 2019-09-22 N	2016-06 2020-03-15 FD	2016-06 2020-03-15 N	2016-06 2020-09-17 N	2016-06 2021-03-17 N
Alkalinity, Total as CaCO3	mg/L	490	554						490	490	510	500	510	510	480	490
Aluminum	mg/L			3.7 J	0.17	3.6	1.7									
Antimony	mg/L	0.00023	0.00026	0.00047 JB	0.00078 J	0.002 U	0.002 U									
Arsenic	mg/L	0.00195	0.00214	0.0034 J	0.0017 J	0.0026 J	0.0024 J									
Barium	mg/L	0.0525	0.0515	0.068 JB	0.05	0.064 B	0.059									
Beryllium	mg/L	3.4E-05	6.8E-05	0.001 U	0.001 U	0.00035 J	0.001 U									
Bicarbonate Alkalinity as CaCO3	mg/L								460	470	460	470	470	470	460	470
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.418	0.463	0.5	0.52 B	0.52	0.5		0.48	0.49	0.5	0.45	0.46	0.48	0.46	0.5
Bromide	mg/L	2.18	1.85	2.4 J	2.1 J	2.3 J	2.1 J									
Cadmium	mg/L	3E-05	4E-05	0.00061 J	0.001 U	0.001 U	0.001 U									
Calcium	mg/L	4.6	4.45	5 B	3.5	4.1	4		4.4	4.8	4.9	4.4	4.1	4.2	5.1	5
Carbonate Alkalinity as CaCO3	mg/L								26	23	41	35	36	36	24	26
Chloride	mg/L	515	548	550	550	570	540		600	620	580	540	650	660	630	620
Chromium	mg/L	0.0205	0.0625	0.068 JB	0.022	0.058 J	0.062									
Cobalt	mg/L	0.00156	0.00106	0.0019	0.00068 J	0.0038	0.0018									
Conductivity, Field	uS/cm	3126	2933					2792					2888	2888	2979	2946
Copper	mg/L			0.005 JB	0.002 U	0.0071	0.007 B									
Dissolved Oxygen, Field	mg/L	1.02	1.4					0.38								
Dissolved Solids, Total	mg/L	1570	1540	1600	1600 J	1700	1600 J		1400	1400	1600	1500	1600	1600	1400	1700
Fluoride	mg/L	4.89	5.2	6	5.9	6.3	6.1		5.8	5.7	5.6	5.8	5.5	5.5	5.5	5.1
Iron	mg/L			3.4 JB	0.24	3.3	1.7									
Lead	mg/L	0.00039	0.000607	0.0016 J	0.001 U	0.0013	0.00083 J									
Lithium	mg/L	0.027	0.034	0.034	0.032	0.031	0.032									
Magnesium	mg/L	1.28	1.4	1.7 B	1	1.8	1.3		1.4	1.4	1.6	1.4	1.3	1.4	1.5	1.4
Manganese	mg/L			0.022 B	0.0068	0.019	0.018									
Mercury	mg/L	1.6E-05	3E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U									0.0002 U
Molybdenum	mg/L	0.0674	0.0804	0.091 J	0.076	0.074	0.073									
Nickel	mg/L			0.031 B	0.029	0.13	0.05									
Oxidation-Reduction Potential, Field	mV															
pH, Field	pH units	8.36	8.45	8.44	8.49	8.39	8.28	8.43		8.24	8.52	8.59	8.47	8.47	8.52	8.3
Potassium	mg/L	3.45	10.5	7.2 JB	6	5.6	4.8		3	3.4	4.8	3.8	2.7	2.9	2.9	2.1
Radium-226	pCi/L	0.392	0.252	0.163	0.163	0.195	0.152									
Radium-226/228	pCi/L	1.052	0.604	0.381	0.395	0.362 U	0.651									
Radium-228	pCi/L	0.66	0.352	0.217 U	0.232 U	0.167 U	0.498									
Redox Potential, Field	mV	79.4	107.6													
Selenium	mg/L	0.0003	0.0003	0.005 U	0.005 U	0.005 U	0.001 J									
Silver	mg/L			0.0012	0.001 U	9.1E-05 J	0.00017 J									
Sodium	mg/L	637	499	610 JB	620	590	600 B		600	610	600	590	600	610	610	620
Strontium	mg/L	0.274	0.269	0.3 JB	0.29	0.24 B	0.27									
Sulfate	mg/L	95.1	94.8	110	110	120	110		100	100	110	110	100	100	99	96
Temperature, Field	deg C	12.9	12					13.3					13	13	14	14
Thallium	mg/L	2E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	0.001 U									
Turbidity, Field	NTU	52.9	48.5	43.5	68.6	59.1	30.7	49		43.9		71	37.6	37.6	24.1	26.1
Vanadium	mg/L															
Zinc	mg/L			0.0097 J	0.02 U	0.02 U	0.02 U									

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	Location	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
		Date	2021-09-24	2022-03-28	2022-09-12	2022-12-02	2023-03-28	2023-09-15	2016-08-24	2016-10-05	2016-11-30	2017-01-31	2017-03-22	2017-04-27	2017-08-10	2018-04-05
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Alkalinity, Total as CaCO3	mg/L	510	480	530		510	530			514	483				360	300
Aluminum	mg/L		0.1									57 J	9.8	40		
Antimony	mg/L		0.002 U			0.002 U	0.002 U	0.00126	0.00091	0.00079	0.00045	0.0015 J	0.0024	0.0017 JB		
Arsenic	mg/L		0.0011 J			0.00093 J	0.004 J	0.00772	0.00705	0.00666	0.0042	0.016	0.0034 J	0.016		
Barium	mg/L		0.058			0.063	0.079	0.107	0.141	0.115	0.188	0.83 JB	0.7	1.3		
Beryllium	mg/L		0.001 U			0.001 U	0.001 U	0.000368	0.00027	0.000183	0.000428	0.0026	0.00091 J	0.0028		
Bicarbonate Alkalinity as CaCO3	mg/L	470	460	490		480	500								190	120
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.46	0.47 J	0.47		0.47	0.43	0.313	0.297	0.348	0.365	0.4	0.42 B	0.44	0.45	0.42
Bromide	mg/L									5.48	0.308	4.5 J	8 J	5.5		
Cadmium	mg/L		0.0001 U			0.001 U	0.001 U	7E-05	8E-05 J	0.0001	8E-05	0.001 U	0.001 U	0.00059 J		
Calcium	mg/L	4.8	4.5	4.8		4.4	5.2	13.3	11.5	8.2	9.9	15 B	25	41	12	12
Carbonate Alkalinity as CaCO3	mg/L	47	21	43		30	23								170	180
Chloride	mg/L	630	660	630		640	650	421	609	643	23.6	1000	1900	1200	1200	1100
Chromium	mg/L		0.0023 J			0.008	0.02	0.0015	0.0022	0.00163	0.00322	0.063 J	0.011	0.059		
Cobalt	mg/L		0.00028 J			0.00025 J	0.0025	0.00105	0.000905	0.000573	0.00167	0.016	0.0028	0.015		
Conductivity, Field	uS/cm	2972	3114	3040		3137	3103	2883	3250	2246	3388				4913	
Copper	mg/L		0.005 U									0.044 JB	0.0079	0.04 B		
Dissolved Oxygen, Field	mg/L		1.5	2.49		1.83	2.1	3.47	3.81	3.75	1.94				2.48	
Dissolved Solids, Total	mg/L	1400	1400 J		1500	1600	1600	1740	1850	1900	1000	2300	3900 J	2500 J	2300	1800
Fluoride	mg/L	5.4	5.4	5.7		5.5	5.5	1.89	2.04	1.94	0.18	2.3	1.6	2.6	2.8	2.9
Iron	mg/L		0.077 J									49 JB	8.5	47		
Lead	mg/L		0.0005 U			0.001 U	0.0026	0.00336	0.00292	0.00215	0.00336	0.031 J	0.0054	0.036 B		
Lithium	mg/L		0.02			0.021	0.027	0.235	0.193	0.202	0.163	0.16	0.062	0.19		
Magnesium	mg/L	1.3	1.3	1.5		1.2	1.9			1.36	2.83	11 B	8.3	12	3.9	3.4
Manganese	mg/L		0.011									0.24 B	0.075	0.31		
Mercury	mg/L		0.0002 U	0.0002 U		0.0002 U	0.0002 U	1.2E-05	1.7E-05	8E-06	5E-05 J	0.0002 U	0.0002 U	0.0002 U		
Molybdenum	mg/L		0.056			0.062	0.058	0.0808	0.0841	0.0953	0.0689	0.092 J	0.056	0.11 B		
Nickel	mg/L		0.011									0.043	0.0086	0.051		
Oxidation-Reduction Potential, Field	mV		52.6	10.4		142.1	4.7									
pH, Field	pH units	8.28	8.57	8.32		8.31	8.36	10.86	10.56	10.61	10.01	9.94	9.44	9.1	9.49	9.75
Potassium	mg/L	3.7	3.1	4.8		3.3	3.7			33.9	24.1	23 JB	6.5	19	6.6	6.8
Radium-226	pCi/L		0.0869 U	0.278 U		0.148 U	0.235 U	0.427	0.977	1.13	1.18	2.63	6.4	3.74 J		
Radium-226/228	pCi/L		0.347 U	0.716		0.619	1.48 J	0.427	3.077	2.17	2.84	4.35	12.7	8.09 J		
Radium-228	pCi/L		0.26 U	0.437 U		0.471 U	1.24 J		2.1	1.04	1.66	1.72 G	6.29 G	4.34 G		
Redox Potential, Field	mV							6.4	63	20.4	22					
Selenium	mg/L		0.005 U			0.005 U	0.005 U	0.0008	0.001	0.0007	0.0008	0.004 J	0.0015 J	0.0052		
Silver	mg/L		0.001 U									0.00078 J	0.00019 J	0.0037		
Sodium	mg/L	630	670	700		630	660			562	635	930 JB	1300	1000	920	850
Strontium	mg/L		0.34							0.624	0.815	1.3 JB	2.3	2.8 B		
Sulfate	mg/L	99	98	100		98	100	229	235	178	371	120	99	77	60	49
Temperature, Field	deg C	14	13	16.6		13.9	16.1	15.6	15.3	14.1	12.8				13.8	
Thallium	mg/L		0.001 U			0.001 U	0.001 U	8.4E-05	9E-05 J	4E-05 J	6.1E-05	0.00052 J	0.001 U	0.00066 J		
Turbidity, Field	NTU	15.2	5.8	12.11		12.16	127.3	213	98.2	88.1	455.1	850	13721	1037	174	81.4
Vanadium	mg/L											0.066				
Zinc	mg/L		0.02 U									0.12	0.02	0.12		

Notes:
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mV = Millivolts
NTU = Nephelometric Turbidity Unit
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Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	Location	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-08	2016-08
		Date	2019-03-26	2019-09-22	2020-03-15	2020-03-24	2020-09-17	2021-03-23	2021-09-24	2022-03-29	2022-05-09	2022-09-13	2022-10-20	2023-03-28	2023-09-14	2016-08-24
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Alkalinity, Total as CaCO3	mg/L	430	320	360	320	350	350	310	310	320	310	290	290	320		
Aluminum	mg/L								2.4							
Antimony	mg/L								0.00071 J	0.001 J			0.002 U	0.002 U	0.00134	0.00083
Arsenic	mg/L								0.0029	0.0022 J			0.003 J	0.0026 J	0.00795	0.00691
Barium	mg/L								0.58	0.3			0.54	0.41	0.312	0.279
Beryllium	mg/L								0.00034 J	0.001 U			0.001 U	0.001 U	4E-05 U	0.000182
Bicarbonate Alkalinity as CaCO3	mg/L	72	59	45	5 U	160	31	290	230	5 U	290	210	260	290		
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.38	0.39	0.41	0.28	0.41	0.32	0.42	0.5 J		0.46		0.44	0.46	0.318	0.286
Bromide	mg/L															
Cadmium	mg/L								0.00015	0.001 U			0.001 U	0.001 U	2E-05 J	3E-05 J
Calcium	mg/L	6.3	7.8	6	34	9.7	7.8	8.2	15	23		29	17	13	33.8	48.9
Carbonate Alkalinity as CaCO3	mg/L	350	260	310	110	190	310	24	82	220	16	82	30	29		
Chloride	mg/L	810	1000	1100	970	1100	840	1200	1100		1300	1300	1400	1200	452	645
Chromium	mg/L								0.0058	0.0029 J			0.0031 J	0.005 U	0.0012	0.0033
Cobalt	mg/L								0.0028	0.00092 J			0.00068 J	0.0002 J	0.000353	0.00278
Conductivity, Field	uS/cm			3442	4166	4034	3449	4555	4443	3565	5341	5141	5797	4254	8521	8800
Copper	mg/L								0.011							
Dissolved Oxygen, Field	mg/L								6.11	6.39	1.65	2.36	2.3	2.62	10.52	5.81
Dissolved Solids, Total	mg/L	2100	1900	1800 J	1900	1800	2000	2000	2200		2500 J	2300	2500	2300	2480	2660
Fluoride	mg/L	2.6	3.3	3.1	2.5	3.1	2.2	3.1	3	2.7	2.9	2.9	2.9	2.9	1.92	1.85
Iron	mg/L								3.8							
Lead	mg/L								0.0038	0.0017			0.0013	0.001 U	0.000143	0.00216
Lithium	mg/L								0.046	0.18			0.035	0.036	0.665	0.6
Magnesium	mg/L	2.6	2.3	2.3	0.88 J	3.1	1.4	4.1	5.2	1.2	5.8		4.6	3.9		
Manganese	mg/L								0.077							
Mercury	mg/L								0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U	2.4E-05	7E-06
Molybdenum	mg/L								0.077	0.081			0.092	0.1	0.121	0.0735
Nickel	mg/L								0.015							
Oxidation-Reduction Potential, Field	mV								26.2	117.8	-33.4	110.5	50	76.1		
pH, Field	pH units	10.41	10.4	9.85	11.98	9.65	10.59	8.44	8.73	11.63	8.35	8.81	8.64	8.61	12.52	12.41
Potassium	mg/L	8.4	4.4	4.3	7.4	4.3	9.8	3.3	3.5	9	4.7		3.3	3		
Radium-226	pCi/L								1.17	0.93	1.01		0.899	0.881	0.768	1.06
Radium-226/228	pCi/L								2.33	1.91	1.81		1.96	1.8	1.898	2.97
Radium-228	pCi/L								1.16	0.979	0.803		1.06	0.921	1.13	1.91
Redox Potential, Field	mV														-71.6	-38.5
Selenium	mg/L								0.0016 J	0.005 U			0.005 U	0.005 U	0.0028	0.0022
Silver	mg/L								0.0015							
Sodium	mg/L	840	760	730	640	790	670	860	950	620	920		920	910		
Strontium	mg/L								1.3							
Sulfate	mg/L	46	36	36	30	27	26	25	21		27	19	18	17	133	126
Temperature, Field	deg C			13	14	15	14	15	11	14.4	15.7	15	13.5	15	16	16.2
Thallium	mg/L								0.00043 J	0.00047 J			0.001 U	0.001 U	9E-05 J	7E-05 J
Turbidity, Field	NTU		32	9.8	14.1	7.1	12.6	7	208.8	4.28	254.07	335.01	57.07	14.04	871	253.7
Vanadium	mg/L															
Zinc	mg/L								0.021							

Notes:
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mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
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B: Compound was found in the blank and sample.
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Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Location Date	2016-08 2016-11-30 N	2016-08 2017-01-31 N	2016-08 2017-03-22 N	2016-08 2017-04-27 N	2016-08 2017-06-07 N	2016-08 2018-09-25 N	2016-08 2019-03-26 N	2016-08 2019-09-22 N	2016-08 2020-03-15 N	2016-08 2020-03-24 N	2016-08 2020-09-17 N	2016-08 2021-03-23 N	2016-08 2021-09-24 N	2016-08 2022-03-29 N	2016-08 2022-05-03 N
Analyte	Unit														
Alkalinity, Total as CaCO3	mg/L	1580	1400			1700	2000	1800	1100	1900	620	1900	1000	1900	1700
Aluminum	mg/L			4.7 J	0.39	8.1								0.17	
Antimony	mg/L	0.00095	0.00078	0.0012 J	0.0051	0.0013 J								0.002 U	0.002 U
Arsenic	mg/L	0.00652	0.00489	0.0054	0.0075	0.014								0.0012 J	0.0027 J
Barium	mg/L	0.416	0.446	0.97 JB	0.7	0.76								1.5	1.4
Beryllium	mg/L	0.000123	5.9E-05 J	0.001 U	0.001 U	0.005 U								0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L						5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bicarbonate Alkalinity as HCO3	mg/L														
Boron	mg/L	0.294	0.279	0.22	0.28 B	0.32	0.1	0.056 J	0.071 J	0.24	0.029 J	0.16	0.1 U	0.17	0.2 U
Bromide	mg/L	5.56	2.93	3.1 J	25 U	5 J									
Cadmium	mg/L	5E-05	1E-05 J	0.001 U	0.001 U	0.001 U								0.0001 U	0.001 U
Calcium	mg/L	57	80.6	190 B	140	140	340	450	390	190	510	190	620	240	660
Carbonate Alkalinity as CaCO3	mg/L						140	70	100	63	48	100	35	45	83
Chloride	mg/L	650	879	700	890	1200 J	920	510	610	1500	270	1400	180	860	110
Chromium	mg/L	0.00434	0.00374	0.011 J	0.0027	0.015 J								0.0024 J	0.005 U
Cobalt	mg/L	0.00172	0.00095	0.0024	0.00039 J	0.0037								0.00039 J	0.0002 J
Conductivity, Field	uS/cm	5904	7708							8027	8693	7699	8172	7178	9065
Copper	mg/L			0.026 JB	0.019	0.043 B									0.0066
Dissolved Oxygen, Field	mg/L	6.2	4.23												5.59
Dissolved Solids, Total	mg/L	2730	2750	2700	2900 J	3000	2400	2900	2700	2300 J	1700	2300	2400	1700	2100
Fluoride	mg/L	1.56	2.03	2	1.8 J	2.3 J	1.4	0.99	1.1	1.6	0.69	1.4	0.53	0.96	0.51
Iron	mg/L			4.5 JB	0.1 U	8.6									0.1 U
Lead	mg/L	0.00207	0.000987	0.0044 J	0.001 U	0.006								0.00079	0.001 U
Lithium	mg/L	0.702	0.652	0.85	0.75	0.64								0.42	0.37
Magnesium	mg/L	0.41	0.162	0.75 JB	1 U	1.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U
Manganese	mg/L			0.031 B	0.005 U	0.051								0.01 U	
Mercury	mg/L	3.7E-05	9E-06	0.0002 U	0.0002 U	0.0002 U								0.0002 U	0.0002 U
Molybdenum	mg/L	0.0982	0.102	0.094 J	0.12	0.14								0.0088	0.023
Nickel	mg/L			0.01	0.004	0.013								0.0054	
Oxidation-Reduction Potential, Field	mV														-77.6
pH, Field	pH units	12.59	12.45	12.65	12.35	12.42	12.45	12.67	12.43	11.89	12.67	12	12.43	11.59	12.49
Potassium	mg/L	92.4	99.3	110 JB	77	59	44	48	44	23	36	17	31	15	28
Radium-226	pCi/L	0.975	1.43	4.8	4.25	2.11									7.91
Radium-226/228	pCi/L	2.005	2.62	6.4	5.53	2.43									11.4
Radium-228	pCi/L	1.03	1.19	1.6	1.27	0.319 U									3.49
Redox Potential, Field	mV	-81.2	-89.5												
Selenium	mg/L	0.0019	0.0012	0.002 J	0.0022 J	0.0043 J								0.0012 J	0.005 U
Silver	mg/L			0.001 U	0.001 UJ	0.00026 J								0.00073 J	
Sodium	mg/L	704	747	920 JB	1100	1200 B	830	680	740	1100	310	1100	240	990	210
Strontium	mg/L	3.59	4.23	7.2 JB	6.7	5.7 B								11	
Sulfate	mg/L	120	90.4	71	70	89 J	27	14	16	28	12	23	6.4	15	4.9 J
Temperature, Field	deg C	13.8	13.1							12	14	15	14	14	10
Thallium	mg/L	5E-05 J	3E-05 J	0.001 U	0.001 U	0.001 U								0.001 U	0.001 U
Turbidity, Field	NTU	121.7	110.9	108.8	627.3	380.4	17.6		94	6.2	4.2	4.1	0.7	0.5	1.2
Vanadium	mg/L			0.017											
Zinc	mg/L			0.1 U	0.02 U	0.03								0.02 U	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	2016-09 2016-08-23 N	2016-09 2016-10-03 N	2016-09 2016-11-29 N	2016-09 2017-01-30 N	2016-09 2017-03-21 N	2016-09 2017-04-25 N	2016-09 2017-06-06 N	2016-09 2017-07-12 N	2016-09 2018-03-22 N	2016-09 2018-09-13 N	2016-09 2019-09-24 N	2016-09 2020-03-12 N	2016-09 2020-09-14 N	2016-09 2021-03-19 N	2016-09 2021-09-20 FD
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L			1250	1830	1400					820	1100	1400	1400	1500	1500
Aluminum	mg/L						1.3	3.3	1.9 B							
Antimony	mg/L	0.00076	0.00087	0.00082	0.00078	0.0014 J	0.0012 J	0.02 U	0.001 JB							
Arsenic	mg/L	0.0117	0.0145	0.0149	0.0144	0.026 J	0.016	0.016 J	0.016							
Barium	mg/L	0.684	0.566	0.49	0.433	0.42 JB	0.52	0.53	0.52							
Beryllium	mg/L	8.5E-05	3E-05 J	2E-05 J	2E-05 U	0.001 U	0.001 U	0.001 UJ	0.001 U							
Bicarbonate Alkalinity as CaCO3	mg/L										5 U	5 U	5 U	5 U	5 U	5 U
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.093	0.411	0.126	0.131	0.19	0.16 J	0.18 B	0.16 B			0.24	0.21	0.13	0.14	0.13
Bromide	mg/L			6.45	5.69	5.8 J	50 U	7.5	5.8 J							
Cadmium	mg/L	6E-05 U	6E-05 U	4E-05 J	1E-05 J	0.001 U	0.001 U	0.01 U	0.001 U							
Calcium	mg/L	78.6	202	49.7	42.3	30 B	35	47	55		16	18	230	79	60	56
Carbonate Alkalinity as CaCO3	mg/L										180	120	120	180	150	75
Chloride	mg/L	1500	1520	1490	1520	1600	2000	1700	1600		1800	1200	630	760	750	860
Chromium	mg/L	0.0455	0.0371	0.0299	0.0256	0.027 J	0.025	0.029 J	0.025							
Cobalt	mg/L	0.00056	0.000324	0.000245	0.000208	0.00092 J	0.00032 J	0.01 U	0.00071 J							
Conductivity, Field	uS/cm	14047	13957	15285	12613					9465			8091	8864	8971	8996
Copper	mg/L						0.013	0.022 B	0.017							
Dissolved Oxygen, Field	mg/L	5.1	2.86	2.39	2.91					0.32						
Dissolved Solids, Total	mg/L	4820	4480	4180	3900	4100	4300 J	4300	3900 J			2100	2300	2200	2700	2700
Fluoride	mg/L	1.67	1.58	1.02	1.39	1.9 J	2.1 J	1.8	1.5 J		2	1.9	1.1	0.92	0.97	1
Iron	mg/L						0.1 U	1.2	0.55							
Lead	mg/L	0.00215	0.000743	0.000281	0.000118	0.0021 J	0.001 U	0.001	0.00068 J							
Lithium	mg/L	0.561	0.082	0.392	0.324	0.23	0.3	0.27	0.25							
Magnesium	mg/L			0.058	0.006 J		1 U	10 U	0.22 J		1 U	1.2	0.75 J	0.33 J	1 U	1 U
Manganese	mg/L					0.016 B	0.005 U	0.05 U	0.0041 J							
Mercury	mg/L	1.2E-05	4E-06 J	6E-06	5E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U							
Molybdenum	mg/L	0.18	0.155	0.149	0.137	0.19 J	0.17	0.17	0.16							
Nickel	mg/L						0.0015 J	0.02 U	0.0031							
Oxidation-Reduction Potential, Field	mV															
pH, Field	pH units	12.49	12.6	12.64	12.66	12.55	12.44	12.46	12.49	12.59	12.07	12.45	12.61	12.6	12.38	12.33
Potassium	mg/L			55	48.8	28 JB	31	29	24		15	13	21	12	9.4	9.6
Radium-226	pCi/L	1.06	0.889	1.34	1.65	1.95	1.33	1.93	1.83 J							
Radium-226/228	pCi/L	1.924	2.559	1.729	2.472	2.69	2.29	3.76	2.61 J							
Radium-228	pCi/L	0.864	1.67	0.389	0.822	0.744 U	0.966	1.83	0.772 J							
Redox Potential, Field	mV	-68.6	-135.4	-113.7	-112.6											
Selenium	mg/L	0.0042	0.0038	0.0037	0.0029	0.0051 J	0.0029 J	0.05 U	0.0034 JB							
Silver	mg/L						0.001 U	0.00031 J	0.00074 J							
Sodium	mg/L			591	997	1700 JB	1600	1700 B	1500		1600	1200	870	930	980	1100
Strontium	mg/L			2.74	2.34	1.8 JB	2.6	1.4 B	2.2							
Sulfate	mg/L	77.1	72.2	73	61.7	64	88 J	65	85		74	56	71	53	44	42
Temperature, Field	deg C	15.9	15	13.5	9.3					12.8			13	14	13	14
Thallium	mg/L	7E-05 J	4E-05 J	0.0002 U	4E-05 J	0.001 U	0.001 U	0.001 U	0.001 U							
Turbidity, Field	NTU	8.7	8.6	6.8	2.1	22.3	56.3	35.1	61.3	9	20.8	103	90.4	37.7	21.6	2.3
Vanadium	mg/L															
Zinc	mg/L						0.02 U	0.2 U	0.02 U							

Notes:
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mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date	2016-09	2016-09	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10
	Sample Type	2021-09-20	2022-03-30	2016-08-23	2016-10-03	2016-11-29	2017-01-30	2017-03-21	2017-04-25	2017-06-06	2017-07-12	2018-04-06	2018-10-01	2019-03-27	2019-09-24	2020-03-30
Analyte	Unit	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Alkalinity, Total as CaCO3	mg/L	1500	1300			217	199	170				180 B	140	150	130	150
Aluminum	mg/L		0.3						0.05 U	0.5 U	0.035 JB					
Antimony	mg/L		0.0014 J	0.00027	9E-05 J	0.0002 J	0.00023	0.002 U	0.002 U	0.02 U	0.002 U					
Arsenic	mg/L		0.012	0.00323	0.00281	0.00304	0.00443	0.0037 J	0.0025 J	0.05 U	0.0039 J					
Barium	mg/L		0.28	0.235	0.183	0.162	0.339	0.17 JB	0.17	0.25	0.24					
Beryllium	mg/L		0.001 U	8E-05 U	0.0001 U	0.0002 U	1E-05 J	0.001 U	0.001 U	0.001 UJ	0.001 U					
Bicarbonate Alkalinity as CaCO3	mg/L	5 U	5 U									180 B	140	150	130	150
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.12	0.4 U	0.449	0.386	0.438	0.421	0.56	0.49	0.57 B	0.54 B	0.55	0.52	0.51	0.47	0.48
Bromide	mg/L					30.4	35.8	35	53	50	49					
Cadmium	mg/L		6.6E-05 J	4E-05 J	0.0001 U	4E-05 J	0.00026	0.001 U	0.001 U	0.01 U	0.001 U					
Calcium	mg/L	52	48	179	209	254	344	380 B	390	440	500	610	650	550	710	730
Carbonate Alkalinity as CaCO3	mg/L	77	140									50 U	5 U	5 U	5 U	5 U
Chloride	mg/L	870	870	3600	5000	6040	7380	7800	12000	11000	12000	14000	16000	13000	15000	18000
Chromium	mg/L		0.0097	0.0007	0.0003	0.00461	0.00983	0.00071 J	0.002 U	0.02 U	0.0011 J					
Cobalt	mg/L		0.00057	0.000699	0.000869	0.00198	0.00275	0.0015	0.0013	0.0069 J	0.0046					
Conductivity, Field	uS/cm	8996	9317	8802	16158	15133	19419					35660				36786
Copper	mg/L		0.0077 J						0.002 U	0.02 U	0.002 U					
Dissolved Oxygen, Field	mg/L		1.14	3.72	2.77	6.96	4.79					1.53				
Dissolved Solids, Total	mg/L	2200	2800	6820	9040	11000	12600	9600	17000 J	17000	15000 J	20000	23000	16000	24000	37000
Fluoride	mg/L	1.1	1.1	0.66	0.5	0.5 J	0.7 J	2.5 U	5 U	1.3 U	2.5 U	5 U	2.5 U	2.9	2.5 U	2.5 U
Iron	mg/L		0.4 U					0.13	2.9	2.8						
Lead	mg/L		0.0005 U	0.00143	0.000325	0.000492	0.00257	0.00056 J	0.001 U	0.001 U	0.001 U					
Lithium	mg/L		0.12	0.138	0.142	0.189	0.246	0.21	0.23	0.29	0.29					
Magnesium	mg/L	1 U	0.5 U			67.4	91.1		110	160	160	200	210	190	330	220
Manganese	mg/L		0.01 U					0.68 B	0.52	1.8	1.4					
Mercury	mg/L		0.00015 J	4E-06 J	5E-06 U	2E-06 J	3E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U					
Molybdenum	mg/L		0.14	0.0367	0.0128	0.0278	0.0258	0.011 J	0.015	0.011 J	0.016					
Nickel	mg/L		0.0034 J						0.0053	0.02 U	0.024					
Oxidation-Reduction Potential, Field	mV		-138.2													
pH, Field	pH units	12.33	12.48	9.79	7.48	8.29	7.68	7.31	7.21	7.51	7.86	7.1	7.11	7.25	7.27	7.35
Potassium	mg/L	8.8	9.1			30.8	42.9	26 JB	28	29	29	28	29	31 F1	42	31
Radium-226	pCi/L		0.295	1.31	1.47	1.32	0.874	0.869	1.05	1.47	1.61 J					
Radium-226/228	pCi/L		0.691 U	2.85	2.5	3.15	2.304	1.71	2.19	3.93	4.91 J					
Radium-228	pCi/L		0.396 U	1.54	1.03	1.83	1.43	0.839	1.14	2.45	3.29					
Redox Potential, Field	mV			70.1	104.1	122.9	103.2									
Selenium	mg/L		0.0031 J	0.001	0.0002 J	0.0005 J	0.0003	0.0015 J	0.005 U	0.05 U	0.0014 JB					
Silver	mg/L		0.0012						0.001 U	0.0008 J	0.00062 J					
Sodium	mg/L	1000	1100			1510	1370	4700 JB	4400	5900 B	6000	7300	7100 B	6900	7600	7400
Strontium	mg/L		2.4			12.1	16.2	20 JB	21	27 B	26					
Sulfate	mg/L	43	43	874	857	897	834	790	1100	640	670	540	560	550	350	400
Temperature, Field	deg C	14	14	16.8	15.9	15	11.3					13.5				14
Thallium	mg/L		0.00049 J	7E-05 J	0.0002 U	5E-05 U	8E-05 J	0.001 U	0.001 U	0.001 U	0.001 U					
Turbidity, Field	NTU	2.3	8.7	30.6	8.7	2.4	21.9	4.1	77.3	10.1	10.3	4	2.62		7	14
Vanadium	mg/L															
Zinc	mg/L		0.02 U						0.02 U	0.2 U	0.02 U					

Notes:
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mg/L = Milligrams per liter
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NTU = Nephelometric Turbidity Unit
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	Location Date Sample Type	2016-10 2020-09-14 FD	2016-10 2020-09-14 N	2016-10 2021-03-17 N	2016-10 2021-09-20 N	2016-10 2022-03-30 N	2016-10 2022-09-14 N	2016-10 2022-10-20 N	2016-10 2023-03-27 N	2016-10 2023-09-13 FD	2016-10 2023-09-13 N	2016-11 2016-08-23 N	2016-11 2016-08-26 N	2016-11 2017-01-30 N	2016-11 2017-03-21 N	2016-11 2017-04-25 N
Alkalinity, Total as CaCO3	mg/L		120	120	120	110	36	18	770	25	800	840			326	290	
Aluminum	mg/L						1 U										0.05 U
Antimony	mg/L						0.04 U			0.00085 J	0.0031	0.0026	0.00533		0.00068	0.002 U	0.00081 J
Arsenic	mg/L						0.04 U			0.0044 J	0.0062	0.0044 J	0.0038		0.00586	0.0049 J	0.0022 J
Barium	mg/L						0.51			0.73	0.51	0.51	0.154		0.681	0.33 JB	0.41
Beryllium	mg/L						0.001 U			0.001 U	0.001 U	0.001 U	4E-05 U		9.2E-05	0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L		120	120	120	110	36	18	5 U	25	5 U	5 U					
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L		0.5	0.48	0.47	0.43	2.4 U	0.39		0.42	0.3	0.31	0.278		0.3	0.36	0.35
Bromide	mg/L														10.5	10	11 J
Cadmium	mg/L						0.002 U			0.0003 J	0.00023 J	0.001 U	0.0002		0.00027	0.00035 J	0.001 U
Calcium	mg/L		680	700	680	650	650	550		670	380	370	10.3		25	28 B	34
Carbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U	5 U	5 U	5 U	28	5 U	73	88					
Chloride	mg/L		16000	15000	15000	15000	19000	15000	7000	16000	7300	7300		403	2170	2400	2800
Chromium	mg/L						0.1 U			0.005 U	0.01	0.0063	0.0349		0.00944	0.037 J	0.002 U
Cobalt	mg/L						0.01 U			0.00087 J	0.0015	0.0012	0.000731		0.00238	0.00076 J	0.0013
Conductivity, Field	uS/cm		37634	37634	38220	38449	39405	38197	22220	41279		30140	7110		7954		
Copper	mg/L						0.1 U										0.003
Dissolved Oxygen, Field	mg/L						1.48	1.29	1.01	1.08		1.4	7.22		3.52		
Dissolved Solids, Total	mg/L		26000	26000	23000	22000	23000	18000	11000	25000	9000 J	11000 J		3060	4400	5200	4900 J
Fluoride	mg/L		0.31 J	0.33 J	1 U	2.5 U	5 U	2.5 U	0.65	2.5 U	0.3 J	0.36 J		2.21	2.01	2.4	2.2 J
Iron	mg/L						2 U										0.1 U
Lead	mg/L						0.0005 U			0.001 U	0.0016	0.0012	0.00261		0.00424	0.0054 J	0.001 U
Lithium	mg/L						0.51			0.47	1.2	1.1	0.593		0.086	0.08	0.074
Magnesium	mg/L		230	220	220	220	260	200		240	110	110			9.05		11
Manganese	mg/L						0.39									0.031 B	0.039
Mercury	mg/L				0.0002 U		0.0002 U	0.0002 U		0.0002 U	0.0002 U	0.0002 U	8E-06		8E-06	0.0002 U	0.0002 U
Molybdenum	mg/L						0.022			0.018	0.044	0.041	0.223		0.248	0.14 J	0.14
Nickel	mg/L						0.1 U										0.038
Oxidation-Reduction Potential, Field	mV						-36.9	-91.9	-16.3	50.1		-100.4			40.3		
pH, Field	pH units		7.46	7.46	7.16	7.46	8.82	9.79	12.26	8.61		10.85	12.23		8.5	8.95	8.35
Potassium	mg/L		32	29	37	60	150	140		120	620	600			32.5	21 JB	15
Radium-226	pCi/L						1.3	2.18		2.45	3.09	2.38	1.44		1.07	0.934	1
Radium-226/228	pCi/L						7.56	12.1		17.8	10.3	8.76	2.62		2.041	1.81	1.56
Radium-228	pCi/L						6.26	9.92		15.3	7.18	6.38	1.18		0.971	0.872	0.564
Redox Potential, Field	mV												-93.7		40.3		
Selenium	mg/L						0.1 U			0.0017 J	0.0034 J	0.0029 J	0.0054		0.0007	0.003 J	0.005 U
Silver	mg/L						0.0008 J										0.0001 J
Sodium	mg/L		7900	8100	7500	8000	8900	8400		8400	4800	4900			911	1800 JB	1800
Strontium	mg/L						48								1.72	2.1 JB	2.7
Sulfate	mg/L		320	350	310	300	360	230	260	170	190	200		529	497	560	750
Temperature, Field	deg C		15	15	14	15	19	15.7	13.5	14.1		15.4	16.2		12.1		
Thallium	mg/L						0.001 U			0.00083 J	0.001 U	0.001 U	0.000266		0.000105	0.001 U	0.001 U
Turbidity, Field	NTU		1.3	1.4	1.2	1.8	7	14.51	45.53	20.25		149.77	7.1		67.4	22.4	73.2
Vanadium	mg/L																
Zinc	mg/L						0.4 U										0.015 J

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Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	Location Date Sample Type	2016-11 2021-03-17 N	2018-01 2019-11-14 N	2018-01 2020-03-24 N	2018-01 2020-09-22 N	2018-01 2021-03-22 N	2018-01 2021-09-27 N	2018-01 2022-03-25 N	2018-01 2022-05-09 N	2018-01 2022-07-13 FD	2018-01 2022-07-13 N	2018-01 2022-08-19 N	2018-01 2022-09-21 FD	2018-01 2022-09-21 N	2018-02 2019-11-14 N	2018-02 2020-04-08 N
Alkalinity, Total as CaCO3	mg/L			800	680	460	380	290	210	230	300	310	310	250	250		260
Aluminum	mg/L								0.26								
Antimony	mg/L								0.002 U	0.002 U	0.00064 J	0.00084 J	0.0007 J				
Arsenic	mg/L								0.13	0.13	0.1	0.11	0.11				
Barium	mg/L								0.75	0.69	0.6	0.65	0.58				
Beryllium	mg/L								0.001 U	0.001 U	0.001 U	0.001 U	0.001 U				
Bicarbonate Alkalinity as CaCO3	mg/L			5 U	5 U	5 U	5 U	5 U	90	37	5 U	5 U	5 U	26	22		260
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L		0.48	0.9	0.71	0.61	0.56	0.45	0.44 J	0.36	0.39	0.39		0.44	0.45	0.35	0.32
Bromide	mg/L																
Cadmium	mg/L								0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U				
Calcium	mg/L		120	14 B	13	20	27	37	40	34	32	33		31	31	49 B	54
Carbonate Alkalinity as CaCO3	mg/L			370	370	340	320	290	120	200	270	270	250	220	220		5 U
Chloride	mg/L		6000	1500	2000	2600	3200	3100	3200	3800	3300	3200	3100	3100	3100	3800	4000
Chromium	mg/L								0.0038 J	0.005 U	0.006	0.005 U	0.0031 J				
Cobalt	mg/L								0.00039 J	0.00019 J	0.00045 J	0.001 U	0.00055 J				
Conductivity, Field	uS/cm		16763		7311	8200	8597	8727	10152	98.12		10179	10162	10197	10197		11760
Copper	mg/L								0.005 U								
Dissolved Oxygen, Field	mg/L								2.41	5.58		1.97	0.71	1.93	1.93		
Dissolved Solids, Total	mg/L		9700	3200	4400	4400	5800	4400	5300	6200	5600	5800		4600	4900	4900	5500
Fluoride	mg/L		0.92	3.3	3.3	3.3	3	2.8	2.8	2.7	2.8	2.8	2.7	2.2 U	2.2 U	1.8	1.6
Iron	mg/L								0.23								
Lead	mg/L								0.0005 U	0.001 U	0.0008 J	0.00065 J	0.001 U				
Lithium	mg/L								0.04 J	0.008 U	0.0047 J	0.0055 J	0.0069 J				
Magnesium	mg/L		41	2.3	0.3 J	0.21 J	1 U	0.47 J	0.83	0.25 J	0.24 J	0.44 J	1 U	0.3 J	0.3 J	16	18
Manganese	mg/L								0.0054 J								
Mercury	mg/L		0.0002 U						0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		
Molybdenum	mg/L								0.066	0.072	0.053	0.057	0.057				
Nickel	mg/L								0.017								
Oxidation-Reduction Potential, Field	mV								-160.3	-225.2			-189.7	-303.3	275.6	275.6	
pH, Field	pH units		7.46	12.14	12.09	11.65	11.32	10.78	9.85	10.59		11.08	10.87	10.86	10.86	6.93	7.97
Potassium	mg/L		30	3.5	2	2.6	2.8	3.5	4.3	3.4	3.3	3.4	3.3	3.3	3.3	8.1	5.6
Radium-226	pCi/L								1.46	1.01	1.02	0.905	0.822	0.965	0.96		
Radium-226/228	pCi/L								3.47	1.57	2.64 J	2.19 J	2.01	2.92	2.11		
Radium-228	pCi/L								2.01	0.565 U	1.62 J	1.29 J	1.19	1.95	1.15		
Redox Potential, Field	mV																
Selenium	mg/L								0.0027 J	0.0021 J	0.0034 J	0.0044 J	0.0088				
Silver	mg/L								0.001 U								
Sodium	mg/L		3400	1100	1300	1600	1800	1900	2600	2200	2300	2100	2200	2100	2100	2200	2400
Strontium	mg/L								3.9								
Sulfate	mg/L		380	37	39	5 U	35	36	38	36	38	38		42	43	87	65
Temperature, Field	deg C		14		14	16	16	16	12	13.7		17	15.7	15.6	15.6		17
Thallium	mg/L								0.001 U	0.001 U	0.001 U	0.0002 J	0.0019 J				
Turbidity, Field	NTU		21.9	42	20.4	16.8	16.9	14.9	6.3	1.63		47.63	4.4	12.6	12.6		305
Vanadium	mg/L																
Zinc	mg/L								0.02 U								

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mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	2018-02 2020-11-16 N	2018-02 2021-04-08 N	2018-02 2021-11-03 N	2018-02 2022-04-20 N	2018-02 2023-03-31 N	2018-02 2023-09-21 N	2018-03 2019-11-14 N	2018-03 2020-04-08 N	2018-03 2020-11-16 N	2018-03 2021-04-08 N	2018-03 2021-11-03 N	2018-03 2022-04-20 N	2018-03 2022-09-13 N	2018-03 2022-09-29 N	2018-03 2023-03-01 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L		270	250	270						500	530	370	330		
Aluminum	mg/L	15								5.8						
Antimony	mg/L	0.001 J				0.0067				0.0023						0.00086 J
Arsenic	mg/L	0.011				0.0041 J				0.012						0.018
Barium	mg/L	1.6				0.54				0.48						0.59
Beryllium	mg/L	0.00085 J				0.001 U				0.0004 J						0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L		270	250	270						500	530	370	330		
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.38	0.34	0.37	0.39	0.23	0.31	0.31	0.31	0.32	0.31	0.38	0.33	0.34		
Bromide	mg/L	16								5.6						
Cadmium	mg/L	0.001 U				0.00036 J				0.00027 J						0.001 U
Calcium	mg/L	57	68	56	61	42	43	120 B	34	80	170	140	210	220		
Carbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U						5 U	5 U	5 U	5 U		
Chloride	mg/L	200	4600	4500	4600	3400	2500	5900	1500	52	1200	1800	630			500
Chromium	mg/L	0.22				0.03				0.016						0.0051
Cobalt	mg/L	0.01				0.0038				0.0033						0.0043
Conductivity, Field	uS/cm	10750	11240	12120	12570	1483	6149		6569	4938	5300	6385	3727	3451		
Copper	mg/L	0.055								0.012						
Dissolved Oxygen, Field	mg/L					8.1	3.46									
Dissolved Solids, Total	mg/L	6600	7100	6400	7100	5700	1500	7500	3100	2200	3100	3600	2200	1600 J		1800
Fluoride	mg/L	0.4 J	1.5	1.5	1.5	0.92	1.1	1.3	1.9	0.87	0.85	1	0.44			0.59
Iron	mg/L	58								7.7						
Lead	mg/L	0.0092				0.0046				0.0033						0.0013
Lithium	mg/L	0.075				0.038				0.023						0.05
Magnesium	mg/L	19	20	18	18	11	15	33	8.7	11	34	30	48	54		26
Manganese	mg/L	0.39								0.26						
Mercury	mg/L													0.00014 J		
Molybdenum	mg/L	0.16				0.047				0.036						0.0061
Nickel	mg/L	0.037								0.017						
Oxidation-Reduction Potential, Field	mV					151.7	-106.8									
pH, Field	pH units	7.96	7.04	7.31	7.51	7.78	7.65	7.29	8.18	8.15	7.45	7.72	7.1	6.77		
Potassium	mg/L	7.6	6.6	5.2	5.1	3.8	5.6	6.7	3.5	5.1	4.7	5.3	4.2	4.7		3.6
Radium-226	pCi/L														1.42	
Radium-226/228	pCi/L														3.96 J	
Radium-228	pCi/L														2.54 J	
Redox Potential, Field	mV															
Selenium	mg/L	0.005 U				0.005 U				0.005 U						0.005 U
Silver	mg/L	0.00046 J								0.00033 J						
Sodium	mg/L	2200	2500	2300	2300	1200	1800	2800	1300	870	980	1200	460	450		1000
Strontium	mg/L	4.9								1.9						
Sulfate	mg/L	93	83	61	74	44	100	150	250	230	520	470	700			820
Temperature, Field	deg C	14	19	12	16	13.5	18.2		18	15	18	14	17	19		
Thallium	mg/L	0.001 U				0.001 U				0.001 U						0.001 U
Turbidity, Field	NTU	358	322	101	58.5	154.07	145.88		35.1	159	70.1	65	15.8	66.5		
Vanadium	mg/L															
Zinc	mg/L	0.25								0.032						

Notes:
FD = Field duplicate sample
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deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	2018-03 2023-03-30 N	2018-03 2023-04-14 N	2018-03 2023-06-13 N	2018-03 2023-08-16 N	2018-03 2023-09-21 N	2018-03 2023-10-17 N	2018-04 2019-11-14 N	2018-04 2020-04-08 N	2018-04 2020-11-16 N	2018-04 2021-04-08 N	2018-04 2022-04-20 N	2018-04 2023-03-30 N	2018-04 2023-06-13 N	2018-04 2023-09-21 N	2019-02 2020-09-15 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L										340	380				1800
Aluminum	mg/L									58						
Antimony	mg/L	0.00067 J		0.002 U	0.002 U		0.0011 J			0.0021			0.0024			
Arsenic	mg/L	0.0066		0.013	0.01		0.011			0.079			0.022			
Barium	mg/L	0.13		0.38	0.31		0.31			0.62			0.19			
Beryllium	mg/L	0.001 U		0.001 U	0.001 U		0.001 U			0.0032			0.00099 J			
Bicarbonate Alkalinity as CaCO3	mg/L										330	380				5 U
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.43	0.45			0.48	0.43		0.24	0.21	0.19	0.27	0.3		0.29	0.1 U
Bromide	mg/L									0.3 J						
Cadmium	mg/L	0.001 U		0.001 U	0.001 U		0.001 U			0.00034 J			0.001 U			
Calcium	mg/L	220	110			29	52		62	74	62	61	67		72	220
Carbonate Alkalinity as CaCO3	mg/L										11	5 U				120
Chloride	mg/L	650	400			980	920	25	26	28	33	48	63		61	190
Chromium	mg/L	0.0027 J		0.0045 J	0.0055		0.011			0.24			0.067			
Cobalt	mg/L	0.0078		0.0061	0.0041		0.0042			0.088			0.022			
Conductivity, Field	uS/cm			3121		5133			1675	1977	2093	2086		2186	1216	8754
Copper	mg/L									0.11						
Dissolved Oxygen, Field	mg/L			3.08		3.24								3.73	4.96	
Dissolved Solids, Total	mg/L	2500	2200			3400	3200	860	980	1100	1200	1300	1400		1500	1900
Fluoride	mg/L	0.81	0.54	1.1	1.1	0.9	0.96	0.8	0.67	0.5 U	0.74	0.69	0.58		0.59	0.86
Iron	mg/L									120						
Lead	mg/L	0.00058 J		0.0011	0.001		0.0037			0.06			0.02			
Lithium	mg/L	0.073		0.036	0.032		0.041			0.074			0.03			
Magnesium	mg/L	53		21	6.3	8.5	14		15	32	17	17	21		23	1 U
Manganese	mg/L									1.7						
Mercury	mg/L			0.0002 U	0.0002 U											
Molybdenum	mg/L	0.0032 J		0.0071	0.0057		0.0067			0.14			0.069			
Nickel	mg/L									0.13						
Oxidation-Reduction Potential, Field	mV			111.9		-170.9								86.8	40.2	
pH, Field	pH units			7		7.51		6.65	7.2	7.51	7.68	7.55	7.37	7.68	7.6	12.62
Potassium	mg/L	4		3.2	2.5	2.9	2.9		3.7	12	5.6	4.3	5.8		5.7	33
Radium-226	pCi/L															
Radium-226/228	pCi/L															
Radium-228	pCi/L															
Redox Potential, Field	mV															
Selenium	mg/L	0.005 U		0.005 U	0.005 U		0.00099 J			0.0043 J			0.0022 J			
Silver	mg/L									0.0007 J						
Sodium	mg/L	220		1100	1300	1300	1100		370	300	300	350	400		430	560
Strontium	mg/L									0.96						
Sulfate	mg/L	820	910			950	950	490	470	460	510	530	570		620	3.1 J
Temperature, Field	deg C			19.2		18.6			18	16	19	17		16.5	20.9	13
Thallium	mg/L	0.001 U		0.001 U	0.001 U		0.001 U			0.0006 J			0.001 U			
Turbidity, Field	NTU			14.53		31.9			46	854	617	384		358.02	357.04	19.8
Vanadium	mg/L															
Zinc	mg/L									0.4						

Notes:
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mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	2019-02 2021-03-16 FD	2019-02 2021-03-16 N	2019-02 2021-09-25 N	2019-02 2022-03-25 FD	2019-02 2022-03-25 N	2019-02 2022-05-04 N	2019-02 2022-07-13 N	2019-02 2022-08-17 N	2019-06 2020-09-15 N	2019-06 2021-03-16 N	2019-06 2021-09-25 N	2019-06 2022-05-04 N	2019-06 2022-09-16 N	2019-06 2023-09-20 N	2019-07 2021-09-25 N
Alkalinity, Total as CaCO3	mg/L	1700	1700	1600	1400	1400	1500	1400	1500	220	180	310		170		160
Aluminum	mg/L				1.5	1.5										
Antimony	mg/L				0.002 U	0.00084 J	0.002 U	0.002 U	0.002 U							
Arsenic	mg/L				0.0052	0.0052	0.0056	0.009	0.0058							
Barium	mg/L				0.65	0.63	0.71	0.76	0.57							
Beryllium	mg/L				0.001 U	0.001 U	0.001 U	0.001 U	0.001 U							
Bicarbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	220	180	310		170		160
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.23	0.28	0.25		0.24		0.42
Bromide	mg/L															
Cadmium	mg/L				0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U							
Calcium	mg/L	250	240	230	260	260	230	240	290	27	72	160		230		740
Carbonate Alkalinity as CaCO3	mg/L	52	53	54	69	69	64	26	16	5.6	5 U	5 U		5 U		5 U
Chloride	mg/L	180	190	180	160	150	150	120	110	1900	3800	6500		9400 J	12000	16000
Chromium	mg/L				0.0035 J	0.0034 J	0.005 U	0.011	0.0061							
Cobalt	mg/L				0.00023 J	0.00023 J	0.001 U	0.00085 J	0.0003 J							
Conductivity, Field	uS/cm	8179	8179	7521	7782	7782	7142	6942	7416	7203	11882	18046	22032	25787	11617	36854
Copper	mg/L				0.0064 J	0.0063 J										
Dissolved Oxygen, Field	mg/L				2.92	2.92	2.94	6.03	6.76				4.81	6.94	7.34	
Dissolved Solids, Total	mg/L	1800	1700	1800	1800	1800	1600	1300	1700	2900	7400	9400		3200	14000	2900
Fluoride	mg/L	0.7	0.73	0.71	0.6	0.63	0.62	0.59	0.43	1.5	1.3	0.83		0.9 J	0.56	2.5 U
Iron	mg/L				0.1 U	0.1 U										
Lead	mg/L				0.0005 U	0.0005 U	0.001 U	0.0012	0.00065 J							
Lithium	mg/L				0.26	0.25	0.29	0.25	0.23							
Magnesium	mg/L	1 U	1 U	1 U	0.5 U	0.5 U	1 U	1 U	1 U	7.7	21	52		84		200
Manganese	mg/L				0.01 U	0.01 U										
Mercury	mg/L				0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U					0.0002 U		
Molybdenum	mg/L				0.017	0.017	0.017	0.02	0.015							
Nickel	mg/L				0.0024 J	0.0023 J										
Oxidation-Reduction Potential, Field	mV				-123.5	-123.5	-157	-114.9	-96.3				62.9	95.4	85	
pH, Field	pH units	12.47	12.47	12.26	12.23	12.23	12.14	12.42	12.58	8.46	7.95	7.68	7.46	7.06	8.01	6.93
Potassium	mg/L	21	21	16	14	13	12	13	13	3.8	7.2	15		17		21
Radium-226	pCi/L				2.05	2.3	1.79	2.05	1.78				3.59	5.21		
Radium-226/228	pCi/L				2.94	3.36	1.93	3.64 J	2.54				4.53	15.7		
Radium-228	pCi/L				0.887	1.07	0.137 U	1.59 J	0.762				0.943	10.4		
Redox Potential, Field	mV															
Selenium	mg/L				0.005 U	0.005 U	0.005 U	0.0018 J	0.0013 J							
Silver	mg/L				0.001 U	0.00052 J										
Sodium	mg/L	540	530	550	500	490	420	400	410	1500	2300	3900		5200		8700
Strontium	mg/L				2.2	2.1										
Sulfate	mg/L	2.8 J	3 J	2.7 J	2.4	2.6	2.3	9.7	6.4	750	710	410		310 J	390	530
Temperature, Field	deg C	12	12	13	12	12	12.7	15.6	14.5	14	13	14	13.7	22.3	18.9	14
Thallium	mg/L				0.001 U	0.001 U	0.001 U	0.001 U	0.0002 J							
Turbidity, Field	NTU	0.6	0.6	0.1	0.6	0.6	0.31	98.41	5.9	13.4	156	146	54.4	47.51	62.68	316
Vanadium	mg/L															
Zinc	mg/L				0.02 U	0.02 U										

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Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	2019-07 2022-03-24 N	2019-07 2022-05-04 N	2019-07 2022-07-20 N	2019-07 2022-08-18 N	2019-07 2022-09-15 N	2019-07 2022-11-01 N	2019-07 2022-12-12 N	2019-07 2023-02-28 N	2019-07 2023-04-03 N	2019-07 2023-04-13 N	2019-07 2023-09-19 N	2019-09 2021-09-25 N	2019-09 2022-03-24 N	2019-09 2022-08-18 N	2019-09 2022-09-16 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	190	200	220	230	210		220	220	250	240	230	170	270	210	180
Aluminum	mg/L	0.61												26		
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.00058 J			0.001 J	0.002 U	0.002 U	0.0022	0.002 U		0.002 U	0.0017 J	
Arsenic	mg/L	0.0032 J	0.003 J	0.0032 J	0.0023 J			0.0031 J	0.0023 J	0.0025 J	0.016	0.0015 J		0.014	0.037 J	
Barium	mg/L	0.43	0.37	0.55	0.65			0.57	0.57	0.54	1.3	0.58		27	25	
Beryllium	mg/L	0.004 U	0.001 U	0.001 U	0.001 U			0.001 U	0.001 U	0.001 U	0.0024	0.001 U		0.003 J	0.0089	
Bicarbonate Alkalinity as CaCO3	mg/L	190	200	220	230	210		220	220	250	240	230	170	270	210	180
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	1.1 J	0.47	0.52	0.51	0.55		0.51	0.59	0.56	0.59	0.51	0.29	1 J	0.36	0.3
Bromide	mg/L															
Cadmium	mg/L	0.0004 U	0.001 U	0.001 U	0.00033 J			0.0003 J	0.001 U	0.00023 J	0.00054 J	0.001 U		0.00022 J	0.00041 J	
Calcium	mg/L	1000	730	880	840	780				880		960	690	1200	800	620
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	16000	17000	17000	19000	18000	18000	18000	19000	18000	18000	23000	16000	18000	18000	18000 J
Chromium	mg/L	0.02 U	0.005 U	0.011	0.017			0.02	0.016	0.0097	0.18	0.029		0.19	0.42	
Cobalt	mg/L	0.0045	0.0067	0.0044	0.0039			0.0057	0.0037	0.0039	0.019	0.0069		0.016	0.069	
Conductivity, Field	uS/cm	44987	41930	45882	46294	45379	40082	45169	55485	44681		32549	39000	44025	46681	40991
Copper	mg/L	0.02 U												0.02 U		
Dissolved Oxygen, Field	mg/L	1.67	3.43	1.22	1.68	6.58	7.64	3.53	2.29	1.74		1.9		0.46	0.69	6.2
Dissolved Solids, Total	mg/L	26000	27000	21000		8200				27000		27000	5500	24000		17000
Fluoride	mg/L	5 U	5 U	50 U	1 U	2.5 U	2.5 U	1 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	1 U	1 J
Iron	mg/L	2.1												140		
Lead	mg/L	0.002 U	0.001 U	0.00096 J	0.0018 J			0.0016	0.0011	0.00053 J	0.018	0.0016		0.045	0.072	
Lithium	mg/L	0.27	0.24	0.29	0.32			0.3	0.35	0.3	0.35	0.34		0.3	0.51 J	
Magnesium	mg/L	250	220	250	280	250		280	280	260	260	280	220	310	310	280
Manganese	mg/L	1.6												3.5		
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.00021	0.00054 J
Molybdenum	mg/L	0.0098	0.0086	0.0094	0.012			0.011	0.0084	0.0084	0.017	0.0082		0.0074 J	0.061	
Nickel	mg/L	0.0088 J												0.069		
Oxidation-Reduction Potential, Field	mV	-65	-30.9	-42.4	66	81.2	121.5	58.6	210.9	50.3		101.3		-173.5	-145.1	135.4
pH, Field	pH units	6.98	6.75	6.8	6.82	7.09	6.67	6.82	6.66	6.82	7.18	6.76	7.32	7.18	7.01	6.42
Potassium	mg/L	25	19	23	24	40		22	22	21	26	22	26	38	44	82
Radium-226	pCi/L	1.02	0.806	1.19	1.35	13			0.733	1.08	0.699 U	0.789		36.3	39.8	
Radium-226/228	pCi/L	1.87	0.98	2.77	2.72 J	33			1.66	1.94 J	2.28 U	1.44 J		102	111	
Radium-228	pCi/L	0.847	0.174 U	1.58 U	1.37	19.9			0.923	0.857 J	1.58 U	0.648 U		65.9	70.8	
Redox Potential, Field	mV															
Selenium	mg/L	0.0049 J	0.0012 J	0.005 U	0.0027 J			0.005 U	0.0036 J	0.001 J	0.0016 J	0.0023 J		0.0077 J	0.0091 J	
Silver	mg/L	0.004 U												0.004 U		
Sodium	mg/L	10000	9900	9200	9600	8900		9800	10000	9000	9100	9700	7600	8900	8600	5500
Strontium	mg/L	62												64		
Sulfate	mg/L	510	530	510	480	490	450	470	450	430	410	570	50 U	100 U	20 U	2.1
Temperature, Field	deg C	15	13.4	15.1	15.9	25.6	19.3	10.9	12.6	15.1		15.6	13	13	16.3	17.2
Thallium	mg/L	0.004 U	0.001 U	0.001 U	0.0012 U			0.00038 J	0.001 U	0.00038 J	0.00082 J	0.001 U		0.004 U	0.001 U	
Turbidity, Field	NTU	62.3	9.1	88.34	85.15	19.75	33.74	1091.9	100.14	48.22		273.8	556	1270.5	1752.32	1024.97
Vanadium	mg/L															
Zinc	mg/L	0.08 U												0.12		

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	2019-09 2022-12-13 N	2019-09 2022-12-13 N	2019-09 2023-04-03 N	2019-09 2023-04-13 N	2019-09 2023-06-16 N	2019-09 2023-08-15 N	2019-09 2023-09-21 N	2022-14 2023-09-20 FD	2022-14 2023-09-20 N	93100 2016-08-23 N	93100 2016-10-05 N	93100 2016-12-02 N	93100 2017-02-02 N	93100 2017-03-29 N	93100 2017-04-28 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	180	170	190	190	180	190	190	120	120			393	359		
Aluminum	mg/L														1.8 J	0.044 J
Antimony	mg/L	0.0017 J		0.0014 J	0.0014 J	0.0014 J	0.0019 J	0.002 U	0.002 U	0.002 U	4E-05 J	6E-05 J	5E-05 J	5E-05 J	0.0012 J	0.002 U
Arsenic	mg/L	0.026		0.025	0.033	0.015	0.0074	0.0028 J	0.0053	0.0055	0.00164	0.00207	0.00174	0.00156	0.002 J	0.0016 J
Barium	mg/L	24		32	31	29	31	28	5.3	5.8	0.602	0.69	0.468	0.521	0.64 B	0.65
Beryllium	mg/L	0.0045		0.0035	0.006	0.0022	0.001	0.001 U	0.001 U	0.001 U	1E-05 J	5.3E-05	1E-05 J	1E-05 J	0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	180	170	190	190	180	190	190	120	120						
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L		0.34	0.43	0.44	0.47	0.41	0.39	0.29	0.3	0.432	0.429	0.39	0.415	0.45	0.47 B
Bromide	mg/L												7.81	8.8	8.9 J	8.9 J
Cadmium	mg/L	0.00085 J		0.00059 J	0.00041 J	0.00022 J	0.00023 J	0.001 U	0.001 U	0.001 U	4E-05 U	1E-05 J	4E-05 U	4E-05 U	0.001 U	0.001 U
Calcium	mg/L		830	880			860	890	280	300	20.3	22.2	14.1	16.8	17 B	16
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U						
Chloride	mg/L		19000	19000	19000	20000	18000	19000	23000	10000	12000	2180	2310	1770	199	2200
Chromium	mg/L	0.34		0.16	0.37	0.15	0.065	0.026	0.004 J	0.0057	0.0022	0.0049	0.00586	0.00582	0.0098	0.002 U
Cobalt	mg/L	0.061		0.04	0.069	0.034	0.012	0.0049	0.0026	0.0028	0.00062	0.00129	0.00235	0.00195	0.0012	0.00027 J
Conductivity, Field	uS/cm	42856		39223		18069		24781		21765	6544	7642	5904	7014		
Copper	mg/L														0.0028 B	0.002 U
Dissolved Oxygen, Field	mg/L	7.45		1.6		7.58		7.57		1.39	1.22	0.51	0.91	1.18		
Dissolved Solids, Total	mg/L		28000 H	28000		29000	28000	26000	14000	11000	3630	3980	3420	3600	3900 J	3700 J
Fluoride	mg/L	1 U	1 U	2.5 U	2.5 U	5 U	2.5 U	1.3 U	0.5 U	0.5 U	2.17	2.05	1.97	2.18	2.4	2.2
Iron	mg/L														1.7 JB	0.082 J
Lead	mg/L	0.049		0.019	0.062	0.024	0.0076 J	0.0034	0.0013	0.0019	0.000244	0.00093	0.000135	0.000189	0.001 J	0.001 U
Lithium	mg/L	0.36		0.37	0.45	0.35	0.32	0.27	0.14	0.14	0.048	0.058	0.046	0.04	0.044	0.047
Magnesium	mg/L	280	300	310	320	310	290	280	78	82			4.4	5.37	6.2 B	5.6
Manganese	mg/L														0.046	0.032
Mercury	mg/L	0.00031 B		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	5E-06 U	3E-06 J	5E-06 U	5E-06 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.048		0.037	0.054	0.024	0.043	0.012	0.017	0.017	0.087	0.0889	0.125	0.106	0.11	0.11
Nickel	mg/L														0.0065	0.002 U
Oxidation-Reduction Potential, Field	mV	69.9		-112.6		230		191.2		-47.1						
pH, Field	pH units	6.48		6.94		6.53		6.32		7.35	7.97	7.85	7.78	7.87	7.82	7.86
Potassium	mg/L	35	34	33	40	34 J	28	26	9.7	10			3.87	4.57	3.1 B	2.6
Radium-226	pCi/L	43.2		46.1	37.1	36.7	34.8 J	34.7	6.99	8.4	0.637	0.909	0.863	0.544	0.538	0.565
Radium-226/228	pCi/L	109		116	105	99.8	104 J	90.4	13.5	15.1	2.587	1.969	1.538	1.252	0.869	1.14
Radium-228	pCi/L	65.9 G		70.2	67.9	63.1	69 J	55.7	6.46	6.68	1.95	1.06	0.675	0.708	0.332 U	0.58
Redox Potential, Field	mV										-98.5	788	35.3	-138.6		
Selenium	mg/L	0.0018 J		0.002 J	0.0017 J	0.0012 J	0.0016 J	0.005 U	0.005 U	0.005 U	0.0001 J	0.0002 J	0.0003	0.0002 J	0.0007 J	0.005 U
Silver	mg/L														0.001 U	0.001 U
Sodium	mg/L	7600	8400	8700	9200	9300	9800	9100	4900	5200			1270	1050	1400 JB	1500
Strontium	mg/L												1.18	1.4	1.7 B	1.9
Sulfate	mg/L		20 U	50 U	50 U	8.6 J	50 U	150	28 J	170 J	11.4	8.4	12.2	9.9	15 J	13 J
Temperature, Field	deg C	8.1		13		16.2		15.9		14.7	19.02	18.6	14.9	14.1		
Thallium	mg/L	0.0012		0.0015	0.00068 J	0.001 U	0.00062 J	0.001 U	0.001 U	0.001 U	0.0001 U	3E-05 J	2E-05 J	4E-05 J	0.001 U	0.001 U
Turbidity, Field	NTU	1216.19		738.15		572.36		319.92		52.39	7	42.7	7.4	15.3	31.1	6.4
Vanadium	mg/L															
Zinc	mg/L														0.02 U	0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100
		2017-06-12 N	2017-07-18 FD	2017-07-18 N	2018-03-15 N	2018-09-24 N	2019-03-11 FD	2019-03-11 N	2019-09-23 N	2020-03-19 FD	2020-03-19 N	2020-09-22 N	2021-03-25 N	2021-09-28 N	2022-03-28 N	2022-09-16 FD
Alkalinity, Total as CaCO3	mg/L				360	320	320	320	330	330	330	320	330	330	330	320
Aluminum	mg/L	3.8 B	1.8	1.7												0.033 J
Antimony	mg/L	0.002 U	0.002 U	0.002 U												0.002 U
Arsenic	mg/L	0.002 J	0.0019 J	0.002 J												0.0018 J
Barium	mg/L	0.65	0.66	0.66												0.51
Beryllium	mg/L	0.001 U	0.001 U	0.001 U												0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L				360	320			330	330	330	320	320	330	330	320
Bicarbonate Alkalinity as HCO3	mg/L						320	320								
Boron	mg/L	0.48	0.49 JB	0.5 JB	0.45	0.45	0.48	0.49	0.46	0.47	0.47	0.48	0.44	0.46	0.51 J	0.44
Bromide	mg/L	10	8.7 J	8.8 J												
Cadmium	mg/L	0.001 U	0.001 U	0.001 U												0.0001 U
Calcium	mg/L	20	17	17	14	18	17	17	18	17	18	19	18	17	15	16
Carbonate Alkalinity as CaCO3	mg/L				5 U	5 U	5 U	5 U	5 U	4.6 J	5 U	5 U	3 J	5 U	5 U	5 U
Chloride	mg/L	2100	2200	2200	1800	2200	2100	2100	2000	2200	2200	2200	2100	2200	2000	2100 J
Chromium	mg/L	0.04	0.011	0.011												0.015
Cobalt	mg/L	0.0099	0.0033	0.0031												0.0024
Conductivity, Field	uS/cm				6107					6772	6772	6702	6959	6635	6548	7123
Copper	mg/L	0.0051 B	0.002 U	0.002 U												0.005 U
Dissolved Oxygen, Field	mg/L				0.2											0.28
Dissolved Solids, Total	mg/L	3600	3400 J	3600 J	3300	3100	3100	3100	2900	3200	3900	3100	3800	3300	2900 J	3900 J
Fluoride	mg/L	2.3	2.3	2.3	2.6	2.7	2.2	2.2	2.7	2.6	2.6	2.3	2.5	2.7	2.6	2.6 J
Iron	mg/L	1	0.42	0.41												0.099 J
Lead	mg/L	0.00046 J	0.001 U	0.001 U												0.0005 U
Lithium	mg/L	0.043	0.048	0.048												0.039
Magnesium	mg/L	6.1	6.2	6.2	4.1	5.4	5.9	6.1	6.3	5.3	5.6	5.8	5.7	5.3	5.5	5.1
Manganese	mg/L	0.055	0.045	0.044												0.028
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U												0.0002 U
Molybdenum	mg/L	0.11 J	0.097	0.098												0.12
Nickel	mg/L	0.038	0.0096	0.0087												0.012
Oxidation-Reduction Potential, Field	mV															-2.2
pH, Field	pH units	7.77		7.71	7.93	7.89		8.06	8.04	8.02	8.02	7.94	7.87	7.97	8.03	7.81
Potassium	mg/L	2.7	2.7	2.7	2.1	2.6	2.6	2.6	2.9	2.5	2.5	2.6	2.5	2.5	2.7	2.6
Radium-226	pCi/L	0.736	0.691 J	0.758 J												0.704
Radium-226/228	pCi/L	1.19	1.32	1.41												1.57
Radium-228	pCi/L	0.458	0.63	0.648												0.863
Redox Potential, Field	mV															
Selenium	mg/L	0.005 U	0.005 U	0.005 U												0.005 U
Silver	mg/L	0.00036 J	6.9E-05 J	6.3E-05 J												0.001 U
Sodium	mg/L	1500	1500 JB	1500 JB	1200	1400	1500	1500	1400	1400	1400	1400	1400	1400	1400	1300
Strontium	mg/L	1.7 B	1.7	1.7												1.5
Sulfate	mg/L	15	14 J	14 J	22	16	17 J	18 J	16	17	17	13	16	16	14	13 J
Temperature, Field	deg C				15.2					16	16	17	15	17	12	20
Thallium	mg/L	0.001 U	0.001 U	0.001 U												0.001 U
Turbidity, Field	NTU	2.8		6	4.6	1.18			7	4	4	1.4	2	2.6	4	53.35
Vanadium	mg/L		0.005 U	0.005 U												
Zinc	mg/L	0.02 U	0.02 U	0.02 U												0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date	93100	93100	93100	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108
	Sample Type	2022-09-16	2023-03-31	2023-09-26	2016-08-24	2016-10-06	2016-12-02	2017-02-02	2017-03-23	2017-05-02	2017-06-12	2017-07-18	2018-03-15	2018-09-14	2021-09-20	2022-03-28
Analyte	Unit	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Alkalinity, Total as CaCO3	mg/L	330	320	350			720	672					640	640	520	460
Aluminum	mg/L								2.5 J	0.13	0.041 JB	7.1				0.036 J
Antimony	mg/L		0.002 U	0.0011 J	0.0001	3E-05 J	0.00023	0.00016	0.002 U	0.002 U	0.002 U	0.002 U				0.002 U
Arsenic	mg/L		0.0015 J	0.0031 J	0.00196	0.00153	0.0025	0.00166	0.0018 J	0.0013 J	0.0016 J	0.0029 J				0.0027
Barium	mg/L		0.52	0.54	0.174	0.164	0.199	0.157	0.19 B	0.18	0.18	0.22				0.43
Beryllium	mg/L		0.001 U	0.001 U	4.1E-05	1E-05 J	0.000162	0.000107	0.001 U	0.001 U	0.001 U	0.00047 J				0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	330	320	350									640	640	520	460
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.45	0.45	0.47	0.429	0.404	0.391	0.411	0.5	0.48	0.46	0.48 JB	0.45	0.47	0.44	0.48 J
Bromide	mg/L						2.42	2.16	2.4 J	2.7 J	2.8	2.6 J				
Cadmium	mg/L		0.001 U	0.00026 J	7E-05	3E-05	0.0003	0.00019	0.001 U	0.001 U	0.0014	0.00024 J				0.0001 U
Calcium	mg/L	17	15	17	6.09	5.87	6.55	5.85	6 B	5.9	5.8	6.4	5.6	6.4	15	13
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U									5 U	5 U	5 U	5 U
Chloride	mg/L	2200 J	2100	2000	745	731	681	688	700	820	790	750	770	720	1500	1600
Chromium	mg/L		0.0035 J	0.0054	0.0086	0.0062	0.0263	0.025	0.02	0.004	0.002 U	0.067				0.005 U
Cobalt	mg/L		0.0061	0.0034	0.00113	0.00039	0.00393	0.00262	0.002	0.00037 J	0.00025 J	0.0059				0.0005 U
Conductivity, Field	uS/cm	7123	6482	6186	3490	3589	3580	3545					3606		5299	5821
Copper	mg/L								0.008 B	0.002 U	0.002 U	0.021				0.005 U
Dissolved Oxygen, Field	mg/L	0.36	0.57	0.99	1.67	0.81	1.01	1.42					0.64			0.16
Dissolved Solids, Total	mg/L	460 J	3200	3200	1940	1900	1950	1900	1800 J	1900 J	2000	1800 J	2100	1700	2800	2200 J
Fluoride	mg/L	2.6 J	2.5	2.5	4.59	4.46	4.15	4.57	5.4	5.1	5.3	5.5	4.6	4.9	3.2	3.1
Iron	mg/L								2.7 JB	0.25	0.12	8.3				0.58
Lead	mg/L		0.001 U	0.00078 J	0.00206	0.000516	0.00639	0.00385	0.0026 J	0.0007 J	0.001 U	0.0074				0.0005 U
Lithium	mg/L		0.039	0.044	0.027	0.028	0.033	0.024	0.025	0.025	0.029	0.033				0.038
Magnesium	mg/L	5.2	5	5.4			2.33	2.18	2.2 B	2	1.8	2.9	1.7	1.9 J	3.8	4.6
Manganese	mg/L								0.051	0.027	0.031	0.092				0.18
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	5E-06	1.5E-05	1E-05	9E-06	0.0002 U	0.0002 U	0.0002 U	0.0002 U				0.0002 U
Molybdenum	mg/L		0.11	0.13	0.254	0.267	0.237	0.23	0.25	0.24	0.23 J	0.24				0.099
Nickel	mg/L								0.014	0.0033	0.0015 J	0.05				0.0025 J
Oxidation-Reduction Potential, Field	mV	-181.1	7.95	-67												-155.9
pH, Field	pH units	7.81	7.95	7.91	7.59	7.81	7.87	7.96	7.9	8.07	7.99	7.87	7.84	7.97	7.7	7.48
Potassium	mg/L	2.7	2.3	2.7			2.59	2.53	1.8 B	1.4	1.3	2.7	1.3	1.4 J	1.9	2.2
Radium-226	pCi/L	0.394	0.699	0.81	0.74	0.639	1.02	0.322	0.355	0.289	0.351	0.527				0.706
Radium-226/228	pCi/L	1.08	1.07	2.24	2.68	2.059	1.229	0.502	0.471	0.919	0.704	2.09				1.74
Radium-228	pCi/L	0.687 U	0.367 U	1.43	1.94	1.42	0.209	0.18	0.116 U	0.63	0.353	1.56				1.04
Redox Potential, Field	mV				-29.9	-145.3	-112.7	-121.3								
Selenium	mg/L		0.005 U	0.00094 J	0.0002 J	6E-05 J	0.0004	0.0002	0.005 U	0.005 U	0.005 U	0.005 U				0.005 U
Silver	mg/L								0.001 U	0.001 U	0.001 U	6.2E-05 J				0.00052 J
Sodium	mg/L	1400	1300	1500			827	595	790 JB	790 B	790	760 JB	810	820	1100	1200
Strontium	mg/L						0.434	0.41	0.46 B	0.5 B	0.45 B	0.46				1.2
Sulfate	mg/L	13 J	15	35	73.1	66.1	68.1	72.3	83 J	82	84	90	85	85	39	22
Temperature, Field	deg C	20	13.7	16.3	18.33	15	12.9	12.9					14.8		15	12
Thallium	mg/L		0.001 U	0.0011	0.000125	4E-05 J	0.000159	0.000126	0.001 U	0.001 U	0.001 U	0.00021 J				0.001 U
Turbidity, Field	NTU	53.35	24.9	21.98	28.9	9.7	18.3	15.9	50.1	16.4	8.6	287.1	4.8	10.1	7.2	3.3
Vanadium	mg/L								0.0045 J			0.013				
Zinc	mg/L								0.019 J	0.02 U	0.02 U	0.036				0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	93108 2022-09-19 N	93108 2023-04-04 FD	93108 2023-04-04 N	93108 2023-09-25 N	94136 2016-08-24 N	94136 2016-10-06 N	94136 2016-12-01 N	94136 2017-02-01 N	94136 2017-03-23 N	94136 2017-04-28 N	94136 2017-06-09 N	94136 2017-07-17 FD	94136 2017-07-17 N	94136 2018-03-08 FD	94136 2018-03-08 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	470	500	500	500			331	323							
Aluminum	mg/L									0.057	0.037 J	0.69	0.05 U	0.05 U		
Antimony	mg/L		0.002 U	0.002 U	0.002 U	2E-05 J	3E-05 J	2E-05	1E-05 J	0.0017 J	0.002 U	0.01 U	0.002 U	0.002 U		
Arsenic	mg/L		0.0028 J	0.0031 J	0.0035 J	0.00037	0.00048	0.00042	0.00039	0.0012 J	0.005 U	0.025 U	0.005 U	0.005 U		
Barium	mg/L		0.42	0.4	0.47	0.0865	0.0894	0.102	0.0877	0.11 B	0.1	0.099 B	0.11	0.1		
Beryllium	mg/L		0.001 U	0.001 U	0.001 U	2E-05 U	1E-05 J	1E-05	5E-06 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		
Bicarbonate Alkalinity as CaCO3	mg/L	470	500	500	500											
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.45	0.45	0.43	0.41	0.405	0.395	0.349	0.362	0.46	0.43 B	0.54	0.42 JB	0.44 JB	0.49	0.54
Bromide	mg/L							4.07	3.25	3.7 J	3.7 J	3.8 J	4.2 J	4.2 J		
Cadmium	mg/L		0.001 U	0.001 U	0.001 U	6E-06 J	6E-06 J	6E-06	5E-06 J	0.001 U	0.001 U	0.005 U	0.001 U	0.001 U		
Calcium	mg/L	14	13	13	15	23.2	22	19.2	17.7	19 B	17	16	17	17	29	34
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U											
Chloride	mg/L	1600	1700	1600	1800	888	927	887	882	910	900	887	940	950	960	940
Chromium	mg/L		0.005 U	0.005 U	0.005 U	0.0012	0.002	0.0013	0.00124	0.0019 J	0.002 U	0.005 J	0.0032	0.001 J		
Cobalt	mg/L		0.001 U	0.001 U	0.001 U	0.000107	0.00029	0.00015	0.000122	0.0004 J	0.00079 J	0.0014 J	0.0007 J	0.00065 J		
Conductivity, Field	uS/cm	6189		5266	5270	3541	3581	3578	3558							3896
Copper	mg/L									0.00085 JB	0.002 U	0.01 U	0.002 U	0.002 U		
Dissolved Oxygen, Field	mg/L	0.4		0.42	0.96	1.08	0.58	0.77	1.7							4.05
Dissolved Solids, Total	mg/L	3200	2900	3000	3200	1850	1820	1840	1750	1800 J	2000 J	2000	1800 J	1900 J	1900	1900
Fluoride	mg/L	3.1 J	3.3	3.3	3.2	0.96	0.94	1.03	0.9	1.2	1.2	1.4	1.1	1.1	1.1	1.1
Iron	mg/L									0.067 JB	0.1 U	0.6	0.1 U	0.1 U		
Lead	mg/L		0.001 U	0.001 U	0.001 U	5.3E-05	0.000164	0.000142	7.9E-05	0.00031 J	0.001 U	0.001 U	0.001 U	0.001 U		
Lithium	mg/L		0.036	0.036	0.042	0.028	0.033	0.035	0.029	0.026	0.028	0.025	0.03	0.029		
Magnesium	mg/L	4.3	3.8	3.7	4.6			4.46	4.13	4.5 B	3.9	4.1 J	4.3	4.3	6.5	7.4
Manganese	mg/L									0.058	0.03	0.079	0.098	0.089		
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	5E-06 U	5E-06 U	2E-06	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		
Molybdenum	mg/L		0.11	0.1	0.096	0.0135	0.015	0.0137	0.0133	0.02	0.015	0.017 J	0.015	0.015		
Nickel	mg/L									0.0015 J	0.004	0.01 U	0.002 U	0.002 U		
Oxidation-Reduction Potential, Field	mV	-188.4		-138	-185.8											
pH, Field	pH units	7.49		7.35	7.53	7.54	7.69	7.72	7.53	7.74	7.81	7.76	7.8	7.89		7.74
Potassium	mg/L	1.9	1.8	1.8	2			2.38	4.27	2.1 B	2	2.1 J	2	2	2.4	2.6
Radium-226	pCi/L	0.562	0.644	0.527	0.615	0.312	0.984	0.122	0.304	0.211	0.338	0.191	0.123	0.22		
Radium-226/228	pCi/L	1.8 J	1.68	1.14	1.78 J	2.592	2.264	1.642	0.665	0.398	0.584	0.528	0.521	0.765		
Radium-228	pCi/L	1.24 J	1.03	0.61	1.16 J	2.28	1.28	1.52	0.361	0.188 U	0.246 U	0.337 U	0.398	0.545		
Redox Potential, Field	mV				170.7	11.5	-50.1	26.4								
Selenium	mg/L		0.005 U	0.005 U	0.005 U	4E-05 J	8E-05 J	7E-05	5E-05 J	0.0012 J	0.005 U	0.025 U	0.005 U	0.005 U		
Silver	mg/L							0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.001 U	0.001 U		
Sodium	mg/L	1300	1200	1200	1300			557	496	750 JB	690	750	720 JB	720 JB	790	800
Strontium	mg/L							0.686	0.616	0.74 B	0.69	0.65 B	0.73	0.73		
Sulfate	mg/L	27	16	16	22	91.6	75.1	63.8	52.7	78 J	83	99	60	61	150	180
Temperature, Field	deg C	16		13.8	14.6	17.44	15.8	15.3	14							14.7
Thallium	mg/L		0.001 U	0.001 U	0.00053 J	1E-05 J	9.9E-05	1E-05	5E-05 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		
Turbidity, Field	NTU	0.55		2.87	5.28	4	8.4	9.2	21.1	6.4	195.4	8.5		5.9		1.1
Vanadium	mg/L									0.00054 J			0.005 U	0.005 U		
Zinc	mg/L									0.02 U	0.02 U	0.1 U	0.02 U	0.02 U		

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94137	94137
		2018-09-12 N	2019-03-07 N	2019-09-17 FD	2019-09-17 N	2020-03-25 N	2020-09-25 N	2021-03-22 N	2021-09-19 N	2022-03-23 N	2022-09-21 N	2023-03-30 N	2023-09-22 FD	2023-09-22 N	2016-08-24 N	2016-10-06 N
Alkalinity, Total as CaCO3	mg/L	310	310	330	340	370	340	360	300	200 J	310	320	340	340		
Aluminum	mg/L									0.21						
Antimony	mg/L									0.002 U		0.002 U	0.002 U	0.002 U	5E-05	3E-05 J
Arsenic	mg/L									0.00075 J		0.00094 J	0.00079 J	0.005 U	0.00179	0.00244
Barium	mg/L									0.1		0.11	0.11	0.11	0.0524	0.0578
Beryllium	mg/L									0.001 U		0.001 U	0.001 U	0.001 U	2E-05 U	2E-05 U
Bicarbonate Alkalinity as CaCO3	mg/L	310		330	330	360	340	350	300	200 J	310	320	340	340		
Bicarbonate Alkalinity as HCO3	mg/L		310													
Boron	mg/L		0.33	0.41	0.44	0.48	0.41	0.46	0.35	0.45 J	0.35	0.35	0.3	0.29	0.021	0.017
Bromide	mg/L															
Cadmium	mg/L									0.0001 U		0.001 U	0.001 U	0.001 U	6E-05	2E-05
Calcium	mg/L	17	15	14	14	13	14	14	14	15	13	13	14	13	147	163
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5.9	6	6.1	5.1	7.7	5 U	5 U	5 U	5 U	5 U	5 U		
Chloride	mg/L	970	900	870	870	960	830	830	930	1100	920 J	1000	1000	940	27.5	27.7
Chromium	mg/L									0.005 U		0.0061	0.0085	0.0071	0.0035	0.0055
Cobalt	mg/L									0.00037 J		0.0012	0.00066 J	0.00061 J	0.0922	0.495
Conductivity, Field	uS/cm					3409	3397	3396	3381	3977	3521	3577		3418	1252	1305
Copper	mg/L									0.005 U						
Dissolved Oxygen, Field	mg/L									0.13	0.36	0.46		1.56	1.08	0.73
Dissolved Solids, Total	mg/L		1700	2000	1900	1700	1400	1600	1800	1600	1100 J	1800	1700	1700	958	856
Fluoride	mg/L	1.2	1.1	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.3 U	1.2	1.2	1.4	0.11	0.1 J
Iron	mg/L									0.22 J						
Lead	mg/L									0.0005 U		0.00073 J	0.001 U	0.001 U	0.0002	0.000152
Lithium	mg/L									0.029		0.027	0.029	0.026	0.011	0.017
Magnesium	mg/L	3.9	3.8	3.5	3.5	3.5	3.6	3.5	3.5	3.9	3.5	3.4	3.7	3.6		
Manganese	mg/L									0.11						
Mercury	mg/L									0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	8E-06	3E-06 J
Molybdenum	mg/L									0.014 J		0.014	0.014	0.013	0.00275	0.00353
Nickel	mg/L									0.005 U						
Oxidation-Reduction Potential, Field	mV									-57.8	-156.4	69		12.1		
pH, Field	pH units	7.87	8		8.02	8.06	8.07	7.95	7.87	7.88	7.92	7.93		7.91	7.11	6.93
Potassium	mg/L	2.1	1.8	1.9	1.9	1.9	1.9	1.9	1.7	2.2	1.8	1.8	1.9	1.9		
Radium-226	pCi/L									0.434	0.289	0.623	0.592	0.501	0.171	1.71
Radium-226/228	pCi/L									0.845	0.352 U	0.755 U	2.36	1.72	2.681	2.373
Radium-228	pCi/L									0.411	0.0631 U	0.131 U	1.76	1.22	2.51	0.663
Redox Potential, Field	mV														-32.2	-21.4
Selenium	mg/L									0.0012 J		0.005 U	0.005 U	0.005 U	5E-05 J	9E-05 J
Silver	mg/L									0.001 U						
Sodium	mg/L	760	710	750	760	690	690	710	650	740	720	670	700	690		
Strontium	mg/L									0.66						
Sulfate	mg/L	75	60	81	85	73	67	65	59	55	52	55	50	58	348	330
Temperature, Field	deg C					15	16	16	17	16	18.1	15.5		17.5	19.28	17
Thallium	mg/L									0.001 U		0.001 U	0.001 U	0.001 U	4E-05 J	4E-05 J
Turbidity, Field	NTU	2.94			12	7	2.9	2	5.6	4	14.87	41.74		38.45	5.9	9.7
Vanadium	mg/L															
Zinc	mg/L									0.02 U						

Notes:
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mV = Millivolts
NTU = Nephelometric Turbidity Unit
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	94137 2016-12-01 N	94137 2017-02-01 N	94137 2017-03-23 N	94137 2017-04-28 N	94137 2017-06-09 N	94137 2017-07-17 N	94137 2018-03-08 N	94137 2018-09-12 N	94137 2019-03-11 N	94137 2019-09-17 N	94137 2020-03-25 N	94137 2020-09-25 N	94137 2021-03-22 N	94137 2021-09-19 N	94137 2022-03-23 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	341	360						330	330	340	350	330	340	310	210 J
Aluminum	mg/L			0.039 J	0.05 U	0.27	0.05 U									0.38 J
Antimony	mg/L	3E-05	4E-05 J	0.00038 J	0.002 U	0.002 U	0.002 U									0.002 U
Arsenic	mg/L	0.00211	0.00138	0.0026 J	0.0012 J	0.0036 J	0.0028 J									0.024
Barium	mg/L	0.0553	0.049	0.068 B	0.056	0.065 B	0.059									0.058
Beryllium	mg/L	5E-06	2E-05 U	0.001 U	0.001 U	0.001 U	0.001 U									0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L								330		340	350	330	340	310	210 J
Bicarbonate Alkalinity as HCO3	mg/L									330						
Boron	mg/L	0.022	0.037	0.04 J	0.028 JB	0.039 J	0.072 JB	0.035 J^		0.037 J	0.1 U	0.1 U	0.024 J	0.1 U	0.1 U	0.2 U
Bromide	mg/L	0.106	0.085	0.11 J	2.5 U	0.11 J	0.09 J									
Cadmium	mg/L	7E-05	5E-05	0.001 U	0.001 U	0.001 U	0.001 U									0.00029
Calcium	mg/L	154	148	160 B	160	160	160	150	160	150	150	150	150	160	140	170
Carbonate Alkalinity as CaCO3	mg/L								5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	27.8	27.5	29	29	29	28	28	28	28	26	27	28	26	28	27
Chromium	mg/L	0.0014	0.00169	0.0031	0.002 U	0.0049	0.0038									0.0097 J
Cobalt	mg/L	0.0503	0.056	0.12	0.031	0.097	0.17									0.51
Conductivity, Field	uS/cm	1283	1302					1281					1221	1213	1212	1210
Copper	mg/L			0.00065 JB	0.002 U	0.0045	0.002 U									0.005 U
Dissolved Oxygen, Field	mg/L	0.83	1.29					1.61								0.31
Dissolved Solids, Total	mg/L	867	883	890 J	920 J	880	920 J	890		870	890	870	830	880	900	870
Fluoride	mg/L	0.12	0.11	0.14	0.12 J	0.13 J	0.12	0.12 J	0.11	0.25 U	0.11	0.12	0.12	0.11	0.13	0.13
Iron	mg/L			0.67 JB	0.19	1.6	0.83									6.4
Lead	mg/L	0.000156	7E-05	0.00019 J	0.001 U	0.00053 J	0.001 U									0.0026 J
Lithium	mg/L	0.015	0.007	0.0078 J	0.0096	0.0088	0.0088									0.0089 J
Magnesium	mg/L	47.9	47.4	51 B	47	50	48	51	49	51	48	47	49	48	46	48
Manganese	mg/L			0.088	0.06	0.13	0.14									0.82
Mercury	mg/L	5E-06	2E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U									0.0002 U
Molybdenum	mg/L	0.00287	0.00633	0.0034 J	0.0027 J	0.0031 J	0.0026 J									0.002 U
Nickel	mg/L			0.0028	0.0019 J	0.0039	0.003									0.01
Oxidation-Reduction Potential, Field	mV															-165.3
pH, Field	pH units	6.98	7.02	7.03	6.96	7.05	6.96	6.98	7.01	7.13	7.13	7.14	7.2	7.02	7.03	7.05
Potassium	mg/L	1.82	2.18	1.7 B	1.7	1.8	1.7	1.7	1.9	2	1.8	1.6	1.7	1.7	1.6	1.8
Radium-226	pCi/L	0.29	0.257	0.239	0.111	0.0957	0.0922									0.461
Radium-226/228	pCi/L	1.268	3.127	0.261 U	0.201 U	0.331 U	0.3 U									1.1
Radium-228	pCi/L	0.978	2.87	0.0221 U	0.0903 U	0.235 U	0.208 U									0.644
Redox Potential, Field	mV	-55.4	-74.7													
Selenium	mg/L	5E-05	0.0001 U	0.00056 J	0.005 U	0.005 U	0.005 U									0.0015 J
Silver	mg/L			6E-05 J	0.001 U	6.8E-05 J	0.001 U									0.00065 J
Sodium	mg/L	70.7	65	68 JB	64 B	68	68 JB	67	64	67	65	61	64	64	59	68
Strontium	mg/L	0.298	0.276	0.32 B	0.29	0.28 B	0.29									0.29
Sulfate	mg/L	349	332	360 J	360	360	370	360	370	370	350	390	330	330	340	340
Temperature, Field	deg C	15.7	14					14.7				14	17	17	17	18
Thallium	mg/L	4E-05	0.000166	0.001 U	0.001 U	0.001 U	0.001 U									0.00042 J
Turbidity, Field	NTU	7.8	7.1	8	13.9	4.5	6.7	2.3	4.31		3	2.5	1.3	8.1	1.6	63.4
Vanadium	mg/L			0.00076 J			0.005 U									
Zinc	mg/L			0.02 U	0.02 U	0.02 U	0.02 U									0.02 UJ

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	94137 2022-09-21 N	94137 2023-03-30 N	94137 2023-09-22 N	94139 2016-08-23 N	94139 2016-10-05 N	94139 2016-12-02 N	94139 2017-02-02 N	94139 2017-03-29 N	94139 2017-04-28 N	94139 2017-06-12 FD	94139 2017-06-12 N	94139 2017-07-18 N	94139 2018-03-15 N	94139 2018-09-24 N	94139 2019-03-11 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	370	350	350			563	555						510	500	500
Aluminum	mg/L								1.1 J	0.092	3.8 B	5.1 B	32			
Antimony	mg/L		0.002 U	0.002 U	4E-05 J	3E-05 J	6E-05	3E-05 J	0.0017 J	0.002 U	0.002 U	0.002 U	0.002 U			
Arsenic	mg/L		0.0063	0.0049 J	0.00328	0.00322	0.00438	0.00317	0.0031 J	0.0033 J	0.0047 J	0.0051	0.008			
Barium	mg/L		0.048	0.053	0.0893	0.0852	0.0969	0.081	0.097 B	0.092	0.11	0.12	0.29			
Beryllium	mg/L		0.001 U	0.001 U	6.5E-05	2.7E-05	7.1E-05	2E-05 J	0.001 U	0.001 U	0.001 U	0.00038 J	0.0015			
Bicarbonate Alkalinity as CaCO3	mg/L	370	350	350										490	490	
Bicarbonate Alkalinity as HCO3	mg/L															480
Boron	mg/L	0.1 U	0.1 U	0.1 U	0.498	0.507	0.458	0.456	0.52	0.54 B	0.53	0.54	0.54 JB	0.51	0.5	0.54
Bromide	mg/L						1.75	1.57	1.9 J	1.8 J	1.8 J	1.8 J	1.8 J			
Cadmium	mg/L		0.001 U	0.001 U	1E-05 J	1E-05 J	2E-05 U	6E-06 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00034 J			
Calcium	mg/L	140	150	150	6.7	5.6	7.99	6.66	5.5 B	7.1	9.6	10	13	7.1	6.8	6.7
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U										15	13	17
Chloride	mg/L	27 U	26	27	487	503	450	500	510	510	480	480	520	500	560	500
Chromium	mg/L		0.005 U	0.0078	0.0008	0.0017	0.00236	0.000647	0.0017 J	0.002 U	0.0029	0.0052	0.014			
Cobalt	mg/L		0.077	0.21	0.000397	0.00031	0.000507	0.000159	0.00037 J	0.001 U	0.00062 J	0.00082 J	0.0035			
Conductivity, Field	uS/cm	1273	1307	1249	2454	2630	2608	2726						2550		
Copper	mg/L								0.0014 JB	0.002 U	0.007 B	0.0063 B	0.019			
Dissolved Oxygen, Field	mg/L	0.26	0.37	3.2	1.05	0.41	0.79	1.27						1.29		
Dissolved Solids, Total	mg/L	620	840	870	1420	1460	1390	1360	1500 J	1500 J	1400	1400	1400 J	1400	1400	1300
Fluoride	mg/L	0.11 U	0.072	0.11	4.22	4.08	4.05	4.11	4.6	4.7	5	5	5.1	4.4	4.6	4.4
Iron	mg/L								0.62 JB	0.048 J	1.7	2.4	16			
Lead	mg/L		0.001 U	0.001 U	0.000963	0.00125	0.000921	0.000319	0.001 J	0.001 U	0.0025	0.004	0.029			
Lithium	mg/L		0.0096	0.01 J	0.02	0.026	0.026	0.014	0.019	0.019	0.018	0.019	0.024			
Magnesium	mg/L	48	47	50			2.44	2	1.9 B	2.1	3.2	3.4	7.5	2.3	2.1	2.3
Manganese	mg/L								0.026	0.017	0.023	0.033	0.28			
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	5E-06 U	5E-06 U	1E-05	3E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U			
Molybdenum	mg/L		0.005 U	0.0021 J	0.2	0.231	0.214	0.195	0.22	0.21	0.19 J	0.2 J	0.19			
Nickel	mg/L								0.00089 J	0.002 U	0.0025	0.0027	0.013			
Oxidation-Reduction Potential, Field	mV	-282.3	-270.9	-156.7												
pH, Field	pH units	7.14	7.14	6.96	8.19	8.18	8.17	8.13	8.12	8.14		8.01	7.92	8.19	8.17	8.37
Potassium	mg/L	1.6	1.7	1.8			2.6	1.97	1.4 B	1.4	1.5	1.6	2.4	1.4	1.4	1.4
Radium-226	pCi/L	0.215	0.0396 U	0.0754 U	1.34	0.464	0.936	0.454	0.387	0.547	0.559	0.61	0.886 J			
Radium-226/228	pCi/L	0.427 U	0.782 U	1	16.81	1.634	1.606	1.196	0.797	0.907	1.12	0.971	2.21			
Radium-228	pCi/L	0.212 U	0.743 U	0.926	15.47	1.17	0.67	0.742	0.41 U	0.36 U	0.565	0.361 U	1.32			
Redox Potential, Field	mV				-51.8	-191.2	-43.3	-102.6								
Selenium	mg/L		0.005 U	0.005 U	0.0002	0.0001	0.0002	3E-05 J	0.00089 J	0.005 U	0.005 U	0.00091 J	0.0029 J			
Silver	mg/L								0.001 U	0.001 U	0.001 U	0.001 U	0.00019 J			
Sodium	mg/L	65 J	63	65			425	451	580 JB	570	530	550	560 JB	550	590	560
Strontium	mg/L						0.453	0.395	0.4 B	0.46	0.48 B	0.51 B	0.75			
Sulfate	mg/L	320	330	360	56.1	49	52.8	51	62 J	62	70	69	66	65	74	66
Temperature, Field	deg C	19.2	15.6	18.8	20.42	17.9	14.8	14.3						15.7		
Thallium	mg/L		0.001 U	0.001 U	5E-05 U	5E-05 U	2E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U			
Turbidity, Field	NTU	11.11	4.34	21.37	69.7	8.8	169.8	8.7	5	5.9		90.8	69.3	22	10.8	
Vanadium	mg/L												0.0079			
Zinc	mg/L								0.02 U	0.02 U	0.02 U	0.02 U	0.081			

Notes:
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mg/L = Milligrams per liter
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NTU = Nephelometric Turbidity Unit
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	94139 2019-09-23 N	94139 2020-03-19 N	94139 2020-09-22 N	94139 2021-03-25 N	94139 2021-09-28 N	94139 2022-03-28 N	94139 2022-09-16 N	94139 2023-03-31 N	94139 2023-09-26 N	96152 2019-03-28 N	96152 2019-09-22 N	96152 2020-03-26 N	96152 2020-09-17 N	96152 2021-03-10 N	96152 2021-09-29 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	490	520	500	500	500	490	490	490	510	450	450	470	550	560	590
Aluminum	mg/L						3.4									
Antimony	mg/L						0.002 U		0.002 U	0.0006 J						
Arsenic	mg/L						0.0036		0.0042 J	0.0079						
Barium	mg/L						0.13		0.1	0.16						
Beryllium	mg/L						0.00033 J		0.001 U	0.001 U						
Bicarbonate Alkalinity as CaCO3	mg/L	470	490	470	480	480	470	460	460	490	450	450	470	550	560	590
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.51	0.51	0.51	0.55	0.53	0.52 J	0.52	0.51	0.52	0.43	0.41	0.43	0.43	0.45	0.48
Bromide	mg/L															
Cadmium	mg/L						7.9E-05 J		0.001 U	0.0002 J						
Calcium	mg/L	7.5	7.4	8.1	6.9	6.6	6.6	7.3	7.1	13	85	61	64	50	43	41
Carbonate Alkalinity as CaCO3	mg/L	19	27	24	27	22	18	26	27	21	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	480	560	560	480	520	490	520 J	490	510	4900	4300	4800	3400	3200	3100
Chromium	mg/L						0.0019 J		0.0044 J	0.0086						
Cobalt	mg/L						0.00093		0.00082 J	0.0031						
Conductivity, Field	uS/cm		2467	2493	2486	2473	2565	2613	2624	2543			12690	10609	10275	4382
Copper	mg/L						0.0057 J									
Dissolved Oxygen, Field	mg/L						0.57	0.37	0.53	0.8						
Dissolved Solids, Total	mg/L	1300	1300	1400	1400	1500	1300 J	950	1300	1300	6400	6200	6600	4500	5100	5000
Fluoride	mg/L	4.7	4.6	4.6	4.5	4.8	4.5	4.9 J	4.6	4.7	0.84	0.91	0.86	0.97	0.72	1
Iron	mg/L						1.6									
Lead	mg/L						0.0039 J		0.0022	0.02						
Lithium	mg/L						0.019		0.018	0.021						
Magnesium	mg/L	2.9	2.3	2.9	2	1.9	2.4	2.4	2.6	4.1	28	24	23	17	16	14
Manganese	mg/L						0.042									
Mercury	mg/L						0.0002 U	0.0002 U	0.0002 U	0.0002 U						
Molybdenum	mg/L						0.16		0.19	0.19						
Nickel	mg/L						0.0039 J									
Oxidation-Reduction Potential, Field	mV						-11.5	-66.7	41.8	48.9						
pH, Field	pH units	8.36	8.35	8.22	8.22	8.28	8.34	8.2	8.26	8.24	7.71	7.55	7.75	7.68	7.56	7.39
Potassium	mg/L	1.6	1.3	1.5	1.4	1.4	1.5	1.6	1.5	2.4	14	11	11	9.3	8.9	8.4
Radium-226	pCi/L						0.874	0.464	0.532	0.551 U						
Radium-226/228	pCi/L						1.57	1.37	1.56	2.52						
Radium-228	pCi/L						0.693 U	0.902 U	1.03 U	1.97						
Redox Potential, Field	mV															
Selenium	mg/L						0.005 U		0.005 U	0.005 U						
Silver	mg/L						0.001 U									
Sodium	mg/L	510	550	520	550	570	560	550	520	570	2800	2500	2500	2100	2000	2000
Strontium	mg/L						0.48									
Sulfate	mg/L	60	62	59	59	61	57	63 J	58	60	19	16	20	28	27	66
Temperature, Field	deg C		16	17	15	18	14	19.1	14.7	17.5		15	14	13	13	
Thallium	mg/L						0.001 U		0.001 U	0.00034 J						
Turbidity, Field	NTU	34	7.4	309	9.8	4.9	50.3	53.7	31.04	62.09		252	230	76.1	159	56.6
Vanadium	mg/L															
Zinc	mg/L						0.02 U									

Notes:
FD = Field duplicate sample
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deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Location Date	96152 2022-03-31 N	96152 2022-05-10 N	96152 2022-07-20 N	96152 2022-08-16 FD	96152 2022-08-16 N	96152 2022-09-14 N	96152 2022-10-21 N	96152 2022-10-21 N	96152 2022-12-06 N	96152 2023-02-23 FD	96152 2023-02-23 N	96152 2023-03-28 N	96152 2023-04-14 FD	96152 2023-04-14 N	96152 2023-09-15 N	
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	600	470	590	480	480	500	510	510	500	470	470	520	540	520	550
Aluminum	mg/L	2.7														
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.0011 J	0.00081 J	0.0007 J
Arsenic	mg/L	0.024	0.0022 J	0.0092	0.0054	0.0054		0.004 J		0.0068	0.0061	0.0061	0.0034 J	0.013	0.011	0.018
Barium	mg/L	0.49	0.51	0.83	0.66	0.69		0.68		0.7	0.63	0.62	0.68	0.9	0.84	0.66
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.0013	0.00089 J	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	600	470	590	480	480	500	510	510	500	470	470	520	540	520	550
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	1.2 U	0.45				0.48						0.45			0.44
Bromide	mg/L															
Cadmium	mg/L	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.0002 J	0.001 U	0.001 U
Calcium	mg/L	54	49				46						45			42
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	3000	3500				3200			3300			3400			3300
Chromium	mg/L	0.0093	0.005 U	0.005 U	0.0027 J	0.003 J		0.005 U		0.005 U	0.005 U	0.005 U	0.005 U	0.016	0.013	0.0027 J
Cobalt	mg/L	0.008	0.002	0.003	0.0025	0.0025		0.0019		0.003	0.0027	0.0026	0.0023	0.0067	0.0057	0.0033
Conductivity, Field	uS/cm	10560	9762	10590	10594	10594	10779	10518		10407		10513				9399
Copper	mg/L	0.012 J														
Dissolved Oxygen, Field	mg/L	1.24	0.36	0.67	0.52	0.52	0.65	0.59		0.65		2.11				1.13
Dissolved Solids, Total	mg/L	4900	5000				4500 J		5200				5500			5300
Fluoride	mg/L	0.85	0.91	0.77 J	0.78	0.72 J	0.78 J	0.89	0.72	0.89	0.9 J	0.91 J	0.56	0.8	0.8	0.82
Iron	mg/L	7.3														
Lead	mg/L	0.0059 J	0.001 U	0.00051 J	0.001 U	0.00045 J		0.001 U		0.001 U	0.001 U	0.001 U	0.0005 J	0.0055	0.0047	0.001
Lithium	mg/L	0.098	0.069	0.083	0.088	0.091		0.084		0.078	0.085	0.084	0.076	0.092	0.091	0.089
Magnesium	mg/L	19	16	16	16	17	15	16		15	15	15	15	15	15	15
Manganese	mg/L	0.53														
Mercury	mg/L	0.0002 U	0.00015 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 UF1	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.002 U	0.0032 J	0.0038 J	0.0037 J	0.004 J		0.004 J		0.0036 J	0.0035 J	0.0035 J	0.0036 J	0.0051	0.0044 J	0.0043 J
Nickel	mg/L	0.017														
Oxidation-Reduction Potential, Field	mV	187.5	-110.9	-195.1	-109.4	-109.4	-141.2	-100.9		-101.2		-89.9				-114.9
pH, Field	pH units	7.41	7.16	7.53	7.33	7.41	7.33	7.29	7.21	7.35		7.42				7.68
Potassium	mg/L	9 J	8.3	8.3	8.1	8.4	8.2	8.6		7.9	8.2	8.1	8.2	9.3	8.7	9
Radium-226	pCi/L	3.74	1.14	2.33	1.49	1.09	1.92	1.46		1.63	1.51	1.46	1.58	1.81	1.42	2.24
Radium-226/228	pCi/L	5.19	2.75	5.15	3.53	3.49	4.24 J	3.71		3.51	3.06	4.1	3.84	3.99	3.26	5.05 J
Radium-228	pCi/L	1.45 U	1.61	2.81	2.04	2.4	2.32 J	2.25		1.88	1.55	2.64	2.26	2.18	1.84	2.8 J
Redox Potential, Field	mV															
Selenium	mg/L	0.0015 J	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U		0.005 U	0.005 U	0.005 U	0.005 U	0.00091 J	0.005 U	0.001 J
Silver	mg/L	0.00064 J														
Sodium	mg/L	2300	2100	2200	2200	2300	2100	2200		2100	2100	2100	2000	2000	2000	2200
Strontium	mg/L	3.1														
Sulfate	mg/L	92	43				49		42				61			78
Temperature, Field	deg C	13	12.7	14.5	13.5	13.5	13.3	13.2		12.4		13.8				13.6
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0017 J		0.00072 J		0.001 U	0.001 U	0.001 U	0.001 U	0.00079 J	0.00068 J	0.00058 J
Turbidity, Field	NTU	536.5	16.33	19.03	15.01	15.01	9	9.21		23.12		5.26				44.01
Vanadium	mg/L															
Zinc	mg/L	0.02														

Notes:
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mV = Millivolts
NTU = Nephelometric Turbidity Unit
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Location Date Sample Type	96153R 2016-08-23 N	96153R 2016-10-03 N	96153R 2016-11-29 N	96153R 2017-03-21 N	96153R 2017-04-25 N	96153R 2017-06-06 N	96153R 2017-07-12 N	96153R 2018-03-22 N	96153R 2018-09-13 N	96153R 2019-03-29 N	96153R 2019-09-19 N	96153R 2020-03-15 N	96153R 2020-03-24 N	96153R 2020-09-15 N	96153R 2021-03-19 N	
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L			262	84					71	140	5 U	280	270	230	260
Aluminum	mg/L					0.56	0.47	0.085 B								
Antimony	mg/L	0.00059	0.00036	0.00024	0.00085 J	0.002 U	0.00057 J	0.002 U		0.002 U						
Arsenic	mg/L	0.00237	0.00142	0.0013	0.0044 J	0.005 U	0.005 U	0.005 U		0.005 U						
Barium	mg/L	0.0315	0.0901	0.136	0.061 JB	0.027	0.037	0.03		0.028						
Beryllium	mg/L	0.000515	0.000196	0.00019	0.012	0.0048	0.00038 J	0.001 U		0.0052						
Bicarbonate Alkalinity as CaCO3	mg/L									71	140	5 U	280	270	230	260
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.448	0.423	0.463	0.23	0.25	0.48 B	0.48 B		0.32	0.39	0.18	0.54	0.51	0.5	0.58
Bromide	mg/L			0.2 U	5 U	5 U	5 U	5 U								
Cadmium	mg/L	8E-05	0.0001	2E-05 J	0.00036 J	0.00024 J	0.001 U	0.001 U		0.00027 J						
Calcium	mg/L	189	208	177	210 B	200	72	130		150	150	160	92	120	140	120
Carbonate Alkalinity as CaCO3	mg/L									5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	34.3	16.1	11.6	16	20	35	19		19	21	20	31	14	15	13
Chromium	mg/L	0.0034	0.0027	0.00261	0.0028 J	0.002 U	0.002 U	0.002 U		0.002 U						
Cobalt	mg/L	0.0234	0.0266	0.00693	0.3	0.29	0.012	0.0063		0.2						
Conductivity, Field	uS/cm	3013	2934	2473					2256				2396	2274	2131	2165
Copper	mg/L					0.002 U	0.002 U	0.0034								
Dissolved Oxygen, Field	mg/L	4.65	3.74	1.71					0.12							
Dissolved Solids, Total	mg/L	2300	2160	1700	1800	1900 J	1800	1600 J		1600	1500	1600	1500 J	1700	1500	1500
Fluoride	mg/L	0.8	0.72	0.67	2.3	2.3	1.4	1.2		1.4	1.1	2.6	1.2	1	0.81	0.87
Iron	mg/L					30	0.94	0.14								
Lead	mg/L	0.00648	0.00278	0.00277	0.0014 J	0.001 U	0.00045 J	0.001 U		0.001 U						
Lithium	mg/L	0.096	0.081	0.053	0.18	0.2	0.069	0.054		0.16						
Magnesium	mg/L			33.6			73	17			53	69	19	23	28	23
Manganese	mg/L				18 B	17	1.6	0.99								
Mercury	mg/L	8E-06	2E-06 J	1.5E-05	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U						
Molybdenum	mg/L	0.0126	0.0114	0.00812	0.0065 J	0.0042 J	0.02	0.0068 J		0.003 J						
Nickel	mg/L					0.27	0.018	0.0061								
Oxidation-Reduction Potential, Field	mV															
pH, Field	pH units	7.18	6.99	7.35	6.46	6.19	7.2	7.49	7.14	6.04	6.59	5.31	7.42	7.36	7.23	7.4
Potassium	mg/L			6.7	10 JB	11	5.3	5.8			15	11	5.5	5.8	6	5.5
Radium-226	pCi/L	0.634	0.403	0.968	0.476	0.475	0.335	0.05 U		0.328						
Radium-226/228	pCi/L	2.434	1.963	1.64	0.764	0.926	0.607	0.702		0.72						
Radium-228	pCi/L	1.8	1.56	0.672	0.288 U	0.451	0.272 U	0.652 J		0.393 U						
Redox Potential, Field	mV	36.1	136.7	227.2												
Selenium	mg/L	0.0009	0.0005	0.0006	0.0053 J	0.0017 J	0.0014 J	0.001 JB		0.005 U						
Silver	mg/L					0.001 U	0.001 U	0.001 U								
Sodium	mg/L			287	160 JB	190	490 B	330			280	150	420	350	330	320
Strontium	mg/L			3.22	1.5 JB	1.4	1.3 B	2.6								
Sulfate	mg/L	1290	1320	973	1200	1700	1000	1000		1100	1100	1100	1200	1100	910	900
Temperature, Field	deg C	14.3	14.6	13.3					12.2				13	13	14	12
Thallium	mg/L	5E-05 J	8E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U						
Turbidity, Field	NTU	141.2	65	49.6	113.6	87.4	19.2	30.7	7	69.4		85	4	10.5	9.8	2.9
Vanadium	mg/L															
Zinc	mg/L					0.61	0.018 J	0.02 U								

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	96153R 2021-09-20 N	96153R 2022-03-30 N	96153R 2022-09-13 N	96153R 2022-10-25 N	96153R 2023-03-27 N	96153R 2023-09-14 N	96154R 2016-08-23 N	96154R 2016-10-03 N	96154R 2016-11-29 N	96154R 2017-01-30 N	96154R 2017-03-21 N	96154R 2017-04-25 N	96154R 2017-06-06 N	96154R 2017-07-12 N	96154R 2018-03-22 N
Alkalinity, Total as CaCO3	mg/L	350	250	260	250	260	260			558	607	600				
Aluminum	mg/L		0.31										0.42	1.4	0.96 B	
Antimony	mg/L		0.00071 J			0.002 U	0.002 U	0.00091	0.00098	0.00046	0.00078	0.0014 J	0.0014 J	0.002 U	0.0006 JB	
Arsenic	mg/L		0.002 U			0.005 U	0.005 U	0.00644	0.00668	0.00409	0.00277	0.0049 J	0.0093	0.0022 J	0.0025 J	
Barium	mg/L		0.022			0.023	0.032	0.13	0.115	0.219	0.194	0.28 JB	0.067	0.12	0.11	
Beryllium	mg/L		0.00031 J			0.001 U	0.001 U	0.000546	0.000319	0.000679	0.000166	0.001 U	0.001 U	0.001 UJ	0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L	120	250	260	250	260	260									
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.51	0.58 J	0.55		0.56	0.54	0.441	0.395	0.504	0.454	0.49	0.5	0.53 B	0.53 B	
Bromide	mg/L									1.48	1.36	1.5 J	1.4 J	2.4	1.8 J	
Cadmium	mg/L		0.0001 U			0.001 U	0.001 U	5E-05	2E-05	4E-05	4E-05	0.001 U	0.001 U	0.001 U	0.001 U	
Calcium	mg/L	120	59	120		120	130	9.41	5.34	10.5	22.1	31 B	2.1	4.8	4.3	
Carbonate Alkalinity as CaCO3	mg/L	230	5 U	5 U	5 U	5 U	5 U									
Chloride	mg/L	11	17	10	13	8.4 J	11	413	452	410	446	410	410	470	490	
Chromium	mg/L		0.005 U			0.005 U	0.005 U	0.0022	0.0057	0.0121	0.00249	0.0051 J	0.002 U	0.0078 J	0.0013 J	
Cobalt	mg/L		0.0013			0.00023 J	0.0006 J	0.00204	0.00176	0.00443	0.000799	0.00095 J	0.00037 J	0.00042 J	0.00022 J	
Conductivity, Field	uS/cm	2104	2783	2297	2021	2141	1960	2462	2602	2562	2549					2650
Copper	mg/L		0.005 U										0.002 U	0.0043 B	0.002 U	
Dissolved Oxygen, Field	mg/L		0.61	2.65	8.73	2.94	3.51	0.68	0.59	1.16	1.02					0.15
Dissolved Solids, Total	mg/L	1500	140 J	1300 J	1300	1400	1400	1940	1550	1850	1590	1400	1400 J	1500	1500 J	
Fluoride	mg/L	0.8	0.83	0.75 J	0.87	0.71 J	0.6	3.32	3.36	3.4	3.33	4.2	4.5	4.1	4.5	
Iron	mg/L		0.87										0.29	1.4	0.64	
Lead	mg/L		0.0005 U			0.001 U	0.001 U	0.00565	0.00371	0.00967	0.0031	0.0021 J	0.001 U	0.00077 J	0.00048 J	
Lithium	mg/L		0.036 J			0.043	0.045	0.08	0.054	0.04	0.137	0.24	0.19	0.048	0.049	
Magnesium	mg/L	23	11	23		23	24			4.24	1.48		0.55 J	1.5	1.4	
Manganese	mg/L		0.13									0.02 B	0.011	0.013	0.0053	
Mercury	mg/L		0.0002 U	0.0002 U		0.0002 U	0.0002 U	2.5E-05	1E-05	3E-05	1.8E-05	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Molybdenum	mg/L		0.012			0.0045 J	0.0043 J	0.0557	0.102	0.0724	0.0692	0.09 J	0.093	0.1	0.1	
Nickel	mg/L		0.0019 J										0.002 U	0.0028	0.002 U	
Oxidation-Reduction Potential, Field	mV		128.8	46.5	193	71.9	136.3									
pH, Field	pH units	7.41	7.62	7.37	7.63	7.57	6.88	9.5	9.36	8.67	9.64	10.67	10.32	8.76	8.82	9.85
Potassium	mg/L	5.8	3.8 J	5.8		5.9	6.5			7.64	33.8	58 JB	41	6	6.1	
Radium-226	pCi/L		0.1 U	0.279		0.0823 U	0.306	1.21	0.53	1.68	0.96	0.696	0.664	0.251	0.213	
Radium-226/228	pCi/L		0.28 U	1.12		0.242 U	1.44	1.566	1.434	2.328	1.762	1.21	0.894	0.655	0.577	
Radium-228	pCi/L		0.18 U	0.845		0.159 U	1.14	0.356	0.904	0.648	0.802	0.51	0.23 U	0.405	0.364 UJ	
Redox Potential, Field	mV							97.1	54.8	175.9	139.8					
Selenium	mg/L		0.005 U			0.005 U	0.005 U	0.001	0.001	0.002	0.0006	0.00096 J	0.005 U	0.005 U	0.005 U	
Silver	mg/L		0.001 U										0.001 U	0.0017	0.00021 J	
Sodium	mg/L	320	510	310		320	310			478	449	540 JB	510	540 B	590	
Strontium	mg/L		1.4							0.425	1.37	2.6 JB	0.57	0.36 B	0.38	
Sulfate	mg/L	950	880	930	900	880 J	890	99.2	87.4	125	66.8	64	60	100	100	
Temperature, Field	deg C	14	12	14.4	13.9	13.5	14.2	16.5	14.4	13.3	11.2					12.6
Thallium	mg/L		0.001 U			0.001 U	0.001 U	6.4E-05	0.000144	0.000121	0.000114	0.001 U	0.001 U	0.001 U	0.001 U	
Turbidity, Field	NTU	7.7	14.2	9.92	81.21	9.4	15.14	737	209.7	642.7	349.1	98.6	63.9	44.8	16.2	6
Vanadium	mg/L															
Zinc	mg/L		0.02 U										0.02 U	0.02 U	0.02 U	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
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B: Compound was found in the blank and sample.
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U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	96154R 2018-09-13 N	96154R 2019-03-29 FD	96154R 2019-03-29 N	96154R 2019-09-19 N	96154R 2020-03-12 N	96154R 2020-09-14 N	96154R 2021-03-19 N	96154R 2021-09-20 N	96154R 2022-03-30 N	96154R 2022-09-14 N	96154R 2022-10-19 N	96154R 2023-03-27 FD	96154R 2023-03-27 N	96154R 2023-09-14 N	96156 2016-08-23 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	460	350	350	280	560	530	570	550 J	550	520	510	600	600	560	
Aluminum	mg/L									0.4						
Antimony	mg/L									0.002 U			0.00066 J	0.00077 J	0.002 U	0.0001 J
Arsenic	mg/L									0.0023			0.0043 J	0.0044 J	0.0029 J	0.0141
Barium	mg/L									0.16			0.38	0.39	0.19	16.2
Beryllium	mg/L									0.001 U			0.001 U	0.001 U	0.001 U	0.0002 U
Bicarbonate Alkalinity as CaCO3	mg/L	110	5 U	5 U	5 U	280	470	410	500 J	440	460	450	280	280	510	
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L		0.38	0.38	0.39	0.43	0.45	0.51	0.53	0.61 J	0.48		0.48	0.48	0.53	0.394
Bromide	mg/L															
Cadmium	mg/L									0.0001 U			0.001 U	0.001 U	0.001 U	0.00022
Calcium	mg/L	3.2	61	61	26	17	7	8.3	14	11	35		62	65	9.6	409
Carbonate Alkalinity as CaCO3	mg/L	350	130	130	180	280	58	160	48 J	110	57	63	320	320	52	
Chloride	mg/L	410	340	330	350	490	470	370	520	490	430	440	450	460	560	11700
Chromium	mg/L									0.005 U			0.0062	0.0061	0.011	0.0011
Cobalt	mg/L									0.0002 J			0.0013	0.0013	0.0024	0.00194
Conductivity, Field	uS/cm					2483	2545	2551	2567	2802	2529	2529		2720	2602	30150
Copper	mg/L									0.005 U						
Dissolved Oxygen, Field	mg/L									0.84	0.51	0.65		0.69	2.84	2.61
Dissolved Solids, Total	mg/L		860	850	900	1400	1400	1400	1300	1400	1200	1500	1400	1400	1500	18300
Fluoride	mg/L	4.4	3.3	3.3	3.9	4	4.2	3.8	4.4	4.4	4.2	4.1	4.2	4.2	4.2	0.33
Iron	mg/L									0.33 J						
Lead	mg/L									0.0005 U			0.002	0.0019	0.0028	0.00236
Lithium	mg/L									0.036 J			0.065	0.067	0.041	0.269
Magnesium	mg/L	0.51 J	0.34 J	0.41 J	0.24 J	1.5	1.3	1.2	1.5	1.3	12		1.8	1.8	2.6	
Manganese	mg/L									0.0046 J						
Mercury	mg/L									0.0002 U	0.0002 U		0.0002 U	0.0002 U	0.0002 U	5E-06 U
Molybdenum	mg/L									0.1			0.11	0.11	0.11	0.00987
Nickel	mg/L									0.005 U						
Oxidation-Reduction Potential, Field	mV									40.2	-19.5	148		24.1	160.5	
pH, Field	pH units	10.11		12.06	11.7	9.76	8.93	9.18	8.57	8.97	8.62	8.38		9.95	8.19	7.07
Potassium	mg/L	12	20	20	10	7.2	3.6	4.4	3.8	4 J	14		7.6	7.9	5.7	
Radium-226	pCi/L									0.296	1.39		0.937	1.39	0.506 U	33.8
Radium-226/228	pCi/L									0.557	2.53 J		1.4	2.78	7.18	75.85
Radium-228	pCi/L									0.26 U	1.14 J		0.467 U	1.39	6.67	42.05
Redox Potential, Field	mV															-82.4
Selenium	mg/L									0.0011 J			0.005 U	0.005 U	0.005 U	0.0006 J
Silver	mg/L									0.001 U						
Sodium	mg/L	450	340	340	320	520	500	530	570	600	500		550	560	600	
Strontium	mg/L									0.53						
Sulfate	mg/L	42	29	29	33	33	36	36	41	42	72	65	44	44	43	1.9
Temperature, Field	deg C					13	14	13	14	16	15.4	13.2		13.6	14.5	15.2
Thallium	mg/L									0.001 U			0.001 U	0.00026 J	0.001 U	0.0005 U
Turbidity, Field	NTU	6.23			41	140	87.9	53.9	59.9	22.8	811.12	762.15		184.7	167.8	9
Vanadium	mg/L															
Zinc	mg/L									0.02 U						

Notes:
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N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	96156 2016-10-03 N	96156 2016-11-29 N	96156 2017-01-30 N	96156 2017-03-21 N	96156 2017-04-25 N	96156 2017-06-06 N	96156 2017-07-12 N	96156 2018-03-26 N	96157 2021-09-28 N	96157 2022-03-29 N	96157 2022-09-12 N	96157 2022-12-02 N	96157 2023-03-29 N	96157 2023-09-18 FD	96157 2023-09-18 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L			165	150					440	340	380		340	370	370
Aluminum	mg/L					0.05 U	0.079	0.084 B			0.12					
Antimony	mg/L	0.00141	0.00208	0.00022	0.0025	0.002 U	0.0017 J	0.0012 JB			0.002 U			0.002 U	0.002 U	0.002 U
Arsenic	mg/L	0.0184	0.0398	0.00202	0.0035 J	0.0042 J	0.0043 J	0.0036 J			0.03			0.03	0.037	0.037
Barium	mg/L	17.4	17.7	14.8	16 JB	16	16	15			0.42			0.46	0.42	0.42
Beryllium	mg/L	0.000129	0.0003 J	2E-05 U	0.00043 J	0.001 U	0.001 UJ	0.001 U			0.001 U			0.001 U	0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L									440	340	380		340	370	370
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.357	0.375	0.379	0.46	0.4	0.43 B	0.4 B		0.15	0.16 J	0.12		0.13	0.14	0.14
Bromide	mg/L			58.6	57	73	67	51								
Cadmium	mg/L	0.00221	0.00419	0.0001	0.00043 J	0.00027 J	0.00088 J	0.0015			0.0001 U			0.001 U	0.001 U	0.001 U
Calcium	mg/L	354	399	346	380 B	380	390	370		55	61	51		61	54	55
Carbonate Alkalinity as CaCO3	mg/L								5 U	5 U	5 U			5 U	5 U	5 U
Chloride	mg/L			12000	13000	17000	12000	12000	240	290	210			330	280	270
Chromium	mg/L	0.0195	0.0598	0.000629	0.0011 J	0.002 U	0.0077 J	0.016			0.0014 J			0.005 U	0.005 U	0.005 U
Cobalt	mg/L	0.00371	0.00517	0.00145	0.0021	0.0016	0.0015	0.0017			0.00054			0.00035 J	0.00025 J	0.00025 J
Conductivity, Field	uS/cm	32283	17682	30266					32509	1358	1639	1481		1829		1430
Copper	mg/L					0.82	1.3 B	1.3			0.005 U					
Dissolved Oxygen, Field	mg/L	2.64	5.31	4.89					0.24		0.35	1.44		0.48		0.81
Dissolved Solids, Total	mg/L			18100	15000	19000 J	21000	15000 J		740	800 J		960	890	480	690
Fluoride	mg/L			2 U	2.5 U	5 U	1.3 U	2.5 U		0.93	0.88	0.86		0.82	0.73	0.73
Iron	mg/L					4.5	7.7	2.7			2.9					
Lead	mg/L	0.0218	0.0455	0.00115	0.0022 J	0.001 U	0.0055	0.0033			0.00053			0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.252	0.296	0.294	0.22	0.25	0.25	0.23			0.0051 J			0.0027 J	0.0051 J	0.0064 J
Magnesium	mg/L		117	111		130	140	130		12	12	12		12	11	12
Manganese	mg/L				0.93 B	0.75	0.79	0.74			0.16					
Mercury	mg/L	0.0002 U	2.1E-05	1.1E-05	0.0002 U	0.0002 U	0.0002 U	0.0002 U			0.0002 U	0.0002 U		0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.017	0.0225	0.0054	0.0056 J	0.0073 J	0.017	0.0086 J			0.0064			0.0066	0.007	0.007
Nickel	mg/L					0.0045	0.0049	0.055			0.005 U					
Oxidation-Reduction Potential, Field	mV										-212.6	-159.1		-197.4		-168.8
pH, Field	pH units	6.83	7.23	6.77	8.93	8.32	7.26	8.04	7.4	7.6	7.49	7.47		7.48		7.76
Potassium	mg/L		36.5	47.4	22 JB	22	22	21		1.6	1.5	1.6		1.6	1.5	1.5
Radium-226	pCi/L			51.2	94	86.5	64.4	59.3 J			0.518	0.818 J		0.546	0.749	0.394
Radium-226/228	pCi/L	41.96		122.3	189	189	138	119 J			1.49	1.54 J		1.26	1.83	1.47
Radium-228	pCi/L	41.96		71.1	95.2	103	73.4	60.2			0.974	0.724 U		0.71	1.09	1.08
Redox Potential, Field	mV	-66.3	176.5	102.7												
Selenium	mg/L	0.0004 J	0.001 J	0.0001	0.0013 J	0.005 U	0.00091 J	0.0011 JB			0.005 U			0.005 U	0.005 U	0.005 U
Silver	mg/L					6.6E-05 J	0.001 U	8.9E-05 J			0.001 U					
Sodium	mg/L		2620	1400	6800 JB	6100	1 U	6400		220	250	210		260	240	240
Strontium	mg/L		30.4	25.3	31 JB	33	31 B	27			0.84					
Sulfate	mg/L			1 J	50 U	100 U	25 U	50 U		4.3	2	3.4		0.87 J	1.4	1.5
Temperature, Field	deg C	16.1	15.7	9.1					12.7	16	14	17.1		13.7		15.3
Thallium	mg/L	0.0002 J	0.0002 J	3E-05 J	0.001 U	0.001 U	0.001 U	0.001 U			0.001 U			0.001 U	0.001 U	0.001 U
Turbidity, Field	NTU	38.2	123.8	64.8	81.7	72.5	83.2	48	1	2.8	36.6	13.04		9.29		3.63
Vanadium	mg/L															
Zinc	mg/L					0.19	0.18	0.16			0.02 U					

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	96158 2021-09-28 N	96158 2022-03-29 FD	96158 2022-03-29 N	96158 2022-09-12 N	96158 2022-12-02 N	96158 2023-03-29 FD	96158 2023-03-29 N	96158 2023-09-18 N	9631 2021-09-27 N	9801 2016-08-24 N	9801 2016-10-06 N	9801 2016-12-02 N	9801 2017-02-01 N	9801 2017-03-29 N	9801 2017-06-09 FD
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	330	320	320	340		320	310	340	290			141	160		
Aluminum	mg/L		1.5	1.4											0.25 U	1.3 U
Antimony	mg/L		0.002 U	0.00089 J			0.002 U	0.002 U	0.002 U		0.0005 U	0.0005 U	5E-05 U	0.0005 U	0.01 U	0.05 U
Arsenic	mg/L		0.0011 J	0.0011 J			0.005 U	0.005 U	0.0011 J		0.00075	0.00109	0.00072	0.00056	0.025 U	0.13 U
Barium	mg/L		0.43	0.42			0.43	0.42	0.37		5.16	4.84	4.63	4.33	5 B	4.7 B
Beryllium	mg/L		0.001 U	0.001 U			0.001 U	0.001 U	0.001 U		0.0002 U	0.0002 U	2E-05 U	0.0002 U	0.005 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	330	320	320	340		320	310	340	290						
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.4	0.39 J	0.4 J	0.38		0.38	0.38	0.36	0.38	0.378	0.329	0.353	0.404	0.42	0.45
Bromide	mg/L												34.3	36.2	41	36 J
Cadmium	mg/L		0.0001 U	7.5E-05 J			0.001 U	0.001 U	0.001 U		0.0002 U	0.0002 U	2E-05 U	0.0002 U	0.005 U	0.025 U
Calcium	mg/L	64	67	66	64		63	62	63	310	202	198	184	180	180 B	170
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U		5 U	5 U	5 U	5 U						
Chloride	mg/L	1100	1000	1000	1100		1100	1000	1200 J	9700	7930	7950	7210	7330	8800	8300
Chromium	mg/L		0.0056	0.0059			0.005 U	0.005 U	0.007		0.0045	0.0024	0.00216	0.000768	0.0017 J	0.05 U
Cobalt	mg/L		0.0029	0.0029			0.00067 J	0.00073 J	0.0017		0.00173	0.00172	0.000975	0.000957	0.0014 J	0.025 U
Conductivity, Field	uS/cm	3724	4072	4072	3890			3751	3491	27285	2129	23618	23470	22980		
Copper	mg/L		0.0026 J	0.0025 J											0.01 U	0.05 U
Dissolved Oxygen, Field	mg/L		1.12	1.12	0.91			0.37	0.86		3.03	0.71	2.8	1.53		
Dissolved Solids, Total	mg/L	2000	2000	2000		1800	1900	1900	3100	2900	12600	13000	12300	11300	13000 J	14000
Fluoride	mg/L	1.3	1.2	1.3	1.2		1.2	1.2	1	2.5 U	0.87	0.61	0.6 J	0.91	1 J	5 U
Iron	mg/L		3.6	3.6											0.51 JB	2.5 U
Lead	mg/L		0.0018	0.0018			0.001 U	0.001 U	0.0011		0.0001 J	0.0001 J	0.000354	9E-05 J	0.005 U	0.005 U
Lithium	mg/L		0.039	0.037			0.03	0.031	0.038		0.141	0.142	0.16	0.159	0.12	0.13
Magnesium	mg/L	13	14	13	14		13	13	13	87			54.6	55.2	63 B	58
Manganese	mg/L		0.18	0.17											0.57	0.44
Mercury	mg/L		0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U	0.0002 U		5E-06 U	1.6E-05	1.6E-05	1E-05	0.0002 U	0.0002 U
Molybdenum	mg/L		0.005	0.0051			0.0089	0.0088	0.0095		0.00533	0.00723	0.00651	0.0068	0.0042 J	0.05 U
Nickel	mg/L		0.0048 J	0.0046 J											0.01 U	0.05 U
Oxidation-Reduction Potential, Field	mV		-105.2	-105.2	-101.1			-109.6	-69.7							
pH, Field	pH units	7.34	7.29	7.29	7.31			7.3	7.58	7.16	6.95	7.16	6.92	7.03	7.2	
Potassium	mg/L	3.3	3.5	3.3	3.3		3.1	3.2	3.2	10			14.4	18.6	9.6 B	8.3 J
Radium-226	pCi/L		0.821	1.09	0.92 J		1.17	0.809	0.872		3.39	6.84	3.47	4.19	4.48	4.49
Radium-226/228	pCi/L		3.57	3.52	2.68 J		2.46	2.25	2.69		8.15	13.99	7.83	9.95	10.5	10.3
Radium-228	pCi/L		2.75	2.43	1.76		1.28	1.44	1.82		4.76	7.15	4.36	5.76	5.98	5.8
Redox Potential, Field	mV										124.2	-91.8	85.3	-87.4		
Selenium	mg/L		0.005 U	0.005 U			0.005 U	0.005 U	0.005 U		0.001 U	0.001 U	0.001 U	0.001 U	0.025 U	0.13 U
Silver	mg/L		0.001 U	0.00062 J											0.005 U	0.005 U
Sodium	mg/L	700	750	830	730		680	680	670	5900			4310	1650	4400 JB	4200
Strontium	mg/L		2.2	2.5									16.4	15.6	19 B	13 B
Sulfate	mg/L	20	15	16	21		16	16	22	34 J	3.4	7.2	6.7	3.4	8.6 J	100 U
Temperature, Field	deg C	16	13	13	18.2			14.2	15.5	16	19.72	16.5	14.2	13.5		
Thallium	mg/L		0.001 U	0.001 U			0.001 U	0.001 U	0.0006 J		0.0002 J	0.0001 J	0.000528	0.0005 U	0.005 U	0.005 U
Turbidity, Field	NTU	1.5	71.3	71.3	30.1			11.22	20.15	4.7	4.7	9.7	3	3.9	7.7	
Vanadium	mg/L															
Zinc	mg/L		0.02 U	0.02 U											0.1 U	0.5 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
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B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	9801 2017-06-09 N	9801 2017-07-17 N	9801 2018-03-16 N	9801 2018-09-12 N	9801 2019-03-12 N	9801 2019-09-24 N	9801 2020-03-24 N	9801 2021-09-27 FD	9801 2021-09-27 N	9801 2022-03-25 N	9801 2022-09-19 N	9801 2023-04-04 N	9801 2023-09-22 N	9802 2016-08-24 N	9802 2016-10-06 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L			130	130	140	130	140	150	150	140	140	150	140		
Aluminum	mg/L	1.3 U	0.1 U								0.05 U					
Antimony	mg/L	0.05 U	0.004 U		0.002 U						0.002 U		0.002 U	0.002 U	3E-05 J	4E-05 J
Arsenic	mg/L	0.13 U	0.01 U		0.005 U						0.00088 J		0.005 U	0.005 U	0.00091	0.00072
Barium	mg/L	5 B	5.3		4.8						5.1		4.7	4.7	0.0781	0.0711
Beryllium	mg/L	0.001 U	0.002 U		0.001 U						0.001 U		0.001 U	0.001 U	5E-06 J	2E-05 U
Bicarbonate Alkalinity as CaCO3	mg/L			130	130		130	140	150	150	140	140	150	140		
Bicarbonate Alkalinity as HCO3	mg/L					140										
Boron	mg/L	0.45	0.52 JB	0.44	0.44	0.44	0.42	0.38	0.43	0.4	0.49 J	0.44	0.43	0.39	0.172	0.157
Bromide	mg/L	35 J	39 J													
Cadmium	mg/L	0.025 U	0.002 U		0.001 U						0.0001 U		0.001 U	0.001 U	2E-05	1E-05 J
Calcium	mg/L	190	200	220	200	180	250	180	200	190	210	180	180	200	29.3	28.7
Carbonate Alkalinity as CaCO3	mg/L			5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		
Chloride	mg/L	8100	9000	8300	8400	150	9300	8900	7600	7700	7700	7600	8400	8500	36.1	35.2
Chromium	mg/L	0.05 U	0.0025 J		0.0018 J						0.005 U		0.005 U	0.005 U	0.0013	0.0028
Cobalt	mg/L	0.025 U	0.0011 J		0.0015						0.0011		0.00099 J	0.001	0.000954	0.00112
Conductivity, Field	uS/cm			22901				21314	19963	19963	22640	22895	21700	17637	1311	1361
Copper	mg/L	0.05 U	0.004 U								0.005 U					
Dissolved Oxygen, Field	mg/L			0.22							0.03	0.35	0.34	0.78	1.81	0.73
Dissolved Solids, Total	mg/L	14000	14000 J	13000	14000	11000 HT	14000	11000	8100	9300	12000	11000	12000	9100	766	784
Fluoride	mg/L	5 U	5 U	2.5 U	1	0.05 U	1.1	1.1	0.9	0.85	0.93	0.92 U	0.9	0.99	0.88	0.8
Iron	mg/L	2.5 U	0.43								0.098 J					
Lead	mg/L	0.005 U	0.002 U		0.001 U						0.0005 U		0.001 U	0.001 U	4.4E-05	3.1E-05
Lithium	mg/L	0.12	0.15		0.13						0.2 U		0.12	0.13	0.015	0.018
Magnesium	mg/L	63	63	61		69	83 J	54	56	53	76	58	58	63		
Manganese	mg/L	0.47	0.51								0.58					
Mercury	mg/L	0.0002 U	0.0002 U		0.0002 U						0.0002 U	0.0002 U	0.0002 U	0.0002 U	5E-06 U	5E-06 U
Molybdenum	mg/L	0.05 U	0.004 J		0.0039 J						0.0041 J		0.0036 J	0.0034 J	0.0064	0.00563
Nickel	mg/L	0.05 U	0.0035 J								0.005 U					
Oxidation-Reduction Potential, Field	mV										-131.4	-81	-69.8	68.8		
pH, Field	pH units	7.21	7.16	7.32	7.34	7.51	7.49	7.4	7.26	7.26	7.43	7.35	7.42	7.33	6.94	7.25
Potassium	mg/L	9.3 J	9.5	9.2		9.1	12 J	8.7	9.5	8.9	12	8.5	8.8	9.6		
Radium-226	pCi/L	3.83	4.35 J		5.31						3.87	3.69	3.67	2.88	0.443	0.327
Radium-226/228	pCi/L	11.3	11 J		11.5						8.7	9.34 J	7.99 J	8.11	2.763	0.638
Radium-228	pCi/L	7.43	6.64 J		6.16						4.82	5.64 J	4.32 J	5.23	2.32	0.311
Redox Potential, Field	mV														14.6	-32.9
Selenium	mg/L	0.13 U	0.01 U		0.005 U						0.0015 J		0.005 U	0.005 U	5E-05 J	4E-05 J
Silver	mg/L	0.005 U	0.002 U								0.001 U					
Sodium	mg/L	4700	4600 JB	4700		4800	4400	4200	4400	4400	1300	5200	4700	4600		
Strontium	mg/L	13 B	20								1.3					
Sulfate	mg/L	100 U	100 U	50 U	6.3 J	1 U	5.2 J	8.9 J	5.9 J	5.9 J	3.7 J	10 U	10 U	11	65.8	57.5
Temperature, Field	deg C			14.9				14	15	15	14	17.7	15.5	16.4	20.37	18.2
Thallium	mg/L	0.005 U	0.002 U		0.001 U						0.001 U		0.001 U	0.001 U	5.8E-05	8.4E-05
Turbidity, Field	NTU	3.2	3.5	1.5	4.22		6	1.4	5.4	5.4	3.2	3.32	4.15	16.11	0.4	2.5
Vanadium	mg/L		0.01 U													
Zinc	mg/L	0.5 U	0.04 U								0.02 U					

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	9802 2016-12-02 N	9802 2017-02-01 N	9802 2017-03-29 N	9802 2017-06-09 N	9802 2017-07-17 N	9802 2018-03-16 N	9802 2018-09-12 N	9802 2019-03-12 N	9802 2019-09-24 N	9802 2020-03-24 N	9802 2020-09-22 N	9802 2021-03-25 N	9802 2021-09-28 N	9802 2022-03-25 N	9802 2022-09-19 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	796	645				610	570	590	590	610	590	600	590	580	580
Aluminum	mg/L			0.071 J	0.22	0.05 U									0.51	
Antimony	mg/L	2E-05 J	3E-05 J	0.00034 J	0.002 U	0.002 U									0.002 U	
Arsenic	mg/L	0.0012	0.00103	0.00094 J	0.00083 J	0.00089 J									0.002 U	
Barium	mg/L	0.0664	0.069	0.08 B	0.086 B	0.082									0.076	
Beryllium	mg/L	7E-06 J	6E-06 J	0.001 U	0.00035 J	0.001 U									0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L						610	570		590	610	590	600	590	580	580
Bicarbonate Alkalinity as HCO3	mg/L								590							
Boron	mg/L	0.178	0.242	0.18	0.19	0.27 JB	0.2		0.2	0.21	0.22	0.24	0.22	0.2	0.18 J	0.19
Bromide	mg/L	0.499	0.157	2.5 U	2.5 U	2.5 U										
Cadmium	mg/L	0.0001	5E-05	0.001 U	0.001 U	0.001 U									0.0001 U	
Calcium	mg/L	24.5	28	29 B	31 J	30	30	36	31	26	26	26	27	28	36	30
Carbonate Alkalinity as CaCO3	mg/L						5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	39.1	38	39	38	40	39	35	39	38	41	47	42	42	32	37
Chromium	mg/L	0.00206	0.000823	0.00081 J	0.0025	0.0011 J									0.0042 J	
Cobalt	mg/L	0.000847	0.00108	0.0011	0.00048 J	0.00041 J									0.0033	
Conductivity, Field	uS/cm	1354	1366				13.31				1265	1284	1292	1275	1338	1377
Copper	mg/L			0.00056 JB	0.0017 JB	0.002 U									0.005 U	
Dissolved Oxygen, Field	mg/L	2.01	1.68				1.46								1.01	0.64
Dissolved Solids, Total	mg/L	796	810	820 J	830	810 J	810		780	740	780	790	730	780	780 J	340
Fluoride	mg/L	0.8	0.84	0.96	0.99	0.95	1	0.94	0.91	1	1	0.9	1	1.1	0.87	0.99 U
Iron	mg/L			0.18 JB	0.27	0.058 J									0.71	
Lead	mg/L	4.3E-05	6E-05	0.00026 J	0.001 U	0.001 U									0.0005 U	
Lithium	mg/L	0.022	0.012	0.014	0.012	0.014									0.014 J	
Magnesium	mg/L	6.8	7.8	8.2 B	9	8.6	8.1	9.3	8.8	7.8	7.1	7	7.4	7.8	9.5	8.8
Manganese	mg/L			0.48	0.1	0.28									0.088	
Mercury	mg/L	1.1E-05	5E-06 U	0.0002 U	0.0002 U	0.0002 U									0.0002 U	0.0002 U
Molybdenum	mg/L	0.00543	0.00525	0.0051 J	0.0046 J	0.0048 J									0.0028 J	
Nickel	mg/L			0.00079 J	0.0018 J	0.0022									0.0032 J	
Oxidation-Reduction Potential, Field	mV														-73.9	-62
pH, Field	pH units	7.3	7.19	7.24	7.2	7.11	7.31	7.59	7.51	7.43	7.4	7.32	7.34	7.33	7.31	7.33
Potassium	mg/L	1.66	2.05	1.5 B	1.5	1.6	1.5	1.9	1.7	1.6	1.6	1.5	1.5	1.5	1.7	1.5
Radium-226	pCi/L	0.603	0.245	0.173	0.181	0.188									0.366 U	0.124
Radium-226/228	pCi/L	0.832	0.506	0.31 U	0.276 U	0.786									1.16	0.622
Radium-228	pCi/L	0.229	0.261	0.136 U	0.0949 U	0.597									0.797	0.498 U
Redox Potential, Field	mV	9	-49.4													
Selenium	mg/L	3E-05 J	5E-05 J	0.005 U	0.005 U	0.0012 J									0.005 U	
Silver	mg/L			0.001 U	0.001 U	0.001 U									0.001 U	
Sodium	mg/L	253	270	260 JB	270	290 JB	290	260	290	300	280	290	290	280	270	270
Strontium	mg/L	0.58	0.601	0.62 B	0.55 B	0.65									0.64	
Sulfate	mg/L	60.2	58.9	70 J	72	71	68	68	73	69	70	73	70	71	57	64
Temperature, Field	deg C	14.3	13.6				16.8				16	17	16	18	17	18.7
Thallium	mg/L	5.8E-05	5E-05 J	0.001 U	0.001 U	0.001 U									0.001 U	
Turbidity, Field	NTU	14.4	6.5	6.9	1.6	7.5	2.1	35.3		5	0.8	1	1.3	0.9	41.5	2.67
Vanadium	mg/L					0.005 U										
Zinc	mg/L			0.02 U	0.02 U	0.02 U									0.02 U	

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Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	9802	9802	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	
		2023-04-04 N	2023-09-22 N	2016-12-02 N	2017-02-08 N	2017-03-27 N	2017-05-01 N	2017-06-27 N	2018-03-20 N	2018-09-11 N	2019-03-14 N	2019-09-26 N	2020-03-25 N	2020-09-17 N	2021-03-20 N	2021-09-27 N	
Alkalinity, Total as CaCO3	mg/L	630	600	350	346					330	330	390 B	320	370	350	340	330
Aluminum	mg/L					2.4 J	2.8	0.057									
Antimony	mg/L	0.002 U	0.002 U	0.00011	6E-05	0.0003 JB	0.00068 J	0.002 U		0.002 U	0.002 U						
Arsenic	mg/L	0.00091 J	0.005 U	0.00207	0.00113	0.0011 J	0.0015 J	0.001 J		0.005 U	0.005 U						
Barium	mg/L	0.062	0.071	0.0676	0.05	0.057 B	0.058	0.041		0.031	0.033						
Beryllium	mg/L	0.001 U	0.001 U	0.000269	0.000122	0.001 U	0.00038 J	0.001 U		0.00061 JF2F1	0.001 U						
Bicarbonate Alkalinity as CaCO3	mg/L	630	580						300	310	390 B	300	370	340	320	300	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.2	0.15	0.256	25	0.31	0.32	0.35	0.29	0.27	0.23	0.3	0.22	0.21	0.29	0.25	
Bromide	mg/L			0.82	0.65	0.94 J	0.77 J	0.96			0.23 J						
Cadmium	mg/L	0.001 U	0.001 U	0.00037	0.0001	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U						
Calcium	mg/L	27	32	5.35	159	4 B	4.2	3.7	3.6	9.6	37	4.1	31	37	7.2	8.9	
Carbonate Alkalinity as CaCO3	mg/L	5 U	15						22	19	5 U	26	5 U	7.3	17	25	
Chloride	mg/L	38	38	187	191	200	200	200	210	94	38	190	53	51	180	160	
Chromium	mg/L	0.0015 J	0.005 U	0.00653	0.00291	0.004 B	0.0054	0.002 U		0.002 U	0.0015 J						
Cobalt	mg/L	0.0019	0.00072 J	0.00516	0.00231	0.0016	0.0017	0.001 U		0.001 U	0.00046 J						
Conductivity, Field	uS/cm	1375	1253	1500	1574				1533				1666	1691	1464	1497	
Copper	mg/L					0.0031 B	0.0066 B	0.002 U									
Dissolved Oxygen, Field	mg/L	1.55	0.87	1.44	1.25				1.78								
Dissolved Solids, Total	mg/L	750	740	860	874	890 J	860 J	870	880	850	1000	1900	930	1100	890	950	
Fluoride	mg/L	0.97	1	1.14	1.08	1.4	1.3	1.3	1.3	0.87	0.34	1.4	0.44	0.39	1.3	1	
Iron	mg/L					2 JB	2.2	0.058 J									
Lead	mg/L	0.001 U	0.001 U	0.00481	0.00227	0.0018 J	0.0028	0.001 U		0.001 U	0.001 U						
Lithium	mg/L	0.013	0.013 J	0.022	0.249	0.013	0.012	0.012		0.036 F2F1	0.045						
Magnesium	mg/L	7.6	9	2.21	171	1.4 B	1.5	0.92 J	0.85 J			1.5	13	16	2.2	3.9	
Manganese	mg/L					0.034 B	0.03	0.02 B									
Mercury	mg/L	0.0002 U	0.0002 U	0.000131	6E-06	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U						
Molybdenum	mg/L	0.005	0.0038 J	0.011	0.0107	0.012	0.011	0.023		0.0061	0.0023 J						
Nickel	mg/L					0.0037 B	0.0036	0.002 U									
Oxidation-Reduction Potential, Field	mV	-32.6	58.9														
pH, Field	pH units	7.33	7.18	8.61	8.49	8.59	8.4	8.4	8.64	8.5	7.74	8.73	7.86	8.2	8.47	8.59	
Potassium	mg/L	1.3	1.4	2.09	18.4	1.6 B	1.7	0.84 J	0.96 J			1.1	2.9	3.2	1.4	1.7	
Radium-226	pCi/L	0.151 U	0.0176 U	0.658	0.221	0.154	0.149	0.199		0.151	0.0571 U						
Radium-226/228	pCi/L	0.176 U	0.825	0.7334	0.711	0.378	0.235 U	0.353		0.257 U	0.0148 U						
Radium-228	pCi/L	0.0256 U	0.808	0.0754	0.49	0.224 U	0.0855 U	0.154 U		0.106 U	-0.0422 U						
Redox Potential, Field	mV			-14.2	69.1												
Selenium	mg/L	0.005 U	0.005 U	0.0007	0.0003	0.005 U	0.0011 J	0.005 U		0.0015 J	0.00098 J						
Silver	mg/L					0.00084 J	0.0012	0.001 U									
Sodium	mg/L	260	280	277	213	320 JB	350 B	350	320			320	310	350	290	330	
Strontium	mg/L			0.166	1.28	0.15 B	0.16 B	0.13									
Sulfate	mg/L	70	66	116	113	130 J	130	130	130	240	450	130	510	490	140	230	
Temperature, Field	deg C	18.4	18.5	11	12.4				11.8			13	14	13	13		
Thallium	mg/L	0.00048 J	0.001 U	7E-05	4E-05 J	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U						
Turbidity, Field	NTU	4.5	2.65	301.9	74.3	110.6	40.6	53.8	13	4.33		32	2.3	0.8	23.3	5.3	
Vanadium	mg/L																
Zinc	mg/L					0.0093 J	0.02 U	0.02 U									

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	9806	9806	9806	9806	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910	
		2022-03-24 N	2022-09-20 N	2023-04-05 N	2023-09-26 N	2016-10-03 N	2018-09-25 N	2019-03-26 N	2019-09-22 N	2020-03-15 N	2020-09-17 N	2021-03-17 N	2021-09-24 N	2022-07-14 N	2022-09-14 N	2022-12-05 N
Alkalinity, Total as CaCO3	mg/L	290	330	330	340		830	860	850	870	840	870	870	820		
Aluminum	mg/L	0.021 J														
Antimony	mg/L	0.002 U		0.002 U	0.002 U									0.002 U		
Arsenic	mg/L	0.002 U		0.0016 J	0.005 U									0.0021 J		
Barium	mg/L	0.02		0.058	0.042									0.26		
Beryllium	mg/L	0.001 U		0.001 U	0.001 U									0.001 U		
Bicarbonate Alkalinity as CaCO3	mg/L	290	290	300	310		830	840	840	850	840	870	850	820		
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L	0.25	0.29	0.28	0.29		0.52	0.52	0.49	0.51	0.51	0.55	0.52			
Bromide	mg/L															
Cadmium	mg/L	0.0001 U		0.001 U	0.001 U									0.001 U		
Calcium	mg/L	26	3	7.7	3.7		12	13	13	11	14	13	15			
Carbonate Alkalinity as CaCO3	mg/L	5 U	37	29	31		5 U	23	6.9	19	5 U	5 U	15	5 U		
Chloride	mg/L	79	200	150	220		840	880	800	850	850	810	870		1100	
Chromium	mg/L	0.005 U		0.0063	0.0025 J									0.034		
Cobalt	mg/L	0.0005 U		0.002	0.00053 J									0.00058 J		
Conductivity, Field	uS/cm	1709	1554	1651	1642	4918				4626	4577	4584	4732	51788	5195	5563
Copper	mg/L	0.005 U														
Dissolved Oxygen, Field	mg/L	8.85	2.65	6	5.73	1.58								1.87	9.33	9.63
Dissolved Solids, Total	mg/L	980	750	880	890		2400	2900	2700	2900	2300	2500	2400		2500	
Fluoride	mg/L	0.59	1.4 U	1.1	1.2		2	1.9	2	2	2	1.9	1.9	1.8 J	1.9	
Iron	mg/L	0.1 U														
Lead	mg/L	0.0005 U		0.0021	0.0022									0.00048 J		
Lithium	mg/L	0.049		0.018	0.011									0.025		
Magnesium	mg/L	12	0.8 J	2.5	0.92 J		4	4.2	4.3	3.9	4.3	4.3	4.7	4.3		
Manganese	mg/L	0.0077 J														
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U							0.0002 U		0.0002 U		
Molybdenum	mg/L	0.0038		0.011	0.011									0.017		
Nickel	mg/L	0.005 U														
Oxidation-Reduction Potential, Field	mV	126.9	100.8	174.2	55.4									27.1	78.9	90.8
pH, Field	pH units	7.95	8.56	8.36	8.7	7.58	7.64	7.76	7.8	7.88	7.8	7.69	7.67	7.55	7.81	7.96
Potassium	mg/L	3	0.75 J	1.5	0.99 J		2.9	3.2	3	3	3	3	2.9	2.9		
Radium-226	pCi/L	0.0498 U	0.127	0.188 U	0.0897 U									0.289		
Radium-226/228	pCi/L	0.97	0.382 U	0.842	1.42									0.842 J		
Radium-228	pCi/L	0.92	0.255 U	0.654 U	1.33									0.553 U		
Redox Potential, Field	mV					208.7										
Selenium	mg/L	0.0012 J		0.005 U	0.005 U									0.0064		
Silver	mg/L	0.001 U														
Sodium	mg/L	360	290	320	340		1100	1100	1000	980	980	1000	1100	1100		
Strontium	mg/L	1.2														
Sulfate	mg/L	450	130	240	120		110	120	100	110	94	92	96		120	
Temperature, Field	deg C	13	14.9	17.7	15.6	16.7				13	14	14	16	15.5	17.9	12.7
Thallium	mg/L	0.001 U		0.001 U	0.001 U									0.001 U		
Turbidity, Field	NTU	2.1	7.33	16.32	11.53	184.3	46.5		69	85.3	26	43.6	11.7	18.09	5.9	10.39
Vanadium	mg/L															
Zinc	mg/L	0.12														

Notes:
FD = Field duplicate sample
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deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	9910 2022-12-06 N	9910 2023-02-24 N	9910 2023-08-16 N	9910 2023-09-14 N	MW-16 2022-05-05 N	MW-17 2020-09-11 N	MW-17 2021-03-20 N	MW-17 2021-09-19 N	MW-17 2022-03-24 N	MW-17 2022-05-05 FD	MW-17 2022-05-05 N	MW-17 2022-07-18 N	MW-17 2022-08-17 N	MW-17 2022-09-19 N	MW-17 2022-11-07 N
Analyte	Unit															
Alkalinity, Total as CaCO3	mg/L	810	790		830		270	300	270	270	250	260	220	240	230	220
Aluminum	mg/L									0.033 J						
Antimony	mg/L		0.00082 J	0.002 U						0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U
Arsenic	mg/L		0.0052	0.003 J						0.027	0.018	0.017	0.0052	0.0028 J		0.0022 J
Barium	mg/L		0.24	0.25						1.7	2.4	2.2	1.9	2.2		2.3
Beryllium	mg/L		0.001 U	0.001 U						0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	800	790		800		270	300	270	270	250	260	220	240	230	220
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L		0.52	0.51			0.39	0.41	0.44	0.62 J	0.42	0.4	0.32	0.4	0.45	
Bromide	mg/L															
Cadmium	mg/L		0.00023 J	0.001 U						0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U
Calcium	mg/L			13			94	87	96	120	83	78	72	91	78	
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U		25		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L				1100		4500	4200	4500	4000	4200	4200	4500	4500	4200	
Chromium	mg/L		0.017	0.009						0.005 U	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U
Cobalt	mg/L		0.0011	0.00058 J						0.0005 U	0.001 U	0.001 U	0.001 U	0.00058 J		0.00033 J
Conductivity, Field	uS/cm		5312		5617	4945	12829	12407	12893	13574	12056	12056	13140	13350	13344	12925
Copper	mg/L									0.005 U						
Dissolved Oxygen, Field	mg/L		10.94		8.96	1.13				0.2	0.59	0.59	0.41	0.39	0.74	0.38
Dissolved Solids, Total	mg/L				3000		7500	7200	7900	6900	6500	5800	4700	6700	5700	
Fluoride	mg/L				1.3		1.4	1.6	1.7	2.2	1.6	1.7	1.7	1.5	1.7 J	1.7
Iron	mg/L									3.4						
Lead	mg/L		0.0014	0.00067 J						0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U
Lithium	mg/L		0.034	0.037 J						0.088	0.08	0.075	0.063	0.079		0.076
Magnesium	mg/L		4.6	4.2			18	18	18	21	18	18	15	16	15	16
Manganese	mg/L									0.4						
Mercury	mg/L		0.0002 U	0.0002 U						0.00021 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L		0.015	0.015						0.01	0.0091	0.0071	0.006	0.02		0.013 B
Nickel	mg/L									0.0027 J						
Oxidation-Reduction Potential, Field	mV		72.4		237.2	36				-276.6	-351.1	-351.1	-197.5	-138.7	-129.9	-130.2
pH, Field	pH units		7.93		9	7.58	7.29	7.27	7.39	7.29	7.36	7.36	7.3	7.07	7.06	7.06
Potassium	mg/L		3.1	2.9			5.3	5.2	5.5	7.4	5.5	5.2	4.7	5.3	5	5.5
Radium-226	pCi/L					0.37 U				2.17	2.18	2.2	2.55	2.73	2.79	2.92
Radium-226/228	pCi/L					1.04 U				5.34	4.91	5.08	5.8	6.7	6.59 J	6.79
Radium-228	pCi/L					0.674 U				3.17	2.73	2.88	3.25	3.97	3.79 J	3.87
Redox Potential, Field	mV															
Selenium	mg/L		0.011	0.015						0.0013 J	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U
Silver	mg/L									0.001 U						
Sodium	mg/L		1100	1200			2400	2500	2600	2700	2700	2500	2900	2600	2700	2600
Strontium	mg/L									7.3						
Sulfate	mg/L				120		19	43	47	110	48	60	50 U	28	17	
Temperature, Field	deg C		12.7		24.7	14.5	14	14	15	14	14.2	14.2	15.8	16.2	15.8	15.6
Thallium	mg/L		0.00066 J	0.001 U						0.001 U	0.001 U	0.001 U	0.001 U	0.0002 J		0.001 U
Turbidity, Field	NTU		97.22		45.92	55.7	1.2	2.7	0	149.3	0.78	0.78	50.86	9.71	8.53	9.98
Vanadium	mg/L															
Zinc	mg/L									0.011 J						

Notes:
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deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location Date Sample Type	MW-17 2022-11-07 N	MW-17 2022-12-08 FD	MW-17 2022-12-08 N	MW-17 2023-02-23 N	MW-17 2023-04-04 N	MW-17 2023-04-14 N	MW-17 2023-09-19 N	MW-20 2016-08-23 N	MW-20 2016-10-05 N	MW-20 2016-12-01 N	MW-20 2017-04-25 N	MW-20 2017-06-06 N	MW-20 2017-07-14 N	MW-20 2018-03-26 N	MW-20 2019-09-19 N	MW-20 2020-03-15 N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	220	210	210	240	260	250	420				259				150	170
Aluminum	mg/L											0.05 U	0.043 J	0.15			
Antimony	mg/L		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	4E-05 J	0.0002 U	0.0001 U	0.002 U	0.002 U	0.002 U			
Arsenic	mg/L		0.0019 J	0.0021 J	0.012	0.0082	0.0094	0.014	0.00938	0.01	0.00917	0.0048 J	0.0086	0.013			
Barium	mg/L		2	2	2	2	2.1	0.61	0.0274	0.0228	0.0233	0.025	0.027	0.029			
Beryllium	mg/L		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000234	0.000265	0.000276	0.00032 J	0.00055 J	0.00088 J			
Bicarbonate Alkalinity as CaCO3	mg/L	220	210	210	240	260	250	420								150	170
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.37				0.41		0.48	0.126	0.272	0.104	0.15 J	0.19 B	0.15		0.12	0.19 U
Bromide	mg/L										0.422	5 U	0.5 U	5 U			
Cadmium	mg/L		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	8E-05	2E-05 J	4E-05 U	0.001 U	0.001 U	0.001 U			
Calcium	mg/L	83				66		100	495	483	465	500	500	500		470	470
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U								5 U	5 U
Chloride	mg/L	4700				4400		4000	60.1	25.2	16.4	11	6.5	8.2 J		1.9	2
Chromium	mg/L		0.005 U	0.005 U	0.005 U	0.005 U	0.0015 J	0.005 U	0.0028	0.0018	0.00121	0.002 U	0.0018 J	0.0025			
Cobalt	mg/L		0.00024 J	0.0002 J	0.001 U	0.001 U	0.00025 J	0.00047 J	0.128	0.134	0.143	0.13	0.13	0.14			
Conductivity, Field	uS/cm		12226	12226	12619	12157		10941	2819	3042	2935				2817		2523
Copper	mg/L											0.002 U	0.002 U	0.002 U			
Dissolved Oxygen, Field	mg/L		0.41	0.41	0.09	0.37		0.71	2.93	1.5	4.67				1.76		
Dissolved Solids, Total	mg/L	6800				5800		6500	2660	2710	2620	2500 J	2600	2600 J		2600	2500 J
Fluoride	mg/L	1.7	1.8	1.8	0.76 J	1.7	1.7	1.3	0.95	1	1	1.2	0.93	0.9		1.3	1.3
Iron	mg/L											27	32	37			
Lead	mg/L		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000201	0.00013	3E-05 J	0.001 U	0.001 U	0.00089 J			
Lithium	mg/L		0.069	0.067	0.074	0.073	0.076	0.087	0.174	0.171	0.188	0.16	0.16	0.16			
Magnesium	mg/L	16	15	14	15	14	14	22			106	100	100	110		110	110
Manganese	mg/L											15	15	16			
Mercury	mg/L		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	5E-06 U	5E-06 U	5E-06 U	0.0002 U	0.0002 U	0.0002 U			
Molybdenum	mg/L		0.013	0.013	0.0042 J	0.0032 J	0.006	0.025	0.0089	0.00543	0.00249	0.0016 J	0.002 J	0.0027 J			
Nickel	mg/L											0.1	0.11	0.12			
Oxidation-Reduction Potential, Field	mV		-131.5	-131.5	-173.7	-143.8		-137.1									
pH, Field	pH units		7.11	7.11	7.29	7.2	7.25	6.88	6.52	6.52	6.5	6.51	6.52	6.51	6.56	6.35	6.4
Potassium	mg/L	5.2	5.3	5	5.1	4.9	5.1	5.5			9.01	7.8	7.8	8		6.4	6.4
Radium-226	pCi/L		2.78	2.65	2.82	2.66	2.49	0.838	0.31	0.344	0.322	0.181	0.192	0.327			
Radium-226/228	pCi/L		6.44	5.93	5.73	5.67	5.15	1.64 J	0.684	1.494	0.866	0.594	0.425	0.73			
Radium-228	pCi/L		3.66	3.28	2.91	3.01	2.66	0.799 J	0.374	1.15	0.544	0.413	0.234 U	0.404			
Redox Potential, Field	mV							-41	-55.5	-47.5							
Selenium	mg/L		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0001 J	0.0002 J	0.0001 J	0.005 U	0.005 U	0.0015 J			
Silver	mg/L											0.001 U	0.001 U	0.001 U			
Sodium	mg/L	2700	2400	2500	2400	2400	2300	2600			64.6	52	51 B	53 B		26	28
Strontium	mg/L										3.08	3.6	3.3 B	3.2 B			
Sulfate	mg/L	14				13		390	1610	1810	1610	2200	1700	1600		1700	1800
Temperature, Field	deg C		13.9	13.9	15.2	14.9		15.6	16.53	15.4	12.1				12.4		12
Thallium	mg/L		0.001 U	0.001 U	0.00036 J	0.001 U	0.001 U	0.001 U	0.000598	0.00033	9E-05 J	0.001 U	0.001 U	0.001 U			
Turbidity, Field	NTU		8.44	8.44	11.65	8.18		9.83	42.4	9.6	9.2	6.1	1.4	4.8	1	67	456
Vanadium	mg/L																
Zinc	mg/L											0.02 U	0.02	0.038			

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix C
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

Analyte	Unit	Location Date Sample Type	MW-20 2020-03-24 N	MW-20 2020-09-15 N	MW-20 2021-03-19 N	MW-20 2021-09-20 N	MW-20 2022-03-30 N	MW-20 2022-05-03 N	MW-20 2022-07-14 N	MW-20 2022-08-16 N	MW-20 2022-09-13 FD	MW-20 2022-09-13 N	MW-20 2022-10-18 N	MW-20 2022-10-25 N	MW-20 2023-03-27 N	MW-20 2023-09-14 N
Alkalinity, Total as CaCO3	mg/L		170	160	160	170	160	160	160	150	160	160	160	170	170	170
Aluminum	mg/L							0.05 U								
Antimony	mg/L							0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U
Arsenic	mg/L							0.0018 J	0.005 U	0.0017 J	0.00076 J		0.005 U		0.005 U	0.005 U
Barium	mg/L							0.017	0.018	0.016	0.016		0.014		0.018	0.017
Beryllium	mg/L							0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L		170	160	160	170	160	160	160	150	160	160	160	170	170	170
Bicarbonate Alkalinity as HCO3	mg/L															
Boron	mg/L		0.16	0.1	0.23	0.099 J	0.2 U				0.12	0.12			0.19	0.13
Bromide	mg/L															
Cadmium	mg/L							0.0001 U	0.001 U	0.00022 J	0.00037 J		0.001 U		0.001 U	0.001 U
Calcium	mg/L		470	450	420	440	510				450	440			470	480
Carbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L		2.1	1.8	1.8	1.8	1.8	1.8	1.8	1.8 J	1.8 J	1.8 J	1.8	1.8	1.7	1.5
Chromium	mg/L							0.005 U	0.005 U	0.005 U	0.005 U		0.005 U		0.005 U	0.005 U
Cobalt	mg/L							0.19	0.2	0.15	0.21		0.19		0.19	0.21
Conductivity, Field	uS/cm		2455	2402	2428	2360	2581	2264	2458	2469	2437	2437	2406	2311	2539	1947
Copper	mg/L							0.005 U								
Dissolved Oxygen, Field	mg/L							6.78	3.09	1.83	0.42	0.61	0.61	1.2	0.72	1.08
Dissolved Solids, Total	mg/L		2100	2100	2300	2100	2100				2100 J	2000 J		2100	2200	2300
Fluoride	mg/L		1.2	1.3	1.3	1.4	1.5	1.6	1.4 J	1.5	1.4	1.4	1.4	1.4	1.4	1.3
Iron	mg/L							10								
Lead	mg/L							0.0005 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U
Lithium	mg/L							0.18	0.21	0.15	0.18		0.17		0.19	0.18
Magnesium	mg/L		110	100	94	100	100	100	89	110	100	100	93		100	110
Manganese	mg/L							16								
Mercury	mg/L							0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U
Molybdenum	mg/L							0.002 U	0.005 U	0.005 U	0.005 U		0.005 U		0.005 U	0.005 U
Nickel	mg/L							0.16								
Oxidation-Reduction Potential, Field	mV							179.5	80.2	110.2	154.9	111.9	111.9	193.4	180.4	-33.5
pH, Field	pH units		6.81	6.36	6.38	6.37	6.18	6.19	6.14	6.28	6.12	6.12	6.05	6.22	6.64	6
Potassium	mg/L		6.4	5.6	5.3	5.4	5.9 J	5.7	4.5	5.5	5.4	5.3	5		5.5	5.5
Radium-226	pCi/L							0.00138 U	0.0886 U	0.147 U	0.108	0.0656 U	0.0352 U	0.202	0.0987 U	0.139
Radium-226/228	pCi/L							0.618 U	0.23 U	0.852	0.383 U	0.538	0.442	-0.119 U	0.595	0.578
Radium-228	pCi/L							0.617 U	0.142 U	0.705 J	0.275 U	0.472	0.406	-0.321 U	0.496 U	0.44 U
Redox Potential, Field	mV															
Selenium	mg/L							0.0013 J	0.0017 J	0.005 U	0.0023 J		0.005 U		0.001 J	0.005 U
Silver	mg/L							0.0026								
Sodium	mg/L		28	27	25	24	24	22	20	25	23	23	21		24	24
Strontium	mg/L							2.4								
Sulfate	mg/L		1700	1500	1500	1600	1500				1700	1700		1600	1500	1700
Temperature, Field	deg C		13	14	13	14	12	13	15.3	14.5	15.7	15.7	13	14.2	12.8	13.9
Thallium	mg/L							0.00028 J	0.001 U	0.001 U	0.0015 J		0.001 U		0.00054 J	0.001 U
Turbidity, Field	NTU		248	123	75.1	173	65.7	91.1	145.47	40.59	19.97	19.97	10.21	29.27	13.58	19.71
Vanadium	mg/L															
Zinc	mg/L							0.15								

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate
U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed



APPENDIX D

LABORATORY REPORTS

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 6/6/2023 8:50:51 AM Revision 1

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-182663-1

Eurofins Cleveland

Job Notes

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

Authorization

Roxanne Cisneros

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Revision 1

Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Qualifiers

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Job ID: 240-182663-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-182663-1

Revised 6/06/2023 to include Calcium per client request.

Receipt

The samples were received on 3/29/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.4° C, 0.6° C, 2.1° C and 12.7° C.

RAD

Methods 9315: Radium-226 batch 605802: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-10-F-20230327-01 (240-182663-1), 96154R-F-20230327-01 (240-182663-2), DUP-001-96154R-F-20230327-01 (240-182663-3), MW-20-F-20230327-01 (240-182663-4), 96153R-F-20230327-01 (240-182663-5), EB-001-F-20230327-01 (240-182663-6), (LCS 160-605802/2-A), (MB 160-605802/1-A), (240-182663-N-4-A MS) and (240-182663-L-4-A MSD)

Methods 9320: Radium-228 batch 605818: The detection goal was not met for the following sample(s). Samples were prepped at a reduced volume due to the presence of matrix interferences: 96154R-F-20230327-01 (240-182663-2) and DUP-001-96154R-F-20230327-01 (240-182663-3). Analytical results are reported with the detection limit achieved.

Methods 9320: Radium-228 batch 605818: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-10-F-20230327-01 (240-182663-1), 96154R-F-20230327-01 (240-182663-2), DUP-001-96154R-F-20230327-01 (240-182663-3), MW-20-F-20230327-01 (240-182663-4), MW-20-F-20230327-01 MS (240-182663-4[MS]), MW-20-F-20230327-01 MSD (240-182663-4[MSD]), 96153R-F-20230327-01 (240-182663-5), EB-001-F-20230327-01 (240-182663-6), (LCS 160-605818/2-A) and (MB 160-605818/1-A)

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

Metals

Method 6020B: The continuing calibration blank for analytical batch 567862 contained sodium above the reporting limit (RL). Associated samples were not re-analyzed because results were greater than 10X the value found in the CCB. 96153R-F-20230327-01 (240-182663-5) and EB-001-F-20230327-01 (240-182663-6)

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

General Chemistry

Method 300.0: The following sample was diluted due to the nature of the sample matrix: 2016-10-F-20230327-01 (240-182663-1). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were analyzed less than one hour outside of analytical holding time due to instrument stoppage: 96153R-F-20230327-01 (240-182663-5) and EB-001-F-20230327-01 (240-182663-6).

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-182663-1	2016-10-F-20230327-01	Water	03/27/23 10:33	03/29/23 08:00
240-182663-2	96154R-F-20230327-01	Water	03/27/23 12:47	03/29/23 08:00
240-182663-3	DUP-001-96154R-F-20230327-01	Water	03/27/23 12:47	03/29/23 08:00
240-182663-4	MW-20-F-20230327-01	Water	03/27/23 14:13	03/29/23 08:00
240-182663-5	96153R-F-20230327-01	Water	03/27/23 15:18	03/29/23 08:00
240-182663-6	EB-001-F-20230327-01	Water	03/27/23 15:30	03/29/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 2016-10-F-20230327-01

Lab Sample ID: 240-182663-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	420		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.85	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	730		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.30	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Cobalt	0.87	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	470		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	240000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	18		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	120000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.7	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	8400000		10000	3300	ug/L	10		6020B	Total Recoverable
Thallium	0.83	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	670000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	25		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	25		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	16000		500	64	mg/L	500		300.0	Total/NA
Sulfate	170		50	17	mg/L	50		300.0	Total/NA
Total Dissolved Solids	25000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96154R-F-20230327-01

Lab Sample ID: 240-182663-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	480		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.77	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	390		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	6.1		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	1.3		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.9		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	67		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	1800		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 96154R-F-20230327-01 (Continued)

Lab Sample ID: 240-182663-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	7900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	560000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.26	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	65000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	600		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	460		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	4.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	44		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-96154R-F-20230327-01

Lab Sample ID: 240-182663-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	480		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.66	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	380		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	6.2		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	1.3		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	2.0		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	65		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	1800		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	7600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	550000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	62000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	600		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	450		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	4.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	44		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: MW-20-F-20230327-01

Lab Sample ID: 240-182663-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	190		100	57	ug/L	1		6010D	Total Recoverable
Barium	18		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	190		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	190		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	100000		1000	200	ug/L	1		6020B	Total Recoverable
Potassium	5500		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.0	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	24000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.54	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	470000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1.7		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	1.4		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1500		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	2200		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96153R-F-20230327-01

Lab Sample ID: 240-182663-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	560		100	57	ug/L	1		6010D	Total Recoverable
Barium	23		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.23	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	43		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	23000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	4.5	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	320000	^2	1000	330	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	8.4	H	1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.71	H	0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	880	H	10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: EB-001-F-20230327-01

Lab Sample ID: 240-182663-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	450	J ^2	1000	330	ug/L	1		6020B	Total Recoverable

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

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 2016-10-F-20230327-01

Lab Sample ID: 240-182663-1

Date Collected: 03/27/23 10:33

Matrix: Water

Date Received: 03/29/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	420		100	57	ug/L		03/30/23 14:00	03/31/23 21:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.85	J	2.0	0.57	ug/L		03/30/23 14:00	04/03/23 15:28	1
Arsenic	4.4	J	5.0	0.75	ug/L		03/30/23 14:00	04/03/23 15:28	1
Barium	730		5.0	2.2	ug/L		03/30/23 14:00	04/03/23 15:28	1
Beryllium	ND		1.0	0.62	ug/L		03/30/23 14:00	04/03/23 15:28	1
Cadmium	0.30	J	1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:28	1
Chromium	ND		5.0	2.5	ug/L		03/30/23 14:00	04/03/23 15:28	1
Cobalt	0.87	J	1.0	0.19	ug/L		03/30/23 14:00	04/03/23 15:28	1
Lead	ND		1.0	0.45	ug/L		03/30/23 14:00	04/03/23 15:28	1
Lithium	470		8.0	1.7	ug/L		03/30/23 14:00	04/03/23 15:28	1
Magnesium	240000		1000	200	ug/L		03/30/23 14:00	04/03/23 15:28	1
Molybdenum	18		5.0	1.1	ug/L		03/30/23 14:00	04/03/23 15:28	1
Potassium	120000		1000	220	ug/L		03/30/23 14:00	04/03/23 15:28	1
Selenium	1.7	J	5.0	0.89	ug/L		03/30/23 14:00	04/03/23 15:28	1
Sodium	8400000		10000	3300	ug/L		03/30/23 14:00	04/04/23 21:08	10
Thallium	0.83	J	1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:28	1
Calcium	670000		1000	580	ug/L		03/30/23 14:00	04/03/23 15:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/30/23 14:00	03/31/23 18:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	25		5.0	2.6	mg/L			04/04/23 15:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	25		5.0	2.6	mg/L			04/04/23 15:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 15:42	1
Chloride (EPA 300.0)	16000		500	64	mg/L			04/24/23 19:21	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			04/24/23 18:59	50
Sulfate (EPA 300.0)	170		50	17	mg/L			04/24/23 18:59	50
Total Dissolved Solids (SM 2540C)	25000		1000	780	mg/L			03/31/23 17:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	2.45		0.354	0.417	1.00	0.160	pCi/L	04/03/23 11:19	04/27/23 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110					04/03/23 11:19	04/27/23 08:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	15.3		1.20	1.85	1.00	0.545	pCi/L	04/03/23 11:39	04/24/23 11:53	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 2016-10-F-20230327-01

Lab Sample ID: 240-182663-1

Date Collected: 03/27/23 10:33

Matrix: Water

Date Received: 03/29/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110	04/03/23 11:39	04/24/23 11:53	1
Y Carrier	85.2		30 - 110	04/03/23 11:39	04/24/23 11:53	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	17.8		1.25	1.90	5.00	0.545	pCi/L		04/28/23 13:06	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 96154R-F-20230327-01

Lab Sample ID: 240-182663-2

Date Collected: 03/27/23 12:47

Matrix: Water

Date Received: 03/29/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	480		100	57	ug/L		03/30/23 14:00	03/31/23 21:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.77	J	2.0	0.57	ug/L		03/30/23 14:00	04/03/23 15:31	1
Arsenic	4.4	J	5.0	0.75	ug/L		03/30/23 14:00	04/03/23 15:31	1
Barium	390		5.0	2.2	ug/L		03/30/23 14:00	04/03/23 15:31	1
Beryllium	ND		1.0	0.62	ug/L		03/30/23 14:00	04/03/23 15:31	1
Cadmium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:31	1
Chromium	6.1		5.0	2.5	ug/L		03/30/23 14:00	04/03/23 15:31	1
Cobalt	1.3		1.0	0.19	ug/L		03/30/23 14:00	04/03/23 15:31	1
Lead	1.9		1.0	0.45	ug/L		03/30/23 14:00	04/03/23 15:31	1
Lithium	67		8.0	1.7	ug/L		03/30/23 14:00	04/03/23 15:31	1
Magnesium	1800		1000	200	ug/L		03/30/23 14:00	04/03/23 15:31	1
Molybdenum	110		5.0	1.1	ug/L		03/30/23 14:00	04/03/23 15:31	1
Potassium	7900		1000	220	ug/L		03/30/23 14:00	04/03/23 15:31	1
Selenium	ND		5.0	0.89	ug/L		03/30/23 14:00	04/03/23 15:31	1
Sodium	560000		1000	330	ug/L		03/30/23 14:00	04/03/23 15:31	1
Thallium	0.26	J	1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:31	1
Calcium	65000		1000	580	ug/L		03/30/23 14:00	04/03/23 15:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/30/23 14:00	03/31/23 18:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	600		5.0	2.6	mg/L			04/04/23 15:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			04/04/23 15:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	320		5.0	2.6	mg/L			04/04/23 15:47	1
Chloride (EPA 300.0)	460		10	1.3	mg/L			04/24/23 20:04	10
Fluoride (EPA 300.0)	4.2		0.050	0.024	mg/L			04/24/23 19:43	1
Sulfate (EPA 300.0)	44		1.0	0.35	mg/L			04/24/23 19:43	1
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			03/31/23 17:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	1.39		0.396	0.415	1.00	0.325	pCi/L	04/03/23 11:19	04/27/23 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	54.4		30 - 110					04/03/23 11:19	04/27/23 08:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.39	G	0.838	0.848	1.00	1.23	pCi/L	04/03/23 11:39	04/24/23 11:53	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 96154R-F-20230327-01

Lab Sample ID: 240-182663-2

Date Collected: 03/27/23 12:47

Matrix: Water

Date Received: 03/29/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	54.4		30 - 110	04/03/23 11:39	04/24/23 11:53	1
Y Carrier	83.7		30 - 110	04/03/23 11:39	04/24/23 11:53	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	2.78		0.927	0.944	5.00	1.23	pCi/L		04/28/23 13:06	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: DUP-001-96154R-F-20230327-01

Lab Sample ID: 240-182663-3

Date Collected: 03/27/23 12:47

Matrix: Water

Date Received: 03/29/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	480		100	57	ug/L		03/30/23 14:00	03/31/23 22:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.66	J	2.0	0.57	ug/L		03/30/23 14:00	04/03/23 15:34	1
Arsenic	4.3	J	5.0	0.75	ug/L		03/30/23 14:00	04/03/23 15:34	1
Barium	380		5.0	2.2	ug/L		03/30/23 14:00	04/03/23 15:34	1
Beryllium	ND		1.0	0.62	ug/L		03/30/23 14:00	04/03/23 15:34	1
Cadmium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:34	1
Chromium	6.2		5.0	2.5	ug/L		03/30/23 14:00	04/03/23 15:34	1
Cobalt	1.3		1.0	0.19	ug/L		03/30/23 14:00	04/03/23 15:34	1
Lead	2.0		1.0	0.45	ug/L		03/30/23 14:00	04/03/23 15:34	1
Lithium	65		8.0	1.7	ug/L		03/30/23 14:00	04/03/23 15:34	1
Magnesium	1800		1000	200	ug/L		03/30/23 14:00	04/03/23 15:34	1
Molybdenum	110		5.0	1.1	ug/L		03/30/23 14:00	04/03/23 15:34	1
Potassium	7600		1000	220	ug/L		03/30/23 14:00	04/03/23 15:34	1
Selenium	ND		5.0	0.89	ug/L		03/30/23 14:00	04/03/23 15:34	1
Sodium	550000		1000	330	ug/L		03/30/23 14:00	04/03/23 15:34	1
Thallium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:34	1
Calcium	62000		1000	580	ug/L		03/30/23 14:00	04/03/23 15:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/30/23 14:00	03/31/23 18:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	600		5.0	2.6	mg/L			04/04/23 15:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			04/04/23 15:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	320		5.0	2.6	mg/L			04/04/23 15:52	1
Chloride (EPA 300.0)	450		10	1.3	mg/L			04/24/23 20:48	10
Fluoride (EPA 300.0)	4.2		0.050	0.024	mg/L			04/24/23 20:26	1
Sulfate (EPA 300.0)	44		1.0	0.35	mg/L			04/24/23 20:26	1
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			03/31/23 17:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.937		0.350	0.360	1.00	0.350	pCi/L	04/03/23 11:19	04/27/23 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	51.6		30 - 110					04/03/23 11:19	04/27/23 08:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.467	U G	0.611	0.613	1.00	1.02	pCi/L	04/03/23 11:39	04/24/23 11:54	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: DUP-001-96154R-F-20230327-01

Lab Sample ID: 240-182663-3

Date Collected: 03/27/23 12:47

Matrix: Water

Date Received: 03/29/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	51.6		30 - 110	04/03/23 11:39	04/24/23 11:54	1
Y Carrier	86.4		30 - 110	04/03/23 11:39	04/24/23 11:54	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.40		0.704	0.711	5.00	1.02	pCi/L		04/28/23 13:06	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: MW-20-F-20230327-01

Lab Sample ID: 240-182663-4

Date Collected: 03/27/23 14:13

Matrix: Water

Date Received: 03/29/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	190		100	57	ug/L		03/30/23 14:00	03/31/23 21:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/30/23 14:00	04/03/23 15:14	1
Arsenic	ND		5.0	0.75	ug/L		03/30/23 14:00	04/03/23 15:14	1
Barium	18		5.0	2.2	ug/L		03/30/23 14:00	04/03/23 15:14	1
Beryllium	ND		1.0	0.62	ug/L		03/30/23 14:00	04/03/23 15:14	1
Cadmium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:14	1
Chromium	ND		5.0	2.5	ug/L		03/30/23 14:00	04/03/23 15:14	1
Cobalt	190		1.0	0.19	ug/L		03/30/23 14:00	04/03/23 15:14	1
Lead	ND		1.0	0.45	ug/L		03/30/23 14:00	04/03/23 15:14	1
Lithium	190		8.0	1.7	ug/L		03/30/23 14:00	04/03/23 15:14	1
Magnesium	100000		1000	200	ug/L		03/30/23 14:00	04/03/23 15:14	1
Molybdenum	ND		5.0	1.1	ug/L		03/30/23 14:00	04/03/23 15:14	1
Potassium	5500		1000	220	ug/L		03/30/23 14:00	04/03/23 15:14	1
Selenium	1.0	J	5.0	0.89	ug/L		03/30/23 14:00	04/03/23 15:14	1
Sodium	24000		1000	330	ug/L		03/30/23 14:00	04/03/23 15:14	1
Thallium	0.54	J	1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:14	1
Calcium	470000		1000	580	ug/L		03/30/23 14:00	04/03/23 15:14	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/30/23 14:00	03/31/23 18:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			04/04/23 15:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			04/04/23 15:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 15:56	1
Chloride (EPA 300.0)	1.7		1.0	0.13	mg/L			04/24/23 21:09	1
Fluoride (EPA 300.0)	1.4		0.050	0.024	mg/L			04/24/23 21:09	1
Sulfate (EPA 300.0)	1500		10	3.5	mg/L			04/24/23 22:58	10
Total Dissolved Solids (SM 2540C)	2200		20	16	mg/L			03/31/23 17:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0987	U	0.0996	0.100	1.00	0.156	pCi/L	04/03/23 11:19	04/27/23 08:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		30 - 110					04/03/23 11:19	04/27/23 08:34	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.496	U	0.333	0.336	1.00	0.497	pCi/L	04/03/23 11:39	04/24/23 11:55	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: MW-20-F-20230327-01

Lab Sample ID: 240-182663-4

Date Collected: 03/27/23 14:13

Matrix: Water

Date Received: 03/29/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		30 - 110	04/03/23 11:39	04/24/23 11:55	1
Y Carrier	81.9		30 - 110	04/03/23 11:39	04/24/23 11:55	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.595		0.348	0.351	5.00	0.497	pCi/L		04/28/23 13:06	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 96153R-F-20230327-01

Lab Sample ID: 240-182663-5

Date Collected: 03/27/23 15:18

Matrix: Water

Date Received: 03/29/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	560		100	57	ug/L		03/30/23 14:00	03/31/23 22:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/30/23 14:00	04/03/23 15:43	1
Arsenic	ND		5.0	0.75	ug/L		03/30/23 14:00	04/03/23 15:43	1
Barium	23		5.0	2.2	ug/L		03/30/23 14:00	04/03/23 15:43	1
Beryllium	ND		1.0	0.62	ug/L		03/30/23 14:00	04/03/23 15:43	1
Cadmium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:43	1
Chromium	ND		5.0	2.5	ug/L		03/30/23 14:00	04/03/23 15:43	1
Cobalt	0.23	J	1.0	0.19	ug/L		03/30/23 14:00	04/03/23 15:43	1
Lead	ND		1.0	0.45	ug/L		03/30/23 14:00	04/03/23 15:43	1
Lithium	43		8.0	1.7	ug/L		03/30/23 14:00	04/03/23 15:43	1
Magnesium	23000		1000	200	ug/L		03/30/23 14:00	04/03/23 15:43	1
Molybdenum	4.5	J	5.0	1.1	ug/L		03/30/23 14:00	04/03/23 15:43	1
Potassium	5900		1000	220	ug/L		03/30/23 14:00	04/03/23 15:43	1
Selenium	ND		5.0	0.89	ug/L		03/30/23 14:00	04/03/23 15:43	1
Sodium	320000	^2	1000	330	ug/L		03/30/23 14:00	04/03/23 15:43	1
Thallium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:43	1
Calcium	120000		1000	580	ug/L		03/30/23 14:00	04/03/23 15:43	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/30/23 14:00	03/31/23 18:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	260		5.0	2.6	mg/L			04/04/23 16:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	260		5.0	2.6	mg/L			04/04/23 16:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 16:05	1
Chloride (EPA 300.0)	8.4	H	1.0	0.13	mg/L			04/25/23 00:03	1
Fluoride (EPA 300.0)	0.71	H	0.050	0.024	mg/L			04/25/23 00:03	1
Sulfate (EPA 300.0)	880	H	10	3.5	mg/L			04/25/23 00:25	10
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			04/03/23 11:04	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0823	U	0.104	0.104	1.00	0.172	pCi/L	04/03/23 11:19	04/27/23 08:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		30 - 110					04/03/23 11:19	04/27/23 08:35	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.159	U	0.239	0.240	1.00	0.406	pCi/L	04/03/23 11:39	04/24/23 11:55	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 96153R-F-20230327-01

Lab Sample ID: 240-182663-5

Date Collected: 03/27/23 15:18

Matrix: Water

Date Received: 03/29/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	97.2		30 - 110	04/03/23 11:39	04/24/23 11:55	1
Y Carrier	86.7		30 - 110	04/03/23 11:39	04/24/23 11:55	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	0.242	U	0.261	0.262	5.00	0.406	pCi/L		04/28/23 13:06	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: EB-001-F-20230327-01

Lab Sample ID: 240-182663-6

Date Collected: 03/27/23 15:30

Matrix: Water

Date Received: 03/29/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/30/23 14:00	03/31/23 22:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/30/23 14:00	04/03/23 15:46	1
Arsenic	ND		5.0	0.75	ug/L		03/30/23 14:00	04/03/23 15:46	1
Barium	ND		5.0	2.2	ug/L		03/30/23 14:00	04/03/23 15:46	1
Beryllium	ND		1.0	0.62	ug/L		03/30/23 14:00	04/03/23 15:46	1
Cadmium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:46	1
Chromium	ND		5.0	2.5	ug/L		03/30/23 14:00	04/03/23 15:46	1
Cobalt	ND		1.0	0.19	ug/L		03/30/23 14:00	04/03/23 15:46	1
Lead	ND		1.0	0.45	ug/L		03/30/23 14:00	04/03/23 15:46	1
Lithium	ND		8.0	1.7	ug/L		03/30/23 14:00	04/03/23 15:46	1
Magnesium	ND		1000	200	ug/L		03/30/23 14:00	04/03/23 15:46	1
Molybdenum	ND		5.0	1.1	ug/L		03/30/23 14:00	04/03/23 15:46	1
Potassium	ND		1000	220	ug/L		03/30/23 14:00	04/03/23 15:46	1
Selenium	ND		5.0	0.89	ug/L		03/30/23 14:00	04/03/23 15:46	1
Sodium	450	J ^2	1000	330	ug/L		03/30/23 14:00	04/03/23 15:46	1
Thallium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:46	1
Calcium	ND		1000	580	ug/L		03/30/23 14:00	04/03/23 15:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/30/23 14:00	03/31/23 18:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 16:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 16:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 16:09	1
Chloride (EPA 300.0)	ND	H	1.0	0.13	mg/L			04/25/23 00:46	1
Fluoride (EPA 300.0)	ND	H	0.050	0.024	mg/L			04/25/23 00:46	1
Sulfate (EPA 300.0)	ND	H	1.0	0.35	mg/L			04/25/23 00:46	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/03/23 11:04	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.117	0.117	1.00	0.227	pCi/L	04/03/23 11:19	04/27/23 08:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110					04/03/23 11:19	04/27/23 08:35	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.314	U	0.314	0.315	1.00	0.504	pCi/L	04/03/23 11:39	04/24/23 11:55	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: EB-001-F-20230327-01

Lab Sample ID: 240-182663-6

Date Collected: 03/27/23 15:30

Matrix: Water

Date Received: 03/29/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110	04/03/23 11:39	04/24/23 11:55	1
Y Carrier	84.5		30 - 110	04/03/23 11:39	04/24/23 11:55	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.314	U	0.335	0.336	5.00	0.504	pCi/L		04/28/23 13:06	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	
240-182663-1	2016-10-F-20230327-01	85.8	
240-182663-2	96154R-F-20230327-01	54.4	
240-182663-3	DUP-001-96154R-F-20230327-01	51.6	
240-182663-4	MW-20-F-20230327-01	95.4	
240-182663-4 MS	MW-20-F-20230327-01	93.4	
240-182663-4 MSD	MW-20-F-20230327-01	96.2	
240-182663-5	96153R-F-20230327-01	97.2	
240-182663-6	EB-001-F-20230327-01	92.7	
LCS 160-605802/2-A	Lab Control Sample	94.7	
MB 160-605802/1-A	Method Blank	96.7	

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
240-182663-1	2016-10-F-20230327-01	85.8	85.2
240-182663-2	96154R-F-20230327-01	54.4	83.7
240-182663-3	DUP-001-96154R-F-20230327-01	51.6	86.4
240-182663-4	MW-20-F-20230327-01	95.4	81.9
240-182663-4 MS	MW-20-F-20230327-01 MS	93.4	86.0
240-182663-4 MSD	MW-20-F-20230327-01 MSD	96.2	83.7
240-182663-5	96153R-F-20230327-01	97.2	86.7
240-182663-6	EB-001-F-20230327-01	92.7	84.5
LCS 160-605818/2-A	Lab Control Sample	94.7	83.7
MB 160-605818/1-A	Method Blank	96.7	81.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-567376/1-A
Matrix: Water
Analysis Batch: 567640

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/30/23 14:00	03/31/23 21:11	1

Lab Sample ID: LCS 240-567376/2-A
Matrix: Water
Analysis Batch: 567640

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	991		ug/L		99	80 - 120

Lab Sample ID: 240-182663-4 MS
Matrix: Water
Analysis Batch: 567640

Client Sample ID: MW-20-F-20230327-01 MS
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	190		1000	1220		ug/L		103	75 - 125

Lab Sample ID: 240-182663-4 MSD
Matrix: Water
Analysis Batch: 567640

Client Sample ID: MW-20-F-20230327-01 MSD
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Boron	190		1000	1210		ug/L		101	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-567376/1-A
Matrix: Water
Analysis Batch: 567862

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/30/23 14:00	04/03/23 15:09	1
Arsenic	ND		5.0	0.75	ug/L		03/30/23 14:00	04/03/23 15:09	1
Barium	ND		5.0	2.2	ug/L		03/30/23 14:00	04/03/23 15:09	1
Beryllium	ND		1.0	0.62	ug/L		03/30/23 14:00	04/03/23 15:09	1
Cadmium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:09	1
Chromium	ND		5.0	2.5	ug/L		03/30/23 14:00	04/03/23 15:09	1
Cobalt	ND		1.0	0.19	ug/L		03/30/23 14:00	04/03/23 15:09	1
Lead	ND		1.0	0.45	ug/L		03/30/23 14:00	04/03/23 15:09	1
Lithium	ND		8.0	1.7	ug/L		03/30/23 14:00	04/03/23 15:09	1
Magnesium	ND		1000	200	ug/L		03/30/23 14:00	04/03/23 15:09	1
Molybdenum	ND		5.0	1.1	ug/L		03/30/23 14:00	04/03/23 15:09	1
Potassium	ND		1000	220	ug/L		03/30/23 14:00	04/03/23 15:09	1
Selenium	ND		5.0	0.89	ug/L		03/30/23 14:00	04/03/23 15:09	1
Sodium	ND		1000	330	ug/L		03/30/23 14:00	04/03/23 15:09	1
Thallium	ND		1.0	0.20	ug/L		03/30/23 14:00	04/03/23 15:09	1
Calcium	ND		1000	580	ug/L		03/30/23 14:00	04/03/23 15:09	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

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

Lab Sample ID: LCS 240-567376/3-A
Matrix: Water
Analysis Batch: 567862

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	104		ug/L		104	80 - 120
Arsenic	1000	969		ug/L		97	80 - 120
Barium	1000	968		ug/L		97	80 - 120
Beryllium	500	475		ug/L		95	80 - 120
Cadmium	500	485		ug/L		97	80 - 120
Chromium	500	494		ug/L		99	80 - 120
Cobalt	500	486		ug/L		97	80 - 120
Lead	500	504		ug/L		101	80 - 120
Lithium	500	480		ug/L		96	80 - 120
Magnesium	25000	24200		ug/L		97	80 - 120
Molybdenum	500	491		ug/L		98	80 - 120
Potassium	25000	24300		ug/L		97	80 - 120
Selenium	1000	943		ug/L		94	80 - 120
Sodium	25000	24200		ug/L		97	80 - 120
Thallium	1000	985		ug/L		99	80 - 120
Calcium	25000	24000		ug/L		96	80 - 120

Lab Sample ID: 240-182663-4 MS
Matrix: Water
Analysis Batch: 567862

Client Sample ID: MW-20-F-20230327-01 MS
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	107		ug/L		107	80 - 120
Arsenic	ND		1000	951		ug/L		95	80 - 120
Barium	18		1000	951		ug/L		93	80 - 120
Beryllium	ND		500	461		ug/L		92	80 - 120
Cadmium	ND		500	460		ug/L		92	80 - 120
Chromium	ND		500	464		ug/L		93	80 - 120
Cobalt	190		500	652		ug/L		92	80 - 120
Lead	ND		500	471		ug/L		94	80 - 120
Lithium	190		500	654		ug/L		94	80 - 120
Magnesium	100000		25000	126000	4	ug/L		92	80 - 120
Molybdenum	ND		500	488		ug/L		98	80 - 120
Potassium	5500		25000	29300		ug/L		95	80 - 120
Selenium	1.0	J	1000	916		ug/L		91	80 - 120
Sodium	24000		25000	47900		ug/L		94	80 - 120
Thallium	0.54	J	1000	922		ug/L		92	80 - 120
Calcium	470000		25000	495000	4	ug/L		97	80 - 120

Lab Sample ID: 240-182663-4 MSD
Matrix: Water
Analysis Batch: 567862

Client Sample ID: MW-20-F-20230327-01 MSD
Prep Type: Total Recoverable
Prep Batch: 567376

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		100	105		ug/L		105	80 - 120	2	20
Arsenic	ND		1000	989		ug/L		99	80 - 120	4	20
Barium	18		1000	985		ug/L		97	80 - 120	3	20
Beryllium	ND		500	470		ug/L		94	80 - 120	2	20
Cadmium	ND		500	477		ug/L		95	80 - 120	4	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

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

Lab Sample ID: 240-182663-4 MSD
 Matrix: Water
 Analysis Batch: 567862

Client Sample ID: MW-20-F-20230327-01 MSD
 Prep Type: Total Recoverable
 Prep Batch: 567376

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	ND		500	486		ug/L		97	80 - 120	5	20
Cobalt	190		500	669		ug/L		96	80 - 120	3	20
Lead	ND		500	501		ug/L		100	80 - 120	6	20
Lithium	190		500	673		ug/L		97	80 - 120	3	20
Magnesium	100000		25000	123000	4	ug/L		83	80 - 120	2	20
Molybdenum	ND		500	503		ug/L		101	80 - 120	3	20
Potassium	5500		25000	29100		ug/L		95	80 - 120	1	20
Selenium	1.0	J	1000	956		ug/L		96	80 - 120	4	20
Sodium	24000		25000	47500		ug/L		92	80 - 120	1	20
Thallium	0.54	J	1000	978		ug/L		98	80 - 120	6	20
Calcium	470000		25000	484000	4	ug/L		54	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-567378/1-A
 Matrix: Water
 Analysis Batch: 567690

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 567378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/30/23 14:00	03/31/23 18:27	1

Lab Sample ID: LCS 240-567378/2-A
 Matrix: Water
 Analysis Batch: 567690

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 567378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.99		ug/L		100	80 - 120

Lab Sample ID: 240-182663-4 MS
 Matrix: Water
 Analysis Batch: 567690

Client Sample ID: MW-20-F-20230327-01 MS
 Prep Type: Total/NA
 Prep Batch: 567378

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.02		ug/L		102	80 - 120

Lab Sample ID: 240-182663-4 MSD
 Matrix: Water
 Analysis Batch: 567690

Client Sample ID: MW-20-F-20230327-01 MSD
 Prep Type: Total/NA
 Prep Batch: 567378

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.841		ug/L		84	80 - 120	19	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-567986/29
 Matrix: Water
 Analysis Batch: 567986

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/04/23 14:28	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-567986/29
Matrix: Water
Analysis Batch: 567986

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 14:28	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 14:28	1

Lab Sample ID: MB 240-567986/3
Matrix: Water
Analysis Batch: 567986

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/04/23 12:36	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 12:36	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 12:36	1

Lab Sample ID: LCS 240-567986/28
Matrix: Water
Analysis Batch: 567986

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	138		mg/L		95	86 - 123

Lab Sample ID: 240-182663-4 DU
Matrix: Water
Analysis Batch: 567986

Client Sample ID: MW-20-F-20230327-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	170		179		mg/L		4	20
Bicarbonate Alkalinity as CaCO3	170		179		mg/L		4	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-570401/3
Matrix: Water
Analysis Batch: 570401

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/24/23 18:16	1
Fluoride	ND		0.050	0.024	mg/L			04/24/23 18:16	1
Sulfate	ND		1.0	0.35	mg/L			04/24/23 18:16	1

Lab Sample ID: LCS 240-570401/4
Matrix: Water
Analysis Batch: 570401

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.7		mg/L		97	90 - 110
Fluoride	2.50	2.59		mg/L		104	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-182663-4 MS
 Matrix: Water
 Analysis Batch: 570401

Client Sample ID: MW-20-F-20230327-01 MS
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1.7		50.0	55.5		mg/L		108	80 - 120
Fluoride	1.4		2.50	4.16		mg/L		109	80 - 120

Lab Sample ID: 240-182663-4 MS
 Matrix: Water
 Analysis Batch: 570401

Client Sample ID: MW-20-F-20230327-01 MS
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	1500		500	1980		mg/L		88	80 - 120

Lab Sample ID: 240-182663-4 MSD
 Matrix: Water
 Analysis Batch: 570401

Client Sample ID: MW-20-F-20230327-01 MSD
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1.7		50.0	55.7		mg/L		108	80 - 120	1	15
Fluoride	1.4		2.50	4.08		mg/L		106	80 - 120	2	15

Lab Sample ID: 240-182663-4 MSD
 Matrix: Water
 Analysis Batch: 570401

Client Sample ID: MW-20-F-20230327-01 MSD
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	1500		500	1970		mg/L		86	80 - 120	0	15

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

Lab Sample ID: MB 240-567569/1
 Matrix: Water
 Analysis Batch: 567569

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	ND		10	7.8	mg/L			03/31/23 17:41	1

Lab Sample ID: 240-182663-4 DU
 Matrix: Water
 Analysis Batch: 567569

Client Sample ID: MW-20-F-20230327-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2200		2230		mg/L		NC	20

Lab Sample ID: MB 240-567744/1
 Matrix: Water
 Analysis Batch: 567744

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	ND		10	7.8	mg/L			04/03/23 11:04	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

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

Lab Sample ID: LCS 240-567744/2
 Matrix: Water
 Analysis Batch: 567744

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	556		mg/L		96	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-605802/1-A
 Matrix: Water
 Analysis Batch: 609152

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 605802

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04109	U	0.0953	0.0954	1.00	0.173	pCi/L	04/03/23 11:19	04/27/23 08:20	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.7		30 - 110					04/03/23 11:19	04/27/23 08:20	1

Lab Sample ID: LCS 160-605802/2-A
 Matrix: Water
 Analysis Batch: 609152

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 605802

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	9.940		1.12	1.00	0.133	pCi/L	88	70 - 113
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	94.7		30 - 110						

Lab Sample ID: 240-182663-4 MS
 Matrix: Water
 Analysis Batch: 609154

Client Sample ID: MW-20-F-20230327-01
 Prep Type: Total/NA
 Prep Batch: 605802

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	0.0987	U	11.2	9.867		1.13	1.00	0.176	pCi/L	87	60 - 140
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	93.4		30 - 110								

Lab Sample ID: 240-182663-4 MSD
 Matrix: Water
 Analysis Batch: 609154

Client Sample ID: MW-20-F-20230327-01
 Prep Type: Total/NA
 Prep Batch: 605802

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.0987	U	11.4	10.39		1.16	1.00	0.147	pCi/L	90	60 - 140	0.23	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	96.2		30 - 110										

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-605818/1-A
Matrix: Water
Analysis Batch: 608494

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605818

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.6092		0.353	0.358	1.00	0.512	pCi/L	04/03/23 11:39	04/24/23 11:53	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	96.7		30 - 110		04/03/23 11:39	04/24/23 11:53	1			
Y Carrier	81.5		30 - 110		04/03/23 11:39	04/24/23 11:53	1			

Lab Sample ID: LCS 160-605818/2-A
Matrix: Water
Analysis Batch: 608494

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605818

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual	Uncert. (2σ+/-)					
Radium-228	8.01	8.446		1.16	1.00	0.466	pCi/L	105	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	94.7		30 - 110						
Y Carrier	83.7		30 - 110						

Lab Sample ID: 240-182663-4 MS
Matrix: Water
Analysis Batch: 608494

Client Sample ID: MW-20-F-20230327-01 MS
Prep Type: Total/NA
Prep Batch: 605818

Analyte	Sample	Sample	Spike	MS	MS	Total	RL	MDC	Unit	%Rec	%Rec Limits
	Result	Qual	Added	Result	Qual	Uncert. (2σ+/-)					
Radium-228	0.496	U	7.95	8.612		1.19	1.00	0.575	pCi/L	102	60 - 140
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	93.4		30 - 110								
Y Carrier	86.0		30 - 110								

Lab Sample ID: 240-182663-4 MSD
Matrix: Water
Analysis Batch: 608494

Client Sample ID: MW-20-F-20230327-01 MSD
Prep Type: Total/NA
Prep Batch: 605818

Analyte	Sample	Sample	Spike	MSD	MSD	Total	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
	Result	Qual	Added	Result	Qual	Uncert. (2σ+/-)							
Radium-228	0.496	U	8.05	7.767		1.11	1.00	0.565	pCi/L	90	60 - 140	0.37	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	96.2		30 - 110										
Y Carrier	83.7		30 - 110										

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Metals

Prep Batch: 567376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total Recoverable	Water	3005A	
240-182663-2	96154R-F-20230327-01	Total Recoverable	Water	3005A	
240-182663-3	DUP-001-96154R-F-20230327-01	Total Recoverable	Water	3005A	
240-182663-4	MW-20-F-20230327-01	Total Recoverable	Water	3005A	
240-182663-5	96153R-F-20230327-01	Total Recoverable	Water	3005A	
240-182663-6	EB-001-F-20230327-01	Total Recoverable	Water	3005A	
MB 240-567376/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-567376/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-567376/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-182663-4 MS	MW-20-F-20230327-01 MS	Total Recoverable	Water	3005A	
240-182663-4 MS	MW-20-F-20230327-01 MS	Total Recoverable	Water	3005A	
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total Recoverable	Water	3005A	
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total Recoverable	Water	3005A	

Prep Batch: 567378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	7470A	
240-182663-2	96154R-F-20230327-01	Total/NA	Water	7470A	
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	7470A	
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	7470A	
240-182663-5	96153R-F-20230327-01	Total/NA	Water	7470A	
240-182663-6	EB-001-F-20230327-01	Total/NA	Water	7470A	
MB 240-567378/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-567378/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-182663-4 MS	MW-20-F-20230327-01 MS	Total/NA	Water	7470A	
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total/NA	Water	7470A	

Analysis Batch: 567640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total Recoverable	Water	6010D	567376
240-182663-2	96154R-F-20230327-01	Total Recoverable	Water	6010D	567376
240-182663-3	DUP-001-96154R-F-20230327-01	Total Recoverable	Water	6010D	567376
240-182663-4	MW-20-F-20230327-01	Total Recoverable	Water	6010D	567376
240-182663-5	96153R-F-20230327-01	Total Recoverable	Water	6010D	567376
240-182663-6	EB-001-F-20230327-01	Total Recoverable	Water	6010D	567376
MB 240-567376/1-A	Method Blank	Total Recoverable	Water	6010D	567376
LCS 240-567376/2-A	Lab Control Sample	Total Recoverable	Water	6010D	567376
240-182663-4 MS	MW-20-F-20230327-01 MS	Total Recoverable	Water	6010D	567376
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total Recoverable	Water	6010D	567376

Analysis Batch: 567690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	7470A	567378
240-182663-2	96154R-F-20230327-01	Total/NA	Water	7470A	567378
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	7470A	567378
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	7470A	567378
240-182663-5	96153R-F-20230327-01	Total/NA	Water	7470A	567378
240-182663-6	EB-001-F-20230327-01	Total/NA	Water	7470A	567378
MB 240-567378/1-A	Method Blank	Total/NA	Water	7470A	567378
LCS 240-567378/2-A	Lab Control Sample	Total/NA	Water	7470A	567378
240-182663-4 MS	MW-20-F-20230327-01 MS	Total/NA	Water	7470A	567378

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Metals (Continued)

Analysis Batch: 567690 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total/NA	Water	7470A	567378

Analysis Batch: 567862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total Recoverable	Water	6020B	567376
240-182663-2	96154R-F-20230327-01	Total Recoverable	Water	6020B	567376
240-182663-3	DUP-001-96154R-F-20230327-01	Total Recoverable	Water	6020B	567376
240-182663-4	MW-20-F-20230327-01	Total Recoverable	Water	6020B	567376
240-182663-5	96153R-F-20230327-01	Total Recoverable	Water	6020B	567376
240-182663-6	EB-001-F-20230327-01	Total Recoverable	Water	6020B	567376
MB 240-567376/1-A	Method Blank	Total Recoverable	Water	6020B	567376
LCS 240-567376/3-A	Lab Control Sample	Total Recoverable	Water	6020B	567376
240-182663-4 MS	MW-20-F-20230327-01 MS	Total Recoverable	Water	6020B	567376
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total Recoverable	Water	6020B	567376

Analysis Batch: 568014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total Recoverable	Water	6020B	567376

General Chemistry

Analysis Batch: 567569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	SM 2540C	
240-182663-2	96154R-F-20230327-01	Total/NA	Water	SM 2540C	
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	SM 2540C	
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	SM 2540C	
MB 240-567569/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-567569/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-182663-4 DU	MW-20-F-20230327-01	Total/NA	Water	SM 2540C	

Analysis Batch: 567744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-5	96153R-F-20230327-01	Total/NA	Water	SM 2540C	
240-182663-6	EB-001-F-20230327-01	Total/NA	Water	SM 2540C	
MB 240-567744/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-567744/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 567986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	2320B-1997	
240-182663-2	96154R-F-20230327-01	Total/NA	Water	2320B-1997	
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	2320B-1997	
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	2320B-1997	
240-182663-5	96153R-F-20230327-01	Total/NA	Water	2320B-1997	
240-182663-6	EB-001-F-20230327-01	Total/NA	Water	2320B-1997	
MB 240-567986/29	Method Blank	Total/NA	Water	2320B-1997	
MB 240-567986/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-567986/28	Lab Control Sample	Total/NA	Water	2320B-1997	
240-182663-4 DU	MW-20-F-20230327-01	Total/NA	Water	2320B-1997	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182663-1

General Chemistry

Analysis Batch: 570401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	300.0	
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	300.0	
240-182663-2	96154R-F-20230327-01	Total/NA	Water	300.0	
240-182663-2	96154R-F-20230327-01	Total/NA	Water	300.0	
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	300.0	
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	300.0	
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	300.0	
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	300.0	
240-182663-5	96153R-F-20230327-01	Total/NA	Water	300.0	
240-182663-5	96153R-F-20230327-01	Total/NA	Water	300.0	
240-182663-6	EB-001-F-20230327-01	Total/NA	Water	300.0	
MB 240-570401/3	Method Blank	Total/NA	Water	300.0	
LCS 240-570401/4	Lab Control Sample	Total/NA	Water	300.0	
240-182663-4 MS	MW-20-F-20230327-01 MS	Total/NA	Water	300.0	
240-182663-4 MS	MW-20-F-20230327-01 MS	Total/NA	Water	300.0	
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total/NA	Water	300.0	
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total/NA	Water	300.0	

Rad

Prep Batch: 605802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	PrecSep-21	
240-182663-2	96154R-F-20230327-01	Total/NA	Water	PrecSep-21	
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	PrecSep-21	
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	PrecSep-21	
240-182663-5	96153R-F-20230327-01	Total/NA	Water	PrecSep-21	
240-182663-6	EB-001-F-20230327-01	Total/NA	Water	PrecSep-21	
MB 160-605802/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-605802/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-182663-4 MS	MW-20-F-20230327-01	Total/NA	Water	PrecSep-21	
240-182663-4 MSD	MW-20-F-20230327-01	Total/NA	Water	PrecSep-21	

Prep Batch: 605818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182663-1	2016-10-F-20230327-01	Total/NA	Water	PrecSep_0	
240-182663-2	96154R-F-20230327-01	Total/NA	Water	PrecSep_0	
240-182663-3	DUP-001-96154R-F-20230327-01	Total/NA	Water	PrecSep_0	
240-182663-4	MW-20-F-20230327-01	Total/NA	Water	PrecSep_0	
240-182663-5	96153R-F-20230327-01	Total/NA	Water	PrecSep_0	
240-182663-6	EB-001-F-20230327-01	Total/NA	Water	PrecSep_0	
MB 160-605818/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-605818/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-182663-4 MS	MW-20-F-20230327-01 MS	Total/NA	Water	PrecSep_0	
240-182663-4 MSD	MW-20-F-20230327-01 MSD	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 2016-10-F-20230327-01

Lab Sample ID: 240-182663-1

Date Collected: 03/27/23 10:33

Matrix: Water

Date Received: 03/29/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6010D		1	567640	KLC	EET CLE	03/31/23 21:53
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6020B		1	567862	RKT	EET CLE	04/03/23 15:28
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6020B		10	568014	RKT	EET CLE	04/04/23 21:08
Total/NA	Prep	7470A			567378	AJC	EET CLE	03/30/23 14:00
Total/NA	Analysis	7470A		1	567690	DSH	EET CLE	03/31/23 18:38
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 15:42
Total/NA	Analysis	300.0		50	570401	JMB	EET CLE	04/24/23 18:59
Total/NA	Analysis	300.0		500	570401	JMB	EET CLE	04/24/23 19:21
Total/NA	Analysis	SM 2540C		1	567569	GH	EET CLE	03/31/23 17:41
Total/NA	Prep	PrecSep-21			605802	DJP	EET SL	04/03/23 11:19
Total/NA	Analysis	9315		1	609154	FLC	EET SL	04/27/23 08:33
Total/NA	Prep	PrecSep_0			605818	DJP	EET SL	04/03/23 11:39
Total/NA	Analysis	9320		1	608494	FLC	EET SL	04/24/23 11:53
Total/NA	Analysis	Ra226_Ra228		1	609260	SCB	EET SL	04/28/23 13:06

Client Sample ID: 96154R-F-20230327-01

Lab Sample ID: 240-182663-2

Date Collected: 03/27/23 12:47

Matrix: Water

Date Received: 03/29/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6010D		1	567640	KLC	EET CLE	03/31/23 21:58
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6020B		1	567862	RKT	EET CLE	04/03/23 15:31
Total/NA	Prep	7470A			567378	AJC	EET CLE	03/30/23 14:00
Total/NA	Analysis	7470A		1	567690	DSH	EET CLE	03/31/23 18:40
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 15:47
Total/NA	Analysis	300.0		1	570401	JMB	EET CLE	04/24/23 19:43
Total/NA	Analysis	300.0		10	570401	JMB	EET CLE	04/24/23 20:04
Total/NA	Analysis	SM 2540C		1	567569	GH	EET CLE	03/31/23 17:41
Total/NA	Prep	PrecSep-21			605802	DJP	EET SL	04/03/23 11:19
Total/NA	Analysis	9315		1	609154	FLC	EET SL	04/27/23 08:33
Total/NA	Prep	PrecSep_0			605818	DJP	EET SL	04/03/23 11:39
Total/NA	Analysis	9320		1	608494	FLC	EET SL	04/24/23 11:53
Total/NA	Analysis	Ra226_Ra228		1	609260	SCB	EET SL	04/28/23 13:06

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: DUP-001-96154R-F-20230327-01

Lab Sample ID: 240-182663-3

Date Collected: 03/27/23 12:47

Matrix: Water

Date Received: 03/29/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6010D		1	567640	KLC	EET CLE	03/31/23 22:02
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6020B		1	567862	RKT	EET CLE	04/03/23 15:34
Total/NA	Prep	7470A			567378	AJC	EET CLE	03/30/23 14:00
Total/NA	Analysis	7470A		1	567690	DSH	EET CLE	03/31/23 18:42
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 15:52
Total/NA	Analysis	300.0		1	570401	JMB	EET CLE	04/24/23 20:26
Total/NA	Analysis	300.0		10	570401	JMB	EET CLE	04/24/23 20:48
Total/NA	Analysis	SM 2540C		1	567569	GH	EET CLE	03/31/23 17:41
Total/NA	Prep	PrecSep-21			605802	DJP	EET SL	04/03/23 11:19
Total/NA	Analysis	9315		1	609154	FLC	EET SL	04/27/23 08:33
Total/NA	Prep	PrecSep_0			605818	DJP	EET SL	04/03/23 11:39
Total/NA	Analysis	9320		1	608494	FLC	EET SL	04/24/23 11:54
Total/NA	Analysis	Ra226_Ra228		1	609260	SCB	EET SL	04/28/23 13:06

Client Sample ID: MW-20-F-20230327-01

Lab Sample ID: 240-182663-4

Date Collected: 03/27/23 14:13

Matrix: Water

Date Received: 03/29/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6010D		1	567640	KLC	EET CLE	03/31/23 21:23
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6020B		1	567862	RKT	EET CLE	04/03/23 15:14
Total/NA	Prep	7470A			567378	AJC	EET CLE	03/30/23 14:00
Total/NA	Analysis	7470A		1	567690	DSH	EET CLE	03/31/23 18:31
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 15:56
Total/NA	Analysis	300.0		1	570401	JMB	EET CLE	04/24/23 21:09
Total/NA	Analysis	300.0		10	570401	JMB	EET CLE	04/24/23 22:58
Total/NA	Analysis	SM 2540C		1	567569	GH	EET CLE	03/31/23 17:41
Total/NA	Prep	PrecSep-21			605802	DJP	EET SL	04/03/23 11:19
Total/NA	Analysis	9315		1	609154	FLC	EET SL	04/27/23 08:34
Total/NA	Prep	PrecSep_0			605818	DJP	EET SL	04/03/23 11:39
Total/NA	Analysis	9320		1	608494	FLC	EET SL	04/24/23 11:55
Total/NA	Analysis	Ra226_Ra228		1	609260	SCB	EET SL	04/28/23 13:06

Client Sample ID: 96153R-F-20230327-01

Lab Sample ID: 240-182663-5

Date Collected: 03/27/23 15:18

Matrix: Water

Date Received: 03/29/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6010D		1	567640	KLC	EET CLE	03/31/23 22:07

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Client Sample ID: 96153R-F-20230327-01

Lab Sample ID: 240-182663-5

Date Collected: 03/27/23 15:18

Matrix: Water

Date Received: 03/29/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6020B		1	567862	RKT	EET CLE	04/03/23 15:43
Total/NA	Prep	7470A			567378	AJC	EET CLE	03/30/23 14:00
Total/NA	Analysis	7470A		1	567690	DSH	EET CLE	03/31/23 18:49
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 16:05
Total/NA	Analysis	300.0		1	570401	JMB	EET CLE	04/25/23 00:03
Total/NA	Analysis	300.0		10	570401	JMB	EET CLE	04/25/23 00:25
Total/NA	Analysis	SM 2540C		1	567744	GH	EET CLE	04/03/23 11:04
Total/NA	Prep	PrecSep-21			605802	DJP	EET SL	04/03/23 11:19
Total/NA	Analysis	9315		1	609154	FLC	EET SL	04/27/23 08:35
Total/NA	Prep	PrecSep_0			605818	DJP	EET SL	04/03/23 11:39
Total/NA	Analysis	9320		1	608494	FLC	EET SL	04/24/23 11:55
Total/NA	Analysis	Ra226_Ra228		1	609260	SCB	EET SL	04/28/23 13:06

Client Sample ID: EB-001-F-20230327-01

Lab Sample ID: 240-182663-6

Date Collected: 03/27/23 15:30

Matrix: Water

Date Received: 03/29/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6010D		1	567640	KLC	EET CLE	03/31/23 22:11
Total Recoverable	Prep	3005A			567376	AJC	EET CLE	03/30/23 14:00
Total Recoverable	Analysis	6020B		1	567862	RKT	EET CLE	04/03/23 15:46
Total/NA	Prep	7470A			567378	AJC	EET CLE	03/30/23 14:00
Total/NA	Analysis	7470A		1	567690	DSH	EET CLE	03/31/23 18:51
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 16:09
Total/NA	Analysis	300.0		1	570401	JMB	EET CLE	04/25/23 00:46
Total/NA	Analysis	SM 2540C		1	567744	GH	EET CLE	04/03/23 11:04
Total/NA	Prep	PrecSep-21			605802	DJP	EET SL	04/03/23 11:19
Total/NA	Analysis	9315		1	609154	FLC	EET SL	04/27/23 08:35
Total/NA	Prep	PrecSep_0			605818	DJP	EET SL	04/03/23 11:39
Total/NA	Analysis	9320		1	608494	FLC	EET SL	04/24/23 11:55
Total/NA	Analysis	Ra226_Ra228		1	609260	SCB	EET SL	04/28/23 13:06

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	04-26-23
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	05-31-23
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	04-30-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	05-24-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	05-07-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182663-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-17-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Client Information Client Contact: Bobby Castro Taylor Huffman Phone: 740-373-4308 PWSID:		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@Eurofins.com		COC No: 240-93018-34502 Page: Page 1 of 1 Job #:	
Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project Name: Federal - CCR Wells Site: Ohio		Analysis Requested Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #: Project #: 24019633 SSON#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (Water, Soil, Other) Preservation Code: (1-1, 2-2, 3-3, 4-4, 5-5, 6-6, 7-7, 8-8, 9-9, 10-10, 11-11, 12-12, 13-13, 14-14, 15-15)		Perform MS/MSD (Yes or No) 6010B, 7470, 6020(See Metals List) 240C, Calcd, 300.0, 280(Chloride, Fluoride, Sulfate) 9315_Ra226, 9320_Ra228 2320B(Carbonate Alkalinity/BI-Carbonate Alkalinity)		Total Number of containers Special Instructions/Note:	
2016-10-F-20230327-01 96154R-F-20230327-01 Dup-001-96154R-F-20230327-01 MW-20-F-20230327-01 MW-20-F-20230327-MS MW-20-F-20230327-MSD 96153R-F-20230327-01 EB-001-F-20230327-01		3-27-23 1033 3-27-23 1247 3-27-23 1247 3-27-23 1413 3-27-23 1413 3-27-23 1413 3-27-23 1518 3-27-23 1530		W W W W W W W W	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Empty Kit Relinquished by: Bobby Castro Relinquished by: [Signature] Relinquished by: [Signature]		Date: 3-28-23 / 0830 Date: 3-29-23 / 1200		Method of Shipment:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Received by: [Signature] Date/Time: 3-28-23 1204 Company: E7A Received by: [Signature] Date/Time: 3-29-23 800 Company: E7A	



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

Client Lightstone Site Name _____ Cooler unpacked by: _____
Cooler Received on 32923 Opened on 32923 Rachelle Haidet
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF 0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg) 3/29/23 Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC293086
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
2016-10-F-20230327-01	240-182663-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2016-10-F-20230327-01	240-182663-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2016-10-F-20230327-01	240-182663-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96154R-F-20230327-01	240-182663-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96154R-F-20230327-01	240-182663-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96154R-F-20230327-01	240-182663-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-001-96154R-F-20230327-01	240-182663-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-001-96154R-F-20230327-01	240-182663-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-001-96154R-F-20230327-01	240-182663-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-G-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-H-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-I-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-J-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-K-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-L-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-M-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-N-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-20-F-20230327-01	240-182663-O-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96153R-F-20230327-01	240-182663-C-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96153R-F-20230327-01	240-182663-D-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96153R-F-20230327-01	240-182663-E-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230327-01	240-182663-C-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230327-01	240-182663-D-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230327-01	240-182663-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC	Client	<u>Box</u>	Other	IR GUN #: <u>22</u>	<u>12.7</u>	<u>12.7</u>	Wet Ice Water <u>Blue Ice None</u> Dry Ice
<u>EC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>0.4</u>	<u>0.4</u>	<u>Wet Ice</u> Water Blue Ice None Dry Ice
<u>EC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>0.6</u>	<u>0.6</u>	<u>Wet Ice</u> Water Blue Ice None Dry Ice
<u>EC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>2.1</u>	<u>2.1</u>	<u>Wet Ice</u> Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice Water Blue Ice None Dry Ice

See Temperature Excursion Form



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Cisneros, Roxanne	Camera Tracking No(s):	COC No: 240-165655-1								
Client Contact: Shipping/Receiving		Phone: E-Mail: roxanne.cisneros@et.eurofins.com	State of Origin: Ohio	Page: Page 1 of 1								
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):										
Address: 13715 Rider Trail North,		Job #: 240-182663-1										
City: Earth City	Due Date Requested: 5/1/2023	Analysis Requested Total Number of Containers:										
State, Zip: MO, 63045	TAT Requested (days):											
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:											
Email: Federal CCR Wells	WO #:											
Project Name: Federal CCR Wells	SSOW#:											
Site:	Field Filtered Sample (Yes or No)	Perform MSD (Yes or No)	9320_Raz28/PreSep_0 Radium-228 (GFC)	9315_Raz28/PreSep_21 Radium-228 (GFC)	Raz28Raz228_GFC/Combined Radium-228 and	Radium-228	Special Instructions/Note:					
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	MATRIX (Water, Spew, Oil, Other, B1-Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MSD (Yes or No)	9320_Raz28/PreSep_0 Radium-228 (GFC)	9315_Raz28/PreSep_21 Radium-228 (GFC)	Raz28Raz228_GFC/Combined Radium-228 and Radium-228	Total Number of Containers	Special Instructions/Note:
2016-10-F-20230327-01 (240-182663-1)	3/27/23	10:33 Eastern	Water	Water		X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit, save planchet
96154R-F-20230327-01 (240-182663-2)	3/27/23	12:47 Eastern	Water	Water		X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit, save planchet
DUP-001-96154R-F-20230327-01 (240-182663-3)	3/27/23	12:47 Eastern	Water	Water		X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit, save planchet
MW-20-F-20230327-01 (240-182663-4)	3/27/23	14:13 Eastern	MS	Water		X	X	X	X	X	6	. Recount of TAR after 21 day ingrowth if > action limit, save planchet
MW-20-F-20230327-01 MS (240-182663-4MS)	3/27/23	14:13 Eastern	MS	Water		X	X	X	X	X	1	. Recount of TAR after 21 day ingrowth if > action limit, save planchet
MW-20-F-20230327-01 MSD (240-182663-4MSD)	3/27/23	14:13 Eastern	MSD	Water		X	X	X	X	X	1	. Recount of TAR after 21 day ingrowth if > action limit, save planchet
96153R-F-20230327-01 (240-182663-5)	3/27/23	15:18 Eastern	Water	Water		X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit, save planchet
EB-001-F-20230327-01 (240-182663-6)	3/27/23	15:30 Eastern	Water	Water		X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit, save planchet

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: **BEINC** Date: **3-30-23 8:35**
 Relinquished by: **FED EX** Date: **MAR 31 2023 09:10**
 Relinquished by: _____ Date: _____
 Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-182663-1

Login Number: 182663

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 03/31/23 12:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 6/6/2023 8:52:42 AM Revision 1

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-182753-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

Generated
6/6/2023 8:52:42 AM
Revision 1

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Qualifiers

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.

General Chemistry

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.

Rad

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

Glossary

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Job ID: 240-182753-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-182753-1

Revised 6/06/2023 to include Calcium per client request.

Receipt

The samples were received on 3/31/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.6° C, 1.8° C, 2.1° C and 2.4° C.

RAD

Methods 9315: Radium-226 batch 606031: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 96152-F-20230328-01 (240-182753-1), 2016-07-F-20230328-01 (240-182753-2), 2016-06-F-20230328-01 (240-182753-3), EB-001-F-20230328-01 (240-182753-4), 2016-04-F-20230329-01 (240-182753-5), 2016-03-F-20230329-01 (240-182753-6), 96157-F-20230329-01 (240-182753-7), 96158-F-20230329-01 (240-182753-8), DUP-002-96158-F-20230329-01 (240-182753-9), 2016-05-F-20230329-01 (240-182753-10), EB-001-F-20230329-01 (240-182753-11), (LCS 160-606031/2-A), (LCSD 160-606031/24-A), (MB 160-606031/1-A)

Methods 9320: Radium-228 batch 606038: The LCS recovered at (130%). 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 (62-148%) per method requirements. The LCS passes, no further action is required. (LCSD 160-606038/24-A)

Methods 9320: Radium-228 batch 606038: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 96152-F-20230328-01 (240-182753-1), 2016-07-F-20230328-01 (240-182753-2), 2016-06-F-20230328-01 (240-182753-3), EB-001-F-20230328-01 (240-182753-4), 2016-04-F-20230329-01 (240-182753-5), 2016-03-F-20230329-01 (240-182753-6), 96157-F-20230329-01 (240-182753-7), 96158-F-20230329-01 (240-182753-8), DUP-002-96158-F-20230329-01 (240-182753-9), 2016-05-F-20230329-01 (240-182753-10), EB-001-F-20230329-01 (240-182753-11), (LCS 160-606038/2-A), (LCSD 160-606038/24-A), (MB 160-606038/1-A)

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

Metals

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

General Chemistry

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-182753-1	96152-F-20230328-01	Water	03/28/23 10:26	03/31/23 08:00
240-182753-2	2016-07-F-20230328-01	Water	03/28/23 13:02	03/31/23 08:00
240-182753-3	2016-06-F-20230328-01	Water	03/28/23 15:15	03/31/23 08:00
240-182753-4	EB-001-F-20230328-01	Water	03/28/23 15:30	03/31/23 08:00
240-182753-5	2016-04-F-20230329-01	Water	03/29/23 10:32	03/31/23 08:00
240-182753-6	2016-03-F-20230329-01	Water	03/29/23 11:35	03/31/23 08:00
240-182753-7	96157-F-20230329-01	Water	03/29/23 12:59	03/31/23 08:00
240-182753-8	96158-F-20230329-01	Water	03/29/23 13:48	03/31/23 08:00
240-182753-9	DUP-002-96158-F-20230329-01	Water	03/29/23 13:48	03/31/23 08:00
240-182753-10	2016-05-F-20230329-01	Water	03/29/23 14:25	03/31/23 08:00
240-182753-11	EB-001-F-20230329-01	Water	03/29/23 17:00	03/31/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96152-F-20230328-01

Lab Sample ID: 240-182753-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	680		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.3		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.50	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	76		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	3.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2000000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	45000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	3400		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	0.56		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	61		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5500		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2016-07-F-20230328-01

Lab Sample ID: 240-182753-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	440		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	540		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	3.1	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	0.68	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.3		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	35		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4600		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	92		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3300		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	920000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	17000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-07-F-20230328-01 (Continued)

Lab Sample ID: 240-182753-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	30		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1400		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.9		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	18		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	2500		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2016-06-F-20230328-01

Lab Sample ID: 240-182753-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	470		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.93	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	63		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	8.0		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	0.25	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	21		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	1200		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	62		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3300		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	630000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	4400		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	480		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	30		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	640		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	5.5		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	98		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1600		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230328-01

Lab Sample ID: 240-182753-4

No Detections.

Client Sample ID: 2016-04-F-20230329-01

Lab Sample ID: 240-182753-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2900		100	57	ug/L	1		6010D	Total Recoverable
Barium	48		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	3.1	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	0.43	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	30		8.0	1.7	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-04-F-20230329-01 (Continued)

Lab Sample ID: 240-182753-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	94000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	1.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	63000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	550000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	20		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1700		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	2600		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2016-03-F-20230329-01

Lab Sample ID: 240-182753-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2500		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	28		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	34		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	100000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	1.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	7100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	95000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	460000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	22		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1600		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	2500		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96157-F-20230329-01

Lab Sample ID: 240-182753-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	30		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	460		5.0	2.2	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96157-F-20230329-01 (Continued)

Lab Sample ID: 240-182753-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.35	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	2.7	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	12000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	6.6		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	260000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	61000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	330		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	0.82		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	0.87	J	1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	890		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96158-F-20230329-01

Lab Sample ID: 240-182753-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Barium	420		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.73	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	31		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	8.8		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	680000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	62000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	310		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	310		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1100		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1900		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-002-96158-F-20230329-01

Lab Sample ID: 240-182753-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Barium	430		5.0	2.2	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: DUP-002-96158-F-20230329-01 (Continued)

Lab Sample ID: 240-182753-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.67	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	30		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	8.9		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	680000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	63000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1100		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1900		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2016-05-F-20230329-01

Lab Sample ID: 240-182753-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	80	J	100	57	ug/L	1		6010D	Total Recoverable
Arsenic	5.5		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	56		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	4.1	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	2.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	3.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	10		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	24000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	1.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	58000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	59000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	210		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	210		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	6.2		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.13		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	150		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	410		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: EB-001-F-20230329-01

Lab Sample ID: 240-182753-11

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96152-F-20230328-01

Lab Sample ID: 240-182753-1

Date Collected: 03/28/23 10:26

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		04/03/23 14:00	04/06/23 18:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:23	1
Arsenic	3.4	J	5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:23	1
Barium	680		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:23	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:23	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:23	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:23	1
Cobalt	2.3		1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:23	1
Lead	0.50	J	1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:23	1
Lithium	76		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:23	1
Magnesium	15000		1000	200	ug/L		04/03/23 14:00	04/04/23 22:23	1
Molybdenum	3.6	J	5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:23	1
Potassium	8200		1000	220	ug/L		04/03/23 14:00	04/04/23 22:23	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:23	1
Sodium	2000000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:23	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:23	1
Calcium	45000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:23	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	520		5.0	2.6	mg/L			04/04/23 18:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	520		5.0	2.6	mg/L			04/04/23 18:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 18:02	1
Chloride (EPA 300.0)	3400		50	6.4	mg/L			04/25/23 10:32	50
Fluoride (EPA 300.0)	0.56		0.25	0.12	mg/L			04/25/23 10:10	5
Sulfate (EPA 300.0)	61		5.0	1.7	mg/L			04/25/23 10:10	5
Total Dissolved Solids (SM 2540C)	5500		50	39	mg/L			04/04/23 10:45	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.58		0.353	0.381	1.00	0.266	pCi/L	04/04/23 13:56	04/27/23 20:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.7		30 - 110					04/04/23 13:56	04/27/23 20:38	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.26		0.545	0.583	1.00	0.547	pCi/L	04/04/23 14:37	04/26/23 12:04	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96152-F-20230328-01

Lab Sample ID: 240-182753-1

Date Collected: 03/28/23 10:26

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	78.7		30 - 110	04/04/23 14:37	04/26/23 12:04	1
Y Carrier	89.0		30 - 110	04/04/23 14:37	04/26/23 12:04	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	3.84		0.649	0.696	5.00	0.547	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-07-F-20230328-01

Lab Sample ID: 240-182753-2

Date Collected: 03/28/23 13:02

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	440		100	57	ug/L		04/03/23 14:00	04/06/23 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:26	1
Arsenic	3.0	J	5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:26	1
Barium	540		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:26	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:26	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:26	1
Chromium	3.1	J	5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:26	1
Cobalt	0.68	J	1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:26	1
Lead	1.3		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:26	1
Lithium	35		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:26	1
Magnesium	4600		1000	200	ug/L		04/03/23 14:00	04/04/23 22:26	1
Molybdenum	92		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:26	1
Potassium	3300		1000	220	ug/L		04/03/23 14:00	04/04/23 22:26	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:26	1
Sodium	920000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:26	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:26	1
Calcium	17000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:26	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	290		5.0	2.6	mg/L			04/04/23 18:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	260		5.0	2.6	mg/L			04/04/23 18:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	30		5.0	2.6	mg/L			04/04/23 18:06	1
Chloride (EPA 300.0)	1400		20	2.6	mg/L			04/25/23 11:15	20
Fluoride (EPA 300.0)	2.9		0.10	0.048	mg/L			04/25/23 10:53	2
Sulfate (EPA 300.0)	18		2.0	0.70	mg/L			04/25/23 10:53	2
Total Dissolved Solids (SM 2540C)	2500		50	39	mg/L			04/04/23 10:45	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.899		0.350	0.359	1.00	0.385	pCi/L	04/04/23 13:56	04/27/23 20:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.9		30 - 110					04/04/23 13:56	04/27/23 20:38	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.06		0.536	0.545	1.00	0.709	pCi/L	04/04/23 14:37	04/26/23 12:04	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-07-F-20230328-01

Lab Sample ID: 240-182753-2

Date Collected: 03/28/23 13:02

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	73.9		30 - 110	04/04/23 14:37	04/26/23 12:04	1
Y Carrier	84.1		30 - 110	04/04/23 14:37	04/26/23 12:04	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	1.96		(2σ+/-) 0.640	(2σ+/-) 0.653	5.00	0.709	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-06-F-20230328-01

Lab Sample ID: 240-182753-3

Date Collected: 03/28/23 15:15

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	470		100	57	ug/L		04/03/23 14:00	04/06/23 18:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:29	1
Arsenic	0.93	J	5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:29	1
Barium	63		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:29	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:29	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:29	1
Chromium	8.0		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:29	1
Cobalt	0.25	J	1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:29	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:29	1
Lithium	21		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:29	1
Magnesium	1200		1000	200	ug/L		04/03/23 14:00	04/04/23 22:29	1
Molybdenum	62		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:29	1
Potassium	3300		1000	220	ug/L		04/03/23 14:00	04/04/23 22:29	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:29	1
Sodium	630000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:29	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:29	1
Calcium	4400		1000	580	ug/L		04/03/23 14:00	04/04/23 22:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	510		5.0	2.6	mg/L			04/04/23 18:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	480		5.0	2.6	mg/L			04/04/23 18:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	30		5.0	2.6	mg/L			04/04/23 18:10	1
Chloride (EPA 300.0)	640		10	1.3	mg/L			04/25/23 11:58	10
Fluoride (EPA 300.0)	5.5		0.050	0.024	mg/L			04/25/23 11:37	1
Sulfate (EPA 300.0)	98		1.0	0.35	mg/L			04/25/23 11:37	1
Total Dissolved Solids (SM 2540C)	1600		40	31	mg/L			04/04/23 10:45	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.148	U	0.134	0.135	1.00	0.199	pCi/L	04/04/23 13:56	04/27/23 20:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110					04/04/23 13:56	04/27/23 20:40	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.471	U	0.375	0.377	1.00	0.579	pCi/L	04/04/23 14:37	04/26/23 12:04	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-06-F-20230328-01

Lab Sample ID: 240-182753-3

Date Collected: 03/28/23 15:15

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		30 - 110	04/04/23 14:37	04/26/23 12:04	1
Y Carrier	85.2		30 - 110	04/04/23 14:37	04/26/23 12:04	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.619		0.398	0.400	5.00	0.579	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: EB-001-F-20230328-01

Lab Sample ID: 240-182753-4

Date Collected: 03/28/23 15:30

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/03/23 14:00	04/06/23 18:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:32	1
Arsenic	ND		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:32	1
Barium	ND		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:32	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:32	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:32	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:32	1
Cobalt	ND		1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:32	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:32	1
Lithium	ND		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:32	1
Magnesium	ND		1000	200	ug/L		04/03/23 14:00	04/04/23 22:32	1
Molybdenum	ND		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:32	1
Potassium	ND		1000	220	ug/L		04/03/23 14:00	04/04/23 22:32	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:32	1
Sodium	ND		1000	330	ug/L		04/03/23 14:00	04/04/23 22:32	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:32	1
Calcium	ND		1000	580	ug/L		04/03/23 14:00	04/04/23 22:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 18:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 18:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/04/23 18:16	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/25/23 12:20	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/25/23 12:20	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/25/23 12:20	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/04/23 10:45	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0726	U	0.117	0.117	1.00	0.277	pCi/L	04/04/23 13:56	04/27/23 20:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.2		30 - 110					04/04/23 13:56	04/27/23 20:40	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.343	U	0.362	0.363	1.00	0.586	pCi/L	04/04/23 14:37	04/26/23 12:05	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: EB-001-F-20230328-01

Lab Sample ID: 240-182753-4

Date Collected: 03/28/23 15:30

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	76.2		30 - 110	04/04/23 14:37	04/26/23 12:05	1
Y Carrier	81.9		30 - 110	04/04/23 14:37	04/26/23 12:05	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.270	U	0.380	0.381	5.00	0.586	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-04-F-20230329-01

Lab Sample ID: 240-182753-5

Date Collected: 03/29/23 10:32

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2900		100	57	ug/L		04/03/23 14:00	04/06/23 19:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:35	1
Arsenic	ND		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:35	1
Barium	48		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:35	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:35	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:35	1
Chromium	3.1	J	5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:35	1
Cobalt	0.43	J	1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:35	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:35	1
Lithium	30		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:35	1
Magnesium	94000		1000	200	ug/L		04/03/23 14:00	04/04/23 22:35	1
Molybdenum	1.6	J	5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:35	1
Potassium	8600		1000	220	ug/L		04/03/23 14:00	04/04/23 22:35	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:35	1
Sodium	63000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:35	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:35	1
Calcium	550000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	250		5.0	2.6	mg/L			04/06/23 15:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	250		5.0	2.6	mg/L			04/06/23 15:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 15:35	1
Chloride (EPA 300.0)	20		1.0	0.13	mg/L			04/25/23 14:09	1
Fluoride (EPA 300.0)	0.10		0.050	0.024	mg/L			04/25/23 14:09	1
Sulfate (EPA 300.0)	1700		10	3.5	mg/L			04/25/23 14:30	10
Total Dissolved Solids (SM 2540C)	2600		20	16	mg/L			04/05/23 15:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.186	U	0.137	0.138	1.00	0.189	pCi/L	04/04/23 13:56	04/27/23 20:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110					04/04/23 13:56	04/27/23 20:42	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.577		0.348	0.352	1.00	0.506	pCi/L	04/04/23 14:37	04/26/23 12:05	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-04-F-20230329-01

Lab Sample ID: 240-182753-5

Date Collected: 03/29/23 10:32

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110	04/04/23 14:37	04/26/23 12:05	1
Y Carrier	87.5		30 - 110	04/04/23 14:37	04/26/23 12:05	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.763		0.374	0.378	5.00	0.506	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-03-F-20230329-01

Lab Sample ID: 240-182753-6

Date Collected: 03/29/23 11:35

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2500		100	57	ug/L		04/03/23 14:00	04/06/23 19:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:38	1
Arsenic	1.4	J	5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:38	1
Barium	28		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:38	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:38	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:38	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:38	1
Cobalt	1.1		1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:38	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:38	1
Lithium	34		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:38	1
Magnesium	100000		1000	200	ug/L		04/03/23 14:00	04/04/23 22:38	1
Molybdenum	1.6	J	5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:38	1
Potassium	7100		1000	220	ug/L		04/03/23 14:00	04/04/23 22:38	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:38	1
Sodium	95000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:38	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:38	1
Calcium	460000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:38	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	250		5.0	2.6	mg/L			04/06/23 15:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	250		5.0	2.6	mg/L			04/06/23 15:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 15:48	1
Chloride (EPA 300.0)	22		1.0	0.13	mg/L			04/25/23 14:52	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			04/25/23 14:52	1
Sulfate (EPA 300.0)	1600		10	3.5	mg/L			04/25/23 15:14	10
Total Dissolved Solids (SM 2540C)	2500		20	16	mg/L			04/05/23 15:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.303		0.172	0.174	1.00	0.213	pCi/L	04/04/23 13:56	04/27/23 20:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					04/04/23 13:56	04/27/23 20:42	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.522		0.345	0.348	1.00	0.511	pCi/L	04/04/23 14:37	04/26/23 12:05	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-03-F-20230329-01

Lab Sample ID: 240-182753-6

Date Collected: 03/29/23 11:35

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110	04/04/23 14:37	04/26/23 12:05	1
Y Carrier	89.3		30 - 110	04/04/23 14:37	04/26/23 12:05	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.825		0.385	0.389	5.00	0.511	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96157-F-20230329-01

Lab Sample ID: 240-182753-7

Date Collected: 03/29/23 12:59

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130		100	57	ug/L		04/03/23 14:00	04/06/23 19:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:41	1
Arsenic	30		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:41	1
Barium	460		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:41	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:41	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:41	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:41	1
Cobalt	0.35	J	1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:41	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:41	1
Lithium	2.7	J	8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:41	1
Magnesium	12000		1000	200	ug/L		04/03/23 14:00	04/04/23 22:41	1
Molybdenum	6.6		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:41	1
Potassium	1600		1000	220	ug/L		04/03/23 14:00	04/04/23 22:41	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:41	1
Sodium	260000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:41	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:41	1
Calcium	61000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	340		5.0	2.6	mg/L			04/06/23 15:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	340		5.0	2.6	mg/L			04/06/23 15:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 15:58	1
Chloride (EPA 300.0)	330		5.0	0.64	mg/L			04/25/23 15:57	5
Fluoride (EPA 300.0)	0.82		0.050	0.024	mg/L			04/25/23 15:35	1
Sulfate (EPA 300.0)	0.87	J	1.0	0.35	mg/L			04/25/23 15:35	1
Total Dissolved Solids (SM 2540C)	890		20	16	mg/L			04/05/23 15:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.546		0.255	0.259	1.00	0.290	pCi/L	04/04/23 13:56	04/27/23 20:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					04/04/23 13:56	04/27/23 20:42	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.710		0.455	0.460	1.00	0.665	pCi/L	04/04/23 14:37	04/26/23 12:05	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96157-F-20230329-01

Lab Sample ID: 240-182753-7

Date Collected: 03/29/23 12:59

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110	04/04/23 14:37	04/26/23 12:05	1
Y Carrier	87.1		30 - 110	04/04/23 14:37	04/26/23 12:05	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.26		0.522	0.528	5.00	0.665	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96158-F-20230329-01

Lab Sample ID: 240-182753-8

Date Collected: 03/29/23 13:48

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		04/03/23 14:00	04/06/23 19:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:44	1
Arsenic	ND		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:44	1
Barium	420		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:44	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:44	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:44	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:44	1
Cobalt	0.73	J	1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:44	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:44	1
Lithium	31		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:44	1
Magnesium	13000		1000	200	ug/L		04/03/23 14:00	04/04/23 22:44	1
Molybdenum	8.8		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:44	1
Potassium	3200		1000	220	ug/L		04/03/23 14:00	04/04/23 22:44	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:44	1
Sodium	680000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:44	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:44	1
Calcium	62000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	310		5.0	2.6	mg/L			04/06/23 16:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	310		5.0	2.6	mg/L			04/06/23 16:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 16:03	1
Chloride (EPA 300.0)	1100		10	1.3	mg/L			04/25/23 16:40	10
Fluoride (EPA 300.0)	1.2		0.050	0.024	mg/L			04/25/23 16:19	1
Sulfate (EPA 300.0)	16		1.0	0.35	mg/L			04/25/23 16:19	1
Total Dissolved Solids (SM 2540C)	1900		40	31	mg/L			04/05/23 15:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.809		0.282	0.291	1.00	0.275	pCi/L	04/04/23 13:56	04/27/23 20:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		30 - 110					04/04/23 13:56	04/27/23 20:42	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.44		0.521	0.538	1.00	0.635	pCi/L	04/04/23 14:37	04/26/23 12:06	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96158-F-20230329-01

Lab Sample ID: 240-182753-8

Date Collected: 03/29/23 13:48

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		30 - 110	04/04/23 14:37	04/26/23 12:06	1
Y Carrier	83.0		30 - 110	04/04/23 14:37	04/26/23 12:06	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	2.25		0.592	0.612	5.00	0.635	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: DUP-002-96158-F-20230329-01

Lab Sample ID: 240-182753-9

Date Collected: 03/29/23 13:48

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		04/03/23 14:00	04/06/23 19:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:47	1
Arsenic	ND		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:47	1
Barium	430		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:47	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:47	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:47	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:47	1
Cobalt	0.67	J	1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:47	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:47	1
Lithium	30		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:47	1
Magnesium	13000		1000	200	ug/L		04/03/23 14:00	04/04/23 22:47	1
Molybdenum	8.9		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:47	1
Potassium	3100		1000	220	ug/L		04/03/23 14:00	04/04/23 22:47	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:47	1
Sodium	680000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:47	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:47	1
Calcium	63000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	320		5.0	2.6	mg/L			04/06/23 16:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	320		5.0	2.6	mg/L			04/06/23 16:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 16:09	1
Chloride (EPA 300.0)	1100		10	1.3	mg/L			04/25/23 18:07	10
Fluoride (EPA 300.0)	1.2		0.050	0.024	mg/L			04/25/23 17:02	1
Sulfate (EPA 300.0)	16		1.0	0.35	mg/L			04/25/23 17:02	1
Total Dissolved Solids (SM 2540C)	1900		40	31	mg/L			04/05/23 15:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.17		0.266	0.286	1.00	0.149	pCi/L	04/04/23 13:56	04/27/23 20:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		30 - 110					04/04/23 13:56	04/27/23 20:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.28		0.408	0.425	1.00	0.480	pCi/L	04/04/23 14:37	04/26/23 12:06	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: DUP-002-96158-F-20230329-01

Lab Sample ID: 240-182753-9

Date Collected: 03/29/23 13:48

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		30 - 110	04/04/23 14:37	04/26/23 12:06	1
Y Carrier	86.7		30 - 110	04/04/23 14:37	04/26/23 12:06	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	2.46		0.487	0.512	5.00	0.480	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-05-F-20230329-01

Lab Sample ID: 240-182753-10

Date Collected: 03/29/23 14:25

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	80	J	100	57	ug/L		04/03/23 14:00	04/06/23 19:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:56	1
Arsenic	5.5		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:56	1
Barium	56		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:56	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:56	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:56	1
Chromium	4.1	J	5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:56	1
Cobalt	2.7		1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:56	1
Lead	3.6		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:56	1
Lithium	10		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:56	1
Magnesium	24000		1000	200	ug/L		04/03/23 14:00	04/04/23 22:56	1
Molybdenum	1.4	J	5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:56	1
Potassium	2500		1000	220	ug/L		04/03/23 14:00	04/04/23 22:56	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:56	1
Sodium	58000		1000	330	ug/L		04/03/23 14:00	04/04/23 22:56	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:56	1
Calcium	59000		1000	580	ug/L		04/03/23 14:00	04/04/23 22:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	210		5.0	2.6	mg/L			04/06/23 16:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	210		5.0	2.6	mg/L			04/06/23 16:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 16:14	1
Chloride (EPA 300.0)	6.2		1.0	0.13	mg/L			04/25/23 18:29	1
Fluoride (EPA 300.0)	0.13		0.050	0.024	mg/L			04/25/23 18:29	1
Sulfate (EPA 300.0)	150		1.0	0.35	mg/L			04/25/23 18:29	1
Total Dissolved Solids (SM 2540C)	410		10	7.8	mg/L			04/05/23 15:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.151	U	0.162	0.163	1.00	0.257	pCi/L	04/04/23 13:56	04/27/23 20:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		30 - 110					04/04/23 13:56	04/27/23 20:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.178	U	0.333	0.333	1.00	0.579	pCi/L	04/04/23 14:37	04/26/23 12:06	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-05-F-20230329-01

Lab Sample ID: 240-182753-10

Date Collected: 03/29/23 14:25

Matrix: Water

Date Received: 03/31/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		30 - 110	04/04/23 14:37	04/26/23 12:06	1
Y Carrier	84.5		30 - 110	04/04/23 14:37	04/26/23 12:06	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.330	U	0.370	0.371	5.00	0.579	pCi/L		04/28/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: EB-001-F-20230329-01

Lab Sample ID: 240-182753-11

Date Collected: 03/29/23 17:00

Matrix: Water

Date Received: 03/31/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/03/23 14:00	04/06/23 19:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 22:59	1
Arsenic	ND		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 22:59	1
Barium	ND		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 22:59	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 22:59	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:59	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 22:59	1
Cobalt	ND		1.0	0.19	ug/L		04/03/23 14:00	04/04/23 22:59	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 22:59	1
Lithium	ND		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 22:59	1
Magnesium	ND		1000	200	ug/L		04/03/23 14:00	04/04/23 22:59	1
Molybdenum	ND		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 22:59	1
Potassium	ND		1000	220	ug/L		04/03/23 14:00	04/04/23 22:59	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 22:59	1
Sodium	ND		1000	330	ug/L		04/03/23 14:00	04/04/23 22:59	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 22:59	1
Calcium	ND		1000	580	ug/L		04/03/23 14:00	04/04/23 22:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 16:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 16:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 16:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 16:18	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/25/23 19:12	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/25/23 19:12	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/25/23 19:12	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/05/23 15:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0849	U	0.0998	0.100	1.00	0.159	pCi/L	04/04/23 13:56	04/27/23 20:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		30 - 110					04/04/23 13:56	04/27/23 20:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.274	U	0.281	0.282	1.00	0.453	pCi/L	04/04/23 14:37	04/26/23 12:07	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: EB-001-F-20230329-01

Lab Sample ID: 240-182753-11

Date Collected: 03/29/23 17:00

Matrix: Water

Date Received: 03/31/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	92.2		30 - 110	04/04/23 14:37	04/26/23 12:07	1
Y Carrier	90.8		30 - 110	04/04/23 14:37	04/26/23 12:07	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	0.358	U	0.298	0.299	5.00	0.453	pCi/L		04/28/23 13:20	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	
240-182753-1	96152-F-20230328-01	78.7	
240-182753-2	2016-07-F-20230328-01	73.9	
240-182753-3	2016-06-F-20230328-01	82.0	
240-182753-4	EB-001-F-20230328-01	76.2	
240-182753-5	2016-04-F-20230329-01	92.7	
240-182753-6	2016-03-F-20230329-01	85.6	
240-182753-7	96157-F-20230329-01	85.6	
240-182753-8	96158-F-20230329-01	98.5	
240-182753-9	DUP-002-96158-F-20230329-01	98.2	
240-182753-10	2016-05-F-20230329-01	95.4	
240-182753-11	EB-001-F-20230329-01	92.2	
LCS 160-606031/2-A	Lab Control Sample	96.5	
LCSD 160-606031/24-A	Lab Control Sample Dup	98.5	
MB 160-606031/1-A	Method Blank	95.4	

Tracer/Carrier Legend
 Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
240-182753-1	96152-F-20230328-01	78.7	89.0
240-182753-2	2016-07-F-20230328-01	73.9	84.1
240-182753-3	2016-06-F-20230328-01	82.0	85.2
240-182753-4	EB-001-F-20230328-01	76.2	81.9
240-182753-5	2016-04-F-20230329-01	92.7	87.5
240-182753-6	2016-03-F-20230329-01	85.6	89.3
240-182753-7	96157-F-20230329-01	85.6	87.1
240-182753-8	96158-F-20230329-01	98.5	83.0
240-182753-9	DUP-002-96158-F-20230329-01	98.2	86.7
240-182753-10	2016-05-F-20230329-01	95.4	84.5
240-182753-11	EB-001-F-20230329-01	92.2	90.8
LCS 160-606038/2-A	Lab Control Sample	96.5	80.7
LCSD 160-606038/24-A	Lab Control Sample Dup	98.5	85.2
MB 160-606038/1-A	Method Blank	95.4	83.0

Tracer/Carrier Legend
 Ba = Ba Carrier
 Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-567737/1-A
Matrix: Water
Analysis Batch: 568408

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 567737

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/03/23 14:00	04/06/23 17:20	1

Lab Sample ID: LCS 240-567737/2-A
Matrix: Water
Analysis Batch: 568408

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 567737

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

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-567737/1-A
Matrix: Water
Analysis Batch: 568014

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 567737

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/03/23 14:00	04/04/23 21:17	1
Arsenic	ND		5.0	0.75	ug/L		04/03/23 14:00	04/04/23 21:17	1
Barium	ND		5.0	2.2	ug/L		04/03/23 14:00	04/04/23 21:17	1
Beryllium	ND		1.0	0.62	ug/L		04/03/23 14:00	04/04/23 21:17	1
Cadmium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 21:17	1
Chromium	ND		5.0	2.5	ug/L		04/03/23 14:00	04/04/23 21:17	1
Cobalt	ND		1.0	0.19	ug/L		04/03/23 14:00	04/04/23 21:17	1
Lead	ND		1.0	0.45	ug/L		04/03/23 14:00	04/04/23 21:17	1
Lithium	ND		8.0	1.7	ug/L		04/03/23 14:00	04/04/23 21:17	1
Magnesium	ND		1000	200	ug/L		04/03/23 14:00	04/04/23 21:17	1
Molybdenum	ND		5.0	1.1	ug/L		04/03/23 14:00	04/04/23 21:17	1
Potassium	ND		1000	220	ug/L		04/03/23 14:00	04/04/23 21:17	1
Selenium	ND		5.0	0.89	ug/L		04/03/23 14:00	04/04/23 21:17	1
Sodium	ND		1000	330	ug/L		04/03/23 14:00	04/04/23 21:17	1
Thallium	ND		1.0	0.20	ug/L		04/03/23 14:00	04/04/23 21:17	1
Calcium	ND		1000	580	ug/L		04/03/23 14:00	04/04/23 21:17	1

Lab Sample ID: LCS 240-567737/3-A
Matrix: Water
Analysis Batch: 568014

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 567737

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	105		ug/L		105	80 - 120
Arsenic	1000	952		ug/L		95	80 - 120
Barium	1000	974		ug/L		97	80 - 120
Beryllium	500	499		ug/L		100	80 - 120
Cadmium	500	491		ug/L		98	80 - 120
Chromium	500	498		ug/L		100	80 - 120
Cobalt	500	478		ug/L		96	80 - 120
Lead	500	453		ug/L		91	80 - 120
Lithium	500	511		ug/L		102	80 - 120
Magnesium	25000	24200		ug/L		97	80 - 120
Molybdenum	500	491		ug/L		98	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

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

Lab Sample ID: LCS 240-567737/3-A
 Matrix: Water
 Analysis Batch: 568014

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 567737

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	25000	24100		ug/L		97	80 - 120
Selenium	1000	940		ug/L		94	80 - 120
Sodium	25000	24100		ug/L		96	80 - 120
Thallium	1000	934		ug/L		93	80 - 120
Calcium	25000	23800		ug/L		95	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-567738/1-A
 Matrix: Water
 Analysis Batch: 567938

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 567738

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/03/23 14:00	04/04/23 15:56	1

Lab Sample ID: LCS 240-567738/2-A
 Matrix: Water
 Analysis Batch: 567938

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 567738

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.18		ug/L		104	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-567986/29
 Matrix: Water
 Analysis Batch: 567986

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/04/23 14:28	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 14:28	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 14:28	1

Lab Sample ID: MB 240-567986/55
 Matrix: Water
 Analysis Batch: 567986

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/04/23 16:17	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 16:17	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/04/23 16:17	1

Lab Sample ID: LCS 240-567986/54
 Matrix: Water
 Analysis Batch: 567986

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	141		mg/L		97	86 - 123

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-568411/30
Matrix: Water
Analysis Batch: 568411

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/06/23 15:43	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 15:43	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 15:43	1

Lab Sample ID: MB 240-568411/4
Matrix: Water
Analysis Batch: 568411

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/06/23 13:54	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 13:54	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 13:54	1

Lab Sample ID: LCS 240-568411/29
Matrix: Water
Analysis Batch: 568411

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	136		mg/L		93	86 - 123

Lab Sample ID: LCS 240-568411/3
Matrix: Water
Analysis Batch: 568411

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	139		mg/L		95	86 - 123

Lab Sample ID: 240-182753-6 DU
Matrix: Water
Analysis Batch: 568411

Client Sample ID: 2016-03-F-20230329-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Alkalinity	250		257		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	250		257		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-570647/3
Matrix: Water
Analysis Batch: 570647

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/25/23 09:27	1
Fluoride	ND		0.050	0.024	mg/L			04/25/23 09:27	1
Sulfate	ND		1.0	0.35	mg/L			04/25/23 09:27	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-570647/4
 Matrix: Water
 Analysis Batch: 570647

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.0		mg/L		98	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Sulfate	50.0	50.3		mg/L		101	90 - 110

Lab Sample ID: 240-182753-4 MS
 Matrix: Water
 Analysis Batch: 570647

Client Sample ID: EB-001-F-20230328-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		50.0	54.0		mg/L		108	80 - 120
Fluoride	ND		2.50	2.82		mg/L		113	80 - 120
Sulfate	ND		50.0	53.9		mg/L		108	80 - 120

Lab Sample ID: 240-182753-4 MSD
 Matrix: Water
 Analysis Batch: 570647

Client Sample ID: EB-001-F-20230328-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	53.9		mg/L		108	80 - 120	0	15
Fluoride	ND		2.50	2.82		mg/L		113	80 - 120	0	15
Sulfate	ND		50.0	53.7		mg/L		107	80 - 120	0	15

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

Lab Sample ID: MB 240-567933/1
 Matrix: Water
 Analysis Batch: 567933

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	ND		10	7.8	mg/L			04/04/23 10:45	1

Lab Sample ID: LCS 240-567933/2
 Matrix: Water
 Analysis Batch: 567933

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	538		mg/L		93	80 - 120

Lab Sample ID: MB 240-568147/1
 Matrix: Water
 Analysis Batch: 568147

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	ND		10	7.8	mg/L			04/05/23 15:29	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

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

Lab Sample ID: LCS 240-568147/2
 Matrix: Water
 Analysis Batch: 568147

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	537		mg/L		93	80 - 120

Lab Sample ID: 240-182753-6 DU
 Matrix: Water
 Analysis Batch: 568147

Client Sample ID: 2016-03-F-20230329-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2500		2480		mg/L		0.7	20

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-606031/1-A
 Matrix: Water
 Analysis Batch: 609050

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 606031

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01132	U	0.115	0.115	1.00	0.226	pCi/L	04/04/23 13:56	04/27/23 20:38	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		30 - 110					04/04/23 13:56	04/27/23 20:38	1

Lab Sample ID: LCS 160-606031/2-A
 Matrix: Water
 Analysis Batch: 609050

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 606031

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.12		1.19	1.00	0.215	pCi/L	89	70 - 113
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.5		30 - 110						

Lab Sample ID: LCSD 160-606031/24-A
 Matrix: Water
 Analysis Batch: 609154

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 606031

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	11.3	10.12		1.19	1.00	0.197	pCi/L	89	70 - 113	0	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	98.5		30 - 110								

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-606038/1-A
Matrix: Water
Analysis Batch: 608870

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606038

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac	
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)							
Radium-228	0.3684	U	0.288	0.290	1.00	0.438	pCi/L	04/04/23 14:37	04/26/23 11:43	1	
Carrier	MB	MB	Limits				Prepared		Analyzed		Dil Fac
	%Yield	Qualifier									
Ba Carrier	95.4		30 - 110				04/04/23 14:37		04/26/23 11:43		1
Y Carrier	83.0		30 - 110				04/04/23 14:37		04/26/23 11:43		1

Lab Sample ID: LCS 160-606038/2-A
Matrix: Water
Analysis Batch: 608870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606038

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits	
				Uncert. (2σ+/-)						
Radium-228	8.00	9.345		1.26	1.00	0.441	pCi/L	117	75 - 125	
Carrier	LCS	LCS	Limits							
	%Yield	Qualifier								
Ba Carrier	96.5		30 - 110							
Y Carrier	80.7		30 - 110							

Lab Sample ID: LCSD 160-606038/24-A
Matrix: Water
Analysis Batch: 608926

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 606038

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER
				Uncert. (2σ+/-)							Limit
Radium-228	8.00	10.38		1.33	1.00	0.463	pCi/L	130	75 - 125	0.40	1
Carrier	LCSD	LCSD	Limits								
	%Yield	Qualifier									
Ba Carrier	98.5		30 - 110								
Y Carrier	85.2		30 - 110								

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Metals

Prep Batch: 567737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total Recoverable	Water	3005A	
240-182753-2	2016-07-F-20230328-01	Total Recoverable	Water	3005A	
240-182753-3	2016-06-F-20230328-01	Total Recoverable	Water	3005A	
240-182753-4	EB-001-F-20230328-01	Total Recoverable	Water	3005A	
240-182753-5	2016-04-F-20230329-01	Total Recoverable	Water	3005A	
240-182753-6	2016-03-F-20230329-01	Total Recoverable	Water	3005A	
240-182753-7	96157-F-20230329-01	Total Recoverable	Water	3005A	
240-182753-8	96158-F-20230329-01	Total Recoverable	Water	3005A	
240-182753-9	DUP-002-96158-F-20230329-01	Total Recoverable	Water	3005A	
240-182753-10	2016-05-F-20230329-01	Total Recoverable	Water	3005A	
240-182753-11	EB-001-F-20230329-01	Total Recoverable	Water	3005A	
MB 240-567737/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-567737/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-567737/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 567738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total/NA	Water	7470A	
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	7470A	
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	7470A	
240-182753-4	EB-001-F-20230328-01	Total/NA	Water	7470A	
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	7470A	
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	7470A	
240-182753-7	96157-F-20230329-01	Total/NA	Water	7470A	
240-182753-8	96158-F-20230329-01	Total/NA	Water	7470A	
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	7470A	
240-182753-10	2016-05-F-20230329-01	Total/NA	Water	7470A	
240-182753-11	EB-001-F-20230329-01	Total/NA	Water	7470A	
MB 240-567738/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-567738/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 567938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total/NA	Water	7470A	567738
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	7470A	567738
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	7470A	567738
240-182753-4	EB-001-F-20230328-01	Total/NA	Water	7470A	567738
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	7470A	567738
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	7470A	567738
240-182753-7	96157-F-20230329-01	Total/NA	Water	7470A	567738
240-182753-8	96158-F-20230329-01	Total/NA	Water	7470A	567738
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	7470A	567738
240-182753-10	2016-05-F-20230329-01	Total/NA	Water	7470A	567738
240-182753-11	EB-001-F-20230329-01	Total/NA	Water	7470A	567738
MB 240-567738/1-A	Method Blank	Total/NA	Water	7470A	567738
LCS 240-567738/2-A	Lab Control Sample	Total/NA	Water	7470A	567738

Analysis Batch: 568014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total Recoverable	Water	6020B	567737
240-182753-2	2016-07-F-20230328-01	Total Recoverable	Water	6020B	567737

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Metals (Continued)

Analysis Batch: 568014 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-3	2016-06-F-20230328-01	Total Recoverable	Water	6020B	567737
240-182753-4	EB-001-F-20230328-01	Total Recoverable	Water	6020B	567737
240-182753-5	2016-04-F-20230329-01	Total Recoverable	Water	6020B	567737
240-182753-6	2016-03-F-20230329-01	Total Recoverable	Water	6020B	567737
240-182753-7	96157-F-20230329-01	Total Recoverable	Water	6020B	567737
240-182753-8	96158-F-20230329-01	Total Recoverable	Water	6020B	567737
240-182753-9	DUP-002-96158-F-20230329-01	Total Recoverable	Water	6020B	567737
240-182753-10	2016-05-F-20230329-01	Total Recoverable	Water	6020B	567737
240-182753-11	EB-001-F-20230329-01	Total Recoverable	Water	6020B	567737
MB 240-567737/1-A	Method Blank	Total Recoverable	Water	6020B	567737
LCS 240-567737/3-A	Lab Control Sample	Total Recoverable	Water	6020B	567737

Analysis Batch: 568408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total Recoverable	Water	6010D	567737
240-182753-2	2016-07-F-20230328-01	Total Recoverable	Water	6010D	567737
240-182753-3	2016-06-F-20230328-01	Total Recoverable	Water	6010D	567737
240-182753-4	EB-001-F-20230328-01	Total Recoverable	Water	6010D	567737
240-182753-5	2016-04-F-20230329-01	Total Recoverable	Water	6010D	567737
240-182753-6	2016-03-F-20230329-01	Total Recoverable	Water	6010D	567737
240-182753-7	96157-F-20230329-01	Total Recoverable	Water	6010D	567737
240-182753-8	96158-F-20230329-01	Total Recoverable	Water	6010D	567737
240-182753-9	DUP-002-96158-F-20230329-01	Total Recoverable	Water	6010D	567737
240-182753-10	2016-05-F-20230329-01	Total Recoverable	Water	6010D	567737
240-182753-11	EB-001-F-20230329-01	Total Recoverable	Water	6010D	567737
MB 240-567737/1-A	Method Blank	Total Recoverable	Water	6010D	567737
LCS 240-567737/2-A	Lab Control Sample	Total Recoverable	Water	6010D	567737

General Chemistry

Analysis Batch: 567933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total/NA	Water	SM 2540C	
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	SM 2540C	
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	SM 2540C	
240-182753-4	EB-001-F-20230328-01	Total/NA	Water	SM 2540C	
MB 240-567933/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-567933/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 567986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total/NA	Water	2320B-1997	
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	2320B-1997	
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	2320B-1997	
240-182753-4	EB-001-F-20230328-01	Total/NA	Water	2320B-1997	
MB 240-567986/29	Method Blank	Total/NA	Water	2320B-1997	
MB 240-567986/55	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-567986/54	Lab Control Sample	Total/NA	Water	2320B-1997	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

General Chemistry

Analysis Batch: 568147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	SM 2540C	
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	SM 2540C	
240-182753-7	96157-F-20230329-01	Total/NA	Water	SM 2540C	
240-182753-8	96158-F-20230329-01	Total/NA	Water	SM 2540C	
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	SM 2540C	
240-182753-10	2016-05-F-20230329-01	Total/NA	Water	SM 2540C	
240-182753-11	EB-001-F-20230329-01	Total/NA	Water	SM 2540C	
MB 240-568147/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-568147/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-182753-6 DU	2016-03-F-20230329-01	Total/NA	Water	SM 2540C	

Analysis Batch: 568411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	2320B-1997	
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	2320B-1997	
240-182753-7	96157-F-20230329-01	Total/NA	Water	2320B-1997	
240-182753-8	96158-F-20230329-01	Total/NA	Water	2320B-1997	
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	2320B-1997	
240-182753-10	2016-05-F-20230329-01	Total/NA	Water	2320B-1997	
240-182753-11	EB-001-F-20230329-01	Total/NA	Water	2320B-1997	
MB 240-568411/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-568411/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-568411/29	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-568411/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-182753-6 DU	2016-03-F-20230329-01	Total/NA	Water	2320B-1997	

Analysis Batch: 570647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total/NA	Water	300.0	
240-182753-1	96152-F-20230328-01	Total/NA	Water	300.0	
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	300.0	
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	300.0	
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	300.0	
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	300.0	
240-182753-4	EB-001-F-20230328-01	Total/NA	Water	300.0	
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	300.0	
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	300.0	
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	300.0	
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	300.0	
240-182753-7	96157-F-20230329-01	Total/NA	Water	300.0	
240-182753-7	96157-F-20230329-01	Total/NA	Water	300.0	
240-182753-8	96158-F-20230329-01	Total/NA	Water	300.0	
240-182753-8	96158-F-20230329-01	Total/NA	Water	300.0	
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	300.0	
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	300.0	
240-182753-10	2016-05-F-20230329-01	Total/NA	Water	300.0	
240-182753-11	EB-001-F-20230329-01	Total/NA	Water	300.0	
MB 240-570647/3	Method Blank	Total/NA	Water	300.0	
LCS 240-570647/4	Lab Control Sample	Total/NA	Water	300.0	
240-182753-4 MS	EB-001-F-20230328-01	Total/NA	Water	300.0	
240-182753-4 MSD	EB-001-F-20230328-01	Total/NA	Water	300.0	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Rad

Prep Batch: 606031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total/NA	Water	PrecSep-21	
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	PrecSep-21	
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	PrecSep-21	
240-182753-4	EB-001-F-20230328-01	Total/NA	Water	PrecSep-21	
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	PrecSep-21	
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	PrecSep-21	
240-182753-7	96157-F-20230329-01	Total/NA	Water	PrecSep-21	
240-182753-8	96158-F-20230329-01	Total/NA	Water	PrecSep-21	
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	PrecSep-21	
240-182753-10	2016-05-F-20230329-01	Total/NA	Water	PrecSep-21	
240-182753-11	EB-001-F-20230329-01	Total/NA	Water	PrecSep-21	
MB 160-606031/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-606031/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-606031/24-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 606038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182753-1	96152-F-20230328-01	Total/NA	Water	PrecSep_0	
240-182753-2	2016-07-F-20230328-01	Total/NA	Water	PrecSep_0	
240-182753-3	2016-06-F-20230328-01	Total/NA	Water	PrecSep_0	
240-182753-4	EB-001-F-20230328-01	Total/NA	Water	PrecSep_0	
240-182753-5	2016-04-F-20230329-01	Total/NA	Water	PrecSep_0	
240-182753-6	2016-03-F-20230329-01	Total/NA	Water	PrecSep_0	
240-182753-7	96157-F-20230329-01	Total/NA	Water	PrecSep_0	
240-182753-8	96158-F-20230329-01	Total/NA	Water	PrecSep_0	
240-182753-9	DUP-002-96158-F-20230329-01	Total/NA	Water	PrecSep_0	
240-182753-10	2016-05-F-20230329-01	Total/NA	Water	PrecSep_0	
240-182753-11	EB-001-F-20230329-01	Total/NA	Water	PrecSep_0	
MB 160-606038/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-606038/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-606038/24-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96152-F-20230328-01
Date Collected: 03/28/23 10:26
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 18:36
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:23
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:28
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 18:02
Total/NA	Analysis	300.0		5	570647	JMB	EET CLE	04/25/23 10:10
Total/NA	Analysis	300.0		50	570647	JMB	EET CLE	04/25/23 10:32
Total/NA	Analysis	SM 2540C		1	567933	GH	EET CLE	04/04/23 10:45
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609050	FLC	EET SL	04/27/23 20:38
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:04
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: 2016-07-F-20230328-01
Date Collected: 03/28/23 13:02
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 18:40
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:26
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:30
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 18:06
Total/NA	Analysis	300.0		2	570647	JMB	EET CLE	04/25/23 10:53
Total/NA	Analysis	300.0		20	570647	JMB	EET CLE	04/25/23 11:15
Total/NA	Analysis	SM 2540C		1	567933	GH	EET CLE	04/04/23 10:45
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609050	FLC	EET SL	04/27/23 20:38
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:04
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: 2016-06-F-20230328-01
Date Collected: 03/28/23 15:15
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 18:45

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-06-F-20230328-01

Lab Sample ID: 240-182753-3

Date Collected: 03/28/23 15:15

Matrix: Water

Date Received: 03/31/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:29
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:32
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 18:10
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 11:37
Total/NA	Analysis	300.0		10	570647	JMB	EET CLE	04/25/23 11:58
Total/NA	Analysis	SM 2540C		1	567933	GH	EET CLE	04/04/23 10:45
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:40
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:04
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: EB-001-F-20230328-01

Lab Sample ID: 240-182753-4

Date Collected: 03/28/23 15:30

Matrix: Water

Date Received: 03/31/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 18:57
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:32
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:34
Total/NA	Analysis	2320B-1997		1	567986	JMR	EET CLE	04/04/23 18:16
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 12:20
Total/NA	Analysis	SM 2540C		1	567933	GH	EET CLE	04/04/23 10:45
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:40
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:05
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: 2016-04-F-20230329-01

Lab Sample ID: 240-182753-5

Date Collected: 03/29/23 10:32

Matrix: Water

Date Received: 03/31/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 19:01
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:35

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 2016-04-F-20230329-01
Date Collected: 03/29/23 10:32
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:36
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 15:35
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 14:09
Total/NA	Analysis	300.0		10	570647	JMB	EET CLE	04/25/23 14:30
Total/NA	Analysis	SM 2540C		1	568147	GH	EET CLE	04/05/23 15:29
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:42
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:05
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: 2016-03-F-20230329-01
Date Collected: 03/29/23 11:35
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 19:06
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:38
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:38
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 15:48
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 14:52
Total/NA	Analysis	300.0		10	570647	JMB	EET CLE	04/25/23 15:14
Total/NA	Analysis	SM 2540C		1	568147	GH	EET CLE	04/05/23 15:29
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:42
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:05
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: 96157-F-20230329-01
Date Collected: 03/29/23 12:59
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 19:10
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:41
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:45

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: 96157-F-20230329-01
Date Collected: 03/29/23 12:59
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 15:58
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 15:35
Total/NA	Analysis	300.0		5	570647	JMB	EET CLE	04/25/23 15:57
Total/NA	Analysis	SM 2540C		1	568147	GH	EET CLE	04/05/23 15:29
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:42
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:05
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: 96158-F-20230329-01
Date Collected: 03/29/23 13:48
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 19:15
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:44
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:47
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 16:03
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 16:19
Total/NA	Analysis	300.0		10	570647	JMB	EET CLE	04/25/23 16:40
Total/NA	Analysis	SM 2540C		1	568147	GH	EET CLE	04/05/23 15:29
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:42
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:06
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: DUP-002-96158-F-20230329-01
Date Collected: 03/29/23 13:48
Date Received: 03/31/23 08:00

Lab Sample ID: 240-182753-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 19:19
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:47
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:49
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 16:09
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 17:02

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: DUP-002-96158-F-20230329-01

Lab Sample ID: 240-182753-9

Date Collected: 03/29/23 13:48

Matrix: Water

Date Received: 03/31/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		10	570647	JMB	EET CLE	04/25/23 18:07
Total/NA	Analysis	SM 2540C		1	568147	GH	EET CLE	04/05/23 15:29
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:44
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:06
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: 2016-05-F-20230329-01

Lab Sample ID: 240-182753-10

Date Collected: 03/29/23 14:25

Matrix: Water

Date Received: 03/31/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 19:24
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:56
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:51
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 16:14
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 18:29
Total/NA	Analysis	SM 2540C		1	568147	GH	EET CLE	04/05/23 15:29
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:44
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:06
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Client Sample ID: EB-001-F-20230329-01

Lab Sample ID: 240-182753-11

Date Collected: 03/29/23 17:00

Matrix: Water

Date Received: 03/31/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6010D		1	568408	KLC	EET CLE	04/06/23 19:28
Total Recoverable	Prep	3005A			567737	MRL	EET CLE	04/03/23 14:00
Total Recoverable	Analysis	6020B		1	568014	RKT	EET CLE	04/04/23 22:59
Total/NA	Prep	7470A			567738	MRL	EET CLE	04/03/23 14:00
Total/NA	Analysis	7470A		1	567938	DSH	EET CLE	04/04/23 16:53
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 16:18
Total/NA	Analysis	300.0		1	570647	JMB	EET CLE	04/25/23 19:12
Total/NA	Analysis	SM 2540C		1	568147	GH	EET CLE	04/05/23 15:29
Total/NA	Prep	PrecSep-21			606031	DJP	EET SL	04/04/23 13:56
Total/NA	Analysis	9315		1	609152	FLC	EET SL	04/27/23 20:44

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Client Sample ID: EB-001-F-20230329-01

Lab Sample ID: 240-182753-11

Date Collected: 03/29/23 17:00

Matrix: Water

Date Received: 03/31/23 08:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	PrecSep_0			606038	DJP	EET SL	04/04/23 14:37
Total/NA	Analysis	9320		1	608925	FLC	EET SL	04/26/23 12:07
Total/NA	Analysis	Ra226_Ra228		1	609264	EMH	EET SL	04/28/23 13:20

Laboratory References:

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

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



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	04-26-23
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	05-31-23
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	04-30-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	05-24-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	05-07-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182753-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-17-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Client Information		Lab PM: Cisneros, Roxanne		COC No: 240-93018-34502	
Sampler: Bobby Geste		E-Mail: roxanne.cisneros@Eurofins.com		Page: Page 1 of 1	
Phone: 740-373-4308		State of Origin:		Job #:	
PWSID:		Analysis Requested		Preservation Codes:	
Due Date Requested:		Perform MS/MSD (Yes or No)		M - Hexane	
TAT Requested (days):		Field Filtered Sample (Yes or No)		A - HCL	
Compliance Project: Δ Yes Δ No		60108_7470_6020(See Metals List)		B - NaOH	
PO #: 2935505		915_Ra226, 9320_Ra228		C - Zn Acetate	
NO #:		2540C_Calcd, 300.0_28D(Chloride, Fluoride, Sulfate)		D - Nitric Acid	
Project #: 24019633		220B(Carbonate Alkalinity/B-Carbonate Alkalinity)		E - NaHSO4	
SSOW#:		220B(Carbonate Alkalinity/B-Carbonate Alkalinity)		F - MeOH	
Address: 7397 OH-7		Matrix (Water, Solid, Osmetric, AA)		G - Amchlor	
City: Cheshire		Sample Type (C=Comp, G=grab)		H - Ascorbic Acid	
State, Zip: OH, 45620		Sample Time		I - Ice	
Phone: 740-925-3171(Tel)		Sample Date		J - DI Water	
Email: taylor.huffman@lightstonegen.com		Preservation Code:		K - EDTA	
Project Name: Federal - CCR Wells		Sample Identification		L - EDA	
Site: Ohio		96152-F-20230328-01		Other:	
		2016-07-F-20230328-01		Total Number of Containers	
		2016-08-F-20230328-01		Special Instructions/Note:	
		EB-001-F-20230328-01			
		2016-04-F-20230329-01			
		2016-03-F-20230329-01			
		96157-F-20230329-01			
		96158-F-20230329-01			
		DUP-002-96158-F-20230329-01			
		2016-05-F-20230329-01			
		EB-001-F-20230329-01			
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Months	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Time:			
Relinquished by: Bobby Geste		Date: 3-30-23 12:20		Company: EFTA	
Relinquished by: Roxanne Cisneros		Date: 3-31-23 8:00		Company: EFTA	
Relinquished by: Bobby Geste		Date: 3-31-23 8:00		Company: EFTA	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:			



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

Client Lightstone Site Name _____ Cooler unpacked by: Rachelle H.A. det
Cooler Received on 3-31-23 Opened on 3-31-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF 0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

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

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____



Temperature readings:

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
96152-F-20230328-01	240-182753-C-1	Plastic 500ml - with Nitric Acid	<2			
96152-F-20230328-01	240-182753-D-1	Plastic 1 liter - Nitric Acid	<2			
96152-F-20230328-01	240-182753-E-1	Plastic 1 liter - Nitric Acid	<2			
2016-07-F-20230328-01	240-182753-C-2	Plastic 500ml - with Nitric Acid	<2			
2016-07-F-20230328-01	240-182753-D-2	Plastic 1 liter - Nitric Acid	<2			
2016-07-F-20230328-01	240-182753-E-2	Plastic 1 liter - Nitric Acid	<2			
2016-06-F-20230328-01	240-182753-C-3	Plastic 500ml - with Nitric Acid	<2			
2016-06-F-20230328-01	240-182753-D-3	Plastic 1 liter - Nitric Acid	<2			
2016-06-F-20230328-01	240-182753-E-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230328-01	240-182753-C-4	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230328-01	240-182753-D-4	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230328-01	240-182753-E-4	Plastic 1 liter - Nitric Acid	<2			
2016-04-F-20230329-01	240-182753-C-5	Plastic 500ml - with Nitric Acid	<2			
2016-04-F-20230329-01	240-182753-D-5	Plastic 1 liter - Nitric Acid	<2			
2016-04-F-20230329-01	240-182753-E-5	Plastic 1 liter - Nitric Acid	<2			
2016-03-F-20230329-01	240-182753-C-6	Plastic 500ml - with Nitric Acid	<2			
2016-03-F-20230329-01	240-182753-D-6	Plastic 1 liter - Nitric Acid	<2			
2016-03-F-20230329-01	240-182753-E-6	Plastic 1 liter - Nitric Acid	<2			
96157-F-20230329-01	240-182753-C-7	Plastic 500ml - with Nitric Acid	<2			
96157-F-20230329-01	240-182753-D-7	Plastic 1 liter - Nitric Acid	<2			
96157-F-20230329-01	240-182753-E-7	Plastic 1 liter - Nitric Acid	<2			
96158-F-20230329-01	240-182753-C-8	Plastic 500ml - with Nitric Acid	<2			
96158-F-20230329-01	240-182753-D-8	Plastic 1 liter - Nitric Acid	<2			
96158-F-20230329-01	240-182753-E-8	Plastic 1 liter - Nitric Acid	<2			
DUP-002-F-20230329-01	240-182753-C-9	Plastic 500ml - with Nitric Acid	<2			
DUP-002-F-20230329-01	240-182753-D-9	Plastic 1 liter - Nitric Acid	<2			
DUP-002-F-20230329-01	240-182753-E-9	Plastic 1 liter - Nitric Acid	<2			
2016-05-F-20230329-01	240-182753-C-10	Plastic 500ml - with Nitric Acid	<2			
2016-05-F-20230329-01	240-182753-D-10	Plastic 1 liter - Nitric Acid	<2			
2016-05-F-20230329-01	240-182753-E-10	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230329-01	240-182753-C-11	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230329-01	240-182753-D-11	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230329-01	240-182753-E-11	Plastic 1 liter - Nitric Acid	<2			

Eurofins - Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	1.8	1.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	1.6	1.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	2.4	2.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	2.1	2.1	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

See Temperature Excursion Form

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-182753-1

Login Number: 182753

List Number: 2

Creator: Farrell, Conor P

List Source: Eurofins St. Louis

List Creation: 04/03/23 12:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 6/6/2023 8:54:15 AM Revision 1

JOB DESCRIPTION

Federal CCR Wells Snap Sampler

JOB NUMBER

240-182899-1

Eurofins Cleveland

Job Notes

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

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Authorization

Roxanne Cisneros

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Revision 1

Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Qualifiers

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.

Glossary

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Job ID: 240-182899-1

Laboratory: Eurofins Cleveland

Narrative

**Job Narrative
240-182899-1**

Revised 6/06/2023 to include Calcium per client request.

Receipt

The samples were received on 4/4/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4° C, 1.8° C, 2.6° C and 14.2° C.

Metals

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

General Chemistry

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



Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-182899-1	2018-03-f-20230330-01	Water	03/30/23 12:20	04/04/23 08:00
240-182899-2	2018-04-f-20230330-01	Water	03/30/23 14:30	04/04/23 08:00
240-182899-3	2018-02-F-20230331-01	Water	03/31/23 09:30	04/04/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Client Sample ID: 2018-03-f-20230330-01

Lab Sample ID: 240-182899-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.67	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	6.6		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	130		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	2.7	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	7.8		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.58	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	73		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	53000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	3.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	220000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	220000		1000	580	ug/L	1		6020B	Total Recoverable
Chloride	650		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	0.81		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	820		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	2500		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-04-f-20230330-01

Lab Sample ID: 240-182899-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	57	ug/L	1		6010D	Total Recoverable
Antimony	2.4		2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	22		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	190		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	0.99	J	1.0	0.62	ug/L	1		6020B	Total Recoverable
Chromium	67		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	22		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	20		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	30		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	21000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	69		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5800		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Client Sample ID: 2018-04-f-20230330-01 (Continued)

Lab Sample ID: 240-182899-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	2.2	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	400000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	67000		1000	580	ug/L	1		6020B	Total Recoverable
Chloride	63		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.58		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	570		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-02-F-20230331-01

Lab Sample ID: 240-182899-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	230		100	57	ug/L	1		6010D	Total Recoverable
Antimony	6.7		2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	540		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.36	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chromium	30		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	3.8		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	4.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	38		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	11000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	47		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1200000		5000	1600	ug/L	5		6020B	Total Recoverable
Calcium	42000		1000	580	ug/L	1		6020B	Total Recoverable
Chloride	3400		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	0.92		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	44		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5700		100	78	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Client Sample ID: 2018-03-f-20230330-01

Lab Sample ID: 240-182899-1

Date Collected: 03/30/23 12:20

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		04/04/23 14:00	04/07/23 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.67	J	2.0	0.57	ug/L		04/04/23 14:00	04/05/23 16:44	1
Arsenic	6.6		5.0	0.75	ug/L		04/04/23 14:00	04/05/23 16:44	1
Barium	130		5.0	2.2	ug/L		04/04/23 14:00	04/05/23 16:44	1
Beryllium	ND		1.0	0.62	ug/L		04/04/23 14:00	04/05/23 16:44	1
Cadmium	ND		1.0	0.20	ug/L		04/04/23 14:00	04/05/23 16:44	1
Chromium	2.7	J	5.0	2.5	ug/L		04/04/23 14:00	04/05/23 16:44	1
Cobalt	7.8		1.0	0.19	ug/L		04/04/23 14:00	04/05/23 16:44	1
Lead	0.58	J	1.0	0.45	ug/L		04/04/23 14:00	04/05/23 16:44	1
Lithium	73		8.0	1.7	ug/L		04/04/23 14:00	04/06/23 15:51	1
Magnesium	53000		1000	200	ug/L		04/04/23 14:00	04/05/23 16:44	1
Molybdenum	3.2	J	5.0	1.1	ug/L		04/04/23 14:00	04/05/23 16:44	1
Potassium	4000		1000	220	ug/L		04/04/23 14:00	04/05/23 16:44	1
Selenium	ND		5.0	0.89	ug/L		04/04/23 14:00	04/05/23 16:44	1
Sodium	220000		1000	330	ug/L		04/04/23 14:00	04/05/23 16:44	1
Thallium	ND		1.0	0.20	ug/L		04/04/23 14:00	04/05/23 16:44	1
Calcium	220000		1000	580	ug/L		04/04/23 14:00	04/05/23 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	650		10	1.3	mg/L			04/17/23 15:02	10
Fluoride (EPA 300.0)	0.81		0.050	0.024	mg/L			04/17/23 14:40	1
Sulfate (EPA 300.0)	820		10	3.5	mg/L			04/17/23 15:02	10
Total Dissolved Solids (SM 2540C)	2500		40	31	mg/L			04/06/23 16:53	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Client Sample ID: 2018-04-f-20230330-01

Lab Sample ID: 240-182899-2

Date Collected: 03/30/23 14:30

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	300		100	57	ug/L		04/04/23 14:00	04/07/23 21:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.4		2.0	0.57	ug/L		04/04/23 14:00	04/05/23 16:47	1
Arsenic	22		5.0	0.75	ug/L		04/04/23 14:00	04/05/23 16:47	1
Barium	190		5.0	2.2	ug/L		04/04/23 14:00	04/05/23 16:47	1
Beryllium	0.99	J	1.0	0.62	ug/L		04/04/23 14:00	04/05/23 16:47	1
Cadmium	ND		1.0	0.20	ug/L		04/04/23 14:00	04/05/23 16:47	1
Chromium	67		5.0	2.5	ug/L		04/04/23 14:00	04/05/23 16:47	1
Cobalt	22		1.0	0.19	ug/L		04/04/23 14:00	04/05/23 16:47	1
Lead	20		1.0	0.45	ug/L		04/04/23 14:00	04/05/23 16:47	1
Lithium	30		8.0	1.7	ug/L		04/04/23 14:00	04/06/23 15:54	1
Magnesium	21000		1000	200	ug/L		04/04/23 14:00	04/05/23 16:47	1
Molybdenum	69		5.0	1.1	ug/L		04/04/23 14:00	04/05/23 16:47	1
Potassium	5800		1000	220	ug/L		04/04/23 14:00	04/05/23 16:47	1
Selenium	2.2	J	5.0	0.89	ug/L		04/04/23 14:00	04/05/23 16:47	1
Sodium	400000		1000	330	ug/L		04/04/23 14:00	04/05/23 16:47	1
Thallium	ND		1.0	0.20	ug/L		04/04/23 14:00	04/05/23 16:47	1
Calcium	67000		1000	580	ug/L		04/04/23 14:00	04/05/23 16:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	63		1.0	0.13	mg/L			04/17/23 15:24	1
Fluoride (EPA 300.0)	0.58		0.050	0.024	mg/L			04/17/23 15:24	1
Sulfate (EPA 300.0)	570		10	3.5	mg/L			04/17/23 15:45	10
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			04/06/23 16:53	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Client Sample ID: 2018-02-F-20230331-01

Lab Sample ID: 240-182899-3

Date Collected: 03/31/23 09:30

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	230		100	57	ug/L		04/04/23 14:00	04/07/23 21:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	6.7		2.0	0.57	ug/L		04/04/23 14:00	04/05/23 16:50	1
Arsenic	4.1	J	5.0	0.75	ug/L		04/04/23 14:00	04/05/23 16:50	1
Barium	540		5.0	2.2	ug/L		04/04/23 14:00	04/05/23 16:50	1
Beryllium	ND		1.0	0.62	ug/L		04/04/23 14:00	04/05/23 16:50	1
Cadmium	0.36	J	1.0	0.20	ug/L		04/04/23 14:00	04/05/23 16:50	1
Chromium	30		5.0	2.5	ug/L		04/04/23 14:00	04/05/23 16:50	1
Cobalt	3.8		1.0	0.19	ug/L		04/04/23 14:00	04/05/23 16:50	1
Lead	4.6		1.0	0.45	ug/L		04/04/23 14:00	04/05/23 16:50	1
Lithium	38		8.0	1.7	ug/L		04/04/23 14:00	04/06/23 15:57	1
Magnesium	11000		1000	200	ug/L		04/04/23 14:00	04/05/23 16:50	1
Molybdenum	47		5.0	1.1	ug/L		04/04/23 14:00	04/05/23 16:50	1
Potassium	3800		1000	220	ug/L		04/04/23 14:00	04/05/23 16:50	1
Selenium	ND		5.0	0.89	ug/L		04/04/23 14:00	04/05/23 16:50	1
Sodium	1200000		5000	1600	ug/L		04/04/23 14:00	04/06/23 16:00	5
Thallium	ND		1.0	0.20	ug/L		04/04/23 14:00	04/05/23 16:50	1
Calcium	42000		1000	580	ug/L		04/04/23 14:00	04/05/23 16:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	3400		25	3.2	mg/L			04/17/23 16:29	25
Fluoride (EPA 300.0)	0.92		0.25	0.12	mg/L			04/17/23 16:07	5
Sulfate (EPA 300.0)	44		5.0	1.7	mg/L			04/17/23 16:07	5
Total Dissolved Solids (SM 2540C)	5700		100	78	mg/L			04/06/23 16:53	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-567931/1-A
Matrix: Water
Analysis Batch: 568563

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 567931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/04/23 14:00	04/07/23 20:27	1

Lab Sample ID: LCS 240-567931/2-A
Matrix: Water
Analysis Batch: 568563

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 567931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1060		ug/L		106	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-567931/1-A
Matrix: Water
Analysis Batch: 568261

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 567931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/04/23 14:00	04/05/23 15:35	1
Arsenic	ND		5.0	0.75	ug/L		04/04/23 14:00	04/05/23 15:35	1
Barium	ND		5.0	2.2	ug/L		04/04/23 14:00	04/05/23 15:35	1
Beryllium	ND		1.0	0.62	ug/L		04/04/23 14:00	04/05/23 15:35	1
Cadmium	ND		1.0	0.20	ug/L		04/04/23 14:00	04/05/23 15:35	1
Chromium	ND		5.0	2.5	ug/L		04/04/23 14:00	04/05/23 15:35	1
Cobalt	ND		1.0	0.19	ug/L		04/04/23 14:00	04/05/23 15:35	1
Lead	ND		1.0	0.45	ug/L		04/04/23 14:00	04/05/23 15:35	1
Magnesium	ND		1000	200	ug/L		04/04/23 14:00	04/05/23 15:35	1
Molybdenum	ND		5.0	1.1	ug/L		04/04/23 14:00	04/05/23 15:35	1
Potassium	ND		1000	220	ug/L		04/04/23 14:00	04/05/23 15:35	1
Selenium	ND		5.0	0.89	ug/L		04/04/23 14:00	04/05/23 15:35	1
Sodium	ND		1000	330	ug/L		04/04/23 14:00	04/05/23 15:35	1
Thallium	ND		1.0	0.20	ug/L		04/04/23 14:00	04/05/23 15:35	1
Calcium	ND		1000	580	ug/L		04/04/23 14:00	04/05/23 15:35	1

Lab Sample ID: LCS 240-567931/3-A
Matrix: Water
Analysis Batch: 568261

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 567931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	100		ug/L		100	80 - 120
Arsenic	1000	875		ug/L		88	80 - 120
Barium	1000	953		ug/L		95	80 - 120
Beryllium	500	447		ug/L		89	80 - 120
Cadmium	500	475		ug/L		95	80 - 120
Chromium	500	470		ug/L		94	80 - 120
Cobalt	500	445		ug/L		89	80 - 120
Lead	500	448		ug/L		90	80 - 120
Magnesium	25000	23400		ug/L		93	80 - 120
Molybdenum	500	451		ug/L		90	80 - 120
Potassium	25000	23000		ug/L		92	80 - 120
Selenium	1000	897		ug/L		90	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

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

Lab Sample ID: LCS 240-567931/3-A
 Matrix: Water
 Analysis Batch: 568261

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 567931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	23500		ug/L		94	80 - 120
Thallium	1000	924		ug/L		92	80 - 120
Calcium	25000	22600		ug/L		90	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-569471/3
 Matrix: Water
 Analysis Batch: 569471

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/17/23 13:57	1
Fluoride	ND		0.050	0.024	mg/L			04/17/23 13:57	1
Sulfate	ND		1.0	0.35	mg/L			04/17/23 13:57	1

Lab Sample ID: LCS 240-569471/4
 Matrix: Water
 Analysis Batch: 569471

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.9		mg/L		98	90 - 110
Fluoride	2.50	2.49		mg/L		100	90 - 110
Sulfate	50.0	50.4		mg/L		101	90 - 110

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

Lab Sample ID: MB 240-568379/1
 Matrix: Water
 Analysis Batch: 568379

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	ND		10	7.8	mg/L			04/06/23 16:53	1

Lab Sample ID: LCS 240-568379/2
 Matrix: Water
 Analysis Batch: 568379

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	550		mg/L		95	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Metals

Prep Batch: 567931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182899-1	2018-03-f-20230330-01	Total Recoverable	Water	3005A	
240-182899-2	2018-04-f-20230330-01	Total Recoverable	Water	3005A	
240-182899-3	2018-02-F-20230331-01	Total Recoverable	Water	3005A	
MB 240-567931/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-567931/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-567931/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 568261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182899-1	2018-03-f-20230330-01	Total Recoverable	Water	6020B	567931
240-182899-2	2018-04-f-20230330-01	Total Recoverable	Water	6020B	567931
240-182899-3	2018-02-F-20230331-01	Total Recoverable	Water	6020B	567931
MB 240-567931/1-A	Method Blank	Total Recoverable	Water	6020B	567931
LCS 240-567931/3-A	Lab Control Sample	Total Recoverable	Water	6020B	567931

Analysis Batch: 568416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182899-1	2018-03-f-20230330-01	Total Recoverable	Water	6020B	567931
240-182899-2	2018-04-f-20230330-01	Total Recoverable	Water	6020B	567931
240-182899-3	2018-02-F-20230331-01	Total Recoverable	Water	6020B	567931
240-182899-3	2018-02-F-20230331-01	Total Recoverable	Water	6020B	567931

Analysis Batch: 568563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182899-1	2018-03-f-20230330-01	Total Recoverable	Water	6010D	567931
240-182899-2	2018-04-f-20230330-01	Total Recoverable	Water	6010D	567931
240-182899-3	2018-02-F-20230331-01	Total Recoverable	Water	6010D	567931
MB 240-567931/1-A	Method Blank	Total Recoverable	Water	6010D	567931
LCS 240-567931/2-A	Lab Control Sample	Total Recoverable	Water	6010D	567931

General Chemistry

Analysis Batch: 568379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182899-1	2018-03-f-20230330-01	Total/NA	Water	SM 2540C	
240-182899-2	2018-04-f-20230330-01	Total/NA	Water	SM 2540C	
240-182899-3	2018-02-F-20230331-01	Total/NA	Water	SM 2540C	
MB 240-568379/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-568379/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 569471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182899-1	2018-03-f-20230330-01	Total/NA	Water	300.0	
240-182899-1	2018-03-f-20230330-01	Total/NA	Water	300.0	
240-182899-2	2018-04-f-20230330-01	Total/NA	Water	300.0	
240-182899-2	2018-04-f-20230330-01	Total/NA	Water	300.0	
240-182899-3	2018-02-F-20230331-01	Total/NA	Water	300.0	
240-182899-3	2018-02-F-20230331-01	Total/NA	Water	300.0	
MB 240-569471/3	Method Blank	Total/NA	Water	300.0	
LCS 240-569471/4	Lab Control Sample	Total/NA	Water	300.0	

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Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

Client Sample ID: 2018-03-f-20230330-01

Lab Sample ID: 240-182899-1

Date Collected: 03/30/23 12:20

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/07/23 21:35
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6020B		1	568261	RKT	EET CLE	04/05/23 16:44
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 15:51
Total/NA	Analysis	300.0		1	569471	JMB	EET CLE	04/17/23 14:40
Total/NA	Analysis	300.0		10	569471	JMB	EET CLE	04/17/23 15:02
Total/NA	Analysis	SM 2540C		1	568379	GH	EET CLE	04/06/23 16:53

Client Sample ID: 2018-04-f-20230330-01

Lab Sample ID: 240-182899-2

Date Collected: 03/30/23 14:30

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/07/23 21:40
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6020B		1	568261	RKT	EET CLE	04/05/23 16:47
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 15:54
Total/NA	Analysis	300.0		1	569471	JMB	EET CLE	04/17/23 15:24
Total/NA	Analysis	300.0		10	569471	JMB	EET CLE	04/17/23 15:45
Total/NA	Analysis	SM 2540C		1	568379	GH	EET CLE	04/06/23 16:53

Client Sample ID: 2018-02-F-20230331-01

Lab Sample ID: 240-182899-3

Date Collected: 03/31/23 09:30

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/07/23 21:52
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6020B		1	568261	RKT	EET CLE	04/05/23 16:50
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 15:57
Total Recoverable	Prep	3005A			567931	MRL	EET CLE	04/04/23 14:00
Total Recoverable	Analysis	6020B		5	568416	RKT	EET CLE	04/06/23 16:00
Total/NA	Analysis	300.0		5	569471	JMB	EET CLE	04/17/23 16:07
Total/NA	Analysis	300.0		25	569471	JMB	EET CLE	04/17/23 16:29
Total/NA	Analysis	SM 2540C		1	568379	GH	EET CLE	04/06/23 16:53

Laboratory References:

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-182899-1

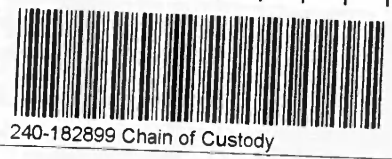
Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	04-26-23
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	05-31-23
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	04-30-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	05-24-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	05-07-23

14.2/14.2
 Chain of Custody Record

Client Information		Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 240-93018-34502
Client Contact: Taylor Huffman		E-Mail: roxanne.cisneros@Eurofinset.com	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC		State of Origin:	Job #:
Address: 7397 OH-7		Analysis Requested	
City: Cheshire	TAT Requested (days):	<p>Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input type="checkbox"/> D</p> <p>300.0, SM2540C</p> <p>6020a, 6020b</p>	
State, Zip: OH, 45620	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Phone: 740-925-3171(Tel)	PO #: 2935505		
Email: taylor.huffman@lightstonegen.com	WO #:		
Project Name: Federal - CCR Wells Snap Sampler-	Project #: 24019633		
Site: Ohio	SSOW#:	<p>Preservation Codes:</p> <p>A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)</p>	
Sample Identification		<p>Other:</p> <p>Limited Volume App III and IV (Unpreserved with focus on TDS, Cl-, SO4 and F) Nitric Acid with focus on Ca and B)</p>	
2018-03-6-20230330-01	Sample Date: 3/30/23	Sample Time: 1220	Sample Type (C=Comp, G=grab): G
2018-04-6-20230330-01	Sample Date: "	Sample Time: 1430	Sample Type (C=Comp, G=grab): G
2018-02-F-20230331-01	Sample Date: 3/31/23	Sample Time: 0930	Sample Type (C=Comp, G=grab): G
Possible Hazard Identification		<p><input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p>	
Empty Kit Relinquished by:		<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p><input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements:</p>	
Relinquished by: Dennis McGuire		<p>Received by: <i>[Signature]</i></p> <p>Date: 4/3/23 0830</p>	
Relinquished by: <i>[Signature]</i>		<p>Received by: <i>[Signature]</i></p> <p>Date: 4-3-23 1700</p>	
Relinquished by: <i>[Signature]</i>		<p>Received by: <i>[Signature]</i></p> <p>Date: 4-4-23 800</p>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	



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Eurofins - Canton Sample Receipt Form/Narrative Login # : 182899
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: Rachelle H. det
Cooler Received on 4-4-23 Opened on 4-4-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # EC Foam Box _____ Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF 0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservative (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings:

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-f-20230330-01	240-182899-A-1	Plastic 250ml - unpreserved				
2018-03-f-20230330-01	240-182899-B-1	Plastic 250ml - with Nitric Acid	<2			
2018-04-f-20230330-01	240-182899-A-2	Plastic 250ml - unpreserved				
2018-04-f-20230330-01	240-182899-B-2	Plastic 250ml - unpreserved				
2018-04-f-20230330-01	240-182899-C-2	Plastic 250ml - with Nitric Acid	<2			
2018-02-F-20230331-01	240-182899-A-3	Plastic 250ml - unpreserved				
2018-02-F-20230331-01	240-182899-B-3	Plastic 250ml - unpreserved				
2018-02-F-20230331-01	240-182899-C-3	Plastic 250ml - with Nitric Acid	<2			

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 6/6/2023 8:55:30 AM Revision 1

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-182900-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

Generated
6/6/2023 8:55:30 AM
Revision 1

Authorized for release by
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(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Qualifiers

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.

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Job ID: 240-182900-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-182900-1

Revised 6/06/2023 to include Calcium per client request.

Receipt

The samples were received on 4/4/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4° C, 1.8° C, 2.6° C and 14.2° C.

RAD

Method 9315: Radium-226 batch 606900: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 94136-F-20230330-01 (240-182900-1), 94137-F-20230330-01 (240-182900-2), EB-001-F-20230330-01 (240-182900-3), 93100-F-20230331-01 (240-182900-4), 94139-F-20230331-01 (240-182900-5), EB-001-F-20230331-01 (240-182900-6), (LCS 160-606900/2-A), (LCSD 160-606900/3-A) and (MB 160-606900/1-A)

Method 9320: Radium-228 batch 606901: The detection goal was not met for the following sample(s). Samples were prepped at a reduced volume due to the presence of matrix interferences: 94136-F-20230330-01 (240-182900-1) and 94139-F-20230331-01 (240-182900-5). Analytical results are reported with the detection limit achieved.

Method 9320: Radium-228 batch 606901: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 94136-F-20230330-01 (240-182900-1), 94137-F-20230330-01 (240-182900-2), EB-001-F-20230330-01 (240-182900-3), 93100-F-20230331-01 (240-182900-4), 94139-F-20230331-01 (240-182900-5), EB-001-F-20230331-01 (240-182900-6), (LCS 160-606901/2-A), (LCSD 160-606901/3-A) and (MB 160-606901/1-A)

Method PrecSep_0: Radium-228 Prep Batch 160-606901: The following samples were prepared at a reduced aliquot due to Matrix: 94136-F-20230330-01 (240-182900-1) and 94139-F-20230331-01 (240-182900-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 160-606901: Insufficient sample volume was available to perform a sample duplicate for the following samples: 94136-F-20230330-01 (240-182900-1) and 94139-F-20230331-01 (240-182900-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-606900: The following samples were prepared at a reduced aliquot due to Matrix: 94136-F-20230330-01 (240-182900-1) and 94139-F-20230331-01 (240-182900-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-606900: Insufficient sample volume was available to perform a sample duplicate for the following samples: 94137-F-20230330-01 (240-182900-2), EB-001-F-20230330-01 (240-182900-3), 93100-F-20230331-01 (240-182900-4) and EB-001-F-20230331-01 (240-182900-6). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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

Metals

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

General Chemistry

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-182900-1	94136-F-20230330-01	Water	03/30/23 11:00	04/04/23 08:00
240-182900-2	94137-F-20230330-01	Water	03/30/23 11:46	04/04/23 08:00
240-182900-3	EB-001-F-20230330-01	Water	03/30/23 16:00	04/04/23 08:00
240-182900-4	93100-F-20230331-01	Water	03/31/23 12:17	04/04/23 08:00
240-182900-5	94139-F-20230331-01	Water	03/31/23 13:01	04/04/23 08:00
240-182900-6	EB-001-F-20230331-01	Water	03/31/23 13:40	04/04/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94136-F-20230330-01

Lab Sample ID: 240-182900-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.94	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	110		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	6.1		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.73	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	27		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3400		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	14		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	670000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1000		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	55		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1800		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94137-F-20230330-01

Lab Sample ID: 240-182900-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.3		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	48		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	77		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	9.6		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	47000		1000	200	ug/L	1		6020B	Total Recoverable
Potassium	1700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	63000		1000	330	ug/L	1		6020B	Total Recoverable
Calcium	150000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	26		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.072		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	330		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	840		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: EB-001-F-20230330-01

Lab Sample ID: 240-182900-3

No Detections.

Client Sample ID: 93100-F-20230331-01

Lab Sample ID: 240-182900-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	520		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	3.5	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	6.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	39		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	5000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2300		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1300000		5000	1600	ug/L	5		6020B	Total Recoverable
Calcium	15000		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2100		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.5		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	15		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	3200		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94139-F-20230331-01

Lab Sample ID: 240-182900-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	510		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	4.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	100		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	4.4	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	0.82	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	2.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	18		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	2600		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	190		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	520000		1000	330	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94139-F-20230331-01 (Continued)

Lab Sample ID: 240-182900-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	7100		1000	580	ug/L	1		6020B	Total Recoverable
Total Alkalinity	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	460		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	27		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	490		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	4.6		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	58		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230331-01

Lab Sample ID: 240-182900-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94136-F-20230330-01

Lab Sample ID: 240-182900-1

Date Collected: 03/30/23 11:00

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		04/05/23 14:00	04/08/23 05:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/05/23 14:00	04/06/23 17:35	1
Arsenic	0.94	J	5.0	0.75	ug/L		04/05/23 14:00	04/06/23 17:35	1
Barium	110		5.0	2.2	ug/L		04/05/23 14:00	04/06/23 17:35	1
Beryllium	ND		1.0	0.62	ug/L		04/05/23 14:00	04/06/23 17:35	1
Cadmium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:35	1
Chromium	6.1		5.0	2.5	ug/L		04/05/23 14:00	04/06/23 17:35	1
Cobalt	1.2		1.0	0.19	ug/L		04/05/23 14:00	04/06/23 17:35	1
Lead	0.73	J	1.0	0.45	ug/L		04/05/23 14:00	04/06/23 17:35	1
Lithium	27		8.0	1.7	ug/L		04/05/23 14:00	04/06/23 17:35	1
Magnesium	3400		1000	200	ug/L		04/05/23 14:00	04/06/23 17:35	1
Molybdenum	14		5.0	1.1	ug/L		04/05/23 14:00	04/06/23 17:35	1
Potassium	1800		1000	220	ug/L		04/05/23 14:00	04/06/23 17:35	1
Selenium	ND		5.0	0.89	ug/L		04/05/23 14:00	04/06/23 17:35	1
Sodium	670000		1000	330	ug/L		04/05/23 14:00	04/06/23 17:35	1
Thallium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:35	1
Calcium	13000		1000	580	ug/L		04/05/23 14:00	04/06/23 17:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/04/23 14:00	04/05/23 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	320		5.0	2.6	mg/L			04/06/23 18:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	320		5.0	2.6	mg/L			04/06/23 18:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 18:45	1
Chloride (EPA 300.0)	1000		10	1.3	mg/L			04/26/23 04:36	10
Fluoride (EPA 300.0)	1.2		0.050	0.024	mg/L			04/26/23 04:14	1
Sulfate (EPA 300.0)	55		1.0	0.35	mg/L			04/26/23 04:14	1
Total Dissolved Solids (SM 2540C)	1800		40	31	mg/L			04/06/23 10:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.623		0.362	0.367	1.00	0.470	pCi/L	04/11/23 10:38	05/03/23 09:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.5		30 - 110					04/11/23 10:38	05/03/23 09:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.131	U G	0.660	0.660	1.00	1.19	pCi/L	04/11/23 11:04	05/02/23 12:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94136-F-20230330-01

Lab Sample ID: 240-182900-1

Date Collected: 03/30/23 11:00

Matrix: Water

Date Received: 04/04/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	62.5		30 - 110	04/11/23 11:04	05/02/23 12:08	1
Y Carrier	82.6		30 - 110	04/11/23 11:04	05/02/23 12:08	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
Combined Radium 226 + 228	0.755	U	(2σ+/-) 0.753	(2σ+/-) 0.755	5.00	1.19	pCi/L		05/03/23 17:07	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94137-F-20230330-01

Lab Sample ID: 240-182900-2

Date Collected: 03/30/23 11:46

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/05/23 14:00	04/08/23 05:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/05/23 14:00	04/06/23 17:38	1
Arsenic	6.3		5.0	0.75	ug/L		04/05/23 14:00	04/06/23 17:38	1
Barium	48		5.0	2.2	ug/L		04/05/23 14:00	04/06/23 17:38	1
Beryllium	ND		1.0	0.62	ug/L		04/05/23 14:00	04/06/23 17:38	1
Cadmium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:38	1
Chromium	ND		5.0	2.5	ug/L		04/05/23 14:00	04/06/23 17:38	1
Cobalt	77		1.0	0.19	ug/L		04/05/23 14:00	04/06/23 17:38	1
Lead	ND		1.0	0.45	ug/L		04/05/23 14:00	04/06/23 17:38	1
Lithium	9.6		8.0	1.7	ug/L		04/05/23 14:00	04/06/23 17:38	1
Magnesium	47000		1000	200	ug/L		04/05/23 14:00	04/06/23 17:38	1
Molybdenum	ND		5.0	1.1	ug/L		04/05/23 14:00	04/06/23 17:38	1
Potassium	1700		1000	220	ug/L		04/05/23 14:00	04/06/23 17:38	1
Selenium	ND		5.0	0.89	ug/L		04/05/23 14:00	04/06/23 17:38	1
Sodium	63000		1000	330	ug/L		04/05/23 14:00	04/06/23 17:38	1
Thallium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:38	1
Calcium	150000		1000	580	ug/L		04/05/23 14:00	04/06/23 17:38	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/04/23 14:00	04/05/23 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	350		5.0	2.6	mg/L			04/06/23 18:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	350		5.0	2.6	mg/L			04/06/23 18:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 18:50	1
Chloride (EPA 300.0)	26		1.0	0.13	mg/L			04/26/23 04:57	1
Fluoride (EPA 300.0)	0.072		0.050	0.024	mg/L			04/26/23 04:57	1
Sulfate (EPA 300.0)	330		5.0	1.7	mg/L			04/26/23 05:19	5
Total Dissolved Solids (SM 2540C)	840		10	7.8	mg/L			04/06/23 10:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0396	U	0.213	0.213	1.00	0.409	pCi/L	04/11/23 10:38	05/03/23 09:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.5		30 - 110					04/11/23 10:38	05/03/23 09:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.743	U	0.533	0.537	1.00	0.804	pCi/L	04/11/23 11:04	05/02/23 12:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94137-F-20230330-01

Lab Sample ID: 240-182900-2

Date Collected: 03/30/23 11:46

Matrix: Water

Date Received: 04/04/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	61.5		30 - 110	04/11/23 11:04	05/02/23 12:08	1
Y Carrier	81.1		30 - 110	04/11/23 11:04	05/02/23 12:08	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
			<u>(2σ+/-)</u>	<u>(2σ+/-)</u>						
Combined Radium 226 + 228	0.782	U	0.574	0.578	5.00	0.804	pCi/L		05/03/23 17:07	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: EB-001-F-20230330-01

Lab Sample ID: 240-182900-3

Date Collected: 03/30/23 16:00

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/05/23 14:00	04/08/23 05:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/05/23 14:00	04/06/23 17:41	1
Arsenic	ND		5.0	0.75	ug/L		04/05/23 14:00	04/06/23 17:41	1
Barium	ND		5.0	2.2	ug/L		04/05/23 14:00	04/06/23 17:41	1
Beryllium	ND		1.0	0.62	ug/L		04/05/23 14:00	04/06/23 17:41	1
Cadmium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:41	1
Chromium	ND		5.0	2.5	ug/L		04/05/23 14:00	04/06/23 17:41	1
Cobalt	ND		1.0	0.19	ug/L		04/05/23 14:00	04/06/23 17:41	1
Lead	ND		1.0	0.45	ug/L		04/05/23 14:00	04/06/23 17:41	1
Lithium	ND		8.0	1.7	ug/L		04/05/23 14:00	04/06/23 17:41	1
Magnesium	ND		1000	200	ug/L		04/05/23 14:00	04/06/23 17:41	1
Molybdenum	ND		5.0	1.1	ug/L		04/05/23 14:00	04/06/23 17:41	1
Potassium	ND		1000	220	ug/L		04/05/23 14:00	04/06/23 17:41	1
Selenium	ND		5.0	0.89	ug/L		04/05/23 14:00	04/06/23 17:41	1
Sodium	ND		1000	330	ug/L		04/05/23 14:00	04/06/23 17:41	1
Thallium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:41	1
Calcium	ND		1000	580	ug/L		04/05/23 14:00	04/06/23 17:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/04/23 14:00	04/05/23 14:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 18:59	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 18:59	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 18:59	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/26/23 05:41	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/26/23 05:41	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/26/23 05:41	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/06/23 10:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.179	U	0.239	0.240	1.00	0.401	pCi/L	04/11/23 10:38	05/03/23 09:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	65.8		30 - 110					04/11/23 10:38	05/03/23 09:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.235	U	0.466	0.466	1.00	0.921	pCi/L	04/11/23 11:04	05/02/23 12:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: EB-001-F-20230330-01

Lab Sample ID: 240-182900-3

Date Collected: 03/30/23 16:00

Matrix: Water

Date Received: 04/04/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	65.8		30 - 110	04/11/23 11:04	05/02/23 12:08	1
Y Carrier	81.1		30 - 110	04/11/23 11:04	05/02/23 12:08	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	-0.0568	U	0.524	0.524	5.00	0.921	pCi/L		05/03/23 17:07	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 93100-F-20230331-01

Lab Sample ID: 240-182900-4

Date Collected: 03/31/23 12:17

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		04/05/23 14:00	04/08/23 05:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/05/23 14:00	04/06/23 17:44	1
Arsenic	1.5	J	5.0	0.75	ug/L		04/05/23 14:00	04/06/23 17:44	1
Barium	520		5.0	2.2	ug/L		04/05/23 14:00	04/06/23 17:44	1
Beryllium	ND		1.0	0.62	ug/L		04/05/23 14:00	04/06/23 17:44	1
Cadmium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:44	1
Chromium	3.5	J	5.0	2.5	ug/L		04/05/23 14:00	04/06/23 17:44	1
Cobalt	6.1		1.0	0.19	ug/L		04/05/23 14:00	04/06/23 17:44	1
Lead	ND		1.0	0.45	ug/L		04/05/23 14:00	04/06/23 17:44	1
Lithium	39		8.0	1.7	ug/L		04/05/23 14:00	04/06/23 17:44	1
Magnesium	5000		1000	200	ug/L		04/05/23 14:00	04/06/23 17:44	1
Molybdenum	110		5.0	1.1	ug/L		04/05/23 14:00	04/06/23 17:44	1
Potassium	2300		1000	220	ug/L		04/05/23 14:00	04/06/23 17:44	1
Selenium	ND		5.0	0.89	ug/L		04/05/23 14:00	04/06/23 17:44	1
Sodium	1300000		5000	1600	ug/L		04/05/23 14:00	04/07/23 19:49	5
Thallium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:44	1
Calcium	15000		1000	580	ug/L		04/05/23 14:00	04/06/23 17:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/04/23 14:00	04/05/23 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	320		5.0	2.6	mg/L			04/06/23 19:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	320		5.0	2.6	mg/L			04/06/23 19:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 19:03	1
Chloride (EPA 300.0)	2100		20	2.6	mg/L			04/26/23 07:08	20
Fluoride (EPA 300.0)	2.5		0.10	0.048	mg/L			04/26/23 06:46	2
Sulfate (EPA 300.0)	15		2.0	0.70	mg/L			04/26/23 06:46	2
Total Dissolved Solids (SM 2540C)	3200		50	39	mg/L			04/07/23 11:40	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.699		0.268	0.275	1.00	0.297	pCi/L	04/11/23 10:38	05/03/23 09:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		30 - 110					04/11/23 10:38	05/03/23 09:23	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.367	U	0.322	0.323	1.00	0.504	pCi/L	04/11/23 11:04	05/02/23 12:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 93100-F-20230331-01

Lab Sample ID: 240-182900-4

Date Collected: 03/31/23 12:17

Matrix: Water

Date Received: 04/04/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		30 - 110	04/11/23 11:04	05/02/23 12:08	1
Y Carrier	85.2		30 - 110	04/11/23 11:04	05/02/23 12:08	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.07		0.419	0.424	5.00	0.504	pCi/L		05/03/23 17:07	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94139-F-20230331-01

Lab Sample ID: 240-182900-5

Date Collected: 03/31/23 13:01

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100	57	ug/L		04/05/23 14:00	04/08/23 05:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/05/23 14:00	04/06/23 17:47	1
Arsenic	4.2	J	5.0	0.75	ug/L		04/05/23 14:00	04/06/23 17:47	1
Barium	100		5.0	2.2	ug/L		04/05/23 14:00	04/06/23 17:47	1
Beryllium	ND		1.0	0.62	ug/L		04/05/23 14:00	04/06/23 17:47	1
Cadmium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:47	1
Chromium	4.4	J	5.0	2.5	ug/L		04/05/23 14:00	04/06/23 17:47	1
Cobalt	0.82	J	1.0	0.19	ug/L		04/05/23 14:00	04/06/23 17:47	1
Lead	2.2		1.0	0.45	ug/L		04/05/23 14:00	04/06/23 17:47	1
Lithium	18		8.0	1.7	ug/L		04/05/23 14:00	04/06/23 17:47	1
Magnesium	2600		1000	200	ug/L		04/05/23 14:00	04/06/23 17:47	1
Molybdenum	190		5.0	1.1	ug/L		04/05/23 14:00	04/06/23 17:47	1
Potassium	1500		1000	220	ug/L		04/05/23 14:00	04/06/23 17:47	1
Selenium	ND		5.0	0.89	ug/L		04/05/23 14:00	04/06/23 17:47	1
Sodium	520000		1000	330	ug/L		04/05/23 14:00	04/06/23 17:47	1
Thallium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:47	1
Calcium	7100		1000	580	ug/L		04/05/23 14:00	04/06/23 17:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/04/23 14:00	04/05/23 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	490		5.0	2.6	mg/L			04/06/23 19:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	460		5.0	2.6	mg/L			04/06/23 19:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	27		5.0	2.6	mg/L			04/06/23 19:08	1
Chloride (EPA 300.0)	490		10	1.3	mg/L			04/26/23 07:51	10
Fluoride (EPA 300.0)	4.6		0.050	0.024	mg/L			04/26/23 07:29	1
Sulfate (EPA 300.0)	58		1.0	0.35	mg/L			04/26/23 07:29	1
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			04/07/23 11:40	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.532		0.354	0.358	1.00	0.478	pCi/L	04/11/23 10:38	05/03/23 09:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	57.5		30 - 110					04/11/23 10:38	05/03/23 09:23	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03	U G	0.763	0.769	1.00	1.16	pCi/L	04/11/23 11:04	05/02/23 12:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94139-F-20230331-01

Lab Sample ID: 240-182900-5

Date Collected: 03/31/23 13:01

Matrix: Water

Date Received: 04/04/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	57.5		30 - 110	04/11/23 11:04	05/02/23 12:08	1
Y Carrier	81.5		30 - 110	04/11/23 11:04	05/02/23 12:08	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.56		0.841	0.848	5.00	1.16	pCi/L		05/03/23 17:07	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: EB-001-F-20230331-01

Lab Sample ID: 240-182900-6

Date Collected: 03/31/23 13:40

Matrix: Water

Date Received: 04/04/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/05/23 14:00	04/08/23 05:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/05/23 14:00	04/06/23 17:56	1
Arsenic	ND		5.0	0.75	ug/L		04/05/23 14:00	04/06/23 17:56	1
Barium	ND		5.0	2.2	ug/L		04/05/23 14:00	04/06/23 17:56	1
Beryllium	ND		1.0	0.62	ug/L		04/05/23 14:00	04/06/23 17:56	1
Cadmium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:56	1
Chromium	ND		5.0	2.5	ug/L		04/05/23 14:00	04/06/23 17:56	1
Cobalt	ND		1.0	0.19	ug/L		04/05/23 14:00	04/06/23 17:56	1
Lead	ND		1.0	0.45	ug/L		04/05/23 14:00	04/06/23 17:56	1
Lithium	ND		8.0	1.7	ug/L		04/05/23 14:00	04/06/23 17:56	1
Magnesium	ND		1000	200	ug/L		04/05/23 14:00	04/06/23 17:56	1
Molybdenum	ND		5.0	1.1	ug/L		04/05/23 14:00	04/06/23 17:56	1
Potassium	ND		1000	220	ug/L		04/05/23 14:00	04/06/23 17:56	1
Selenium	ND		5.0	0.89	ug/L		04/05/23 14:00	04/06/23 17:56	1
Sodium	ND		1000	330	ug/L		04/05/23 14:00	04/06/23 17:56	1
Thallium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 17:56	1
Calcium	ND		1000	580	ug/L		04/05/23 14:00	04/06/23 17:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/04/23 14:00	04/05/23 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 19:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 19:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/06/23 19:11	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/26/23 08:13	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/26/23 08:13	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/26/23 08:13	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/07/23 11:40	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.135	U	0.146	0.146	1.00	0.231	pCi/L	04/11/23 10:38	05/03/23 09:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		30 - 110					04/11/23 10:38	05/03/23 09:23	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.493	U	0.429	0.432	1.00	0.682	pCi/L	04/11/23 11:04	05/02/23 12:09	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: EB-001-F-20230331-01

Lab Sample ID: 240-182900-6

Date Collected: 03/31/23 13:40

Matrix: Water

Date Received: 04/04/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		30 - 110	04/11/23 11:04	05/02/23 12:09	1
Y Carrier	81.9		30 - 110	04/11/23 11:04	05/02/23 12:09	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.628	U	0.453	0.456	5.00	0.682	pCi/L		05/03/23 17:07	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-182900-1	94136-F-20230330-01	62.5	
240-182900-2	94137-F-20230330-01	61.5	
240-182900-3	EB-001-F-20230330-01	65.8	
240-182900-4	93100-F-20230331-01	91.1	
240-182900-5	94139-F-20230331-01	57.5	
240-182900-6	EB-001-F-20230331-01	94.2	
LCS 160-606900/2-A	Lab Control Sample	96.7	
LCSD 160-606900/3-A	Lab Control Sample Dup	91.6	
MB 160-606900/1-A	Method Blank	93.7	

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-182900-1	94136-F-20230330-01	62.5	82.6
240-182900-2	94137-F-20230330-01	61.5	81.1
240-182900-3	EB-001-F-20230330-01	65.8	81.1
240-182900-4	93100-F-20230331-01	91.1	85.2
240-182900-5	94139-F-20230331-01	57.5	81.5
240-182900-6	EB-001-F-20230331-01	94.2	81.9
LCS 160-606900/2-A	Lab Control Sample	96.7	84.9
LCSD 160-606900/3-A	Lab Control Sample Dup	91.6	80.4
MB 160-606900/1-A	Method Blank	93.7	84.5

Tracer/Carrier Legend
Ba = Ba Carrier
Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-568110/1-A
Matrix: Water
Analysis Batch: 568563

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 568110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/05/23 14:00	04/08/23 03:37	1

Lab Sample ID: LCS 240-568110/2-A
Matrix: Water
Analysis Batch: 568563

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 568110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1020		ug/L		102	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-568110/1-A
Matrix: Water
Analysis Batch: 568416

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 568110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/05/23 14:00	04/06/23 16:29	1
Arsenic	ND		5.0	0.75	ug/L		04/05/23 14:00	04/06/23 16:29	1
Barium	ND		5.0	2.2	ug/L		04/05/23 14:00	04/06/23 16:29	1
Beryllium	ND		1.0	0.62	ug/L		04/05/23 14:00	04/06/23 16:29	1
Cadmium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 16:29	1
Chromium	ND		5.0	2.5	ug/L		04/05/23 14:00	04/06/23 16:29	1
Cobalt	ND		1.0	0.19	ug/L		04/05/23 14:00	04/06/23 16:29	1
Lead	ND		1.0	0.45	ug/L		04/05/23 14:00	04/06/23 16:29	1
Lithium	ND		8.0	1.7	ug/L		04/05/23 14:00	04/06/23 16:29	1
Magnesium	ND		1000	200	ug/L		04/05/23 14:00	04/06/23 16:29	1
Molybdenum	ND		5.0	1.1	ug/L		04/05/23 14:00	04/06/23 16:29	1
Potassium	ND		1000	220	ug/L		04/05/23 14:00	04/06/23 16:29	1
Selenium	ND		5.0	0.89	ug/L		04/05/23 14:00	04/06/23 16:29	1
Sodium	ND		1000	330	ug/L		04/05/23 14:00	04/06/23 16:29	1
Thallium	ND		1.0	0.20	ug/L		04/05/23 14:00	04/06/23 16:29	1
Calcium	ND		1000	580	ug/L		04/05/23 14:00	04/06/23 16:29	1

Lab Sample ID: LCS 240-568110/3-A
Matrix: Water
Analysis Batch: 568416

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 568110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.1		ug/L		98	80 - 120
Arsenic	1000	942		ug/L		94	80 - 120
Barium	1000	915		ug/L		91	80 - 120
Beryllium	500	507		ug/L		101	80 - 120
Cadmium	500	468		ug/L		94	80 - 120
Chromium	500	473		ug/L		95	80 - 120
Cobalt	500	482		ug/L		96	80 - 120
Lead	500	492		ug/L		98	80 - 120
Lithium	500	505		ug/L		101	80 - 120
Magnesium	25000	23500		ug/L		94	80 - 120
Molybdenum	500	467		ug/L		93	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

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

Lab Sample ID: LCS 240-568110/3-A
 Matrix: Water
 Analysis Batch: 568416

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 568110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	25000	23000		ug/L		92	80 - 120
Selenium	1000	920		ug/L		92	80 - 120
Sodium	25000	23600		ug/L		94	80 - 120
Thallium	1000	955		ug/L		95	80 - 120
Calcium	25000	22800		ug/L		91	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-567932/1-A
 Matrix: Water
 Analysis Batch: 568234

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 567932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/04/23 14:00	04/05/23 13:59	1

Lab Sample ID: LCS 240-567932/2-A
 Matrix: Water
 Analysis Batch: 568234

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 567932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.88		ug/L		98	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-568411/30
 Matrix: Water
 Analysis Batch: 568411

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/06/23 15:43	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 15:43	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 15:43	1

Lab Sample ID: MB 240-568411/56
 Matrix: Water
 Analysis Batch: 568411

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/06/23 17:48	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 17:48	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/06/23 17:48	1

Lab Sample ID: LCS 240-568411/55
 Matrix: Water
 Analysis Batch: 568411

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	136		mg/L		93	86 - 123

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-182900-2 DU
Matrix: Water
Analysis Batch: 568411

Client Sample ID: 94137-F-20230330-01
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Alkalinity	350		350		mg/L		0.7	20
Bicarbonate Alkalinity as CaCO3	350		350		mg/L		0.7	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-570771/3
Matrix: Water
Analysis Batch: 570771

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.13	mg/L			04/26/23 02:25	1
Fluoride	ND		0.050	0.024	mg/L			04/26/23 02:25	1
Sulfate	ND		1.0	0.35	mg/L			04/26/23 02:25	1

Lab Sample ID: LCS 240-570771/4
Matrix: Water
Analysis Batch: 570771

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	50.3		mg/L		101	90 - 110

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

Lab Sample ID: MB 240-568284/1
Matrix: Water
Analysis Batch: 568284

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		10	7.8	mg/L			04/06/23 10:39	1

Lab Sample ID: LCS 240-568284/2
Matrix: Water
Analysis Batch: 568284

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

Lab Sample ID: MB 240-568484/1
Matrix: Water
Analysis Batch: 568484

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		10	7.8	mg/L			04/07/23 11:40	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

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

Lab Sample ID: LCS 240-568484/2
 Matrix: Water
 Analysis Batch: 568484

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	541		mg/L		93	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-606900/1-A
 Matrix: Water
 Analysis Batch: 609833

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 606900

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03030	U	0.0877	0.0877	1.00	0.213	pCi/L	04/11/23 10:38	05/03/23 09:10	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		30 - 110					04/11/23 10:38	05/03/23 09:10	1

Lab Sample ID: LCS 160-606900/2-A
 Matrix: Water
 Analysis Batch: 609833

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 606900

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	9.659		1.18	1.00	0.222	pCi/L	85	70 - 113
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.7		30 - 110						

Lab Sample ID: LCSD 160-606900/3-A
 Matrix: Water
 Analysis Batch: 609833

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 606900

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	11.3	9.895		1.23	1.00	0.324	pCi/L	87	70 - 113	0.1	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	91.6		30 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-606901/1-A
 Matrix: Water
 Analysis Batch: 609637

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 606901

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.06950	U	0.299	0.299	1.00	0.538	pCi/L	04/11/23 11:04	05/02/23 12:06	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

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

Lab Sample ID: MB 160-606901/1-A
Matrix: Water
Analysis Batch: 609637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606901

Carrier	MB MB		Limits
	%Yield	Qualifier	
Ba Carrier	93.7		30 - 110
Y Carrier	84.5		30 - 110

Prepared	Analyzed	Dil Fac
04/11/23 11:04	05/02/23 12:06	1
04/11/23 11:04	05/02/23 12:06	1

Lab Sample ID: LCS 160-606901/2-A
Matrix: Water
Analysis Batch: 609637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606901

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	
Radium-228	7.99	9.453		1.26	1.00	0.447	pCi/L	118	75 - 125	

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	96.7		30 - 110
Y Carrier	84.9		30 - 110

Lab Sample ID: LCSD 160-606901/3-A
Matrix: Water
Analysis Batch: 609637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 606901

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		RER	RER Limit
Radium-228	7.99	8.820		1.25	1.00	0.612	pCi/L	110	75 - 125	0.25	1	

Carrier	LCSD LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	91.6		30 - 110
Y Carrier	80.4		30 - 110

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Metals

Prep Batch: 567932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total/NA	Water	7470A	
240-182900-2	94137-F-20230330-01	Total/NA	Water	7470A	
240-182900-3	EB-001-F-20230330-01	Total/NA	Water	7470A	
240-182900-4	93100-F-20230331-01	Total/NA	Water	7470A	
240-182900-5	94139-F-20230331-01	Total/NA	Water	7470A	
240-182900-6	EB-001-F-20230331-01	Total/NA	Water	7470A	
MB 240-567932/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-567932/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 568110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total Recoverable	Water	3005A	
240-182900-2	94137-F-20230330-01	Total Recoverable	Water	3005A	
240-182900-3	EB-001-F-20230330-01	Total Recoverable	Water	3005A	
240-182900-4	93100-F-20230331-01	Total Recoverable	Water	3005A	
240-182900-5	94139-F-20230331-01	Total Recoverable	Water	3005A	
240-182900-6	EB-001-F-20230331-01	Total Recoverable	Water	3005A	
MB 240-568110/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-568110/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-568110/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 568234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total/NA	Water	7470A	567932
240-182900-2	94137-F-20230330-01	Total/NA	Water	7470A	567932
240-182900-3	EB-001-F-20230330-01	Total/NA	Water	7470A	567932
240-182900-4	93100-F-20230331-01	Total/NA	Water	7470A	567932
240-182900-5	94139-F-20230331-01	Total/NA	Water	7470A	567932
240-182900-6	EB-001-F-20230331-01	Total/NA	Water	7470A	567932
MB 240-567932/1-A	Method Blank	Total/NA	Water	7470A	567932
LCS 240-567932/2-A	Lab Control Sample	Total/NA	Water	7470A	567932

Analysis Batch: 568416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total Recoverable	Water	6020B	568110
240-182900-2	94137-F-20230330-01	Total Recoverable	Water	6020B	568110
240-182900-3	EB-001-F-20230330-01	Total Recoverable	Water	6020B	568110
240-182900-4	93100-F-20230331-01	Total Recoverable	Water	6020B	568110
240-182900-5	94139-F-20230331-01	Total Recoverable	Water	6020B	568110
240-182900-6	EB-001-F-20230331-01	Total Recoverable	Water	6020B	568110
MB 240-568110/1-A	Method Blank	Total Recoverable	Water	6020B	568110
LCS 240-568110/3-A	Lab Control Sample	Total Recoverable	Water	6020B	568110

Analysis Batch: 568563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total Recoverable	Water	6010D	568110
240-182900-2	94137-F-20230330-01	Total Recoverable	Water	6010D	568110
240-182900-3	EB-001-F-20230330-01	Total Recoverable	Water	6010D	568110
240-182900-4	93100-F-20230331-01	Total Recoverable	Water	6010D	568110
240-182900-5	94139-F-20230331-01	Total Recoverable	Water	6010D	568110
240-182900-6	EB-001-F-20230331-01	Total Recoverable	Water	6010D	568110

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Metals (Continued)

Analysis Batch: 568563 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-568110/1-A	Method Blank	Total Recoverable	Water	6010D	568110
LCS 240-568110/2-A	Lab Control Sample	Total Recoverable	Water	6010D	568110

Analysis Batch: 568764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-4	93100-F-20230331-01	Total Recoverable	Water	6020B	568110

General Chemistry

Analysis Batch: 568284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total/NA	Water	SM 2540C	
240-182900-2	94137-F-20230330-01	Total/NA	Water	SM 2540C	
240-182900-3	EB-001-F-20230330-01	Total/NA	Water	SM 2540C	
MB 240-568284/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-568284/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 568411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total/NA	Water	2320B-1997	
240-182900-2	94137-F-20230330-01	Total/NA	Water	2320B-1997	
240-182900-3	EB-001-F-20230330-01	Total/NA	Water	2320B-1997	
240-182900-4	93100-F-20230331-01	Total/NA	Water	2320B-1997	
240-182900-5	94139-F-20230331-01	Total/NA	Water	2320B-1997	
240-182900-6	EB-001-F-20230331-01	Total/NA	Water	2320B-1997	
MB 240-568411/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-568411/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-568411/55	Lab Control Sample	Total/NA	Water	2320B-1997	
240-182900-2 DU	94137-F-20230330-01	Total/NA	Water	2320B-1997	

Analysis Batch: 568484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-4	93100-F-20230331-01	Total/NA	Water	SM 2540C	
240-182900-5	94139-F-20230331-01	Total/NA	Water	SM 2540C	
240-182900-6	EB-001-F-20230331-01	Total/NA	Water	SM 2540C	
MB 240-568484/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-568484/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 570771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total/NA	Water	300.0	
240-182900-1	94136-F-20230330-01	Total/NA	Water	300.0	
240-182900-2	94137-F-20230330-01	Total/NA	Water	300.0	
240-182900-2	94137-F-20230330-01	Total/NA	Water	300.0	
240-182900-3	EB-001-F-20230330-01	Total/NA	Water	300.0	
240-182900-4	93100-F-20230331-01	Total/NA	Water	300.0	
240-182900-4	93100-F-20230331-01	Total/NA	Water	300.0	
240-182900-5	94139-F-20230331-01	Total/NA	Water	300.0	
240-182900-5	94139-F-20230331-01	Total/NA	Water	300.0	
240-182900-6	EB-001-F-20230331-01	Total/NA	Water	300.0	
MB 240-570771/3	Method Blank	Total/NA	Water	300.0	

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

General Chemistry (Continued)

Analysis Batch: 570771 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-570771/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 606900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total/NA	Water	PrecSep-21	
240-182900-2	94137-F-20230330-01	Total/NA	Water	PrecSep-21	
240-182900-3	EB-001-F-20230330-01	Total/NA	Water	PrecSep-21	
240-182900-4	93100-F-20230331-01	Total/NA	Water	PrecSep-21	
240-182900-5	94139-F-20230331-01	Total/NA	Water	PrecSep-21	
240-182900-6	EB-001-F-20230331-01	Total/NA	Water	PrecSep-21	
MB 160-606900/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-606900/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-606900/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 606901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182900-1	94136-F-20230330-01	Total/NA	Water	PrecSep_0	
240-182900-2	94137-F-20230330-01	Total/NA	Water	PrecSep_0	
240-182900-3	EB-001-F-20230330-01	Total/NA	Water	PrecSep_0	
240-182900-4	93100-F-20230331-01	Total/NA	Water	PrecSep_0	
240-182900-5	94139-F-20230331-01	Total/NA	Water	PrecSep_0	
240-182900-6	EB-001-F-20230331-01	Total/NA	Water	PrecSep_0	
MB 160-606901/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-606901/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-606901/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94136-F-20230330-01

Lab Sample ID: 240-182900-1

Date Collected: 03/30/23 11:00

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/08/23 05:14
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 17:35
Total/NA	Prep	7470A			567932	MRL	EET CLE	04/04/23 14:00
Total/NA	Analysis	7470A		1	568234	DSH	EET CLE	04/05/23 14:36
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 18:45
Total/NA	Analysis	300.0		1	570771	JMB	EET CLE	04/26/23 04:14
Total/NA	Analysis	300.0		10	570771	JMB	EET CLE	04/26/23 04:36
Total/NA	Analysis	SM 2540C		1	568284	GH	EET CLE	04/06/23 10:39
Total/NA	Prep	PrecSep-21			606900	KAC	EET SL	04/11/23 10:38
Total/NA	Analysis	9315		1	609835	FLC	EET SL	05/03/23 09:22
Total/NA	Prep	PrecSep_0			606901	KAC	EET SL	04/11/23 11:04
Total/NA	Analysis	9320		1	609637	FLC	EET SL	05/02/23 12:08
Total/NA	Analysis	Ra226_Ra228		1	610033	EMH	EET SL	05/03/23 17:07

Client Sample ID: 94137-F-20230330-01

Lab Sample ID: 240-182900-2

Date Collected: 03/30/23 11:46

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/08/23 05:19
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 17:38
Total/NA	Prep	7470A			567932	MRL	EET CLE	04/04/23 14:00
Total/NA	Analysis	7470A		1	568234	DSH	EET CLE	04/05/23 14:38
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 18:50
Total/NA	Analysis	300.0		1	570771	JMB	EET CLE	04/26/23 04:57
Total/NA	Analysis	300.0		5	570771	JMB	EET CLE	04/26/23 05:19
Total/NA	Analysis	SM 2540C		1	568284	GH	EET CLE	04/06/23 10:39
Total/NA	Prep	PrecSep-21			606900	KAC	EET SL	04/11/23 10:38
Total/NA	Analysis	9315		1	609835	FLC	EET SL	05/03/23 09:22
Total/NA	Prep	PrecSep_0			606901	KAC	EET SL	04/11/23 11:04
Total/NA	Analysis	9320		1	609637	FLC	EET SL	05/02/23 12:08
Total/NA	Analysis	Ra226_Ra228		1	610033	EMH	EET SL	05/03/23 17:07

Client Sample ID: EB-001-F-20230330-01

Lab Sample ID: 240-182900-3

Date Collected: 03/30/23 16:00

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/08/23 05:23

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: EB-001-F-20230330-01

Lab Sample ID: 240-182900-3

Date Collected: 03/30/23 16:00

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 17:41
Total/NA	Prep	7470A			567932	MRL	EET CLE	04/04/23 14:00
Total/NA	Analysis	7470A		1	568234	DSH	EET CLE	04/05/23 14:45
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 18:59
Total/NA	Analysis	300.0		1	570771	JMB	EET CLE	04/26/23 05:41
Total/NA	Analysis	SM 2540C		1	568284	GH	EET CLE	04/06/23 10:39
Total/NA	Prep	PrecSep-21			606900	KAC	EET SL	04/11/23 10:38
Total/NA	Analysis	9315		1	609835	FLC	EET SL	05/03/23 09:22
Total/NA	Prep	PrecSep_0			606901	KAC	EET SL	04/11/23 11:04
Total/NA	Analysis	9320		1	609637	FLC	EET SL	05/02/23 12:08
Total/NA	Analysis	Ra226_Ra228		1	610033	EMH	EET SL	05/03/23 17:07

Client Sample ID: 93100-F-20230331-01

Lab Sample ID: 240-182900-4

Date Collected: 03/31/23 12:17

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/08/23 05:36
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 17:44
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6020B		5	568764	RKT	EET CLE	04/07/23 19:49
Total/NA	Prep	7470A			567932	MRL	EET CLE	04/04/23 14:00
Total/NA	Analysis	7470A		1	568234	DSH	EET CLE	04/05/23 14:47
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 19:03
Total/NA	Analysis	300.0		2	570771	JMB	EET CLE	04/26/23 06:46
Total/NA	Analysis	300.0		20	570771	JMB	EET CLE	04/26/23 07:08
Total/NA	Analysis	SM 2540C		1	568484	MS	EET CLE	04/07/23 11:40
Total/NA	Prep	PrecSep-21			606900	KAC	EET SL	04/11/23 10:38
Total/NA	Analysis	9315		1	609835	FLC	EET SL	05/03/23 09:23
Total/NA	Prep	PrecSep_0			606901	KAC	EET SL	04/11/23 11:04
Total/NA	Analysis	9320		1	609637	FLC	EET SL	05/02/23 12:08
Total/NA	Analysis	Ra226_Ra228		1	610033	EMH	EET SL	05/03/23 17:07

Client Sample ID: 94139-F-20230331-01

Lab Sample ID: 240-182900-5

Date Collected: 03/31/23 13:01

Matrix: Water

Date Received: 04/04/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/08/23 05:40

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Client Sample ID: 94139-F-20230331-01
Date Collected: 03/31/23 13:01
Date Received: 04/04/23 08:00

Lab Sample ID: 240-182900-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 17:47
Total/NA	Prep	7470A			567932	MRL	EET CLE	04/04/23 14:00
Total/NA	Analysis	7470A		1	568234	DSH	EET CLE	04/05/23 14:49
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 19:08
Total/NA	Analysis	300.0		1	570771	JMB	EET CLE	04/26/23 07:29
Total/NA	Analysis	300.0		10	570771	JMB	EET CLE	04/26/23 07:51
Total/NA	Analysis	SM 2540C		1	568484	MS	EET CLE	04/07/23 11:40
Total/NA	Prep	PrecSep-21			606900	KAC	EET SL	04/11/23 10:38
Total/NA	Analysis	9315		1	609835	FLC	EET SL	05/03/23 09:23
Total/NA	Prep	PrecSep_0			606901	KAC	EET SL	04/11/23 11:04
Total/NA	Analysis	9320		1	609637	FLC	EET SL	05/02/23 12:08
Total/NA	Analysis	Ra226_Ra228		1	610033	EMH	EET SL	05/03/23 17:07

Client Sample ID: EB-001-F-20230331-01
Date Collected: 03/31/23 13:40
Date Received: 04/04/23 08:00

Lab Sample ID: 240-182900-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6010D		1	568563	KLC	EET CLE	04/08/23 05:44
Total Recoverable	Prep	3005A			568110	MRL	EET CLE	04/05/23 14:00
Total Recoverable	Analysis	6020B		1	568416	RKT	EET CLE	04/06/23 17:56
Total/NA	Prep	7470A			567932	MRL	EET CLE	04/04/23 14:00
Total/NA	Analysis	7470A		1	568234	DSH	EET CLE	04/05/23 14:51
Total/NA	Analysis	2320B-1997		1	568411	JMR	EET CLE	04/06/23 19:11
Total/NA	Analysis	300.0		1	570771	JMB	EET CLE	04/26/23 08:13
Total/NA	Analysis	SM 2540C		1	568484	MS	EET CLE	04/07/23 11:40
Total/NA	Prep	PrecSep-21			606900	KAC	EET SL	04/11/23 10:38
Total/NA	Analysis	9315		1	609835	FLC	EET SL	05/03/23 09:23
Total/NA	Prep	PrecSep_0			606901	KAC	EET SL	04/11/23 11:04
Total/NA	Analysis	9320		1	609637	FLC	EET SL	05/02/23 12:09
Total/NA	Analysis	Ra226_Ra228		1	610033	EMH	EET SL	05/03/23 17:07

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	04-26-23
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	05-31-23
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	04-30-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	05-24-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	05-07-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-182900-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-17-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Client Information Client Contact: Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project Name: Federal - CCR Wells Site: Ohio		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@Eurofins.com PWSID:		Carrier Tracking No(s): 240-93018-34502 State of Origin:		Page: Page 1 of 1 Job #:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #: 24019633 Project #: 24019633 SSOW#:		Analysis Requested		Total Number of Containers:		Special Instructions/Note:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Sample Identification 94136-F-20230330-01 94137-F-20230330-01 EB-001-F-20230330-01 93100-F-20230331-01 94139-F-20230331-01 EB-001-F-20230331-01		Sample Date 3-30-23 3-30-23 3-30-23 3-31-23 3-31-23 3-31-23		Sample Time 1100 1146 1600 1217 1301 1340		Sample Type (C=Comp, G=grab) G G G G G G		Matrix (W=Water, S=Soil, O=Organic, A=Air) W W W W W W		Field Filtered Sample (Yes or No) 6010B, 7470, 6020(See Metals List) 2540C_Calcd, 300.0_28D(Chloride, Fluoride, Sulfate) 9315_Ra225, 9320_Ra228 2320B(Carbonate Alkalinity/B-Carbonate Alkalinity)	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/GC Requirements:		Empty Kit Relinquished by:			
Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>		Date: 4-3-23 / 0900 Date/Time: 4-3-23 1210 Date/Time: 4-3-23 800		Received by: <i>[Signature]</i> Received by: <i>[Signature]</i> Received by: <i>[Signature]</i>		Date/Time: 4-3-23 1210 Date/Time: 4-3-23 800		Company: <i>[Signature]</i> Company: <i>[Signature]</i> Company: <i>[Signature]</i>			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Method of Shipment:		Company: <i>[Signature]</i> Company: <i>[Signature]</i> Company: <i>[Signature]</i>			



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Eurofins - Canton Sample Receipt Form/Narrative Login # : 182900
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: Rachelle H. det
Cooler Received on 4-4-23 Opened on 4-4-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # EC Foam Box _____ Client Cooler Box Other _____
Packing material used: Bubble Wrap _____ Foam Plastic Bag None _____ Other _____
COOLANT: Wet Ice Blue Ice _____ Dry Ice _____ Water _____ None _____

1. Cooler temperature upon receipt _____ See Multiple Cooler Form
IR GUN # 22 (CF 0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservative (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
94136-F-20230330-01	240-182900-A-1	Plastic 250ml - unpreserved	_____	_____	_____	_____
94136-F-20230330-01	240-182900-B-1	Other Client Container - unpreserved	_____	_____	_____	_____
94136-F-20230330-01	240-182900-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94136-F-20230330-01	240-182900-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94136-F-20230330-01	240-182900-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94137-F-20230330-01	240-182900-A-2	Plastic 250ml - unpreserved	_____	_____	_____	_____
94137-F-20230330-01	240-182900-B-2	Other Client Container - unpreserved	_____	_____	_____	_____
94137-F-20230330-01	240-182900-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94137-F-20230330-01	240-182900-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94137-F-20230330-01	240-182900-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230330-01	240-182900-A-3	Plastic 250ml - unpreserved	_____	_____	_____	_____
EB-001-F-20230330-01	240-182900-B-3	Plastic 500ml - unpreserved	_____	_____	_____	_____
EB-001-F-20230330-01	240-182900-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230330-01	240-182900-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230330-01	240-182900-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
93100-F-20230331-01	240-182900-A-4	Plastic 250ml - unpreserved	_____	_____	_____	_____
93100-F-20230331-01	240-182900-B-4	Plastic 500ml - unpreserved	_____	_____	_____	_____
93100-F-20230331-01	240-182900-C-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
93100-F-20230331-01	240-182900-D-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
93100-F-20230331-01	240-182900-E-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94139-F-20230331-01	240-182900-A-5	Plastic 250ml - unpreserved	_____	_____	_____	_____
94139-F-20230331-01	240-182900-B-5	Plastic 500ml - unpreserved	_____	_____	_____	_____
94139-F-20230331-01	240-182900-C-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94139-F-20230331-01	240-182900-D-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94139-F-20230331-01	240-182900-E-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230331-01	240-182900-A-6	Plastic 250ml - unpreserved	_____	_____	_____	_____
EB-001-F-20230331-01	240-182900-B-6	Plastic 500ml - unpreserved	_____	_____	_____	_____
EB-001-F-20230331-01	240-182900-C-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230331-01	240-182900-D-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230331-01	240-182900-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Chain of Custody Record



Client Information (Sub Contract Lab)		Shipping/Receiving		Company:																																																																																																																								
Client Contact:	Cisneros, Roxanne	Lab PM:	Cisneros, Roxanne	COC No.:	240-165856.1																																																																																																																							
Shipping/Receiving	State of Origin:	E-Mail:	roxanne.cisneros@et.eurofins.com	Page:	Page 1 of 1																																																																																																																							
Company:	Ohio	Address:	13715 Rider Trail North,	Job #:	240-182900-1																																																																																																																							
TestAmerica Laboratories, Inc.		City:	Earth City	Preservation Codes:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)																																																																																																																							
Address:	Due Date Requested:	PO #:	WO #:	Analysis Requested	<table border="1"> <tr> <th>Sample Identification - Client ID (Lab ID)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=organic, B=biological, A=Air)</th> <th>Preservation Code:</th> <th>Special Instructions/Note:</th> </tr> <tr> <td>94136-F-20230330-01 (240-182900-1)</td> <td>3/30/23</td> <td>11:00 Eastern</td> <td>Water</td> <td>Water</td> <td>X</td> <td>Recount of TAR after 21 day ingrowth if > action limit; save planchet</td> </tr> <tr> <td>94137-F-20230330-01 (240-182900-2)</td> <td>3/30/23</td> <td>11:46 Eastern</td> <td>Water</td> <td>Water</td> <td>X</td> <td>Recount of TAR after 21 day ingrowth if > action limit; save planchet</td> </tr> <tr> <td>EB-001-F-20230330-01 (240-182900-3)</td> <td>3/30/23</td> <td>16:00 Eastern</td> <td>Water</td> <td>Water</td> <td>X</td> <td>Recount of TAR after 21 day ingrowth if > action limit; save planchet</td> </tr> <tr> <td>93100-F-20230331-01 (240-182900-4)</td> <td>3/31/23</td> <td>12:17 Eastern</td> <td>Water</td> <td>Water</td> <td>X</td> <td>Recount of TAR after 21 day ingrowth if > action limit; save planchet</td> </tr> <tr> <td>94139-F-20230331-01 (240-182900-5)</td> <td>3/31/23</td> <td>13:01 Eastern</td> <td>Water</td> <td>Water</td> <td>X</td> <td>Recount of TAR after 21 day ingrowth if > action limit; save planchet</td> </tr> <tr> <td>EB-001-F-20230331-01 (240-182900-6)</td> <td>3/31/23</td> <td>13:40 Eastern</td> <td>Water</td> <td>Water</td> <td>X</td> <td>Recount of TAR after 21 day ingrowth if > action limit; save planchet</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=organic, B=biological, A=Air)	Preservation Code:	Special Instructions/Note:	94136-F-20230330-01 (240-182900-1)	3/30/23	11:00 Eastern	Water	Water	X	Recount of TAR after 21 day ingrowth if > action limit; save planchet	94137-F-20230330-01 (240-182900-2)	3/30/23	11:46 Eastern	Water	Water	X	Recount of TAR after 21 day ingrowth if > action limit; save planchet	EB-001-F-20230330-01 (240-182900-3)	3/30/23	16:00 Eastern	Water	Water	X	Recount of TAR after 21 day ingrowth if > action limit; save planchet	93100-F-20230331-01 (240-182900-4)	3/31/23	12:17 Eastern	Water	Water	X	Recount of TAR after 21 day ingrowth if > action limit; save planchet	94139-F-20230331-01 (240-182900-5)	3/31/23	13:01 Eastern	Water	Water	X	Recount of TAR after 21 day ingrowth if > action limit; save planchet	EB-001-F-20230331-01 (240-182900-6)	3/31/23	13:40 Eastern	Water	Water	X	Recount of TAR after 21 day ingrowth if > action limit; save planchet																																																																						
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Project Name:	Federal GWM Wells	Project #:	24019633	Accreditations Required (See note):																																																																																																																								
Site:		SSOW#:																																																																																																																										
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/analyte being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.																																																																																																																												
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Primary Deliverable Rank: 2																																																																																																																												
Empty Kit Relinquished by: _____ Date: _____																																																																																																																												
Relinquished by: <i>Michelle Hancock</i> Date: <i>4/23/23</i> Time: <i>1300</i>																																																																																																																												
Relinquished by: _____ Date: _____																																																																																																																												
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Cooler Temperature(s) °C and Other Remarks: _____																																																																																																																												



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-182900-1

Login Number: 182900

List Number: 2

Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis

List Creation: 04/05/23 01:09 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 6/14/2023 2:49:56 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-183154-1

Eurofins Cleveland

Job Notes

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

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

Authorization



Generated
6/14/2023 2:49:56 PM

Authorized for release by
Opal Johnson, Project Manager II
Opal.Johnson@et.eurofinsus.com
Designee for
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



Table of Contents

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Sample Summary	9
Detection Summary	10
Client Sample Results	17
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QC Association Summary	55
Lab Chronicle	60
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Qualifiers

Metals

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

Rad

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

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Job ID: 240-183154-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-183154-1

Receipt

The samples were received on 4/7/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.4°C, 1.6°C, 1.8°C, 1.8°C, 2.0°C and 2.4°C

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following samples were received with a pH of 7: The samples were adjusted to the appropriate pH in the laboratory: MW-17-F-20230404-01 (240-183154-6)

Metals

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

General Chemistry

Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 2019-09-F-20230403-01 (240-183154-1) and 2019-07-F-20230403-01 (240-183154-2). Elevated reporting limits (RLs) are provided.

Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 9801-F-20230404-01 (240-183154-8). 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.

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 Prep Batch 160-607889The following samples were prepared at a reduced aliquot due to Matrix: 2019-09-F-20230403-01 (240-183154-1), 2019-07-F-20230403-01 (240-183154-2) and 9806-F-20230405-01 (240-183154-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 9315_Ra226: Radium-226 Prep Batch 160-607889Insufficient sample volume was available to perform a sample duplicate for the following samples: 2019-09-F-20230403-01 (240-183154-1), 2019-07-F-20230403-01 (240-183154-2), EB-001-F-20230403-01 (240-183154-3), 93108-F-20230404-01 (240-183154-4), DUP-003-93108-F-20230404-01 (240-183154-5), MW-17-F-20230404-01 (240-183154-6), 9801-F-20230404-01 (240-183154-8), EB-001-F-20230404-01 (240-183154-9) and 9806-F-20230405-01 (240-183154-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 9315_Ra226: Radium-226 batch 608150The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 2003-F-20230405-01 (240-183154-11). Analytical results are reported with the detection limit achieved.

Method 9315_Ra226: Radium-226 batch 608150Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.9802-F-20230404-01 (240-183154-7), 9802-F-20230404-01 (240-183154-7[MS]), 9802-F-20230404-01 (240-183154-7[MSD]), 2003-F-20230405-01 (240-183154-11), 2000-F-20230405-01 (240-183154-12), EB-001-F-20230405-01 (240-183154-13), (LCS 160-608150/2-A) and (MB 160-608150/1-A)

Method 9315_Ra226: Radium-226 batch 607889The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 2019-09-F-20230403-01 (240-183154-1). Analytical results are reported with the detection limit achieved.

Method 9315_Ra226: Radium-226 batch 607889Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

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Laboratory: Eurofins Cleveland (Continued)

results are reported with the count date/time applied as the Activity Reference Date. 2019-09-F-20230403-01 (240-183154-1), 2019-07-F-20230403-01 (240-183154-2), EB-001-F-20230403-01 (240-183154-3), 93108-F-20230404-01 (240-183154-4), DUP-003-93108-F-20230404-01 (240-183154-5), 9801-F-20230404-01 (240-183154-8), EB-001-F-20230404-01 (240-183154-9), 9806-F-20230405-01 (240-183154-10), (LCS 160-607889/2-A), (LCSD 160-607889/3-A), (MB 160-607889/1-A), (400-235738-D-4-A), (400-235738-D-4-B MS) and (400-235738-D-4-C MSD)

Method 9315_Ra226: Radium-226 Prep Batch 160-612140 Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-17-F-20230404-01 (240-183154-6). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 9315_Ra226: Radium-226 batch 612140 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-17-F-20230404-01 (240-183154-6), (LCS 160-612140/2-A), (LCSD 160-612140/23-A), (MB 160-612140/1-A), (410-126440-A-6-A), (410-126440-A-6-B MS) and (410-126440-A-6-C MSD)

Method 9320_Ra228: Radium-228 batch 608160 The matrix spike / matrix spike duplicate (MS/MSD) precision was outside control limits due to a slightly lower MSD spike recovery. However the MS/MSD spike recovery was within acceptance limits demonstrating method accuracy. 9802-F-20230404-01 (240-183154-7[MSD])

Method 9320_Ra228: Radium-228 batch 608160 The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 2003-F-20230405-01 (240-183154-11). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 608160 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 9802-F-20230404-01 (240-183154-7), 9802-F-20230404-01 (240-183154-7[MS]), 9802-F-20230404-01 (240-183154-7[MSD]), 2003-F-20230405-01 (240-183154-11), 2000-F-20230405-01 (240-183154-12), EB-001-F-20230405-01 (240-183154-13), (LCS 160-608160/2-A) and (MB 160-608160/1-A)

Method 9320_Ra228: Radium-228 Prep Batch 160-611315 The following samples were prepared at a reduced aliquot due to Matrix: 2019-09-F-20230403-01 (240-183154-1), 2019-07-F-20230403-01 (240-183154-2) and 9806-F-20230405-01 (240-183154-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 9320_Ra228: Radium-228 Prep Batch 160-611315 Insufficient sample volume was available to perform a sample duplicate for the following samples: 2019-09-F-20230403-01 (240-183154-1), 2019-07-F-20230403-01 (240-183154-2), EB-001-F-20230403-01 (240-183154-3), 93108-F-20230404-01 (240-183154-4), DUP-003-93108-F-20230404-01 (240-183154-5), MW-17-F-20230404-01 (240-183154-6), 9801-F-20230404-01 (240-183154-8), EB-001-F-20230404-01 (240-183154-9) and 9806-F-20230405-01 (240-183154-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 9320_Ra228: Radium 228 prep batch 160-611315 The barium carrier recovery is outside the upper control limit (110%) for the following samples: 2019-09-F-20230403-01 (240-183154-1), 2019-07-F-20230403-01 (240-183154-2) and 9801-F-20230404-01 (240-183154-8). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium-228 pre batch 160-611315: The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 2019-09-F-20230403-01 (240-183154-1). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 prep batch 160-611315: The following sample has a barium carrier recovery above the 110% QC limit: 2019-07-F-20230403-01 (240-183154-2) and 9801-F-20230404-01 (240-183154-8). Affected samples had a barium correction applied,

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Laboratory: Eurofins Cleveland (Continued)

however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

Method 9320_Ra228: Radium-228 prep batch 160-611315: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-09-F-20230403-01 (240-183154-1), 2019-07-F-20230403-01 (240-183154-2), EB-001-F-20230403-01 (240-183154-3), 93108-F-20230404-01 (240-183154-4), DUP-003-93108-F-20230404-01 (240-183154-5), MW-17-F-20230404-01 (240-183154-6), 9801-F-20230404-01 (240-183154-8), EB-001-F-20230404-01 (240-183154-9), 9806-F-20230405-01 (240-183154-10), (LCS 160-611315/2-A), (LCSD 160-611315/3-A) and (MB 160-611315/1-A)

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

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



Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-183154-1	2019-09-F-20230403-01	Water	04/03/23 10:58	04/07/23 08:00
240-183154-2	2019-07-F-20230403-01	Water	04/03/23 13:55	04/07/23 08:00
240-183154-3	EB-001-F-20230403-01	Water	04/03/23 15:00	04/07/23 08:00
240-183154-4	93108-F-20230404-01	Water	04/04/23 09:18	04/07/23 08:00
240-183154-5	DUP-003-93108-F-20230404-01	Water	04/04/23 09:18	04/07/23 08:00
240-183154-6	MW-17-F-20230404-01	Water	04/04/23 11:08	04/07/23 08:00
240-183154-7	9802-F-20230404-01	Water	04/04/23 13:56	04/07/23 08:00
240-183154-8	9801-F-20230404-01	Water	04/04/23 14:42	04/07/23 08:00
240-183154-9	EB-001-F-20230404-01	Water	04/04/23 15:10	04/07/23 08:00
240-183154-10	9806-F-20230405-01	Water	04/05/23 11:10	04/07/23 08:00
240-183154-11	2003-F-20230405-01	Water	04/05/23 12:17	04/07/23 08:00
240-183154-12	2000-F-20230405-01	Water	04/05/23 13:09	04/07/23 08:00
240-183154-13	EB-001-F-20230405-01	Water	04/05/23 15:30	04/07/23 08:00



Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2019-09-F-20230403-01

Lab Sample ID: 240-183154-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.4	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	25		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	32000		100	45	ug/L	20		6020B	Total Recoverable
Beryllium	3.5		1.0	0.62	ug/L	1		6020B	Total Recoverable
Cadmium	0.59	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	880000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	160		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	40		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	19		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	370		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	310000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	37		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	33000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.0	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	8700000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	1.5		1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	19000		500	64	mg/L	500		300.0	Total/NA
Total Dissolved Solids	28000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2019-07-F-20230403-01

Lab Sample ID: 240-183154-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	560		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	540		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.23	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	880000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	9.7		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	3.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.53	J	1.0	0.45	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2019-07-F-20230403-01 (Continued)

Lab Sample ID: 240-183154-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	300		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	260000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	8.4		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	21000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.0	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9000000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	0.38	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	18000		500	64	mg/L	500		300.0	Total/NA
Sulfate	430		50	17	mg/L	50		300.0	Total/NA
Total Dissolved Solids	27000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230403-01

Lab Sample ID: 240-183154-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	2.6	J	5.0	2.2	ug/L	1		6020B	Total Recoverable
Sodium	2400		1000	330	ug/L	1		6020B	Total Recoverable

Client Sample ID: 93108-F-20230404-01

Lab Sample ID: 240-183154-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	400		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	36		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3700		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	100		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1200000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1600		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	3.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	16		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3000		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: DUP-003-93108-F-20230404-01

Lab Sample ID: 240-183154-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	420		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	36		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3800		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1200000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1700		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	3.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	16		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	2900		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-F-20230404-01

Lab Sample ID: 240-183154-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	8.2		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	2000		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	66000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	73		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	14000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2400000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	4400		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	1.7		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	13		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5800		100	78	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9802-F-20230404-01

Lab Sample ID: 240-183154-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	200		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.91	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	62		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	27000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	13		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	7600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	5.0		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1300		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	260000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.48	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	630		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	630		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	38		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.97		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	70		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	750		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9801-F-20230404-01

Lab Sample ID: 240-183154-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Barium	4700		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	180000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.99	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	120		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	58000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	4700000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	8400		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.90		0.50	0.24	mg/L	10		300.0	Total/NA
Total Dissolved Solids	12000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230404-01

Lab Sample ID: 240-183154-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	940	J	1000	330	ug/L	1		6020B	Total Recoverable

Client Sample ID: 9806-F-20230405-01

Lab Sample ID: 240-183154-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	280		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	58		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	7700		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	6.3		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.0		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	2.1		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	18		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	2500		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	11		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	320000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	300		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	29		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	150		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	1.1		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	240		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	880		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2003-F-20230405-01

Lab Sample ID: 240-183154-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	500		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.65	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	31		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	180		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	0.72	J	1.0	0.62	ug/L	1		6020B	Total Recoverable
Calcium	7100		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	26		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	7.2		1.0	0.19	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2003-F-20230405-01 (Continued)

Lab Sample ID: 240-183154-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.9		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	38		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3400		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	140		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4200		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	9.1		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	640000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	870		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	850		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	14		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	390		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	3.4		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	72		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1800		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2000-F-20230405-01

Lab Sample ID: 240-183154-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	320		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	27		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	2400		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.34	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	15		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	730	J	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	30		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	900	J	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	430000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	410		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	64		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	130		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	2.4		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	550		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230405-01

Lab Sample ID: 240-183154-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	470	J	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	5.6		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	5.6		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2019-09-F-20230403-01

Lab Sample ID: 240-183154-1

Date Collected: 04/03/23 10:58

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		04/10/23 14:00	04/11/23 23:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4	J	2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:24	1
Arsenic	25		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:24	1
Barium	32000		100	45	ug/L		04/10/23 14:00	04/12/23 20:52	20
Beryllium	3.5		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:24	1
Cadmium	0.59	J	1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:24	1
Calcium	880000		1000	250	ug/L		04/10/23 14:00	04/11/23 17:24	1
Chromium	160		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:24	1
Cobalt	40		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:24	1
Lead	19		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:24	1
Lithium	370		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:24	1
Magnesium	310000		1000	61	ug/L		04/10/23 14:00	04/11/23 17:24	1
Molybdenum	37		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:24	1
Potassium	33000		1000	220	ug/L		04/10/23 14:00	04/11/23 17:24	1
Selenium	2.0	J	5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:24	1
Sodium	8700000		20000	6600	ug/L		04/10/23 14:00	04/12/23 20:52	20
Thallium	1.5		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	190		5.0	2.6	mg/L			04/17/23 20:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	190		5.0	2.6	mg/L			04/17/23 20:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:33	1
Chloride (EPA 300.0)	19000		500	64	mg/L			04/28/23 12:16	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			04/28/23 11:54	50
Sulfate (EPA 300.0)	ND		50	17	mg/L			04/28/23 11:54	50
Total Dissolved Solids (SM 2540C)	28000		1000	780	mg/L			04/10/23 10:10	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	46.1	G	4.25	5.93	1.00	1.65	pCi/L	04/18/23 10:45	05/12/23 06:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.1		30 - 110					04/18/23 10:45	05/12/23 06:13	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	70.2	G	4.94	8.13	1.00	1.96	pCi/L	05/12/23 13:41	05/19/23 12:19	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2019-09-F-20230403-01

Lab Sample ID: 240-183154-1

Date Collected: 04/03/23 10:58

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		30 - 110	05/12/23 13:41	05/19/23 12:19	1
Y Carrier	85.1		30 - 110	05/12/23 13:41	05/19/23 12:19	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	116		6.52	10.1	5.00	1.96	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2019-07-F-20230403-01

Lab Sample ID: 240-183154-2

Date Collected: 04/03/23 13:55

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	560		100	57	ug/L		04/10/23 14:00	04/11/23 23:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:27	1
Arsenic	2.5	J	5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:27	1
Barium	540		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:27	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:27	1
Cadmium	0.23	J	1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:27	1
Calcium	880000		1000	250	ug/L		04/10/23 14:00	04/11/23 17:27	1
Chromium	9.7		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:27	1
Cobalt	3.9		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:27	1
Lead	0.53	J	1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:27	1
Lithium	300		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:27	1
Magnesium	260000		1000	61	ug/L		04/10/23 14:00	04/11/23 17:27	1
Molybdenum	8.4		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:27	1
Potassium	21000		1000	220	ug/L		04/10/23 14:00	04/11/23 17:27	1
Selenium	1.0	J	5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:27	1
Sodium	9000000		20000	6600	ug/L		04/10/23 14:00	04/12/23 20:55	20
Thallium	0.38	J	1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	250		5.0	2.6	mg/L			04/17/23 20:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	250		5.0	2.6	mg/L			04/17/23 20:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:38	1
Chloride (EPA 300.0)	18000		500	64	mg/L			04/28/23 12:59	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			04/28/23 12:37	50
Sulfate (EPA 300.0)	430		50	17	mg/L			04/28/23 12:37	50
Total Dissolved Solids (SM 2540C)	27000		1000	780	mg/L			04/10/23 10:10	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.08		0.382	0.394	1.00	0.389	pCi/L	04/18/23 10:45	05/12/23 06:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		30 - 110					04/18/23 10:45	05/12/23 06:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.857		0.445	0.452	1.00	0.385	pCi/L	05/12/23 13:41	05/19/23 12:19	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2019-07-F-20230403-01

Lab Sample ID: 240-183154-2

Date Collected: 04/03/23 13:55

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	119	X	30 - 110	05/12/23 13:41	05/19/23 12:19	1
Y Carrier	82.3		30 - 110	05/12/23 13:41	05/19/23 12:19	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.94		0.586	0.600	5.00	0.389	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230403-01

Lab Sample ID: 240-183154-3

Date Collected: 04/03/23 15:00

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/10/23 14:00	04/11/23 23:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:30	1
Arsenic	ND		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:30	1
Barium	2.6	J	5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:30	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:30	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:30	1
Calcium	ND		1000	250	ug/L		04/10/23 14:00	04/11/23 17:30	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:30	1
Cobalt	ND		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:30	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:30	1
Lithium	ND		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:30	1
Magnesium	ND		1000	61	ug/L		04/10/23 14:00	04/11/23 17:30	1
Molybdenum	ND		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:30	1
Potassium	ND		1000	220	ug/L		04/10/23 14:00	04/11/23 17:30	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:30	1
Sodium	2400		1000	330	ug/L		04/10/23 14:00	04/11/23 17:30	1
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:30	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:42	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/28/23 14:04	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/28/23 14:04	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/28/23 14:04	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/10/23 10:10	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.146	U	0.211	0.211	1.00	0.359	pCi/L	04/18/23 10:45	05/12/23 06:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.3		30 - 110					04/18/23 10:45	05/12/23 06:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	-0.122	U	0.294	0.294	1.00	0.587	pCi/L	05/12/23 13:41	05/19/23 12:19	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230403-01

Lab Sample ID: 240-183154-3

Date Collected: 04/03/23 15:00

Matrix: Water

Date Received: 04/07/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	92.3		30 - 110	05/12/23 13:41	05/19/23 12:19	1
Y Carrier	82.9		30 - 110	05/12/23 13:41	05/19/23 12:19	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
Combined Radium 226 + 228	0.0240	U	(2σ+/-) 0.362	(2σ+/-) 0.362	5.00	0.587	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 93108-F-20230404-01

Lab Sample ID: 240-183154-4

Date Collected: 04/04/23 09:18

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		04/10/23 14:00	04/11/23 23:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:33	1
Arsenic	3.1	J	5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:33	1
Barium	400		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:33	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:33	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:33	1
Calcium	13000		1000	250	ug/L		04/10/23 14:00	04/11/23 17:33	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:33	1
Cobalt	ND		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:33	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:33	1
Lithium	36		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:33	1
Magnesium	3700		1000	61	ug/L		04/10/23 14:00	04/11/23 17:33	1
Molybdenum	100		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:33	1
Potassium	1800		1000	220	ug/L		04/10/23 14:00	04/11/23 17:33	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:33	1
Sodium	1200000		5000	1600	ug/L		04/10/23 14:00	04/12/23 20:58	5
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:33	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			04/17/23 20:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			04/17/23 20:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:47	1
Chloride (EPA 300.0)	1600		25	3.2	mg/L			04/28/23 07:59	25
Fluoride (EPA 300.0)	3.3		0.25	0.12	mg/L			04/28/23 07:38	5
Sulfate (EPA 300.0)	16		5.0	1.7	mg/L			04/28/23 07:38	5
Total Dissolved Solids (SM 2540C)	3000		50	39	mg/L			04/11/23 09:48	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.527		0.248	0.253	1.00	0.294	pCi/L	04/18/23 10:45	05/12/23 06:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		30 - 110					04/18/23 10:45	05/12/23 06:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.610		0.324	0.329	1.00	0.447	pCi/L	05/12/23 13:41	05/19/23 12:20	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 93108-F-20230404-01

Lab Sample ID: 240-183154-4

Date Collected: 04/04/23 09:18

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	102		30 - 110	05/12/23 13:41	05/19/23 12:20	1
Y Carrier	84.6		30 - 110	05/12/23 13:41	05/19/23 12:20	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.14		0.408	0.415	5.00	0.447	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: DUP-003-93108-F-20230404-01

Lab Sample ID: 240-183154-5

Date Collected: 04/04/23 09:18

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		04/10/23 14:00	04/11/23 23:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:42	1
Arsenic	2.8	J	5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:42	1
Barium	420		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:42	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:42	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:42	1
Calcium	13000		1000	250	ug/L		04/10/23 14:00	04/11/23 17:42	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:42	1
Cobalt	ND		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:42	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:42	1
Lithium	36		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:42	1
Magnesium	3800		1000	61	ug/L		04/10/23 14:00	04/11/23 17:42	1
Molybdenum	110		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:42	1
Potassium	1800		1000	220	ug/L		04/10/23 14:00	04/11/23 17:42	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:42	1
Sodium	1200000		5000	1600	ug/L		04/10/23 14:00	04/12/23 21:01	5
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			04/17/23 20:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			04/17/23 20:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:52	1
Chloride (EPA 300.0)	1700		25	3.2	mg/L			04/28/23 08:39	25
Fluoride (EPA 300.0)	3.3		0.25	0.12	mg/L			04/28/23 08:19	5
Sulfate (EPA 300.0)	16		5.0	1.7	mg/L			04/28/23 08:19	5
Total Dissolved Solids (SM 2540C)	2900		50	39	mg/L			04/11/23 09:48	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.644		0.286	0.292	1.00	0.350	pCi/L	04/18/23 10:45	05/12/23 06:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		30 - 110					04/18/23 10:45	05/12/23 06:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.03		0.407	0.418	1.00	0.530	pCi/L	05/12/23 13:41	05/19/23 12:20	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: DUP-003-93108-F-20230404-01

Lab Sample ID: 240-183154-5

Date Collected: 04/04/23 09:18

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110	05/12/23 13:41	05/19/23 12:20	1
Y Carrier	84.0		30 - 110	05/12/23 13:41	05/19/23 12:20	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.68		0.497	0.510	5.00	0.530	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: MW-17-F-20230404-01

Lab Sample ID: 240-183154-6

Date Collected: 04/04/23 11:08

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		04/10/23 14:00	04/11/23 23:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:45	1
Arsenic	8.2		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:45	1
Barium	2000		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:45	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:45	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:45	1
Calcium	66000		1000	250	ug/L		04/10/23 14:00	04/11/23 17:45	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:45	1
Cobalt	ND		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:45	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:45	1
Lithium	73		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:45	1
Magnesium	14000		1000	61	ug/L		04/10/23 14:00	04/11/23 17:45	1
Molybdenum	3.2	J	5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:45	1
Potassium	4900		1000	220	ug/L		04/10/23 14:00	04/11/23 17:45	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:45	1
Sodium	2400000		10000	3300	ug/L		04/10/23 14:00	04/12/23 21:09	10
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	260		5.0	2.6	mg/L			04/17/23 20:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	260		5.0	2.6	mg/L			04/17/23 20:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 20:57	1
Chloride (EPA 300.0)	4400		50	6.4	mg/L			04/28/23 09:19	50
Fluoride (EPA 300.0)	1.7		0.25	0.12	mg/L			04/28/23 08:59	5
Sulfate (EPA 300.0)	13		5.0	1.7	mg/L			04/28/23 08:59	5
Total Dissolved Solids (SM 2540C)	5800		100	78	mg/L			04/11/23 09:48	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	2.66		0.687	0.727	1.00	0.586	pCi/L	05/18/23 11:17	06/13/23 08:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		30 - 110					05/18/23 11:17	06/13/23 08:47	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	3.01		0.579	0.642	1.00	0.550	pCi/L	05/12/23 13:47	05/19/23 12:21	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: MW-17-F-20230404-01

Lab Sample ID: 240-183154-6

Date Collected: 04/04/23 11:08

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		30 - 110	05/12/23 13:47	05/19/23 12:21	1
Y Carrier	87.1		30 - 110	05/12/23 13:47	05/19/23 12:21	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	5.67		0.898	0.970	5.00	0.586	pCi/L		06/13/23 15:44	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9802-F-20230404-01

Lab Sample ID: 240-183154-7

Date Collected: 04/04/23 13:56

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	200		100	57	ug/L		04/10/23 14:00	04/11/23 22:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:10	1
Arsenic	0.91	J	5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:10	1
Barium	62		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:10	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:10	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:10	1
Calcium	27000		1000	250	ug/L		04/10/23 14:00	04/11/23 17:10	1
Chromium	1.5	J	5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:10	1
Cobalt	1.9		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:10	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:10	1
Lithium	13		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:10	1
Magnesium	7600		1000	61	ug/L		04/10/23 14:00	04/11/23 17:10	1
Molybdenum	5.0		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:10	1
Potassium	1300		1000	220	ug/L		04/10/23 14:00	04/11/23 17:10	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:10	1
Sodium	260000		1000	330	ug/L		04/10/23 14:00	04/11/23 17:10	1
Thallium	0.48	J	1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 15:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	630		5.0	2.6	mg/L			04/17/23 21:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	630		5.0	2.6	mg/L			04/17/23 21:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 21:02	1
Chloride (EPA 300.0)	38		1.0	0.13	mg/L			04/28/23 09:39	1
Fluoride (EPA 300.0)	0.97		0.050	0.024	mg/L			04/28/23 09:39	1
Sulfate (EPA 300.0)	70		1.0	0.35	mg/L			04/28/23 09:39	1
Total Dissolved Solids (SM 2540C)	750		10	7.8	mg/L			04/11/23 09:48	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.151	U	0.222	0.222	1.00	0.378	pCi/L	04/19/23 13:18	05/11/23 19:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		30 - 110					04/19/23 13:18	05/11/23 19:40	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.0256	U F	0.264	0.264	1.00	0.491	pCi/L	04/19/23 14:02	05/11/23 13:02	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9802-F-20230404-01

Lab Sample ID: 240-183154-7

Date Collected: 04/04/23 13:56

Matrix: Water

Date Received: 04/07/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	90.4		30 - 110	04/19/23 14:02	05/11/23 13:02	1
Y Carrier	83.7		30 - 110	04/19/23 14:02	05/11/23 13:02	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
Combined Radium 226 + 228	0.176	U	(2σ+/-) 0.345	(2σ+/-) 0.345	5.00	0.491	pCi/L		05/12/23 11:39	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9801-F-20230404-01

Lab Sample ID: 240-183154-8

Date Collected: 04/04/23 14:42

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		04/10/23 14:00	04/11/23 23:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:48	1
Arsenic	ND		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:48	1
Barium	4700		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:48	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:48	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:48	1
Calcium	180000		1000	250	ug/L		04/10/23 14:00	04/11/23 17:48	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:48	1
Cobalt	0.99	J	1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:48	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:48	1
Lithium	120		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:48	1
Magnesium	58000		1000	61	ug/L		04/10/23 14:00	04/11/23 17:48	1
Molybdenum	3.6	J	5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:48	1
Potassium	8800		1000	220	ug/L		04/10/23 14:00	04/11/23 17:48	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:48	1
Sodium	4700000		20000	6600	ug/L		04/10/23 14:00	04/12/23 21:12	20
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	150		5.0	2.6	mg/L			04/17/23 21:12	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	150		5.0	2.6	mg/L			04/17/23 21:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 21:12	1
Chloride (EPA 300.0)	8400		100	13	mg/L			04/28/23 12:41	100
Fluoride (EPA 300.0)	0.90		0.50	0.24	mg/L			04/28/23 12:20	10
Sulfate (EPA 300.0)	ND		10	3.5	mg/L			04/28/23 12:20	10
Total Dissolved Solids (SM 2540C)	12000		1000	780	mg/L			04/11/23 09:48	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	3.67		0.528	0.623	1.00	0.297	pCi/L	04/18/23 10:45	05/12/23 06:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		30 - 110					04/18/23 10:45	05/12/23 06:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	4.32		0.612	0.730	1.00	0.251	pCi/L	05/12/23 13:41	05/19/23 12:20	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9801-F-20230404-01

Lab Sample ID: 240-183154-8

Date Collected: 04/04/23 14:42

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	111	X	30 - 110	05/12/23 13:41	05/19/23 12:20	1
Y Carrier	84.6		30 - 110	05/12/23 13:41	05/19/23 12:20	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	7.99		0.808	0.960	5.00	0.297	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230404-01

Lab Sample ID: 240-183154-9

Date Collected: 04/04/23 15:10

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/10/23 14:00	04/11/23 23:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:51	1
Arsenic	ND		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:51	1
Barium	ND		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:51	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:51	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:51	1
Calcium	ND		1000	250	ug/L		04/10/23 14:00	04/11/23 17:51	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:51	1
Cobalt	ND		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:51	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:51	1
Lithium	ND		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:51	1
Magnesium	ND		1000	61	ug/L		04/10/23 14:00	04/11/23 17:51	1
Molybdenum	ND		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:51	1
Potassium	ND		1000	220	ug/L		04/10/23 14:00	04/11/23 17:51	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:51	1
Sodium	940	J	1000	330	ug/L		04/10/23 14:00	04/11/23 17:51	1
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 21:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 21:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 21:16	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/28/23 13:01	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/28/23 13:01	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/28/23 13:01	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/11/23 09:48	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.105	U	0.209	0.209	1.00	0.373	pCi/L	04/18/23 10:45	05/12/23 06:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.6		30 - 110					04/18/23 10:45	05/12/23 06:14	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.235	U	0.321	0.322	1.00	0.539	pCi/L	05/12/23 13:41	05/19/23 12:20	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230404-01

Lab Sample ID: 240-183154-9

Date Collected: 04/04/23 15:10

Matrix: Water

Date Received: 04/07/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	92.8		30 - 110	05/12/23 13:41	05/19/23 12:20	1
Y Carrier	86.8		30 - 110	05/12/23 13:41	05/19/23 12:20	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
			<u>(2σ+/-)</u>	<u>(2σ+/-)</u>						
Combined Radium 226 + 228	0.340	U	0.383	0.384	5.00	0.539	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9806-F-20230405-01

Lab Sample ID: 240-183154-10

Date Collected: 04/05/23 11:10

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	280		100	57	ug/L		04/10/23 14:00	04/11/23 23:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:54	1
Arsenic	1.6	J	5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:54	1
Barium	58		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:54	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:54	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:54	1
Calcium	7700		1000	250	ug/L		04/10/23 14:00	04/11/23 17:54	1
Chromium	6.3		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:54	1
Cobalt	2.0		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:54	1
Lead	2.1		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:54	1
Lithium	18		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:54	1
Magnesium	2500		1000	61	ug/L		04/10/23 14:00	04/11/23 17:54	1
Molybdenum	11		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:54	1
Potassium	1500		1000	220	ug/L		04/10/23 14:00	04/11/23 17:54	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:54	1
Sodium	320000		1000	330	ug/L		04/10/23 14:00	04/11/23 17:54	1
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	330		5.0	2.6	mg/L			04/17/23 21:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	300		5.0	2.6	mg/L			04/17/23 21:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	29		5.0	2.6	mg/L			04/17/23 21:22	1
Chloride (EPA 300.0)	150		1.0	0.13	mg/L			04/28/23 13:21	1
Fluoride (EPA 300.0)	1.1		0.050	0.024	mg/L			04/28/23 13:21	1
Sulfate (EPA 300.0)	240		5.0	1.7	mg/L			04/28/23 13:41	5
Total Dissolved Solids (SM 2540C)	880		20	16	mg/L			04/12/23 10:05	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.188	U	0.208	0.208	1.00	0.330	pCi/L	04/18/23 10:45	05/12/23 06:17	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	<i>87.7</i>		<i>30 - 110</i>					<i>04/18/23 10:45</i>	<i>05/12/23 06:17</i>	<i>1</i>

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.654	U	0.472	0.476	1.00	0.717	pCi/L	05/12/23 13:41	05/19/23 12:21	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9806-F-20230405-01

Lab Sample ID: 240-183154-10

Date Collected: 04/05/23 11:10

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110	05/12/23 13:41	05/19/23 12:21	1
Y Carrier	91.3		30 - 110	05/12/23 13:41	05/19/23 12:21	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	0.842		(2σ+/-) 0.516	(2σ+/-) 0.519	5.00	0.717	pCi/L		06/13/23 15:45	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2003-F-20230405-01

Lab Sample ID: 240-183154-11

Date Collected: 04/05/23 12:17

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	500		100	57	ug/L		04/10/23 14:00	04/11/23 23:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.65	J	2.0	0.57	ug/L		04/10/23 14:00	04/11/23 17:57	1
Arsenic	31		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 17:57	1
Barium	180		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 17:57	1
Beryllium	0.72	J	1.0	0.62	ug/L		04/10/23 14:00	04/11/23 17:57	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:57	1
Calcium	7100		1000	250	ug/L		04/10/23 14:00	04/11/23 17:57	1
Chromium	26		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 17:57	1
Cobalt	7.2		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 17:57	1
Lead	7.9		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 17:57	1
Lithium	38		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 17:57	1
Magnesium	3400		1000	61	ug/L		04/10/23 14:00	04/11/23 17:57	1
Molybdenum	140		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 17:57	1
Potassium	4200		1000	220	ug/L		04/10/23 14:00	04/11/23 17:57	1
Selenium	9.1		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 17:57	1
Sodium	64000		1000	330	ug/L		04/10/23 14:00	04/11/23 17:57	1
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 17:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	870		5.0	2.6	mg/L			04/17/23 21:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	850		5.0	2.6	mg/L			04/17/23 21:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	14		5.0	2.6	mg/L			04/17/23 21:28	1
Chloride (EPA 300.0)	390		10	1.3	mg/L			04/28/23 18:43	10
Fluoride (EPA 300.0)	3.4		0.050	0.024	mg/L			04/28/23 15:02	1
Sulfate (EPA 300.0)	72		1.0	0.35	mg/L			04/28/23 15:02	1
Total Dissolved Solids (SM 2540C)	1800		20	16	mg/L			04/12/23 10:05	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-0.309	U G	1.32	1.32	1.00	2.72	pCi/L	04/19/23 13:18	05/11/23 19:41	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	<i>50.1</i>		<i>30 - 110</i>					<i>04/19/23 13:18</i>	<i>05/11/23 19:41</i>	<i>1</i>

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	3.42	U F G	2.39	2.41	1.00	3.61	pCi/L	04/19/23 14:02	05/11/23 13:11	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2003-F-20230405-01

Lab Sample ID: 240-183154-11

Date Collected: 04/05/23 12:17

Matrix: Water

Date Received: 04/07/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	50.1		30 - 110	04/19/23 14:02	05/11/23 13:11	1
Y Carrier	90.1		30 - 110	04/19/23 14:02	05/11/23 13:11	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	3.11	U	2.73	2.75	5.00	3.61	pCi/L		05/12/23 11:39	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2000-F-20230405-01

Lab Sample ID: 240-183154-12

Date Collected: 04/05/23 13:09

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	320		100	57	ug/L		04/10/23 14:00	04/12/23 00:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 18:00	1
Arsenic	1.9	J	5.0	0.75	ug/L		04/10/23 14:00	04/11/23 18:00	1
Barium	27		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 18:00	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 18:00	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 18:00	1
Calcium	2400		1000	250	ug/L		04/10/23 14:00	04/11/23 18:00	1
Chromium	4.6	J	5.0	1.2	ug/L		04/10/23 14:00	04/11/23 18:00	1
Cobalt	0.34	J	1.0	0.19	ug/L		04/10/23 14:00	04/11/23 18:00	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 18:00	1
Lithium	15		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 18:00	1
Magnesium	730	J	1000	61	ug/L		04/10/23 14:00	04/11/23 18:00	1
Molybdenum	30		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 18:00	1
Potassium	900	J	1000	220	ug/L		04/10/23 14:00	04/11/23 18:00	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 18:00	1
Sodium	430000		1000	330	ug/L		04/10/23 14:00	04/11/23 18:00	1
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 18:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	410		5.0	2.6	mg/L			04/17/23 21:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	350		5.0	2.6	mg/L			04/17/23 21:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	64		5.0	2.6	mg/L			04/17/23 21:33	1
Chloride (EPA 300.0)	130		10	1.3	mg/L			04/28/23 19:24	10
Fluoride (EPA 300.0)	2.4		0.50	0.24	mg/L			04/28/23 19:24	10
Sulfate (EPA 300.0)	550		10	3.5	mg/L			04/28/23 19:24	10
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			04/12/23 10:05	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.113	U	0.215	0.215	1.00	0.385	pCi/L	04/19/23 13:18	05/11/23 19:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.5		30 - 110					04/19/23 13:18	05/11/23 19:41	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.337	U F	0.386	0.387	1.00	0.632	pCi/L	04/19/23 14:02	05/11/23 13:11	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2000-F-20230405-01

Lab Sample ID: 240-183154-12

Date Collected: 04/05/23 13:09

Matrix: Water

Date Received: 04/07/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	72.5		30 - 110	04/19/23 14:02	05/11/23 13:11	1
Y Carrier	85.2		30 - 110	04/19/23 14:02	05/11/23 13:11	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
Combined Radium 226 + 228	0.449	U	(2σ+/-) 0.442	(2σ+/-) 0.443	5.00	0.632	pCi/L		05/12/23 11:39	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230405-01

Lab Sample ID: 240-183154-13

Date Collected: 04/05/23 15:30

Matrix: Water

Date Received: 04/07/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/10/23 14:00	04/12/23 00:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 18:03	1
Arsenic	ND		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 18:03	1
Barium	ND		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 18:03	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 18:03	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 18:03	1
Calcium	ND		1000	250	ug/L		04/10/23 14:00	04/11/23 18:03	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 18:03	1
Cobalt	ND		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 18:03	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 18:03	1
Lithium	ND		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 18:03	1
Magnesium	ND		1000	61	ug/L		04/10/23 14:00	04/11/23 18:03	1
Molybdenum	ND		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 18:03	1
Potassium	ND		1000	220	ug/L		04/10/23 14:00	04/11/23 18:03	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 18:03	1
Sodium	470	J	1000	330	ug/L		04/10/23 14:00	04/11/23 18:03	1
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 18:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	5.6		5.0	2.6	mg/L			04/17/23 21:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	5.6		5.0	2.6	mg/L			04/17/23 21:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/17/23 21:36	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/28/23 14:01	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/28/23 14:01	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/28/23 14:01	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/12/23 10:05	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0965	U	0.174	0.174	1.00	0.308	pCi/L	04/19/23 13:18	05/11/23 19:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110					04/19/23 13:18	05/11/23 19:41	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.183	U F	0.296	0.297	1.00	0.506	pCi/L	04/19/23 14:02	05/11/23 13:11	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230405-01

Lab Sample ID: 240-183154-13

Date Collected: 04/05/23 15:30

Matrix: Water

Date Received: 04/07/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110	04/19/23 14:02	05/11/23 13:11	1
Y Carrier	85.2		30 - 110	04/19/23 14:02	05/11/23 13:11	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.279	U	0.343	0.344	5.00	0.506	pCi/L		05/12/23 11:39	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	
240-183154-1	2019-09-F-20230403-01	68.1	
240-183154-2	2019-07-F-20230403-01	90.9	
240-183154-3	EB-001-F-20230403-01	69.3	
240-183154-4	93108-F-20230404-01	88.5	
240-183154-5	DUP-003-93108-F-20230404-01	89.4	
240-183154-6	MW-17-F-20230404-01	97.5	
240-183154-7	9802-F-20230404-01	90.4	
240-183154-7 MS	9802-F-20230404-01	84.8	
240-183154-7 MSD	9802-F-20230404-01	92.4	
240-183154-8	9801-F-20230404-01	103	
240-183154-9	EB-001-F-20230404-01	66.6	
240-183154-10	9806-F-20230405-01	87.7	
240-183154-11	2003-F-20230405-01	50.1	
240-183154-12	2000-F-20230405-01	72.5	
240-183154-13	EB-001-F-20230405-01	90.7	
LCS 160-607889/2-A	Lab Control Sample	75.4	
LCS 160-608150/2-A	Lab Control Sample	102	
LCS 160-612140/2-A	Lab Control Sample	93.8	
LCSD 160-607889/3-A	Lab Control Sample Dup	83.3	
LCSD 160-612140/23-A	Lab Control Sample Dup	79.3	
MB 160-607889/1-A	Method Blank	80.1	
MB 160-608150/1-A	Method Blank	95.1	
MB 160-612140/1-A	Method Blank	88.5	

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
240-183154-1	2019-09-F-20230403-01	101	85.1
240-183154-2	2019-07-F-20230403-01	119 X	82.3
240-183154-3	EB-001-F-20230403-01	92.3	82.9
240-183154-4	93108-F-20230404-01	102	84.6
240-183154-5	DUP-003-93108-F-20230404-01	104	84.0
240-183154-6	MW-17-F-20230404-01	97.5	87.1
240-183154-7	9802-F-20230404-01	90.4	83.7
240-183154-7 MS	9802-F-20230404-01	84.8	91.2
240-183154-7 MSD	9802-F-20230404-01	92.4	83.7
240-183154-8	9801-F-20230404-01	111 X	84.6
240-183154-9	EB-001-F-20230404-01	92.8	86.8
240-183154-10	9806-F-20230405-01	86.8	91.3
240-183154-11	2003-F-20230405-01	50.1	90.1
240-183154-12	2000-F-20230405-01	72.5	85.2
240-183154-13	EB-001-F-20230405-01	90.7	85.2
LCS 160-608160/2-A	Lab Control Sample	102	93.1

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Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 9320 - 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)
LCS 160-611315/2-A	Lab Control Sample	98.0	89.3
LCSD 160-611315/3-A	Lab Control Sample Dup	94.0	86.5
MB 160-608160/1-A	Method Blank	95.1	86.0
MB 160-611315/1-A	Method Blank	95.0	85.1

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-568717/1-A
Matrix: Water
Analysis Batch: 568985

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/10/23 14:00	04/11/23 22:31	1

Lab Sample ID: LCS 240-568717/2-A
Matrix: Water
Analysis Batch: 568985

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1060		ug/L		106	80 - 120

Lab Sample ID: 240-183154-7 MS
Matrix: Water
Analysis Batch: 568985

Client Sample ID: 9802-F-20230404-01
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	200		1000	1270		ug/L		107	75 - 125

Lab Sample ID: 240-183154-7 MSD
Matrix: Water
Analysis Batch: 568985

Client Sample ID: 9802-F-20230404-01
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	200		1000	1270		ug/L		108	75 - 125	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-568717/1-A
Matrix: Water
Analysis Batch: 569003

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/10/23 14:00	04/11/23 16:56	1
Arsenic	ND		5.0	0.75	ug/L		04/10/23 14:00	04/11/23 16:56	1
Barium	ND		5.0	2.2	ug/L		04/10/23 14:00	04/11/23 16:56	1
Beryllium	ND		1.0	0.62	ug/L		04/10/23 14:00	04/11/23 16:56	1
Cadmium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 16:56	1
Calcium	ND		1000	250	ug/L		04/10/23 14:00	04/11/23 16:56	1
Chromium	ND		5.0	1.2	ug/L		04/10/23 14:00	04/11/23 16:56	1
Cobalt	ND		1.0	0.19	ug/L		04/10/23 14:00	04/11/23 16:56	1
Lead	ND		1.0	0.45	ug/L		04/10/23 14:00	04/11/23 16:56	1
Lithium	ND		8.0	1.7	ug/L		04/10/23 14:00	04/11/23 16:56	1
Magnesium	ND		1000	61	ug/L		04/10/23 14:00	04/11/23 16:56	1
Molybdenum	ND		5.0	1.1	ug/L		04/10/23 14:00	04/11/23 16:56	1
Potassium	ND		1000	220	ug/L		04/10/23 14:00	04/11/23 16:56	1
Selenium	ND		5.0	0.89	ug/L		04/10/23 14:00	04/11/23 16:56	1
Sodium	ND		1000	330	ug/L		04/10/23 14:00	04/11/23 16:56	1
Thallium	ND		1.0	0.20	ug/L		04/10/23 14:00	04/11/23 16:56	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

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

Lab Sample ID: LCS 240-568717/3-A
Matrix: Water
Analysis Batch: 569003

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	941		ug/L		94	80 - 120
Barium	1000	964		ug/L		96	80 - 120
Beryllium	500	464		ug/L		93	80 - 120
Cadmium	500	482		ug/L		96	80 - 120
Calcium	25000	23300		ug/L		93	80 - 120
Chromium	500	486		ug/L		97	80 - 120
Cobalt	500	481		ug/L		96	80 - 120
Lead	500	491		ug/L		98	80 - 120
Lithium	500	495		ug/L		99	80 - 120
Magnesium	25000	23700		ug/L		95	80 - 120
Molybdenum	500	480		ug/L		96	80 - 120
Potassium	25000	23600		ug/L		94	80 - 120
Selenium	1000	941		ug/L		94	80 - 120
Sodium	25000	23700		ug/L		95	80 - 120
Thallium	1000	967		ug/L		97	80 - 120

Lab Sample ID: 240-183154-7 MS
Matrix: Water
Analysis Batch: 569003

Client Sample ID: 9802-F-20230404-01
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	104		ug/L		104	80 - 120
Arsenic	0.91	J	1000	973		ug/L		97	80 - 120
Barium	62		1000	1030		ug/L		97	80 - 120
Beryllium	ND		500	471		ug/L		94	80 - 120
Cadmium	ND		500	477		ug/L		95	80 - 120
Calcium	27000		25000	50500		ug/L		95	80 - 120
Chromium	1.5	J	500	480		ug/L		96	80 - 120
Cobalt	1.9		500	493		ug/L		98	80 - 120
Lead	ND		500	481		ug/L		96	80 - 120
Lithium	13		500	516		ug/L		101	80 - 120
Magnesium	7600		25000	30900		ug/L		93	80 - 120
Molybdenum	5.0		500	499		ug/L		99	80 - 120
Potassium	1300		25000	24700		ug/L		94	80 - 120
Selenium	ND		1000	941		ug/L		94	80 - 120
Sodium	260000		25000	288000	4	ug/L		118	80 - 120
Thallium	0.48	J	1000	942		ug/L		94	80 - 120

Lab Sample ID: 240-183154-7 MSD
Matrix: Water
Analysis Batch: 569003

Client Sample ID: 9802-F-20230404-01
Prep Type: Total Recoverable
Prep Batch: 568717

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		100	102		ug/L		102	80 - 120	2	20
Arsenic	0.91	J	1000	950		ug/L		95	80 - 120	2	20
Barium	62		1000	1010		ug/L		95	80 - 120	2	20
Beryllium	ND		500	466		ug/L		93	80 - 120	1	20
Cadmium	ND		500	463		ug/L		93	80 - 120	3	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

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

Lab Sample ID: 240-183154-7 MSD
 Matrix: Water
 Analysis Batch: 569003

Client Sample ID: 9802-F-20230404-01
 Prep Type: Total Recoverable
 Prep Batch: 568717

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	27000		25000	50000		ug/L		94	80 - 120	1	20
Chromium	1.5	J	500	475		ug/L		95	80 - 120	1	20
Cobalt	1.9		500	479		ug/L		95	80 - 120	3	20
Lead	ND		500	471		ug/L		94	80 - 120	2	20
Lithium	13		500	499		ug/L		97	80 - 120	3	20
Magnesium	7600		25000	30600		ug/L		92	80 - 120	1	20
Molybdenum	5.0		500	491		ug/L		97	80 - 120	2	20
Potassium	1300		25000	24600		ug/L		93	80 - 120	1	20
Selenium	ND		1000	923		ug/L		92	80 - 120	2	20
Sodium	260000		25000	285000	4	ug/L		106	80 - 120	1	20
Thallium	0.48	J	1000	920		ug/L		92	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-568722/1-A
 Matrix: Water
 Analysis Batch: 569031

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 568722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/10/23 14:00	04/11/23 15:43	1

Lab Sample ID: LCS 240-568722/2-A
 Matrix: Water
 Analysis Batch: 569031

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 568722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.15		ug/L		103	80 - 120

Lab Sample ID: 240-183154-7 MS
 Matrix: Water
 Analysis Batch: 569031

Client Sample ID: 9802-F-20230404-01
 Prep Type: Total/NA
 Prep Batch: 568722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.04		ug/L		104	80 - 120

Lab Sample ID: 240-183154-7 MSD
 Matrix: Water
 Analysis Batch: 569031

Client Sample ID: 9802-F-20230404-01
 Prep Type: Total/NA
 Prep Batch: 568722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	1.01		ug/L		101	80 - 120	4	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-569785/4
 Matrix: Water
 Analysis Batch: 569785

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/17/23 19:51	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-569785/4
Matrix: Water
Analysis Batch: 569785

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/23 19:51	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/23 19:51	1

Lab Sample ID: LCS 240-569785/3
Matrix: Water
Analysis Batch: 569785

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	149		mg/L		102	86 - 123

Lab Sample ID: 240-183154-7 DU
Matrix: Water
Analysis Batch: 569785

Client Sample ID: 9802-F-20230404-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	630		622		mg/L		0.9	20
Bicarbonate Alkalinity as CaCO3	630		622		mg/L		0.9	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-571197/3
Matrix: Water
Analysis Batch: 571197

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/28/23 01:03	1
Fluoride	ND		0.050	0.024	mg/L			04/28/23 01:03	1
Sulfate	ND		1.0	0.35	mg/L			04/28/23 01:03	1

Lab Sample ID: LCS 240-571197/4
Matrix: Water
Analysis Batch: 571197

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.1		mg/L		98	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	50.6		mg/L		101	90 - 110

Lab Sample ID: MB 240-571198/3
Matrix: Water
Analysis Batch: 571198

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/28/23 06:58	1
Fluoride	ND		0.050	0.024	mg/L			04/28/23 06:58	1
Sulfate	ND		1.0	0.35	mg/L			04/28/23 06:58	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-571198/36
Matrix: Water
Analysis Batch: 571198

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/28/23 18:03	1
Fluoride	ND		0.050	0.024	mg/L			04/28/23 18:03	1
Sulfate	ND		1.0	0.35	mg/L			04/28/23 18:03	1

Lab Sample ID: LCS 240-571198/37
Matrix: Water
Analysis Batch: 571198

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.5		mg/L		103	90 - 110
Fluoride	2.50	2.63		mg/L		105	90 - 110
Sulfate	50.0	52.4		mg/L		105	90 - 110

Lab Sample ID: LCS 240-571198/4
Matrix: Water
Analysis Batch: 571198

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.3		mg/L		103	90 - 110
Fluoride	2.50	2.61		mg/L		104	90 - 110
Sulfate	50.0	51.8		mg/L		104	90 - 110

Lab Sample ID: 240-183154-7 MS
Matrix: Water
Analysis Batch: 571198

Client Sample ID: 9802-F-20230404-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	38		50.0	94.2		mg/L		113	80 - 120
Fluoride	0.97		2.50	3.95		mg/L		119	80 - 120
Sulfate	70		50.0	127		mg/L		114	80 - 120

Lab Sample ID: 240-183154-7 MSD
Matrix: Water
Analysis Batch: 571198

Client Sample ID: 9802-F-20230404-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	38		50.0	94.0		mg/L		113	80 - 120	0	15
Fluoride	0.97		2.50	3.95		mg/L		119	80 - 120	0	15
Sulfate	70		50.0	126		mg/L		113	80 - 120	0	15

Lab Sample ID: 240-183154-12 MS
Matrix: Water
Analysis Batch: 571198

Client Sample ID: 2000-F-20230405-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	130		500	654		mg/L		105	80 - 120
Fluoride	2.4		25.0	30.2		mg/L		111	80 - 120
Sulfate	550		500	1050		mg/L		101	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-183154-12 MSD
Matrix: Water
Analysis Batch: 571198

Client Sample ID: 2000-F-20230405-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	130		500	652		mg/L		105	80 - 120	0	15
Fluoride	2.4		25.0	30.2		mg/L		111	80 - 120	0	15
Sulfate	550		500	1050		mg/L		100	80 - 120	0	15

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

Lab Sample ID: MB 240-568696/1
Matrix: Water
Analysis Batch: 568696

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	ND		10	7.8	mg/L			04/10/23 10:10	1

Lab Sample ID: LCS 240-568696/2
Matrix: Water
Analysis Batch: 568696

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	543		mg/L		94	80 - 120

Lab Sample ID: MB 240-568879/1
Matrix: Water
Analysis Batch: 568879

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	ND		10	7.8	mg/L			04/11/23 09:48	1

Lab Sample ID: LCS 240-568879/2
Matrix: Water
Analysis Batch: 568879

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	543		mg/L		94	80 - 120

Lab Sample ID: MB 240-569063/1
Matrix: Water
Analysis Batch: 569063

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	ND		10	7.8	mg/L			04/12/23 10:05	1

Lab Sample ID: LCS 240-569063/2
Matrix: Water
Analysis Batch: 569063

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	545		mg/L		94	80 - 120

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-607889/1-A
Matrix: Water
Analysis Batch: 611286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607889

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.02126	U	0.142	0.142	1.00	0.307	pCi/L	04/18/23 10:45	05/12/23 06:07	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	80.1		30 - 110					04/18/23 10:45	05/12/23 06:07	1

Lab Sample ID: LCS 160-607889/2-A
Matrix: Water
Analysis Batch: 611286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607889

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.57		1.47	1.00	0.332	pCi/L	102	75 - 113
Carrier	LCS %Yield	LCS Qualifier	Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	75.4		30 - 110					04/18/23 10:45	05/12/23 06:07

Lab Sample ID: LCSD 160-607889/3-A
Matrix: Water
Analysis Batch: 611286

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 607889

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits	RER	Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	10.56		1.35	1.00	0.354	pCi/L	93	75 - 113	0.36	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits		Prepared	Analyzed	Dil Fac				
Ba Carrier	83.3		30 - 110					04/19/23 13:18	05/11/23 19:40	1	

Lab Sample ID: MB 160-608150/1-A
Matrix: Water
Analysis Batch: 611049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608150

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1271	U	0.180	0.181	1.00	0.306	pCi/L	04/19/23 13:18	05/11/23 19:40	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	95.1		30 - 110					04/19/23 13:18	05/11/23 19:40	1

Lab Sample ID: LCS 160-608150/2-A
Matrix: Water
Analysis Batch: 611049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608150

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.45		1.32	1.00	0.298	pCi/L	92	75 - 113

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-608150/2-A
Matrix: Water
Analysis Batch: 611049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608150

		LCS	LCS		
Carrier	%Yield	Qualifier	Limits		
Ba Carrier	102		30 - 110		

Lab Sample ID: 240-183154-7 MS
Matrix: Water
Analysis Batch: 611049

Client Sample ID: 9802-F-20230404-01
Prep Type: Total/NA
Prep Batch: 608150

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
												RER	Limit
Radium-226	0.151	U	11.3	10.40		1.38	1.00	0.396	pCi/L	90	60 - 140		

		MS	MS		
Carrier	%Yield	Qualifier	Limits		
Ba Carrier	84.8		30 - 110		

Lab Sample ID: 240-183154-7 MSD
Matrix: Water
Analysis Batch: 611049

Client Sample ID: 9802-F-20230404-01
Prep Type: Total/NA
Prep Batch: 608150

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	Limit
Radium-226	0.151	U	11.7	10.28		1.35	1.00	0.377	pCi/L	87	60 - 140	0.04	1

		MSD	MSD		
Carrier	%Yield	Qualifier	Limits		
Ba Carrier	92.4		30 - 110		

Lab Sample ID: MB 160-612140/1-A
Matrix: Water
Analysis Batch: 615739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612140

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04785	U	0.0795	0.0796	1.00	0.218	pCi/L	05/18/23 11:17	06/13/23 08:44	1

		MB	MB			Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits					
Ba Carrier	88.5		30 - 110			05/18/23 11:17	06/13/23 08:44	1

Lab Sample ID: LCS 160-612140/2-A
Matrix: Water
Analysis Batch: 615739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612140

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
										RER	Limit
Radium-226	11.3	10.38		1.26	1.00	0.187	pCi/L	92	75 - 113		

		LCS	LCS		
Carrier	%Yield	Qualifier	Limits		
Ba Carrier	93.8		30 - 110		

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCSD 160-612140/23-A
Matrix: Water
Analysis Batch: 615740

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 612140

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec		RER	RER Limit
									Limits	RER		
Radium-226	11.3	11.23		1.39	1.00	0.311	pCi/L	99	75 - 113	0.32		1
Carrier		LCS	LCS									
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>								
		79.3		30 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-608160/1-A
Matrix: Water
Analysis Batch: 611047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608160

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Carrier		MB	MB							
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
		95.1		30 - 110				04/19/23 14:02	05/11/23 13:02	1
<i>Y Carrier</i>		86.0		30 - 110				04/19/23 14:02	05/11/23 13:02	1

Lab Sample ID: LCS 160-608160/2-A
Matrix: Water
Analysis Batch: 611047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608160

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec	
									Limits	RER
Radium-228	7.96	7.915		1.06	1.00	0.437	pCi/L	99	75 - 125	
Carrier		LCS	LCS							
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>						
		102		30 - 110						
<i>Y Carrier</i>		93.1		30 - 110						

Lab Sample ID: 240-183154-7 MS
Matrix: Water
Analysis Batch: 611047

Client Sample ID: 9802-F-20230404-01
Prep Type: Total/NA
Prep Batch: 608160

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec	
											Limits	RER
Radium-228	0.0256	U F	7.96	8.320		1.17	1.00	0.542	pCi/L	104	60 - 140	
Carrier		MS	MS									
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>								
		84.8		30 - 110								
<i>Y Carrier</i>		91.2		30 - 110								

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

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

Lab Sample ID: 240-183154-7 MSD
Matrix: Water
Analysis Batch: 611047

Client Sample ID: 9802-F-20230404-01
Prep Type: Total/NA
Prep Batch: 608160

Analyte	Sample	Sample	Spike Added	MSD	MSD	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
	Result	Qual		Result	Qual								
Radium-228	0.0256	U F	8.22	5.307	F	0.873	1.00	0.480	pCi/L	64	60 - 140	1.47	1
MSD MSD													
Carrier	%Yield	Qualifier	Limits										
Ba Carrier	92.4		30 - 110										
Y Carrier	83.7		30 - 110										

Lab Sample ID: MB 160-611315/1-A
Matrix: Water
Analysis Batch: 612288

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611315

Analyte	MB	MB	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	-0.1204	U	0.286	0.286	1.00	0.562	pCi/L	05/12/23 13:41	05/19/23 12:17	1
MB MB										
Carrier	%Yield	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	95.0		30 - 110			05/12/23 13:41	05/19/23 12:17	1		
Y Carrier	85.1		30 - 110			05/12/23 13:41	05/19/23 12:17	1		

Lab Sample ID: LCS 160-611315/2-A
Matrix: Water
Analysis Batch: 612288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611315

Analyte	Spike Added	LCS	LCS	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual						
Radium-228	8.19	8.064		1.12	1.00	0.501	pCi/L	98	75 - 125
LCS LCS									
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	98.0		30 - 110						
Y Carrier	89.3		30 - 110						

Lab Sample ID: LCSD 160-611315/3-A
Matrix: Water
Analysis Batch: 612290

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 611315

Analyte	Spike Added	LCSD	LCSD	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
		Result	Qual								
Radium-228	8.19	9.593		1.55	1.00	0.966	pCi/L	117	75 - 125	0.57	1
LCSD LCSD											
Carrier	%Yield	Qualifier	Limits								
Ba Carrier	94.0		30 - 110								
Y Carrier	86.5		30 - 110								

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Metals

Prep Batch: 568717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total Recoverable	Water	3005A	
240-183154-2	2019-07-F-20230403-01	Total Recoverable	Water	3005A	
240-183154-3	EB-001-F-20230403-01	Total Recoverable	Water	3005A	
240-183154-4	93108-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-5	DUP-003-93108-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-6	MW-17-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-7	9802-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-8	9801-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-9	EB-001-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-10	9806-F-20230405-01	Total Recoverable	Water	3005A	
240-183154-11	2003-F-20230405-01	Total Recoverable	Water	3005A	
240-183154-12	2000-F-20230405-01	Total Recoverable	Water	3005A	
240-183154-13	EB-001-F-20230405-01	Total Recoverable	Water	3005A	
MB 240-568717/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-568717/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-568717/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-183154-7 MS	9802-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-7 MS	9802-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-7 MSD	9802-F-20230404-01	Total Recoverable	Water	3005A	
240-183154-7 MSD	9802-F-20230404-01	Total Recoverable	Water	3005A	

Prep Batch: 568722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	7470A	
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	7470A	
240-183154-3	EB-001-F-20230403-01	Total/NA	Water	7470A	
240-183154-4	93108-F-20230404-01	Total/NA	Water	7470A	
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	7470A	
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	7470A	
240-183154-7	9802-F-20230404-01	Total/NA	Water	7470A	
240-183154-8	9801-F-20230404-01	Total/NA	Water	7470A	
240-183154-9	EB-001-F-20230404-01	Total/NA	Water	7470A	
240-183154-10	9806-F-20230405-01	Total/NA	Water	7470A	
240-183154-11	2003-F-20230405-01	Total/NA	Water	7470A	
240-183154-12	2000-F-20230405-01	Total/NA	Water	7470A	
240-183154-13	EB-001-F-20230405-01	Total/NA	Water	7470A	
MB 240-568722/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-568722/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-183154-7 MS	9802-F-20230404-01	Total/NA	Water	7470A	
240-183154-7 MSD	9802-F-20230404-01	Total/NA	Water	7470A	

Analysis Batch: 568985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total Recoverable	Water	6010D	568717
240-183154-2	2019-07-F-20230403-01	Total Recoverable	Water	6010D	568717
240-183154-3	EB-001-F-20230403-01	Total Recoverable	Water	6010D	568717
240-183154-4	93108-F-20230404-01	Total Recoverable	Water	6010D	568717
240-183154-5	DUP-003-93108-F-20230404-01	Total Recoverable	Water	6010D	568717
240-183154-6	MW-17-F-20230404-01	Total Recoverable	Water	6010D	568717
240-183154-7	9802-F-20230404-01	Total Recoverable	Water	6010D	568717
240-183154-8	9801-F-20230404-01	Total Recoverable	Water	6010D	568717

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Metals (Continued)

Analysis Batch: 568985 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-9	EB-001-F-20230404-01	Total Recoverable	Water	6010D	568717
240-183154-10	9806-F-20230405-01	Total Recoverable	Water	6010D	568717
240-183154-11	2003-F-20230405-01	Total Recoverable	Water	6010D	568717
240-183154-12	2000-F-20230405-01	Total Recoverable	Water	6010D	568717
240-183154-13	EB-001-F-20230405-01	Total Recoverable	Water	6010D	568717
MB 240-568717/1-A	Method Blank	Total Recoverable	Water	6010D	568717
LCS 240-568717/2-A	Lab Control Sample	Total Recoverable	Water	6010D	568717
240-183154-7 MS	9802-F-20230404-01	Total Recoverable	Water	6010D	568717
240-183154-7 MSD	9802-F-20230404-01	Total Recoverable	Water	6010D	568717

Analysis Batch: 569003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total Recoverable	Water	6020B	568717
240-183154-2	2019-07-F-20230403-01	Total Recoverable	Water	6020B	568717
240-183154-3	EB-001-F-20230403-01	Total Recoverable	Water	6020B	568717
240-183154-4	93108-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-5	DUP-003-93108-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-6	MW-17-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-7	9802-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-8	9801-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-9	EB-001-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-10	9806-F-20230405-01	Total Recoverable	Water	6020B	568717
240-183154-11	2003-F-20230405-01	Total Recoverable	Water	6020B	568717
240-183154-12	2000-F-20230405-01	Total Recoverable	Water	6020B	568717
240-183154-13	EB-001-F-20230405-01	Total Recoverable	Water	6020B	568717
MB 240-568717/1-A	Method Blank	Total Recoverable	Water	6020B	568717
LCS 240-568717/3-A	Lab Control Sample	Total Recoverable	Water	6020B	568717
240-183154-7 MS	9802-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-7 MSD	9802-F-20230404-01	Total Recoverable	Water	6020B	568717

Analysis Batch: 569031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	7470A	568722
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	7470A	568722
240-183154-3	EB-001-F-20230403-01	Total/NA	Water	7470A	568722
240-183154-4	93108-F-20230404-01	Total/NA	Water	7470A	568722
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	7470A	568722
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	7470A	568722
240-183154-7	9802-F-20230404-01	Total/NA	Water	7470A	568722
240-183154-8	9801-F-20230404-01	Total/NA	Water	7470A	568722
240-183154-9	EB-001-F-20230404-01	Total/NA	Water	7470A	568722
240-183154-10	9806-F-20230405-01	Total/NA	Water	7470A	568722
240-183154-11	2003-F-20230405-01	Total/NA	Water	7470A	568722
240-183154-12	2000-F-20230405-01	Total/NA	Water	7470A	568722
240-183154-13	EB-001-F-20230405-01	Total/NA	Water	7470A	568722
MB 240-568722/1-A	Method Blank	Total/NA	Water	7470A	568722
LCS 240-568722/2-A	Lab Control Sample	Total/NA	Water	7470A	568722
240-183154-7 MS	9802-F-20230404-01	Total/NA	Water	7470A	568722
240-183154-7 MSD	9802-F-20230404-01	Total/NA	Water	7470A	568722

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Metals

Analysis Batch: 569177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total Recoverable	Water	6020B	568717
240-183154-2	2019-07-F-20230403-01	Total Recoverable	Water	6020B	568717
240-183154-4	93108-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-5	DUP-003-93108-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-6	MW-17-F-20230404-01	Total Recoverable	Water	6020B	568717
240-183154-8	9801-F-20230404-01	Total Recoverable	Water	6020B	568717

General Chemistry

Analysis Batch: 568696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	SM 2540C	
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	SM 2540C	
240-183154-3	EB-001-F-20230403-01	Total/NA	Water	SM 2540C	
MB 240-568696/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-568696/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 568879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-4	93108-F-20230404-01	Total/NA	Water	SM 2540C	
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	SM 2540C	
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	SM 2540C	
240-183154-7	9802-F-20230404-01	Total/NA	Water	SM 2540C	
240-183154-8	9801-F-20230404-01	Total/NA	Water	SM 2540C	
240-183154-9	EB-001-F-20230404-01	Total/NA	Water	SM 2540C	
MB 240-568879/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-568879/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 569063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-10	9806-F-20230405-01	Total/NA	Water	SM 2540C	
240-183154-11	2003-F-20230405-01	Total/NA	Water	SM 2540C	
240-183154-12	2000-F-20230405-01	Total/NA	Water	SM 2540C	
240-183154-13	EB-001-F-20230405-01	Total/NA	Water	SM 2540C	
MB 240-569063/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-569063/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 569785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	2320B-1997	
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	2320B-1997	
240-183154-3	EB-001-F-20230403-01	Total/NA	Water	2320B-1997	
240-183154-4	93108-F-20230404-01	Total/NA	Water	2320B-1997	
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	2320B-1997	
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	2320B-1997	
240-183154-7	9802-F-20230404-01	Total/NA	Water	2320B-1997	
240-183154-8	9801-F-20230404-01	Total/NA	Water	2320B-1997	
240-183154-9	EB-001-F-20230404-01	Total/NA	Water	2320B-1997	
240-183154-10	9806-F-20230405-01	Total/NA	Water	2320B-1997	
240-183154-11	2003-F-20230405-01	Total/NA	Water	2320B-1997	
240-183154-12	2000-F-20230405-01	Total/NA	Water	2320B-1997	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

General Chemistry (Continued)

Analysis Batch: 569785 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-13	EB-001-F-20230405-01	Total/NA	Water	2320B-1997	
MB 240-569785/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-569785/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-183154-7 DU	9802-F-20230404-01	Total/NA	Water	2320B-1997	

Analysis Batch: 571197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	300.0	
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	300.0	
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	300.0	
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	300.0	
240-183154-3	EB-001-F-20230403-01	Total/NA	Water	300.0	
MB 240-571197/3	Method Blank	Total/NA	Water	300.0	
LCS 240-571197/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 571198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-4	93108-F-20230404-01	Total/NA	Water	300.0	
240-183154-4	93108-F-20230404-01	Total/NA	Water	300.0	
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	300.0	
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	300.0	
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	300.0	
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	300.0	
240-183154-7	9802-F-20230404-01	Total/NA	Water	300.0	
240-183154-8	9801-F-20230404-01	Total/NA	Water	300.0	
240-183154-8	9801-F-20230404-01	Total/NA	Water	300.0	
240-183154-9	EB-001-F-20230404-01	Total/NA	Water	300.0	
240-183154-10	9806-F-20230405-01	Total/NA	Water	300.0	
240-183154-10	9806-F-20230405-01	Total/NA	Water	300.0	
240-183154-11	2003-F-20230405-01	Total/NA	Water	300.0	
240-183154-11	2003-F-20230405-01	Total/NA	Water	300.0	
240-183154-12	2000-F-20230405-01	Total/NA	Water	300.0	
240-183154-13	EB-001-F-20230405-01	Total/NA	Water	300.0	
MB 240-571198/3	Method Blank	Total/NA	Water	300.0	
MB 240-571198/36	Method Blank	Total/NA	Water	300.0	
LCS 240-571198/37	Lab Control Sample	Total/NA	Water	300.0	
LCS 240-571198/4	Lab Control Sample	Total/NA	Water	300.0	
240-183154-7 MS	9802-F-20230404-01	Total/NA	Water	300.0	
240-183154-7 MSD	9802-F-20230404-01	Total/NA	Water	300.0	
240-183154-12 MS	2000-F-20230405-01	Total/NA	Water	300.0	
240-183154-12 MSD	2000-F-20230405-01	Total/NA	Water	300.0	

Rad

Prep Batch: 607889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	PrecSep-21	
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	PrecSep-21	
240-183154-3	EB-001-F-20230403-01	Total/NA	Water	PrecSep-21	
240-183154-4	93108-F-20230404-01	Total/NA	Water	PrecSep-21	
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	PrecSep-21	

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Rad (Continued)

Prep Batch: 607889 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-8	9801-F-20230404-01	Total/NA	Water	PrecSep-21	
240-183154-9	EB-001-F-20230404-01	Total/NA	Water	PrecSep-21	
240-183154-10	9806-F-20230405-01	Total/NA	Water	PrecSep-21	
MB 160-607889/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-607889/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-607889/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 608150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-7	9802-F-20230404-01	Total/NA	Water	PrecSep-21	
240-183154-11	2003-F-20230405-01	Total/NA	Water	PrecSep-21	
240-183154-12	2000-F-20230405-01	Total/NA	Water	PrecSep-21	
240-183154-13	EB-001-F-20230405-01	Total/NA	Water	PrecSep-21	
MB 160-608150/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-608150/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-183154-7 MS	9802-F-20230404-01	Total/NA	Water	PrecSep-21	
240-183154-7 MSD	9802-F-20230404-01	Total/NA	Water	PrecSep-21	

Prep Batch: 608160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-7	9802-F-20230404-01	Total/NA	Water	PrecSep_0	
240-183154-11	2003-F-20230405-01	Total/NA	Water	PrecSep_0	
240-183154-12	2000-F-20230405-01	Total/NA	Water	PrecSep_0	
240-183154-13	EB-001-F-20230405-01	Total/NA	Water	PrecSep_0	
MB 160-608160/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-608160/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-183154-7 MS	9802-F-20230404-01	Total/NA	Water	PrecSep_0	
240-183154-7 MSD	9802-F-20230404-01	Total/NA	Water	PrecSep_0	

Prep Batch: 611315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-1	2019-09-F-20230403-01	Total/NA	Water	PrecSep_0	
240-183154-2	2019-07-F-20230403-01	Total/NA	Water	PrecSep_0	
240-183154-3	EB-001-F-20230403-01	Total/NA	Water	PrecSep_0	
240-183154-4	93108-F-20230404-01	Total/NA	Water	PrecSep_0	
240-183154-5	DUP-003-93108-F-20230404-01	Total/NA	Water	PrecSep_0	
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	PrecSep_0	
240-183154-8	9801-F-20230404-01	Total/NA	Water	PrecSep_0	
240-183154-9	EB-001-F-20230404-01	Total/NA	Water	PrecSep_0	
240-183154-10	9806-F-20230405-01	Total/NA	Water	PrecSep_0	
MB 160-611315/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-611315/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-611315/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 612140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183154-6	MW-17-F-20230404-01	Total/NA	Water	PrecSep-21	
MB 160-612140/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-612140/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-612140/23-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2019-09-F-20230403-01

Lab Sample ID: 240-183154-1

Date Collected: 04/03/23 10:58

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:09
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:24
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		20	569177	RKT	EET CLE	04/12/23 20:52
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 15:59
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 20:33
Total/NA	Analysis	300.0		50	571197	JWW	EET CLE	04/28/23 11:54
Total/NA	Analysis	300.0		500	571197	JWW	EET CLE	04/28/23 12:16
Total/NA	Analysis	SM 2540C		1	568696	MS	EET CLE	04/10/23 10:10
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611283	FLC	EET SL	05/12/23 06:13
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612288	FLC	EET SL	05/19/23 12:19
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Client Sample ID: 2019-07-F-20230403-01

Lab Sample ID: 240-183154-2

Date Collected: 04/03/23 13:55

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:14
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:27
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		20	569177	RKT	EET CLE	04/12/23 20:55
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:01
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 20:38
Total/NA	Analysis	300.0		50	571197	JWW	EET CLE	04/28/23 12:37
Total/NA	Analysis	300.0		500	571197	JWW	EET CLE	04/28/23 12:59
Total/NA	Analysis	SM 2540C		1	568696	MS	EET CLE	04/10/23 10:10
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611283	FLC	EET SL	05/12/23 06:14
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612288	FLC	EET SL	05/19/23 12:19
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230403-01

Lab Sample ID: 240-183154-3

Date Collected: 04/03/23 15:00

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:18
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:30
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:03
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 20:42
Total/NA	Analysis	300.0		1	571197	JWW	EET CLE	04/28/23 14:04
Total/NA	Analysis	SM 2540C		1	568696	MS	EET CLE	04/10/23 10:10
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611283	FLC	EET SL	05/12/23 06:14
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612288	FLC	EET SL	05/19/23 12:19
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Client Sample ID: 93108-F-20230404-01

Lab Sample ID: 240-183154-4

Date Collected: 04/04/23 09:18

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:23
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:33
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		5	569177	RKT	EET CLE	04/12/23 20:58
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:05
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 20:47
Total/NA	Analysis	300.0		5	571198	JWW	EET CLE	04/28/23 07:38
Total/NA	Analysis	300.0		25	571198	JWW	EET CLE	04/28/23 07:59
Total/NA	Analysis	SM 2540C		1	568879	MS	EET CLE	04/11/23 09:48
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611283	FLC	EET SL	05/12/23 06:14
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612289	FLC	EET SL	05/19/23 12:20
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: DUP-003-93108-F-20230404-01

Lab Sample ID: 240-183154-5

Date Collected: 04/04/23 09:18

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:27
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:42
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		5	569177	RKT	EET CLE	04/12/23 21:01
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:07
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 20:52
Total/NA	Analysis	300.0		5	571198	JWW	EET CLE	04/28/23 08:19
Total/NA	Analysis	300.0		25	571198	JWW	EET CLE	04/28/23 08:39
Total/NA	Analysis	SM 2540C		1	568879	MS	EET CLE	04/11/23 09:48
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611283	FLC	EET SL	05/12/23 06:14
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612289	FLC	EET SL	05/19/23 12:20
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Client Sample ID: MW-17-F-20230404-01

Lab Sample ID: 240-183154-6

Date Collected: 04/04/23 11:08

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:32
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:45
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		10	569177	RKT	EET CLE	04/12/23 21:09
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:09
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 20:57
Total/NA	Analysis	300.0		5	571198	JWW	EET CLE	04/28/23 08:59
Total/NA	Analysis	300.0		50	571198	JWW	EET CLE	04/28/23 09:19
Total/NA	Analysis	SM 2540C		1	568879	MS	EET CLE	04/11/23 09:48
Total/NA	Prep	PrecSep-21			612140	KAC	EET SL	05/18/23 11:17
Total/NA	Analysis	9315		1	615766	FLC	EET SL	06/13/23 08:47
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:47
Total/NA	Analysis	9320		1	612289	FLC	EET SL	05/19/23 12:21
Total/NA	Analysis	Ra226_Ra228		1	615790	SCB	EET SL	06/13/23 15:44

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 9802-F-20230404-01

Lab Sample ID: 240-183154-7

Date Collected: 04/04/23 13:56

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 22:40
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:10
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 15:52
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 21:02
Total/NA	Analysis	300.0		1	571198	JWW	EET CLE	04/28/23 09:39
Total/NA	Analysis	SM 2540C		1	568879	MS	EET CLE	04/11/23 09:48
Total/NA	Prep	PrecSep-21			608150	KAC	EET SL	04/19/23 13:18
Total/NA	Analysis	9315		1	611049	FLC	EET SL	05/11/23 19:40
Total/NA	Prep	PrecSep_0			608160	KAC	EET SL	04/19/23 14:02
Total/NA	Analysis	9320		1	611047	FLC	EET SL	05/11/23 13:02
Total/NA	Analysis	Ra226_Ra228		1	611295	SCB	EET SL	05/12/23 11:39

Client Sample ID: 9801-F-20230404-01

Lab Sample ID: 240-183154-8

Date Collected: 04/04/23 14:42

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:45
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:48
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		20	569177	RKT	EET CLE	04/12/23 21:12
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:16
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 21:12
Total/NA	Analysis	300.0		10	571198	JWW	EET CLE	04/28/23 12:20
Total/NA	Analysis	300.0		100	571198	JWW	EET CLE	04/28/23 12:41
Total/NA	Analysis	SM 2540C		1	568879	MS	EET CLE	04/11/23 09:48
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611283	FLC	EET SL	05/12/23 06:14
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612289	FLC	EET SL	05/19/23 12:20
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230404-01

Lab Sample ID: 240-183154-9

Date Collected: 04/04/23 15:10

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:49
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:51
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:18
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 21:16
Total/NA	Analysis	300.0		1	571198	JWW	EET CLE	04/28/23 13:01
Total/NA	Analysis	SM 2540C		1	568879	MS	EET CLE	04/11/23 09:48
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611283	FLC	EET SL	05/12/23 06:14
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612289	FLC	EET SL	05/19/23 12:20
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Client Sample ID: 9806-F-20230405-01

Lab Sample ID: 240-183154-10

Date Collected: 04/05/23 11:10

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:53
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:54
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:20
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 21:22
Total/NA	Analysis	300.0		1	571198	JWW	EET CLE	04/28/23 13:21
Total/NA	Analysis	300.0		5	571198	JWW	EET CLE	04/28/23 13:41
Total/NA	Analysis	SM 2540C		1	569063	GH	EET CLE	04/12/23 10:05
Total/NA	Prep	PrecSep-21			607889	KAC	EET SL	04/18/23 10:45
Total/NA	Analysis	9315		1	611284	FLC	EET SL	05/12/23 06:17
Total/NA	Prep	PrecSep_0			611315	KAC	EET SL	05/12/23 13:41
Total/NA	Analysis	9320		1	612289	FLC	EET SL	05/19/23 12:21
Total/NA	Analysis	Ra226_Ra228		1	615791	SCB	EET SL	06/13/23 15:45

Client Sample ID: 2003-F-20230405-01

Lab Sample ID: 240-183154-11

Date Collected: 04/05/23 12:17

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/11/23 23:58

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: 2003-F-20230405-01
Date Collected: 04/05/23 12:17
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183154-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 17:57
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:22
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 21:28
Total/NA	Analysis	300.0		1	571198	JWW	EET CLE	04/28/23 15:02
Total/NA	Analysis	300.0		10	571198	JWW	EET CLE	04/28/23 18:43
Total/NA	Analysis	SM 2540C		1	569063	GH	EET CLE	04/12/23 10:05
Total/NA	Prep	PrecSep-21			608150	KAC	EET SL	04/19/23 13:18
Total/NA	Analysis	9315		1	611049	FLC	EET SL	05/11/23 19:41
Total/NA	Prep	PrecSep_0			608160	KAC	EET SL	04/19/23 14:02
Total/NA	Analysis	9320		1	611117	FLC	EET SL	05/11/23 13:11
Total/NA	Analysis	Ra226_Ra228		1	611295	SCB	EET SL	05/12/23 11:39

Client Sample ID: 2000-F-20230405-01
Date Collected: 04/05/23 13:09
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183154-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/12/23 00:02
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 18:00
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:24
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 21:33
Total/NA	Analysis	300.0		10	571198	JWW	EET CLE	04/28/23 19:24
Total/NA	Analysis	SM 2540C		1	569063	GH	EET CLE	04/12/23 10:05
Total/NA	Prep	PrecSep-21			608150	KAC	EET SL	04/19/23 13:18
Total/NA	Analysis	9315		1	611049	FLC	EET SL	05/11/23 19:41
Total/NA	Prep	PrecSep_0			608160	KAC	EET SL	04/19/23 14:02
Total/NA	Analysis	9320		1	611117	FLC	EET SL	05/11/23 13:11
Total/NA	Analysis	Ra226_Ra228		1	611295	SCB	EET SL	05/12/23 11:39

Client Sample ID: EB-001-F-20230405-01
Date Collected: 04/05/23 15:30
Date Received: 04/07/23 08:00

Lab Sample ID: 240-183154-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6010D		1	568985	AJC	EET CLE	04/12/23 00:07
Total Recoverable	Prep	3005A			568717	MRL	EET CLE	04/10/23 14:00
Total Recoverable	Analysis	6020B		1	569003	RKT	EET CLE	04/11/23 18:03

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Client Sample ID: EB-001-F-20230405-01

Lab Sample ID: 240-183154-13

Date Collected: 04/05/23 15:30

Matrix: Water

Date Received: 04/07/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			568722	MRL	EET CLE	04/10/23 14:00
Total/NA	Analysis	7470A		1	569031	DSH	EET CLE	04/11/23 16:26
Total/NA	Analysis	2320B-1997		1	569785	JWW	EET CLE	04/17/23 21:36
Total/NA	Analysis	300.0		1	571198	JWW	EET CLE	04/28/23 14:01
Total/NA	Analysis	SM 2540C		1	569063	GH	EET CLE	04/12/23 10:05
Total/NA	Prep	PrecSep-21			608150	KAC	EET SL	04/19/23 13:18
Total/NA	Analysis	9315		1	611049	FLC	EET SL	05/11/23 19:41
Total/NA	Prep	PrecSep_0			608160	KAC	EET SL	04/19/23 14:02
Total/NA	Analysis	9320		1	611117	FLC	EET SL	05/11/23 13:11
Total/NA	Analysis	Ra226_Ra228		1	611295	SCB	EET SL	05/12/23 11:39

Laboratory References:

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

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



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	05-24-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	05-31-23
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	04-30-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	06-12-23
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	05-24-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	05-07-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-183154-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Client Information
 Client Contact: Taylor Huffman
 Address: Lightstone Generation Gavin Power LLC, 7397 OH-7, Cheshire, OH, 45620
 Phone: 740-925-3171(Tel)
 Email: taylor.huffman@lightstonegen.com
 Project #: 24019633
 Federal - CCR Wells
 Site: Ohio

Sampler: Bobby Castro
 Lab PM: Cisneros, Roxanne
 Phone: 740-373-4308
 E-Mail: roxanne.cisneros@Eurofins.com

Carrier Tracking No(s): 240-93018-34502
 Page: Page 1 of 2
 Job #: Pg 1 of 2

Analysis Requested
 Perform MS/MSD (Yes or No) Yes No
 6010B, 7470, 6020(See Metals List) Yes No
 2540C, Calcd, 300.0, 250(Chloride, Fluoride, Sulfate) Yes No
 9315, Ra226, 9320, Ra228 Yes No
 2320B(Carbonate Alkalinity/Bi-Carbonate Alkalinity) Yes No

Due Date Requested: TAT Requested (days):
 Compliance Project: Yes No
 PO #: 2935505
 WO #:
 Project #: 24019633
 SSOW#:
 Matrix (W=Water, S=Solid, O=Other, A=Asst)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470, 6020(See Metals List)	2540C, Calcd, 300.0, 250(Chloride, Fluoride, Sulfate)	9315, Ra226, 9320, Ra228	2320B(Carbonate Alkalinity/Bi-Carbonate Alkalinity)	Total Number of Containers	Special Instructions/Note:
2019-09-F-20230403-01	4-3-23	1058	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2019-07-F-20230403-01	4-3-23	1355	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
EB-001-F-20230403-01	4-3-23	1500	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
93108-F-20230404-01	4-4-23	0918	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DUP-003-93108-F-20230404-01	4-4-23	0918	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-17-F-20230404-01	4-4-23	1108	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9802-F-20230404-01	4-4-23	1356	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9802-F-20230404-MS	4-4-23	1356	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9801-F-20230404-C1	4-4-23	1442	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
EB-001-F-20230404-01	4-4-23	1510	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

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

Special Instructions/QC Requirements:
 240-183154 Chain of Custody

Method of Shipment: _____
 Date: _____
 Received by: _____
 Date/Time: 4-6-23 10900
 Company: KEMPAN
 Received by: _____
 Date/Time: 4-6-23 1700
 Company: 37A
 Received by: Leah M. Smith
 Date/Time: 4-6-23 800
 Company: EFTNC

Cooler Temperature(s) °C and Other Remarks: _____

Client Information		Sampler: Bobby Castle		Lab PM: Cisneros, Roxanne		Carrier Tracking No(s): 240-93018-34502	
Client Contact: Taylor Huffman		Phone: 740-373-4308		E-Mail: roxanne.cisneros@eurofins.com		State of Origin:	
Company: Lightstone Generation Gavin Power LLC		PWSID:		Analysis Requested		Job #: Pg 2 of 2	
Address: 7397 OH-7		Due Date Requested:		Perform MS/MSD (Yes or No)		Total Number of Containers	
City: Cheshire		TAT Requested (days):		60108, 7470, 6020 (See Metals List)		2540C_Calcd, 300.0_280 (Chloride, Fluoride, Sulfate)	
State, Zip: OH, 45620		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		9315_Ra226, 9320_Ra228		2220B(Carbonate Alkalinity/Bi-Carbonate Alkalinity)	
Phone: 740-925-3171(Tel)		PO #: 2935505		Field Filtered Sample (Yes or No)		Preservation Codes:	
Email: taylor.huffman@lightstonegen.com		WO #: 24019633		Sample Date		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Project Name: Federal - CCR Wells		SSOW#:		Sample Time		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Site: Ohio		Sample Type (C=Comp, G=grab)		Sample Date		Special Instructions/Note:	
Sample Identification		Preservation Code:		Sample Date			
9806-F-20230405-01		W		4-5-23 1110			
2003-F-20230405-01		W		4-5-23 1217			
2000-F-20230405-01		W		4-5-23 1309			
EB-001-F-20230405-01		W		4-5-23 1530			
Possible Hazard Identification		Sample Date		Sample Time			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Radiological		Sample Date		Sample Time			
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Date		Sample Time			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>Bobby Castle</i>		Date: 4-6-23 / 0900		Time:		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months	
Relinquished by: <i>[Signature]</i>		Date: 4-6-23 1700		Time:		Special Instructions/QC Requirements:	
Relinquished by: <i>[Signature]</i>		Date: 4-6-23 1700		Time:		Received by: <i>[Signature]</i>	
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Date: 4-6-23 / 0900		Time:		Company: <i>ETA</i>	
Custody Seal No.:		Date: 4-6-23 1700		Time:		Company: <i>ETA</i>	
Custody Seal No.:		Date: 4-6-23 1700		Time:		Company: <i>ETA</i>	
Custody Seal No.:		Date: 4-6-23 1700		Time:		Company: <i>ETA</i>	



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

Client Lightstone Generation Gavin Power LLC Site Name _____ Cooler unpacked by: Leah M. Smith
Cooler Received on 04-07-23 Opened on 04-07-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____


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

Eurofins Cooler # EC Foam Box _____ Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # *22* (CF +0.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings:

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
2019-09-F-20230403-01	240-183154-C-1	Plastic 500ml - with Nitric Acid	<2			
2019-09-F-20230403-01	240-183154-D-1	Plastic 1 liter - Nitric Acid	<2			
2019-09-F-20230403-01	240-183154-E-1	Plastic 1 liter - Nitric Acid	<2			
2019-07-F-20230403-01	240-183154-C-2	Plastic 500ml - with Nitric Acid	<2			
2019-07-F-20230403-01	240-183154-D-2	Plastic 1 liter - Nitric Acid	<2			
2019-07-F-20230403-01	240-183154-E-2	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230403-01	240-183154-C-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230403-01	240-183154-D-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230403-01	240-183154-E-3	Plastic 1 liter - Nitric Acid	<2			
93108-F-20230404-01	240-183154-C-4	Plastic 500ml - with Nitric Acid	<2			
93108-F-20230404-01	240-183154-D-4	Plastic 1 liter - Nitric Acid	<2			
93108-F-20230404-01	240-183154-E-4	Plastic 1 liter - Nitric Acid	<2			
DUP-003-93108-F-20230404-01	240-183154-C-5	Plastic 500ml - with Nitric Acid	<2			
DUP-003-93108-F-20230404-01	240-183154-D-5	Plastic 1 liter - Nitric Acid	<2			
DUP-003-93108-F-20230404-01	240-183154-E-5	Plastic 1 liter - Nitric Acid	<2			
MW-17-F-20230404-01	240-183154-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-17-F-20230404-01	240-183154-D-6	Plastic 1 liter - Nitric Acid	<2			
MW-17-F-20230404-01	240-183154-E-6	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230404-01	240-183154-G-7	Plastic 500ml - with Nitric Acid	<2			
9802-F-20230404-01	240-183154-H-7	Plastic 500ml - with Nitric Acid	<2			
9802-F-20230404-01	240-183154-I-7	Plastic 500ml - with Nitric Acid	<2			
9802-F-20230404-01	240-183154-J-7	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230404-01	240-183154-K-7	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230404-01	240-183154-L-7	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230404-01	240-183154-M-7	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230404-01	240-183154-N-7	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230404-01	240-183154-O-7	Plastic 1 liter - Nitric Acid	<2			
9801-F-20230404-01	240-183154-C-8	Plastic 500ml - with Nitric Acid	<2			
9801-F-20230404-01	240-183154-D-8	Plastic 1 liter - Nitric Acid	<2			
9801-F-20230404-01	240-183154-E-8	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230404-01	240-183154-C-9	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230404-01	240-183154-D-9	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230404-01	240-183154-E-9	Plastic 1 liter - Nitric Acid	<2			
9806-F-20230405-01	240-183154-C-10	Plastic 500ml - with Nitric Acid	<2			
9806-F-20230405-01	240-183154-D-10	Plastic 1 liter - Nitric Acid	<2			

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
9806-F-20230405-01	240-183154-E-10	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2003-F-20230405-01	240-183154-C-11	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2003-F-20230405-01	240-183154-D-11	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2003-F-20230405-01	240-183154-E-11	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2000-F-20230405-01	240-183154-C-12	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2000-F-20230405-01	240-183154-D-12	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2000-F-20230405-01	240-183154-E-12	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230405-01	240-183154-C-13	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230405-01	240-183154-D-13	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230405-01	240-183154-E-13	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

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Eurofins - Canton Sample Receipt Multiple Cooler Form									
Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 22	1.4	1.4	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	2.4	2.4	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	1.8	1.8	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	2.0	2.0	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	1.6	1.6	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	1.8	1.8	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	

See Temperature Excursion Form

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

Chain of Custody Record



eurofins

Environment Testing

Client Information (Sub Contract Lab)		Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 240-166094.1
Shipping/Receiving		E-Mail: roxanne.cisneros@et.eurofins.com	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):	Job #: 240-183154-1
Address: 13715 Rider Trail North,		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Earth City		M - Hexane	
State, Zip: MO, 63045		N - None	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		O - AsNaO2	
Email:		P - Na2OAS	
Project #: 24019633		Q - Na2SO3	
Site: Federal GWM Wells		R - Na2S2O3	
		S - H2SO4	
		T - TSP Dodecahydrate	
		U - Acetone	
		V - MCAA	
		W - pH 4-5	
		Y - Trizma	
		Z - other (specify)	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wash/coll, BTA=leach, A=air)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	9320_R428/PreSep_0 Radium-226 (GFC)	9315_R428/PreSep_21 Radium-226 (GFC)	R428R428_GFFC/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
2019-09-F-20230403-01 (240-183154-1)	4/3/23	10:58 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
2019-07-F-20230403-01 (240-183154-2)	4/3/23	13:55 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20230403-01 (240-183154-3)	4/3/23	15:00 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
93108-F-20230404-01 (240-183154-4)	4/4/23	09:18 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-003-93108-F-20230404-01 (240-183154-5)	4/4/23	09:18 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
MW-17-F-20230404-01 (240-183154-6)	4/4/23	11:08 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
9802-F-20230404-01 (240-183154-7)	4/4/23	13:56 Eastern	Water	Water	X	X	X	X	X	6	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
9802-F-20230404-01 MS (240-183154-7MS)	4/4/23	13:56 Eastern	MS	Water	X	X	X	X	X	1	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
9802-F-20230404-01 MSD (240-183154-7MSD)	4/4/23	13:56 Eastern	MSD	Water	X	X	X	X	X	1	. Recount of TAR after 21 day ingrowth if > action limit; save planchet

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Special Instructions/QC Requirements: Return To Client Disposal By Lab Archive For _____ Months

Relinquished by: <i>[Signature]</i>	Date: 4/12/23 1510	Company: BECK	Method of Shipment:
Relinquished by: <i>[Signature]</i>	Date: _____	Company: _____	Date/Time: _____
Relinquished by: <i>[Signature]</i>	Date: _____	Company: _____	Date/Time: 4/12/23 0940
Relinquished by: <i>[Signature]</i>	Date: _____	Company: _____	Date/Time: _____

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



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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:						
Client Contact: Shipping/Receiving		Phone:	Cisneros, Roxanne	State of Origin: Ohio	240-166094.2						
Company: TetraAmerica Laboratories, Inc.		E-Mail: roxanne.cisneros@et.eurofinsus.com	Accreditations Required (See note):	Page: Page 2 of 2	Job #: 240-183154-1						
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		Due Date Requested: 4/20/2023 TAT Requested (days):	Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify)								
Project Name: Federal GWM Wells Site:		PO #: WO #: Project #: 24019633 SSOW#:	Analysis Requested								
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soils, B1=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PreSep_0 Radium-226 (GFC)	9315_Ra226/PreSep_21 Radium-226 (GFC)	Ra226Ra228_GFC/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
9801-F-20230404-01 (240-183154-8)	4/4/23	14:42 Eastern	Water	Water	X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20230404-01 (240-183154-9)	4/4/23	15:10 Eastern	Water	Water	X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
9806-F-20230405-01 (240-183154-10)	4/5/23	11:10 Eastern	Water	Water	X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2003-F-20230405-01 (240-183154-11)	4/5/23	12:17 Eastern	Water	Water	X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2000-F-20230405-01 (240-183154-12)	4/5/23	13:09 Eastern	Water	Water	X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20230405-01 (240-183154-13)	4/5/23	15:30 Eastern	Water	Water	X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Special Instructions/QC Requirements: Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Debra Havelio* Date/Time: *4/19/23 1510* Company: *BETK*
 Relinquished by: *Feder* Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: _____



Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Lab PM: Cisneros, Roxanne		Carrier Tracking No(s):		COC No: 240-168196.1	
Client Contact: Shipping/Receiving		E-Mail: roxanne.cisneros@el.eurofinsus.com		State of Origin: Ohio		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-183154-1			
Address: 13715 Rider Trail North,		Due Date Requested: 5/10/2023		Preservation Codes:			
City: Earth City		TAT Requested (days):		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)			
State, Zip: MO, 63045		PO #:		Analysis Requested			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:					
Email:		Project #:					
Federal CCR Wells		SSOW#:		Total Number of Containers		Special Instructions/Note:	
Site:		Project Name:					
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
MW-17-F-20230404-01 (240-183154-6)		4/4/23		11:08 Eastern		Water	
Matrix (W=water, S=solid, O=volatile, BT=Trace, A=Air)		Preservation Code:		9320_Ra228/precSep_0 Radium-226 (GFPC)		X	
Find Filtered Sample (Yes or No)		9315_Ra226/precSep_21 Radium-226 (GFPC)		X		X	
Form MS/MSD (Yes or No)		Radium-228		X		X	
9326Ra228 GFPC/Combined Radium-226 and		X		X		X	
9320_Ra228/precSep_0 Radium-226 (GFPC)		X		X		X	
9315_Ra226/precSep_21 Radium-226 (GFPC)		X		X		X	
Radium-228		X		X		X	
MW-17-F-20230404-01 (240-183154-6)		Recount of TAR after 21 day ingrowth if > action limit; save planchet		3			

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

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

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *RPB* Date: *5/16/23* 1500
 Relinquished by: *FedEx* Date: *08/10* *may 17 2023*
 Relinquished by: _____ Date/Time: _____
 Company: *FEDEX*
 Company: *FEDEX*
 Company: _____

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



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-183154-1

Login Number: 183154

List Number: 2

Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis

List Creation: 04/10/23 02:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	Samples preserved upon arrival
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/18/2023 4:46:53 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-191929-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

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10/18/2023 4:46:53 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Qualifiers

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
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.

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Job ID: 240-191929-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-191929-1

Receipt

The samples were received on 9/19/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 9.6° C and 11.0° C.

Receipt Exceptions

The reference method requires samples to have a pH of <2. The following sample was received with a pH of 7: DUP-001-F-20230913-01 (240-191929-2). The sample was adjusted to the appropriate pH in the laboratory.

RAD

Methods 9315: Radium-226 batch 629461: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-10-F-20230913-01 (240-191929-1), DUP-001-F-20230913-01 (240-191929-2), EB-001-F-20230913-01 (240-191929-3), MW-20-F-20230914-01 (240-191929-4), 96153R-F-20230914-01 (240-191929-5), 96154R-F-20230914-01 (240-191929-6), 2016-07-F-20230914-01 (240-191929-8), EB-001-F-20230914-01 (240-191929-9), (LCS 160-629461/2-A), (MB 160-629461/1-A)

Methods 9320: Radium-228 batch 629462: The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 96154R-F-20230914-01 (240-191929-6). Analytical results are reported with the detection limit achieved.

Methods 9320: Radium-228 batch 629462: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-10-F-20230913-01 (240-191929-1), DUP-001-F-20230913-01 (240-191929-2), EB-001-F-20230913-01 (240-191929-3), MW-20-F-20230914-01 (240-191929-4), 96153R-F-20230914-01 (240-191929-5), 96154R-F-20230914-01 (240-191929-6), 2016-07-F-20230914-01 (240-191929-8), EB-001-F-20230914-01 (240-191929-9), (LCS 160-629462/2-A), (MB 160-629462/1-A)

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

Metals

Method 6020B: The continuing calibration blank (CCB) was greater than or equal to the requested reporting for Sodium. Since the sample result(s) was/were below the requested reporting limit the result(s) was/were accepted. EB-001-F-20230914-01 (240-191929-9)

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

General Chemistry

Method 300.0: The following samples were diluted due to the nature of the sample matrix: 2016-10-F-20230913-01 (240-191929-1) and DUP-001-F-20230913-01 (240-191929-2). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-191929-1	2016-10-F-20230913-01	Water	09/13/23 12:03	09/19/23 10:00
240-191929-2	DUP-001-F-20230913-01	Water	09/13/23 00:00	09/19/23 10:00
240-191929-3	EB-001-F-20230913-01	Water	09/13/23 15:00	09/19/23 10:00
240-191929-4	MW-20-F-20230914-01	Water	09/14/23 09:44	09/19/23 10:00
240-191929-5	96153R-F-20230914-01	Water	09/14/23 10:59	09/19/23 10:00
240-191929-6	96154R-F-20230914-01	Water	09/14/23 12:16	09/19/23 10:00
240-191929-7	9910-F-20230914-01	Water	09/14/23 13:25	09/19/23 10:00
240-191929-8	2016-07-F-20230914-01	Water	09/14/23 14:48	09/19/23 10:00
240-191929-9	EB-001-F-20230914-01	Water	09/14/23 15:00	09/19/23 10:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 2016-10-F-20230913-01

Lab Sample ID: 240-191929-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	310		100	57	ug/L	1		6010D	Total Recoverable
Antimony	2.6		2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	510		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	370000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	6.3		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	1100		160	33	ug/L	20		6020B	Total Recoverable
Magnesium	110000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	41		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	600000		20000	4300	ug/L	20		6020B	Total Recoverable
Selenium	2.9	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	4900000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	0.22	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	840		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	88		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	7300		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.36	J	0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	200		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	11000	H	1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-20230913-01

Lab Sample ID: 240-191929-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	57	ug/L	1		6010D	Total Recoverable
Antimony	3.1		2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	6.2		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	510		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.23	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	380000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	10		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.5		1.0	0.19	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: DUP-001-F-20230913-01 (Continued)

Lab Sample ID: 240-191929-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	1200		160	33	ug/L	20		6020B	Total Recoverable
Magnesium	110000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	44		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	620000		20000	4300	ug/L	20		6020B	Total Recoverable
Selenium	3.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	4800000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	0.87	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	800		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	73		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	7300		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.30	J	0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	190		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	9000	H	1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230913-01

Lab Sample ID: 240-191929-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	5.9	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Potassium	360	J	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2600		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.23	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	5.7		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	5.7		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: MW-20-F-20230914-01

Lab Sample ID: 240-191929-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	57	ug/L	1		6010D	Total Recoverable
Barium	17		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	480000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	210		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	180		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	110000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	5500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	24000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: MW-20-F-20230914-01 (Continued)

Lab Sample ID: 240-191929-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1.5		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	1.3		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1700		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	2300		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96153R-F-20230914-01

Lab Sample ID: 240-191929-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	540		100	57	ug/L	1		6010D	Total Recoverable
Barium	32		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	130000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.60	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	45		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	24000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.3	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	6500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	310000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	11		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.60		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	890		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96154R-F-20230914-01

Lab Sample ID: 240-191929-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	530		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	190		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	9600		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	11		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.4		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	2.8		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	41		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	2600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 96154R-F-20230914-01 (Continued)

Lab Sample ID: 240-191929-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	5700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	600000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	560		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	52		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	560		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	4.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	43		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1500		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9910-F-20230914-01

Lab Sample ID: 240-191929-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity	830		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	800		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	25		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1100		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	120		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3000		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2016-07-F-20230914-01

Lab Sample ID: 240-191929-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	460		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	410		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.20	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	36		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3900		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	100		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	910000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	29		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1200		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	2.9		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	17		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	2300		40	31	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: EB-001-F-20230914-01

Lab Sample ID: 240-191929-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	640	J ^2	1000	330	ug/L	1		6020B	Total Recoverable

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

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 2016-10-F-20230913-01

Lab Sample ID: 240-191929-1

Date Collected: 09/13/23 12:03

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	310		100	57	ug/L		09/20/23 14:00	09/21/23 17:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.6		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:22	1
Arsenic	4.4	J	5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:22	1
Barium	510		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:22	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:22	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:22	1
Calcium	370000		1000	250	ug/L		09/20/23 14:00	09/21/23 15:22	1
Chromium	6.3		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:22	1
Cobalt	1.2		1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:22	1
Lead	1.2		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:22	1
Lithium	1100		160	33	ug/L		09/20/23 14:00	09/22/23 10:58	20
Magnesium	110000		1000	61	ug/L		09/20/23 14:00	09/21/23 15:22	1
Molybdenum	41		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:22	1
Potassium	600000		20000	4300	ug/L		09/20/23 14:00	09/22/23 10:58	20
Selenium	2.9	J	5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:22	1
Sodium	4900000		20000	6600	ug/L		09/20/23 14:00	09/22/23 10:58	20
Thallium	0.22	J	1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	840		5.0	2.6	mg/L			09/22/23 20:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 20:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	88		5.0	2.6	mg/L			09/22/23 20:33	1
Chloride (EPA 300.0)	7300		100	13	mg/L			10/06/23 00:07	100
Fluoride (EPA 300.0)	0.36	J	0.50	0.24	mg/L			10/05/23 23:45	10
Sulfate (EPA 300.0)	200		10	3.5	mg/L			10/05/23 23:45	10
Total Dissolved Solids (SM 2540C)	11000	H	1000	780	mg/L			09/21/23 12:14	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.38		0.371	0.429	1.00	0.222	pCi/L	09/25/23 11:17	10/17/23 14:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					09/25/23 11:17	10/17/23 14:00	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.38		0.965	1.13	1.00	0.676	pCi/L	09/25/23 11:21	10/12/23 11:09	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 2016-10-F-20230913-01
Date Collected: 09/13/23 12:03
Date Received: 09/19/23 10:00

Lab Sample ID: 240-191929-1
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110	09/25/23 11:21	10/12/23 11:09	1
Y Carrier	80.4		30 - 110	09/25/23 11:21	10/12/23 11:09	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	8.76		(2σ+/-) 1.03	(2σ+/-) 1.21	5.00	0.676	pCi/L		10/18/23 16:11	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: DUP-001-F-20230913-01

Lab Sample ID: 240-191929-2

Date Collected: 09/13/23 00:00

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	300		100	57	ug/L		09/20/23 14:00	09/21/23 18:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.1		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:35	1
Arsenic	6.2		5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:35	1
Barium	510		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:35	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:35	1
Cadmium	0.23	J	1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:35	1
Calcium	380000		1000	250	ug/L		09/20/23 14:00	09/21/23 15:35	1
Chromium	10		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:35	1
Cobalt	1.5		1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:35	1
Lead	1.6		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:35	1
Lithium	1200		160	33	ug/L		09/20/23 14:00	09/22/23 11:12	20
Magnesium	110000		1000	61	ug/L		09/20/23 14:00	09/21/23 15:35	1
Molybdenum	44		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:35	1
Potassium	620000		20000	4300	ug/L		09/20/23 14:00	09/22/23 11:12	20
Selenium	3.4	J	5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:35	1
Sodium	4800000		20000	6600	ug/L		09/20/23 14:00	09/22/23 11:12	20
Thallium	0.87	J	1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	800		5.0	2.6	mg/L			09/22/23 20:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 20:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	73		5.0	2.6	mg/L			09/22/23 20:52	1
Chloride (EPA 300.0)	7300		100	13	mg/L			10/05/23 23:24	100
Fluoride (EPA 300.0)	0.30	J	0.50	0.24	mg/L			10/05/23 23:02	10
Sulfate (EPA 300.0)	190		10	3.5	mg/L			10/05/23 23:02	10
Total Dissolved Solids (SM 2540C)	9000	H	1000	780	mg/L			09/21/23 12:14	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.09		0.370	0.463	1.00	0.166	pCi/L	09/25/23 11:17	10/17/23 14:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.0		30 - 110					09/25/23 11:17	10/17/23 14:00	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	7.18		0.938	1.15	1.00	0.635	pCi/L	09/25/23 11:21	10/12/23 11:09	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: DUP-001-F-20230913-01

Lab Sample ID: 240-191929-2

Date Collected: 09/13/23 00:00

Matrix: Water

Date Received: 09/19/23 10:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	79.0		30 - 110	09/25/23 11:21	10/12/23 11:09	1
Y Carrier	77.8		30 - 110	09/25/23 11:21	10/12/23 11:09	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	10.3		1.01	1.24	5.00	0.635	pCi/L		10/18/23 16:11	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: EB-001-F-20230913-01

Lab Sample ID: 240-191929-3

Date Collected: 09/13/23 15:00

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/20/23 14:00	09/21/23 18:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:37	1
Arsenic	ND		5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:37	1
Barium	ND		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:37	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:37	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:37	1
Calcium	ND		1000	250	ug/L		09/20/23 14:00	09/21/23 15:37	1
Chromium	ND		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:37	1
Cobalt	ND		1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:37	1
Lead	ND		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:37	1
Lithium	5.9	J	8.0	1.7	ug/L		09/20/23 14:00	09/21/23 15:37	1
Magnesium	ND		1000	61	ug/L		09/20/23 14:00	09/21/23 15:37	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:37	1
Potassium	360	J	1000	220	ug/L		09/20/23 14:00	09/21/23 15:37	1
Selenium	ND		5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:37	1
Sodium	2600		1000	330	ug/L		09/20/23 14:00	09/21/23 15:37	1
Thallium	0.23	J	1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	5.7		5.0	2.6	mg/L			09/22/23 21:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	5.7		5.0	2.6	mg/L			09/22/23 21:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 21:00	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/06/23 08:04	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/06/23 08:04	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/06/23 08:04	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/20/23 08:33	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-0.0223	U	0.0735	0.0735	1.00	0.158	pCi/L	09/25/23 11:17	10/17/23 14:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		30 - 110					09/25/23 11:17	10/17/23 14:01	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	-0.0953	U	0.258	0.258	1.00	0.519	pCi/L	09/25/23 11:21	10/12/23 11:09	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: EB-001-F-20230913-01

Lab Sample ID: 240-191929-3

Date Collected: 09/13/23 15:00

Matrix: Water

Date Received: 09/19/23 10:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		30 - 110	09/25/23 11:21	10/12/23 11:09	1
Y Carrier	79.6		30 - 110	09/25/23 11:21	10/12/23 11:09	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	-0.118	U	0.268	0.268	5.00	0.519	pCi/L		10/18/23 16:11	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: MW-20-F-20230914-01

Lab Sample ID: 240-191929-4

Date Collected: 09/14/23 09:44

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130		100	57	ug/L		09/20/23 14:00	09/21/23 18:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:40	1
Arsenic	ND		5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:40	1
Barium	17		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:40	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:40	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:40	1
Calcium	480000		1000	250	ug/L		09/20/23 14:00	09/21/23 15:40	1
Chromium	ND		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:40	1
Cobalt	210		1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:40	1
Lead	ND		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:40	1
Lithium	180		8.0	1.7	ug/L		09/20/23 14:00	09/21/23 15:40	1
Magnesium	110000		1000	61	ug/L		09/20/23 14:00	09/21/23 15:40	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:40	1
Potassium	5500		1000	220	ug/L		09/20/23 14:00	09/21/23 15:40	1
Selenium	ND		5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:40	1
Sodium	24000		1000	330	ug/L		09/20/23 14:00	09/21/23 15:40	1
Thallium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			09/22/23 21:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			09/22/23 21:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 21:03	1
Chloride (EPA 300.0)	1.5		1.0	0.13	mg/L			10/06/23 07:21	1
Fluoride (EPA 300.0)	1.3		0.050	0.024	mg/L			10/06/23 07:21	1
Sulfate (EPA 300.0)	1700		10	3.5	mg/L			10/06/23 07:42	10
Total Dissolved Solids (SM 2540C)	2300		20	16	mg/L			09/20/23 08:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.139		0.0929	0.0937	1.00	0.124	pCi/L	09/25/23 11:17	10/17/23 14:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		30 - 110					09/25/23 11:17	10/17/23 14:01	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.440	U	0.351	0.354	1.00	0.544	pCi/L	09/25/23 11:21	10/12/23 11:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: MW-20-F-20230914-01

Lab Sample ID: 240-191929-4

Date Collected: 09/14/23 09:44

Matrix: Water

Date Received: 09/19/23 10:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		30 - 110	09/25/23 11:21	10/12/23 11:08	1
Y Carrier	83.0		30 - 110	09/25/23 11:21	10/12/23 11:08	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.578		0.363	0.366	5.00	0.544	pCi/L		10/18/23 16:11	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 96153R-F-20230914-01

Lab Sample ID: 240-191929-5

Date Collected: 09/14/23 10:59

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	540		100	57	ug/L		09/20/23 14:00	09/21/23 19:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:42	1
Arsenic	ND		5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:42	1
Barium	32		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:42	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:42	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:42	1
Calcium	130000		1000	250	ug/L		09/20/23 14:00	09/21/23 15:42	1
Chromium	ND		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:42	1
Cobalt	0.60	J	1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:42	1
Lead	ND		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:42	1
Lithium	45		8.0	1.7	ug/L		09/20/23 14:00	09/21/23 15:42	1
Magnesium	24000		1000	61	ug/L		09/20/23 14:00	09/21/23 15:42	1
Molybdenum	4.3	J	5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:42	1
Potassium	6500		1000	220	ug/L		09/20/23 14:00	09/21/23 15:42	1
Selenium	ND		5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:42	1
Sodium	310000		1000	330	ug/L		09/20/23 14:00	09/21/23 15:42	1
Thallium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	260		5.0	2.6	mg/L			09/22/23 21:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	260		5.0	2.6	mg/L			09/22/23 21:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 21:08	1
Chloride (EPA 300.0)	11		1.0	0.13	mg/L			10/06/23 06:37	1
Fluoride (EPA 300.0)	0.60		0.050	0.024	mg/L			10/06/23 06:37	1
Sulfate (EPA 300.0)	890		10	3.5	mg/L			10/06/23 06:59	10
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			09/20/23 08:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.306		0.173	0.176	1.00	0.215	pCi/L	09/25/23 11:17	10/17/23 14:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	47.7		30 - 110					09/25/23 11:17	10/17/23 14:01	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.14		0.659	0.667	1.00	0.933	pCi/L	09/25/23 11:21	10/12/23 11:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 96153R-F-20230914-01

Lab Sample ID: 240-191929-5

Date Collected: 09/14/23 10:59

Matrix: Water

Date Received: 09/19/23 10:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	47.7		30 - 110	09/25/23 11:21	10/12/23 11:08	1
Y Carrier	79.6		30 - 110	09/25/23 11:21	10/12/23 11:08	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.44		0.681	0.690	5.00	0.933	pCi/L		10/18/23 16:11	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 96154R-F-20230914-01

Lab Sample ID: 240-191929-6

Date Collected: 09/14/23 12:16

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	530		100	57	ug/L		09/20/23 14:00	09/21/23 19:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:45	1
Arsenic	2.9	J	5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:45	1
Barium	190		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:45	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:45	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:45	1
Calcium	9600		1000	250	ug/L		09/20/23 14:00	09/21/23 15:45	1
Chromium	11		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:45	1
Cobalt	2.4		1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:45	1
Lead	2.8		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:45	1
Lithium	41		8.0	1.7	ug/L		09/20/23 14:00	09/21/23 15:45	1
Magnesium	2600		1000	61	ug/L		09/20/23 14:00	09/21/23 15:45	1
Molybdenum	110		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:45	1
Potassium	5700		1000	220	ug/L		09/20/23 14:00	09/21/23 15:45	1
Selenium	ND		5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:45	1
Sodium	600000		5000	1600	ug/L		09/20/23 14:00	10/11/23 15:02	5
Thallium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	560		5.0	2.6	mg/L			09/22/23 21:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	510		5.0	2.6	mg/L			09/22/23 21:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	52		5.0	2.6	mg/L			09/22/23 21:15	1
Chloride (EPA 300.0)	560		10	1.3	mg/L			10/06/23 06:16	10
Fluoride (EPA 300.0)	4.2		0.050	0.024	mg/L			10/06/23 05:54	1
Sulfate (EPA 300.0)	43		1.0	0.35	mg/L			10/06/23 05:54	1
Total Dissolved Solids (SM 2540C)	1500		20	16	mg/L			09/20/23 08:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.506	U	0.401	0.404	1.00	0.566	pCi/L	09/25/23 11:17	10/17/23 14:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	30.8		30 - 110					09/25/23 11:17	10/17/23 14:01	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.67	G	2.63	2.70	1.00	3.42	pCi/L	09/25/23 11:21	10/12/23 11:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 96154R-F-20230914-01

Lab Sample ID: 240-191929-6

Date Collected: 09/14/23 12:16

Matrix: Water

Date Received: 09/19/23 10:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	30.8		30 - 110	09/25/23 11:21	10/12/23 11:08	1
Y Carrier	77.8		30 - 110	09/25/23 11:21	10/12/23 11:08	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	7.18		2.66	2.73	5.00	3.42	pCi/L		10/18/23 16:11	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 9910-F-20230914-01

Lab Sample ID: 240-191929-7

Date Collected: 09/14/23 13:25

Matrix: Water

Date Received: 09/19/23 10:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	830		5.0	2.6	mg/L			09/22/23 21:21	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	800		5.0	2.6	mg/L			09/22/23 21:21	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	25		5.0	2.6	mg/L			09/22/23 21:21	1
Chloride (EPA 300.0)	1100		25	3.2	mg/L			10/06/23 04:49	25
Fluoride (EPA 300.0)	1.3		0.25	0.12	mg/L			10/06/23 04:27	5
Sulfate (EPA 300.0)	120		5.0	1.7	mg/L			10/06/23 04:27	5
Total Dissolved Solids (SM 2540C)	3000		50	39	mg/L			09/20/23 08:27	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 2016-07-F-20230914-01

Lab Sample ID: 240-191929-8

Date Collected: 09/14/23 14:48

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	460		100	57	ug/L		09/20/23 14:00	09/21/23 19:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:52	1
Arsenic	2.6	J	5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:52	1
Barium	410		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:52	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:52	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:52	1
Calcium	13000		1000	250	ug/L		09/20/23 14:00	09/21/23 15:52	1
Chromium	ND		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:52	1
Cobalt	0.20	J	1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:52	1
Lead	ND		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:52	1
Lithium	36		8.0	1.7	ug/L		09/20/23 14:00	09/21/23 15:52	1
Magnesium	3900		1000	61	ug/L		09/20/23 14:00	09/21/23 15:52	1
Molybdenum	100		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:52	1
Potassium	3000		1000	220	ug/L		09/20/23 14:00	09/21/23 15:52	1
Selenium	ND		5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:52	1
Sodium	910000		5000	1600	ug/L		09/20/23 14:00	10/11/23 15:05	5
Thallium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	320		5.0	2.6	mg/L			09/22/23 21:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	290		5.0	2.6	mg/L			09/22/23 21:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	29		5.0	2.6	mg/L			09/22/23 21:29	1
Chloride (EPA 300.0)	1200		25	3.2	mg/L			10/06/23 04:05	25
Fluoride (EPA 300.0)	2.9		0.25	0.12	mg/L			10/06/23 03:44	5
Sulfate (EPA 300.0)	17		5.0	1.7	mg/L			10/06/23 03:44	5
Total Dissolved Solids (SM 2540C)	2300		40	31	mg/L			09/20/23 08:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.881		0.227	0.241	1.00	0.162	pCi/L	09/25/23 11:17	10/17/23 14:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					09/25/23 11:17	10/17/23 14:01	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.921		0.537	0.543	1.00	0.770	pCi/L	09/25/23 11:21	10/12/23 11:08	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 2016-07-F-20230914-01

Lab Sample ID: 240-191929-8

Date Collected: 09/14/23 14:48

Matrix: Water

Date Received: 09/19/23 10:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110	09/25/23 11:21	10/12/23 11:08	1
Y Carrier	77.4		30 - 110	09/25/23 11:21	10/12/23 11:08	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.80		0.583	0.594	5.00	0.770	pCi/L		10/18/23 16:11	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: EB-001-F-20230914-01

Lab Sample ID: 240-191929-9

Date Collected: 09/14/23 15:00

Matrix: Water

Date Received: 09/19/23 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/20/23 14:00	09/21/23 19:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:55	1
Arsenic	ND		5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:55	1
Barium	ND		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:55	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:55	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:55	1
Calcium	ND		1000	250	ug/L		09/20/23 14:00	09/21/23 15:55	1
Chromium	ND		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:55	1
Cobalt	ND		1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:55	1
Lead	ND		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:55	1
Lithium	ND		8.0	1.7	ug/L		09/20/23 14:00	09/21/23 15:55	1
Magnesium	ND		1000	61	ug/L		09/20/23 14:00	09/21/23 15:55	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:55	1
Potassium	ND		1000	220	ug/L		09/20/23 14:00	09/21/23 15:55	1
Selenium	ND		5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:55	1
Sodium	640	J ^2	1000	330	ug/L		09/20/23 14:00	09/21/23 15:55	1
Thallium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 21:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 21:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 21:33	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/06/23 02:39	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/06/23 02:39	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/06/23 02:39	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/20/23 08:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00203	U	0.0852	0.0852	1.00	0.170	pCi/L	09/25/23 11:17	10/17/23 14:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					09/25/23 11:17	10/17/23 14:01	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.112	U	0.306	0.306	1.00	0.543	pCi/L	09/25/23 11:21	10/12/23 11:08	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: EB-001-F-20230914-01

Lab Sample ID: 240-191929-9

Date Collected: 09/14/23 15:00

Matrix: Water

Date Received: 09/19/23 10:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	88.8		30 - 110	09/25/23 11:21	10/12/23 11:08	1
Y Carrier	80.0		30 - 110	09/25/23 11:21	10/12/23 11:08	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	0.114	U	0.318	0.318	5.00	0.543	pCi/L		10/18/23 16:11	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
240-191929-1	2016-10-F-20230913-01	84.8
240-191929-2	DUP-001-F-20230913-01	79.0
240-191929-3	EB-001-F-20230913-01	90.5
240-191929-4	MW-20-F-20230914-01	87.0
240-191929-5	96153R-F-20230914-01	47.7
240-191929-6	96154R-F-20230914-01	30.8
240-191929-8	2016-07-F-20230914-01	84.8
240-191929-9	EB-001-F-20230914-01	88.8
LCS 160-629461/2-A	Lab Control Sample	87.8
MB 160-629461/1-A	Method Blank	88.8

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-191929-1	2016-10-F-20230913-01	84.8	80.4
240-191929-2	DUP-001-F-20230913-01	79.0	77.8
240-191929-3	EB-001-F-20230913-01	90.5	79.6
240-191929-4	MW-20-F-20230914-01	87.0	83.0
240-191929-5	96153R-F-20230914-01	47.7	79.6
240-191929-6	96154R-F-20230914-01	30.8	77.8
240-191929-8	2016-07-F-20230914-01	84.8	77.4
240-191929-9	EB-001-F-20230914-01	88.8	80.0
LCS 160-629462/2-A	Lab Control Sample	87.8	80.7
MB 160-629462/1-A	Method Blank	88.8	80.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-587857/1-A
Matrix: Water
Analysis Batch: 588197

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/20/23 14:00	09/21/23 17:05	1

Lab Sample ID: LCS 240-587857/2-A
Matrix: Water
Analysis Batch: 588197

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1060		ug/L		106	80 - 120

Lab Sample ID: 240-191929-1 MS
Matrix: Water
Analysis Batch: 588197

Client Sample ID: 2016-10-F-20230913-01
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	310		1000	1340		ug/L		102	75 - 125

Lab Sample ID: 240-191929-1 MSD
Matrix: Water
Analysis Batch: 588197

Client Sample ID: 2016-10-F-20230913-01
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Boron	310		1000	1310		ug/L		99	75 - 125	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-587857/1-A
Matrix: Water
Analysis Batch: 588116

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/23 14:00	09/21/23 15:12	1
Arsenic	ND		5.0	0.75	ug/L		09/20/23 14:00	09/21/23 15:12	1
Barium	ND		5.0	2.2	ug/L		09/20/23 14:00	09/21/23 15:12	1
Beryllium	ND		1.0	0.62	ug/L		09/20/23 14:00	09/21/23 15:12	1
Cadmium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:12	1
Calcium	ND		1000	250	ug/L		09/20/23 14:00	09/21/23 15:12	1
Chromium	ND		5.0	1.2	ug/L		09/20/23 14:00	09/21/23 15:12	1
Cobalt	ND		1.0	0.19	ug/L		09/20/23 14:00	09/21/23 15:12	1
Lead	ND		1.0	0.45	ug/L		09/20/23 14:00	09/21/23 15:12	1
Lithium	ND		8.0	1.7	ug/L		09/20/23 14:00	09/21/23 15:12	1
Magnesium	ND		1000	61	ug/L		09/20/23 14:00	09/21/23 15:12	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/23 14:00	09/21/23 15:12	1
Potassium	ND		1000	220	ug/L		09/20/23 14:00	09/21/23 15:12	1
Selenium	ND		5.0	0.89	ug/L		09/20/23 14:00	09/21/23 15:12	1
Sodium	ND		1000	330	ug/L		09/20/23 14:00	09/21/23 15:12	1
Thallium	ND		1.0	0.20	ug/L		09/20/23 14:00	09/21/23 15:12	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

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

Lab Sample ID: LCS 240-587857/3-A
Matrix: Water
Analysis Batch: 588116

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	1010		ug/L		101	80 - 120
Barium	1000	953		ug/L		95	80 - 120
Beryllium	500	449		ug/L		90	80 - 120
Cadmium	500	476		ug/L		95	80 - 120
Calcium	25000	24300		ug/L		97	80 - 120
Chromium	500	487		ug/L		97	80 - 120
Cobalt	500	492		ug/L		98	80 - 120
Lead	500	484		ug/L		97	80 - 120
Lithium	500	470		ug/L		94	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Molybdenum	500	485		ug/L		97	80 - 120
Potassium	25000	24800		ug/L		99	80 - 120
Selenium	1000	969		ug/L		97	80 - 120
Sodium	25000	24100		ug/L		96	80 - 120
Thallium	1000	994		ug/L		99	80 - 120

Lab Sample ID: 240-191929-1 MS
Matrix: Water
Analysis Batch: 588116

Client Sample ID: 2016-10-F-20230913-01
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	2.6		100	103		ug/L		100	80 - 120
Arsenic	4.4	J	1000	1150		ug/L		114	80 - 120
Barium	510		1000	1450		ug/L		94	80 - 120
Beryllium	ND		500	461		ug/L		92	80 - 120
Cadmium	ND		500	440		ug/L		88	80 - 120
Calcium	370000		25000	396000	4	ug/L		88	80 - 120
Chromium	6.3		500	449		ug/L		89	80 - 120
Cobalt	1.2		500	532		ug/L		106	80 - 120
Lead	1.2		500	481		ug/L		96	80 - 120
Magnesium	110000		25000	129000	4	ug/L		91	80 - 120
Molybdenum	41		500	563		ug/L		104	80 - 120
Selenium	2.9	J	1000	999		ug/L		100	80 - 120
Thallium	0.22	J	1000	1010		ug/L		101	80 - 120

Lab Sample ID: 240-191929-1 MS
Matrix: Water
Analysis Batch: 588269

Client Sample ID: 2016-10-F-20230913-01
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1100		500	1670		ug/L		106	80 - 120
Potassium	600000		25000	616000	4	ug/L		86	80 - 120
Sodium	4900000		25000	4920000	4	ug/L		-16	80 - 120

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

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

Lab Sample ID: 240-191929-1 MSD
Matrix: Water
Analysis Batch: 588116

Client Sample ID: 2016-10-F-20230913-01
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Antimony	2.6		100	103		ug/L		100	80 - 120	0	20
Arsenic	4.4	J	1000	1170		ug/L		116	80 - 120	2	20
Barium	510		1000	1450		ug/L		94	80 - 120	0	20
Beryllium	ND		500	462		ug/L		92	80 - 120	0	20
Cadmium	ND		500	437		ug/L		87	80 - 120	1	20
Calcium	370000		25000	406000	4	ug/L		127	80 - 120	2	20
Chromium	6.3		500	452		ug/L		89	80 - 120	1	20
Cobalt	1.2		500	539		ug/L		107	80 - 120	1	20
Lead	1.2		500	481		ug/L		96	80 - 120	0	20
Magnesium	110000		25000	131000	4	ug/L		100	80 - 120	2	20
Molybdenum	41		500	573		ug/L		106	80 - 120	2	20
Selenium	2.9	J	1000	1010		ug/L		101	80 - 120	1	20
Thallium	0.22	J	1000	1000		ug/L		100	80 - 120	0	20

Lab Sample ID: 240-191929-1 MSD
Matrix: Water
Analysis Batch: 588269

Client Sample ID: 2016-10-F-20230913-01
Prep Type: Total Recoverable
Prep Batch: 587857

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Lithium	1100		500	1680		ug/L		108	80 - 120	1	20
Potassium	600000		25000	635000	4	ug/L		161	80 - 120	3	20
Sodium	4900000		25000	5000000	4	ug/L		342	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-587862/1-A
Matrix: Water
Analysis Batch: 588229

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 587862

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.13	ug/L		09/20/23 14:00	09/21/23 20:04	1

Lab Sample ID: LCS 240-587862/2-A
Matrix: Water
Analysis Batch: 588229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 587862

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Mercury	5.00	5.03		ug/L		101	80 - 120

Lab Sample ID: 240-191929-1 MS
Matrix: Water
Analysis Batch: 588229

Client Sample ID: 2016-10-F-20230913-01
Prep Type: Total/NA
Prep Batch: 587862

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	ND		1.00	1.09		ug/L		109	80 - 120

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-191929-1 MSD
 Matrix: Water
 Analysis Batch: 588229

Client Sample ID: 2016-10-F-20230913-01
 Prep Type: Total/NA
 Prep Batch: 587862

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Mercury	ND		1.00	1.02		ug/L		102	80 - 120	7	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-588407/30
 Matrix: Water
 Analysis Batch: 588407

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity	ND		5.0	2.6	mg/L			09/22/23 19:24	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 19:24	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 19:24	1

Lab Sample ID: MB 240-588407/4
 Matrix: Water
 Analysis Batch: 588407

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity	ND		5.0	2.6	mg/L			09/22/23 17:11	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 17:11	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 17:11	1

Lab Sample ID: LCS 240-588407/29
 Matrix: Water
 Analysis Batch: 588407

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Total Alkalinity	80.6	81.0		mg/L		101	86 - 123

Lab Sample ID: 240-191929-1 DU
 Matrix: Water
 Analysis Batch: 588407

Client Sample ID: 2016-10-F-20230913-01
 Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier				RPD	Limit
Total Alkalinity	840		842		mg/L		0.6	20	
Bicarbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20	
Carbonate Alkalinity as CaCO3	88		79.0		mg/L		10	20	

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-589744/3
 Matrix: Water
 Analysis Batch: 589744

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.13	mg/L			10/05/23 16:53	1
Fluoride	ND		0.050	0.024	mg/L			10/05/23 16:53	1
Sulfate	ND		1.0	0.35	mg/L			10/05/23 16:53	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-589744/4
 Matrix: Water
 Analysis Batch: 589744

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.5		mg/L		97	90 - 110
Fluoride	2.50	2.42		mg/L		97	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Lab Sample ID: 240-191929-9 MS
 Matrix: Water
 Analysis Batch: 589744

Client Sample ID: EB-001-F-20230914-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		50.0	51.6		mg/L		103	80 - 120
Fluoride	ND		2.50	2.59		mg/L		104	80 - 120
Sulfate	ND		50.0	51.7		mg/L		103	80 - 120

Lab Sample ID: 240-191929-9 MSD
 Matrix: Water
 Analysis Batch: 589744

Client Sample ID: EB-001-F-20230914-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	50.4		mg/L		101	80 - 120	2	15
Fluoride	ND		2.50	2.53		mg/L		101	80 - 120	2	15
Sulfate	ND		50.0	50.5		mg/L		101	80 - 120	2	15

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

Lab Sample ID: MB 240-587807/1
 Matrix: Water
 Analysis Batch: 587807

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	ND		10	7.8	mg/L			09/20/23 08:27	1

Lab Sample ID: LCS 240-587807/2
 Matrix: Water
 Analysis Batch: 587807

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	564	525		mg/L		93	80 - 120

Lab Sample ID: MB 240-587809/1
 Matrix: Water
 Analysis Batch: 587809

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	ND		10	7.8	mg/L			09/20/23 08:33	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

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

Lab Sample ID: LCS 240-587809/2
 Matrix: Water
 Analysis Batch: 587809

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	564	489		mg/L		87	80 - 120

Lab Sample ID: MB 240-588096/1
 Matrix: Water
 Analysis Batch: 588096

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	ND		10	7.8	mg/L			09/21/23 12:14	1

Lab Sample ID: LCS 240-588096/2
 Matrix: Water
 Analysis Batch: 588096

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	564	540		mg/L		96	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-629461/1-A
 Matrix: Water
 Analysis Batch: 632159

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 629461

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01312	U	0.0626	0.0626	1.00	0.137	pCi/L	09/25/23 11:17	10/17/23 14:00	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					09/25/23 11:17	10/17/23 14:00	1

Lab Sample ID: LCS 160-629461/2-A
 Matrix: Water
 Analysis Batch: 632159

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 629461

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.97		1.18	1.00	0.146	pCi/L	97	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	87.8		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-629462/1-A
 Matrix: Water
 Analysis Batch: 631771

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 629462

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.09942	U	0.274	0.274	1.00	0.545	pCi/L	09/25/23 11:21	10/12/23 11:09	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

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

Lab Sample ID: MB 160-629462/1-A
Matrix: Water
Analysis Batch: 631771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629462

Carrier	MB MB		Limits
	%Yield	Qualifier	
Ba Carrier	88.8		30 - 110
Y Carrier	80.0		30 - 110

Prepared	Analyzed	Dil Fac
09/25/23 11:21	10/12/23 11:09	1
09/25/23 11:21	10/12/23 11:09	1

Lab Sample ID: LCS 160-629462/2-A
Matrix: Water
Analysis Batch: 631771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629462

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec
									Limits
Radium-228	7.80	8.294		1.19	1.00	0.471	pCi/L	106	75 - 125

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	87.8		30 - 110
Y Carrier	80.7		30 - 110

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Metals

Prep Batch: 587857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total Recoverable	Water	3005A	
240-191929-2	DUP-001-F-20230913-01	Total Recoverable	Water	3005A	
240-191929-3	EB-001-F-20230913-01	Total Recoverable	Water	3005A	
240-191929-4	MW-20-F-20230914-01	Total Recoverable	Water	3005A	
240-191929-5	96153R-F-20230914-01	Total Recoverable	Water	3005A	
240-191929-6	96154R-F-20230914-01	Total Recoverable	Water	3005A	
240-191929-8	2016-07-F-20230914-01	Total Recoverable	Water	3005A	
240-191929-9	EB-001-F-20230914-01	Total Recoverable	Water	3005A	
MB 240-587857/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-587857/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-587857/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-191929-1 MS	2016-10-F-20230913-01	Total Recoverable	Water	3005A	
240-191929-1 MS	2016-10-F-20230913-01	Total Recoverable	Water	3005A	
240-191929-1 MSD	2016-10-F-20230913-01	Total Recoverable	Water	3005A	
240-191929-1 MSD	2016-10-F-20230913-01	Total Recoverable	Water	3005A	

Prep Batch: 587862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	7470A	
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	7470A	
240-191929-3	EB-001-F-20230913-01	Total/NA	Water	7470A	
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	7470A	
240-191929-5	96153R-F-20230914-01	Total/NA	Water	7470A	
240-191929-6	96154R-F-20230914-01	Total/NA	Water	7470A	
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	7470A	
240-191929-9	EB-001-F-20230914-01	Total/NA	Water	7470A	
MB 240-587862/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-587862/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-191929-1 MS	2016-10-F-20230913-01	Total/NA	Water	7470A	
240-191929-1 MSD	2016-10-F-20230913-01	Total/NA	Water	7470A	

Analysis Batch: 588116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total Recoverable	Water	6020B	587857
240-191929-2	DUP-001-F-20230913-01	Total Recoverable	Water	6020B	587857
240-191929-3	EB-001-F-20230913-01	Total Recoverable	Water	6020B	587857
240-191929-4	MW-20-F-20230914-01	Total Recoverable	Water	6020B	587857
240-191929-5	96153R-F-20230914-01	Total Recoverable	Water	6020B	587857
240-191929-6	96154R-F-20230914-01	Total Recoverable	Water	6020B	587857
240-191929-8	2016-07-F-20230914-01	Total Recoverable	Water	6020B	587857
240-191929-9	EB-001-F-20230914-01	Total Recoverable	Water	6020B	587857
MB 240-587857/1-A	Method Blank	Total Recoverable	Water	6020B	587857
LCS 240-587857/3-A	Lab Control Sample	Total Recoverable	Water	6020B	587857
240-191929-1 MS	2016-10-F-20230913-01	Total Recoverable	Water	6020B	587857
240-191929-1 MSD	2016-10-F-20230913-01	Total Recoverable	Water	6020B	587857

Analysis Batch: 588197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total Recoverable	Water	6010D	587857
240-191929-2	DUP-001-F-20230913-01	Total Recoverable	Water	6010D	587857
240-191929-3	EB-001-F-20230913-01	Total Recoverable	Water	6010D	587857

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Metals (Continued)

Analysis Batch: 588197 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-4	MW-20-F-20230914-01	Total Recoverable	Water	6010D	587857
240-191929-5	96153R-F-20230914-01	Total Recoverable	Water	6010D	587857
240-191929-6	96154R-F-20230914-01	Total Recoverable	Water	6010D	587857
240-191929-8	2016-07-F-20230914-01	Total Recoverable	Water	6010D	587857
240-191929-9	EB-001-F-20230914-01	Total Recoverable	Water	6010D	587857
MB 240-587857/1-A	Method Blank	Total Recoverable	Water	6010D	587857
LCS 240-587857/2-A	Lab Control Sample	Total Recoverable	Water	6010D	587857
240-191929-1 MS	2016-10-F-20230913-01	Total Recoverable	Water	6010D	587857
240-191929-1 MSD	2016-10-F-20230913-01	Total Recoverable	Water	6010D	587857

Analysis Batch: 588229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	7470A	587862
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	7470A	587862
240-191929-3	EB-001-F-20230913-01	Total/NA	Water	7470A	587862
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	7470A	587862
240-191929-5	96153R-F-20230914-01	Total/NA	Water	7470A	587862
240-191929-6	96154R-F-20230914-01	Total/NA	Water	7470A	587862
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	7470A	587862
240-191929-9	EB-001-F-20230914-01	Total/NA	Water	7470A	587862
MB 240-587862/1-A	Method Blank	Total/NA	Water	7470A	587862
LCS 240-587862/2-A	Lab Control Sample	Total/NA	Water	7470A	587862
240-191929-1 MS	2016-10-F-20230913-01	Total/NA	Water	7470A	587862
240-191929-1 MSD	2016-10-F-20230913-01	Total/NA	Water	7470A	587862

Analysis Batch: 588269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total Recoverable	Water	6020B	587857
240-191929-2	DUP-001-F-20230913-01	Total Recoverable	Water	6020B	587857
240-191929-1 MS	2016-10-F-20230913-01	Total Recoverable	Water	6020B	587857
240-191929-1 MSD	2016-10-F-20230913-01	Total Recoverable	Water	6020B	587857

Analysis Batch: 590461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-6	96154R-F-20230914-01	Total Recoverable	Water	6020B	587857
240-191929-8	2016-07-F-20230914-01	Total Recoverable	Water	6020B	587857

General Chemistry

Analysis Batch: 587807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	SM 2540C	
240-191929-5	96153R-F-20230914-01	Total/NA	Water	SM 2540C	
240-191929-6	96154R-F-20230914-01	Total/NA	Water	SM 2540C	
240-191929-7	9910-F-20230914-01	Total/NA	Water	SM 2540C	
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	SM 2540C	
240-191929-9	EB-001-F-20230914-01	Total/NA	Water	SM 2540C	
MB 240-587807/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-587807/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

General Chemistry

Analysis Batch: 587809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-3	EB-001-F-20230913-01	Total/NA	Water	SM 2540C	
MB 240-587809/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-587809/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 588096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	SM 2540C	
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	SM 2540C	
MB 240-588096/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-588096/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 588407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	2320B-1997	
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	2320B-1997	
240-191929-3	EB-001-F-20230913-01	Total/NA	Water	2320B-1997	
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	2320B-1997	
240-191929-5	96153R-F-20230914-01	Total/NA	Water	2320B-1997	
240-191929-6	96154R-F-20230914-01	Total/NA	Water	2320B-1997	
240-191929-7	9910-F-20230914-01	Total/NA	Water	2320B-1997	
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	2320B-1997	
240-191929-9	EB-001-F-20230914-01	Total/NA	Water	2320B-1997	
MB 240-588407/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-588407/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-588407/29	Lab Control Sample	Total/NA	Water	2320B-1997	
240-191929-1 DU	2016-10-F-20230913-01	Total/NA	Water	2320B-1997	

Analysis Batch: 589744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	300.0	
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	300.0	
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	300.0	
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	300.0	
240-191929-3	EB-001-F-20230913-01	Total/NA	Water	300.0	
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	300.0	
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	300.0	
240-191929-5	96153R-F-20230914-01	Total/NA	Water	300.0	
240-191929-5	96153R-F-20230914-01	Total/NA	Water	300.0	
240-191929-6	96154R-F-20230914-01	Total/NA	Water	300.0	
240-191929-6	96154R-F-20230914-01	Total/NA	Water	300.0	
240-191929-7	9910-F-20230914-01	Total/NA	Water	300.0	
240-191929-7	9910-F-20230914-01	Total/NA	Water	300.0	
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	300.0	
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	300.0	
240-191929-9	EB-001-F-20230914-01	Total/NA	Water	300.0	
MB 240-589744/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589744/4	Lab Control Sample	Total/NA	Water	300.0	
240-191929-9 MS	EB-001-F-20230914-01	Total/NA	Water	300.0	
240-191929-9 MSD	EB-001-F-20230914-01	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Rad

Prep Batch: 629461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	PrecSep-21	
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	PrecSep-21	
240-191929-3	EB-001-F-20230913-01	Total/NA	Water	PrecSep-21	
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	PrecSep-21	
240-191929-5	96153R-F-20230914-01	Total/NA	Water	PrecSep-21	
240-191929-6	96154R-F-20230914-01	Total/NA	Water	PrecSep-21	
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	PrecSep-21	
240-191929-9	EB-001-F-20230914-01	Total/NA	Water	PrecSep-21	
MB 160-629461/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-629461/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 629462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191929-1	2016-10-F-20230913-01	Total/NA	Water	PrecSep_0	
240-191929-2	DUP-001-F-20230913-01	Total/NA	Water	PrecSep_0	
240-191929-3	EB-001-F-20230913-01	Total/NA	Water	PrecSep_0	
240-191929-4	MW-20-F-20230914-01	Total/NA	Water	PrecSep_0	
240-191929-5	96153R-F-20230914-01	Total/NA	Water	PrecSep_0	
240-191929-6	96154R-F-20230914-01	Total/NA	Water	PrecSep_0	
240-191929-8	2016-07-F-20230914-01	Total/NA	Water	PrecSep_0	
240-191929-9	EB-001-F-20230914-01	Total/NA	Water	PrecSep_0	
MB 160-629462/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-629462/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 2016-10-F-20230913-01

Lab Sample ID: 240-191929-1

Date Collected: 09/13/23 12:03

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 17:14
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:22
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		20	588269	AJC	EET CLE	09/22/23 10:58
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:08
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 20:33
Total/NA	Analysis	300.0		10	589744	JWW	EET CLE	10/05/23 23:45
Total/NA	Analysis	300.0		100	589744	JWW	EET CLE	10/06/23 00:07
Total/NA	Analysis	SM 2540C		1	588096	QUY8	EET CLE	09/21/23 12:14
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:00
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:09
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Client Sample ID: DUP-001-F-20230913-01

Lab Sample ID: 240-191929-2

Date Collected: 09/13/23 00:00

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 18:49
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:35
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		20	588269	AJC	EET CLE	09/22/23 11:12
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:15
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 20:52
Total/NA	Analysis	300.0		10	589744	JWW	EET CLE	10/05/23 23:02
Total/NA	Analysis	300.0		100	589744	JWW	EET CLE	10/05/23 23:24
Total/NA	Analysis	SM 2540C		1	588096	QUY8	EET CLE	09/21/23 12:14
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:00
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:09
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: EB-001-F-20230913-01

Lab Sample ID: 240-191929-3

Date Collected: 09/13/23 15:00

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 18:53
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:37
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:17
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 21:00
Total/NA	Analysis	300.0		1	589744	JWW	EET CLE	10/06/23 08:04
Total/NA	Analysis	SM 2540C		1	587809	QUY8	EET CLE	09/20/23 08:33
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:01
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:09
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Client Sample ID: MW-20-F-20230914-01

Lab Sample ID: 240-191929-4

Date Collected: 09/14/23 09:44

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 18:58
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:40
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:19
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 21:03
Total/NA	Analysis	300.0		1	589744	JWW	EET CLE	10/06/23 07:21
Total/NA	Analysis	300.0		10	589744	JWW	EET CLE	10/06/23 07:42
Total/NA	Analysis	SM 2540C		1	587807	QUY8	EET CLE	09/20/23 08:27
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:01
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:08
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Client Sample ID: 96153R-F-20230914-01

Lab Sample ID: 240-191929-5

Date Collected: 09/14/23 10:59

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 19:02

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 96153R-F-20230914-01

Lab Sample ID: 240-191929-5

Date Collected: 09/14/23 10:59

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:42
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:21
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 21:08
Total/NA	Analysis	300.0		1	589744	JWW	EET CLE	10/06/23 06:37
Total/NA	Analysis	300.0		10	589744	JWW	EET CLE	10/06/23 06:59
Total/NA	Analysis	SM 2540C		1	587807	QUY8	EET CLE	09/20/23 08:27
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:01
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:08
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Client Sample ID: 96154R-F-20230914-01

Lab Sample ID: 240-191929-6

Date Collected: 09/14/23 12:16

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 19:15
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:45
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		5	590461	RKT	EET CLE	10/11/23 15:02
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:23
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 21:15
Total/NA	Analysis	300.0		1	589744	JWW	EET CLE	10/06/23 05:54
Total/NA	Analysis	300.0		10	589744	JWW	EET CLE	10/06/23 06:16
Total/NA	Analysis	SM 2540C		1	587807	QUY8	EET CLE	09/20/23 08:27
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:01
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:08
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Client Sample ID: 9910-F-20230914-01

Lab Sample ID: 240-191929-7

Date Collected: 09/14/23 13:25

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 21:21
Total/NA	Analysis	300.0		5	589744	JWW	EET CLE	10/06/23 04:27

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: 9910-F-20230914-01

Lab Sample ID: 240-191929-7

Date Collected: 09/14/23 13:25

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		25	589744	JWW	EET CLE	10/06/23 04:49
Total/NA	Analysis	SM 2540C		1	587807	QUY8	EET CLE	09/20/23 08:27

Client Sample ID: 2016-07-F-20230914-01

Lab Sample ID: 240-191929-8

Date Collected: 09/14/23 14:48

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 19:19
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:52
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		5	590461	RKT	EET CLE	10/11/23 15:05
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:29
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 21:29
Total/NA	Analysis	300.0		5	589744	JWW	EET CLE	10/06/23 03:44
Total/NA	Analysis	300.0		25	589744	JWW	EET CLE	10/06/23 04:05
Total/NA	Analysis	SM 2540C		1	587807	QUY8	EET CLE	09/20/23 08:27
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:01
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:08
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Client Sample ID: EB-001-F-20230914-01

Lab Sample ID: 240-191929-9

Date Collected: 09/14/23 15:00

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6010D		1	588197	RKT	EET CLE	09/21/23 19:24
Total Recoverable	Prep	3005A			587857	GK	EET CLE	09/20/23 14:00
Total Recoverable	Analysis	6020B		1	588116	AJC	EET CLE	09/21/23 15:55
Total/NA	Prep	7470A			587862	GK	EET CLE	09/20/23 14:00
Total/NA	Analysis	7470A		1	588229	DSH	EET CLE	09/21/23 20:31
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 21:33
Total/NA	Analysis	300.0		1	589744	JWW	EET CLE	10/06/23 02:39
Total/NA	Analysis	SM 2540C		1	587807	QUY8	EET CLE	09/20/23 08:27
Total/NA	Prep	PrecSep-21			629461	KAC	EET SL	09/25/23 11:17
Total/NA	Analysis	9315		1	632159	FLC	EET SL	10/17/23 14:01
Total/NA	Prep	PrecSep_0			629462	KAC	EET SL	09/25/23 11:21
Total/NA	Analysis	9320		1	631771	FLC	EET SL	10/12/23 11:08

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Client Sample ID: EB-001-F-20230914-01

Lab Sample ID: 240-191929-9

Date Collected: 09/14/23 15:00

Matrix: Water

Date Received: 09/19/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Ra226_Ra228		1	632546	SCB	EET SL	10/18/23 16:11

Laboratory References:

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

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

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Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191929-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

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

Chain of Custody Record

Column 209



Environment Test+

Client Information		Lab PM		COC No																
Taylor Huffman		Cisneros, Roxanne		240-111832-39818 1																
Company: Lightsone Generation Gavin Power LLC		E-Mail: roxanne.cisneros@et.eurofinsus.com		Page: Page 1 of 8																
Address: 7397 OH-7		State of Origin:		Job #:																
City: Cheshire	State: OH	TAT Requested (days):		Preservation Codes:																
State Zip: OH, 45620	Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Due Date Requested:		A - HCL M - Hexane N - None O - AsHClO2 P - Zn Acetate Q - Na2O4S R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)																
Phone: 740-925-3171(Tel)	FO #: 2935505	Sample Date		Other:																
Email: taylor.huffman@lightsonegen.com	WO #	Sample Time		Total Number of Containers																
Project Name: Gavin CCR	Project #: 24019633	Sample Type (C=Comp, G=grab)		Special Instructions/Note:																
Site: Gavin	SSOW #	Sample Matrix (Water, Soil, G=grab)		X Limited Volume X																
2016-10-F-20230913-01	9-13-23	1203	Water	6	W	6010B, 6020, 7470A	D	N	D	N	N	300_28D - Chloride, Fluoride & Sulfate	2540C, Calc'd - TDS	915, Ra226, 9120, Ra228, Ra226Ra228_GFPc	2320B - (MOD) Alkalinity					
DUP-001-F-20230913-01	9-13-23	---	Water	6	W															
EB-001-F-20230913-01	9-13-23	1500	Water	6	W															
MW-20-F-20230914-01	9-14-23	0944	Water	6	W															
96153A-F-20230914-01	9-14-23	1059	Water	6	W															
96154R-F-20230914-01	9-14-23	1216	Water	6	W															
9910-F-20230914-01	9-14-23	1325	Water	6	W															
2016-07-F-20230914-01	9-14-23	1448	Water	6	W															
EB-001-F-20230914-01	9-14-23	1500	Water	6	W															

240-191929 Chain of Custody

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:

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested I, II, III, IV, Other (specify)

Relinquished by	Date	Time	Method of Shipment
<i>[Signature]</i>	9-15-23	0910	Company: KEMPER
Relinquished by: Ashley Deal	9-15-23	1700	Company: ETA
Relinquished by:			Company:

Custody Seals Intact: Yes No **Custody Seal No.:**

Cooler Temperature(s) °C and Other Remarks:

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

Client Lightstorm Generation LLC Site Name _____ Cooler unpacked by: _____
Cooler Received on 09/18/23 Opened on 09/18/23 L Osborn
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other


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

Eurofins Cooler # EC Foam Box Client Cooler Box Other Private courier LO 2/14
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 20 (CF +0.6 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____
- Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
- Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____
Sample Dup 001 F 1 liter Plastic Nitric Acid sent to Lab to preserve for
odd pH reading

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

20. SAMPLE PRESERVATION
Sample(s) Dup 001 1 liter Plastic & 2 1 liter Plastic for 2016-0-F were further preserved in the laboratory.
Time preserved: 10:30am Preservative(s) added/Lot number(s): 1 ml of Nitric acid
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 30	9.0	9.6	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 30	10.4	11.0	Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
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EC	Client	Box	Other	IR GUN #:			Water	None	
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EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	
EC	Client	Box	Other	IR GUN #:			Water	None	

See Temperature Excursion Form



Temperature readings:

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2016-10-F-20230913-01	240-191929-D-1	Plastic 500ml - with Nitric Acid	<2			
2016-10-F-20230913-01	240-191929-E-1	Plastic 1 liter - Nitric Acid	<2			
2016-10-F-20230913-01	240-191929-F-1	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-20230913-01	240-191929-D-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-20230913-01	240-191929-E-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-20230913-01	240-191929-F-2	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230913-01	240-191929-D-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230913-01	240-191929-E-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230913-01	240-191929-F-3	Plastic 1 liter - Nitric Acid	<2			
MW-20--F-20230914-01	240-191929-D-4	Plastic 500ml - with Nitric Acid	<2			
MW-20--F-20230914-01	240-191929-E-4	Plastic 1 liter - Nitric Acid	<2			
MW-20--F-20230914-01	240-191929-F-4	Plastic 1 liter - Nitric Acid	<2			
96153R-F-20230914-01	240-191929-D-5	Plastic 500ml - with Nitric Acid	<2			
96153R-F-20230914-01	240-191929-E-5	Plastic 1 liter - Nitric Acid	<2			
96153R-F-20230914-01	240-191929-F-5	Plastic 1 liter - Nitric Acid	<2			
96154R-F-20230914-01	240-191929-D-6	Plastic 500ml - with Nitric Acid	<2			
96154R-F-20230914-01	240-191929-E-6	Plastic 1 liter - Nitric Acid	<2			
96154R-F-20230914-01	240-191929-F-6	Plastic 1 liter - Nitric Acid	<2			
9910-F-20230914-01	240-191929-D-7	Plastic 500ml - with Nitric Acid	<2			
9910-F-20230914-01	240-191929-E-7	Plastic 1 liter - Nitric Acid	<2			
9910-F-20230914-01	240-191929-F-7	Plastic 1 liter - Nitric Acid	<2			
2016-07-F-20230914-01	240-191929-D-8	Plastic 500ml - with Nitric Acid	<2			
2016-07-F-20230914-01	240-191929-E-8	Plastic 1 liter - Nitric Acid	<2			
2016-07-F-20230914-01	240-191929-F-8	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230914-01	240-191929-D-9	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230914-01	240-191929-E-9	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230914-01	240-191929-F-9	Plastic 1 liter - Nitric Acid	<2			

Chain of Custody Record



Client Information (Sub Contract Lab)
 Client Contact: Cisherros, Roxanne
 Shipping/Receiving: E-Mail: roxanne.cisherros@et.eurofins.com
 Company: TestAmerica Laboratories, Inc.
 Address: 13715 Rider Trail North, Columbus, OH 43240
 City: Columbus, OH
 State: OH
 Zip: 43240
 Phone: 314-298-8566 (Tel) 314-298-8757 (Fax)
 Email: roxanne.cisherros@et.eurofins.com
 Project Name: Federal GWM Wells
 Project #: 24019633
 Site: SSOW#

Lab PM: Cisherros, Roxanne
Carrier Tracking No(s):
State of Origin: Ohio
Page 1 of 1

Due Date Requested: 10/2/2023
TAT Requested (days):
Job #: 240-191929-1
Preservation Codes:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Y - Trizma
 L - EDA
 Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wet, Solid, Sewage, Bif-Tissue, A+B)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PreSep_0 Radium-228 (GFC)	9315_Ra228/PreSep_21 Radium-228 (GFC)	Ra228+Ra226 GFC/Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
2016-10-F-20230913-01 (240-191929-1)	9/13/23	12:03 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-001-F-20230913-01 (240-191929-2)	9/13/23	Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20230913-01 (240-191929-3)	9/13/23	15:00 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
MW-20-F-20230914-01 (240-191929-4)	9/14/23	09:44 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
96153R-F-20230914-01 (240-191929-5)	9/14/23	10:59 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
96154R-F-20230914-01 (240-191929-6)	9/14/23	12:16 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
2016-07-F-20230914-01 (240-191929-8)	9/14/23	14:48 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20230914-01 (240-191929-9)	9/14/23	15:00 Eastern	Water	Water	X	X	X	X	X	2	. Recount of TAR after 21 day ingrowth if > action limit; save planchet

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify)
 Primary Deliverable Rank: 2
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months

Empy Kit Relinquished by:
 Relinquished by: *Roxanne Cisherros*
 Date/Time: 9/19/23 15:00
 Relinquished by: *Fedex*
 Date/Time: SEP 21 2023 08:50
 Relinquished by: *M. Pinette*
 Date/Time: SEP 21 2023 08:50
 Relinquished by: *Fedex*
 Date/Time: SEP 21 2023 08:50
 Custody Seals Intact: Yes No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-191929-1

Login Number: 191929

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 09/21/23 05:06 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?	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/20/2023 5:06:36 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-191998-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Job ID: 240-191998-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-191998-1

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

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

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

Receipt

The samples were received on 9/20/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.1°C, 1.0°C, 1.3°C, 2.7°C, 3.5°C and 12.5°C

Metals

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

General Chemistry

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

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 batch 629388: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 96152-F-20230915-01 (240-191998-1), 2022-05-F-20230915-01 (240-191998-2), 2022-04-F-20230915-01 (240-191998-3), 2016-06-F-20230915-01 (240-191998-4), EB-001-F-20230915-01 (240-191998-5), (LCS 160-629388/2-A), (MB 160-629388/1-A)

Method 9320_Ra228: Radium-228 batch 629460: The detection goal was not met for the following sample(s). Samples were prepped at a reduced volume due to the presence of matrix interferences: 2022-05-F-20230915-01 (240-191998-2) and 2022-04-F-20230915-01 (240-191998-3). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 629460: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 96152-F-20230915-01 (240-191998-1), 2022-05-F-20230915-01 (240-191998-2), 2022-04-F-20230915-01 (240-191998-3), 2016-06-F-20230915-01 (240-191998-4), EB-001-F-20230915-01 (240-191998-5), (LCS 160-629460/2-A), (MB 160-629460/1-A)

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

Rad

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-191998-1	96152-F-20230915-01	Water	09/15/23 10:59	09/20/23 08:00
240-191998-2	2022-05-F-20230915-01	Water	09/15/23 12:46	09/20/23 08:00
240-191998-3	2022-04-F-20230915-01	Water	09/15/23 13:29	09/20/23 08:00
240-191998-4	2016-06-F-20230915-01	Water	09/15/23 14:21	09/20/23 08:00
240-191998-5	EB-001-F-20230915-01	Water	09/15/23 14:30	09/20/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 96152-F-20230915-01

Lab Sample ID: 240-191998-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	440		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.70	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	18		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	660		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	42000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.7	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	3.3		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.0		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	89		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.3	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.0	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	2200000		10000	3300	ug/L	10		6020B	Total Recoverable
Thallium	0.58	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	550		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	550		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	3300		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	0.82		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	78		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5300		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-05-F-20230915-01

Lab Sample ID: 240-191998-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	310		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.2	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.7	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	180		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	14000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.4	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.43	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.49	J	1.0	0.45	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2022-05-F-20230915-01 (Continued)

Lab Sample ID: 240-191998-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	26		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4100	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	63		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2700		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.3	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	640000		10000	3300	ug/L	10		6020B	Total Recoverable
Thallium	0.20	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	730		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	2.1		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	180		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1500		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-04-F-20230915-01

Lab Sample ID: 240-191998-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	680		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	130		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	6.5		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.8		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	26		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	31000	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	96000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	34		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.14		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	100		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	620		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2016-06-F-20230915-01

Lab Sample ID: 240-191998-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	4.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	79		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	5200		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	20		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.5		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	2.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	27		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	1900	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	58		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	660000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	23		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	650		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	5.5		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	100		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1600		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230915-01

Lab Sample ID: 240-191998-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	2.1	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	64	J B	1000	61	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 96152-F-20230915-01

Lab Sample ID: 240-191998-1

Date Collected: 09/15/23 10:59

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	440		100	57	ug/L		09/21/23 14:00	09/22/23 18:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.70	J	2.0	0.57	ug/L		09/21/23 14:00	09/22/23 16:52	1
Arsenic	18		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 16:52	1
Barium	660		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 16:52	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 16:52	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:52	1
Calcium	42000		1000	250	ug/L		09/21/23 14:00	09/22/23 16:52	1
Chromium	2.7	J	5.0	1.2	ug/L		09/21/23 14:00	09/22/23 16:52	1
Cobalt	3.3		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 16:52	1
Lead	1.0		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 16:52	1
Lithium	89		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 16:52	1
Magnesium	15000	B	1000	61	ug/L		09/21/23 14:00	09/22/23 16:52	1
Molybdenum	4.3	J	5.0	1.1	ug/L		09/21/23 14:00	09/22/23 16:52	1
Potassium	9000		1000	220	ug/L		09/21/23 14:00	09/22/23 16:52	1
Selenium	1.0	J	5.0	0.89	ug/L		09/21/23 14:00	09/22/23 16:52	1
Sodium	2200000		10000	3300	ug/L		09/21/23 14:00	09/25/23 19:49	10
Thallium	0.58	J	1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	550		5.0	2.6	mg/L			09/22/23 22:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	550		5.0	2.6	mg/L			09/22/23 22:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:22	1
Chloride (EPA 300.0)	3300		25	3.2	mg/L			10/10/23 15:06	25
Fluoride (EPA 300.0)	0.82		0.25	0.12	mg/L			10/10/23 14:05	5
Sulfate (EPA 300.0)	78		5.0	1.7	mg/L			10/10/23 14:05	5
Total Dissolved Solids (SM 2540C)	5300		50	39	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	2.24	F	0.543	0.580	1.00	0.368	pCi/L	09/25/23 10:57	10/18/23 13:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.1		30 - 110					09/25/23 10:57	10/18/23 13:43	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	2.80		0.836	0.875	1.00	0.884	pCi/L	09/25/23 11:15	10/17/23 11:58	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 96152-F-20230915-01

Lab Sample ID: 240-191998-1

Date Collected: 09/15/23 10:59

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	61.1		30 - 110	09/25/23 11:15	10/17/23 11:58	1
Y Carrier	84.1		30 - 110	09/25/23 11:15	10/17/23 11:58	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	5.05		0.997	1.05	5.00	0.884	pCi/L		10/20/23 16:50	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2022-05-F-20230915-01

Lab Sample ID: 240-191998-2

Date Collected: 09/15/23 12:46

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	310		100	57	ug/L		09/21/23 14:00	09/22/23 18:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.2	J	2.0	0.57	ug/L		09/21/23 14:00	09/22/23 16:54	1
Arsenic	4.7	J	5.0	0.75	ug/L		09/21/23 14:00	09/22/23 16:54	1
Barium	180		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 16:54	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 16:54	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:54	1
Calcium	14000		1000	250	ug/L		09/21/23 14:00	09/22/23 16:54	1
Chromium	2.4	J	5.0	1.2	ug/L		09/21/23 14:00	09/22/23 16:54	1
Cobalt	0.43	J	1.0	0.19	ug/L		09/21/23 14:00	09/22/23 16:54	1
Lead	0.49	J	1.0	0.45	ug/L		09/21/23 14:00	09/22/23 16:54	1
Lithium	26		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 16:54	1
Magnesium	4100	B	1000	61	ug/L		09/21/23 14:00	09/22/23 16:54	1
Molybdenum	63		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 16:54	1
Potassium	2700		1000	220	ug/L		09/21/23 14:00	09/22/23 16:54	1
Selenium	1.3	J	5.0	0.89	ug/L		09/21/23 14:00	09/22/23 16:54	1
Sodium	640000		10000	3300	ug/L		09/21/23 14:00	09/25/23 19:52	10
Thallium	0.20	J	1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	330		5.0	2.6	mg/L			09/22/23 22:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	330		5.0	2.6	mg/L			09/22/23 22:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:28	1
Chloride (EPA 300.0)	730		10	1.3	mg/L			10/10/23 13:45	10
Fluoride (EPA 300.0)	2.1		0.050	0.024	mg/L			10/10/23 13:25	1
Sulfate (EPA 300.0)	180		1.0	0.35	mg/L			10/10/23 13:25	1
Total Dissolved Solids (SM 2540C)	1500		20	16	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.359	U F	0.268	0.270	1.00	0.372	pCi/L	09/25/23 10:57	10/18/23 13:43	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	63.1		30 - 110					09/25/23 10:57	10/18/23 13:43	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.73	G	0.771	0.787	1.00	1.03	pCi/L	09/25/23 11:15	10/17/23 11:58	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2022-05-F-20230915-01

Lab Sample ID: 240-191998-2

Date Collected: 09/15/23 12:46

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	63.1		30 - 110	09/25/23 11:15	10/17/23 11:58	1
Y Carrier	83.4		30 - 110	09/25/23 11:15	10/17/23 11:58	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	2.09		0.816	0.832	5.00	1.03	pCi/L		10/20/23 16:50	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2022-04-F-20230915-01

Lab Sample ID: 240-191998-3

Date Collected: 09/15/23 13:29

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	680		100	57	ug/L		09/21/23 14:00	09/22/23 18:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 16:57	1
Arsenic	2.1	J	5.0	0.75	ug/L		09/21/23 14:00	09/22/23 16:57	1
Barium	130		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 16:57	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 16:57	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:57	1
Calcium	100000		1000	250	ug/L		09/21/23 14:00	09/22/23 16:57	1
Chromium	6.5		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 16:57	1
Cobalt	1.8		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 16:57	1
Lead	1.6		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 16:57	1
Lithium	26		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 16:57	1
Magnesium	31000	B	1000	61	ug/L		09/21/23 14:00	09/22/23 16:57	1
Molybdenum	3.4	J	5.0	1.1	ug/L		09/21/23 14:00	09/22/23 16:57	1
Potassium	4400		1000	220	ug/L		09/21/23 14:00	09/22/23 16:57	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 16:57	1
Sodium	96000		1000	330	ug/L		09/21/23 14:00	09/25/23 19:59	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			09/22/23 22:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			09/22/23 22:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:36	1
Chloride (EPA 300.0)	34		1.0	0.13	mg/L			10/10/23 09:23	1
Fluoride (EPA 300.0)	0.14		0.050	0.024	mg/L			10/10/23 09:23	1
Sulfate (EPA 300.0)	100		1.0	0.35	mg/L			10/10/23 09:23	1
Total Dissolved Solids (SM 2540C)	620		10	7.8	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220	U F	0.248	0.249	1.00	0.398	pCi/L	09/25/23 10:57	10/18/23 13:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	60.4		30 - 110					09/25/23 10:57	10/18/23 13:43	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.37	G	0.759	0.770	1.00	1.09	pCi/L	09/25/23 11:15	10/17/23 11:58	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2022-04-F-20230915-01

Lab Sample ID: 240-191998-3

Date Collected: 09/15/23 13:29

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	60.4		30 - 110	09/25/23 11:15	10/17/23 11:58	1
Y Carrier	88.6		30 - 110	09/25/23 11:15	10/17/23 11:58	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.59		0.798	0.809	5.00	1.09	pCi/L		10/20/23 16:50	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2016-06-F-20230915-01

Lab Sample ID: 240-191998-4

Date Collected: 09/15/23 14:21

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		09/21/23 14:00	09/22/23 19:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 16:59	1
Arsenic	4.0	J	5.0	0.75	ug/L		09/21/23 14:00	09/22/23 16:59	1
Barium	79		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 16:59	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 16:59	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:59	1
Calcium	5200		1000	250	ug/L		09/21/23 14:00	09/22/23 16:59	1
Chromium	20		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 16:59	1
Cobalt	2.5		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 16:59	1
Lead	2.6		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 16:59	1
Lithium	27		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 16:59	1
Magnesium	1900	B	1000	61	ug/L		09/21/23 14:00	09/22/23 16:59	1
Molybdenum	58		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 16:59	1
Potassium	3700		1000	220	ug/L		09/21/23 14:00	09/22/23 16:59	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 16:59	1
Sodium	66000		10000	3300	ug/L		09/21/23 14:00	09/25/23 20:02	10
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	530		5.0	2.6	mg/L			09/22/23 22:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			09/22/23 22:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	23		5.0	2.6	mg/L			09/22/23 22:42	1
Chloride (EPA 300.0)	650		5.0	0.64	mg/L			10/10/23 09:03	5
Fluoride (EPA 300.0)	5.5		0.050	0.024	mg/L			10/10/23 08:43	1
Sulfate (EPA 300.0)	100		1.0	0.35	mg/L			10/10/23 08:43	1
Total Dissolved Solids (SM 2540C)	1600		20	16	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.235	U F	0.289	0.289	1.00	0.475	pCi/L	09/25/23 10:57	10/18/23 13:43	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	<i>88.0</i>		<i>30 - 110</i>					<i>09/25/23 10:57</i>	<i>10/18/23 13:43</i>	<i>1</i>

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.24		0.694	0.703	1.00	0.965	pCi/L	09/25/23 11:15	10/17/23 11:58	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2016-06-F-20230915-01

Lab Sample ID: 240-191998-4

Date Collected: 09/15/23 14:21

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		30 - 110	09/25/23 11:15	10/17/23 11:58	1
Y Carrier	84.9		30 - 110	09/25/23 11:15	10/17/23 11:58	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.48		0.752	0.760	5.00	0.965	pCi/L		10/20/23 16:50	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: EB-001-F-20230915-01

Lab Sample ID: 240-191998-5

Date Collected: 09/15/23 14:30

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/21/23 14:00	09/22/23 19:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 17:02	1
Arsenic	ND		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 17:02	1
Barium	ND		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 17:02	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 17:02	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:02	1
Calcium	ND		1000	250	ug/L		09/21/23 14:00	09/22/23 17:02	1
Chromium	ND		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 17:02	1
Cobalt	ND		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 17:02	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 17:02	1
Lithium	2.1	J	8.0	1.7	ug/L		09/21/23 14:00	09/22/23 17:02	1
Magnesium	64	J B	1000	61	ug/L		09/21/23 14:00	09/22/23 17:02	1
Molybdenum	ND		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 17:02	1
Potassium	ND		1000	220	ug/L		09/21/23 14:00	09/22/23 17:02	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 17:02	1
Sodium	ND		1000	330	ug/L		09/21/23 14:00	09/25/23 20:04	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:50	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/10/23 05:42	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/10/23 05:42	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/10/23 05:42	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0878	U F	0.140	0.141	1.00	0.244	pCi/L	09/25/23 10:57	10/18/23 13:43	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	<i>84.4</i>		<i>30 - 110</i>					<i>09/25/23 10:57</i>	<i>10/18/23 13:43</i>	<i>1</i>

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.680		0.378	0.383	1.00	0.529	pCi/L	09/25/23 11:15	10/17/23 11:58	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: EB-001-F-20230915-01

Lab Sample ID: 240-191998-5

Date Collected: 09/15/23 14:30

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		30 - 110	09/25/23 11:15	10/17/23 11:58	1
Y Carrier	86.7		30 - 110	09/25/23 11:15	10/17/23 11:58	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.767		0.403	0.408	5.00	0.529	pCi/L		10/20/23 16:50	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
240-191998-1	96152-F-20230915-01	61.1
240-191998-2	2022-05-F-20230915-01	63.1
240-191998-3	2022-04-F-20230915-01	60.4
240-191998-4	2016-06-F-20230915-01	88.0
240-191998-5	EB-001-F-20230915-01	84.4
LCS 160-629388/2-A	Lab Control Sample	94.1
MB 160-629388/1-A	Method Blank	91.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-191998-1	96152-F-20230915-01	61.1	84.1
240-191998-2	2022-05-F-20230915-01	63.1	83.4
240-191998-3	2022-04-F-20230915-01	60.4	88.6
240-191998-4	2016-06-F-20230915-01	88.0	84.9
240-191998-5	EB-001-F-20230915-01	84.4	86.7
LCS 160-629460/2-A	Lab Control Sample	94.1	83.4
MB 160-629460/1-A	Method Blank	91.2	79.3

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-588055/1-A
 Matrix: Water
 Analysis Batch: 588359

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 588055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/21/23 14:00	09/22/23 16:47	1

Lab Sample ID: LCS 240-588055/2-A
 Matrix: Water
 Analysis Batch: 588359

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	952		ug/L		95	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-588055/1-A
 Matrix: Water
 Analysis Batch: 588399

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 588055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 16:00	1
Arsenic	ND		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 16:00	1
Barium	ND		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 16:00	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 16:00	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:00	1
Calcium	ND		1000	250	ug/L		09/21/23 14:00	09/22/23 16:00	1
Chromium	ND		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 16:00	1
Cobalt	ND		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 16:00	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 16:00	1
Lithium	ND		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 16:00	1
Magnesium	139	J	1000	61	ug/L		09/21/23 14:00	09/22/23 16:00	1
Molybdenum	ND		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 16:00	1
Potassium	ND		1000	220	ug/L		09/21/23 14:00	09/22/23 16:00	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 16:00	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:00	1

Lab Sample ID: MB 240-588055/1-A
 Matrix: Water
 Analysis Batch: 588570

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 588055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		09/21/23 14:00	09/25/23 19:32	1

Lab Sample ID: LCS 240-588055/3-A
 Matrix: Water
 Analysis Batch: 588399

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.8		ug/L		99	80 - 120
Arsenic	1000	959		ug/L		96	80 - 120
Barium	1000	914		ug/L		91	80 - 120
Beryllium	500	445		ug/L		89	80 - 120
Cadmium	500	463		ug/L		93	80 - 120
Calcium	25000	23300		ug/L		93	80 - 120

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

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

Lab Sample ID: LCS 240-588055/3-A
Matrix: Water
Analysis Batch: 588399

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	500	465		ug/L		93	80 - 120
Cobalt	500	473		ug/L		95	80 - 120
Lead	500	428		ug/L		86	80 - 120
Lithium	500	482		ug/L		96	80 - 120
Magnesium	25000	23800		ug/L		95	80 - 120
Molybdenum	500	461		ug/L		92	80 - 120
Potassium	25000	24200		ug/L		97	80 - 120
Selenium	1000	954		ug/L		95	80 - 120
Thallium	1000	921		ug/L		92	80 - 120

Lab Sample ID: LCS 240-588055/3-A
Matrix: Water
Analysis Batch: 588570

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24200		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-588058/1-A
Matrix: Water
Analysis Batch: 588396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 588058

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:01	1

Lab Sample ID: LCS 240-588058/2-A
Matrix: Water
Analysis Batch: 588396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 588058

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.15		ug/L		103	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-588407/30
Matrix: Water
Analysis Batch: 588407

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/22/23 19:24	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 19:24	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 19:24	1

Lab Sample ID: MB 240-588407/57
Matrix: Water
Analysis Batch: 588407

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/22/23 21:50	1

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-588407/57
 Matrix: Water
 Analysis Batch: 588407

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 21:50	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 21:50	1

Lab Sample ID: LCS 240-588407/56
 Matrix: Water
 Analysis Batch: 588407

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.5		mg/L		102	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-590093/3
 Matrix: Water
 Analysis Batch: 590093

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/10/23 03:00	1
Fluoride	ND		0.050	0.024	mg/L			10/10/23 03:00	1
Sulfate	ND		1.0	0.35	mg/L			10/10/23 03:00	1

Lab Sample ID: LCS 240-590093/4
 Matrix: Water
 Analysis Batch: 590093

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.2		mg/L		102	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	53.5		mg/L		107	90 - 110

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

Lab Sample ID: MB 240-587979/1
 Matrix: Water
 Analysis Batch: 587979

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	ND		10	7.8	mg/L			09/21/23 07:58	1

Lab Sample ID: LCS 240-587979/2
 Matrix: Water
 Analysis Batch: 587979

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	303		mg/L		90	80 - 120

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

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

Lab Sample ID: 240-191998-1 DU
 Matrix: Water
 Analysis Batch: 587979

Client Sample ID: 96152-F-20230915-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	5300		5340		mg/L		2	20

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-629388/1-A
 Matrix: Water
 Analysis Batch: 632341

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 629388

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1116	U	0.135	0.135	1.00	0.221	pCi/L	09/25/23 10:57	10/18/23 13:42	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					09/25/23 10:57	10/18/23 13:42	1

Lab Sample ID: LCS 160-629388/2-A
 Matrix: Water
 Analysis Batch: 632341

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 629388

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.35		1.25	1.00	0.304	pCi/L	91	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	94.1		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-629460/1-A
 Matrix: Water
 Analysis Batch: 632159

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 629460

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4950	U	0.352	0.355	1.00	0.528	pCi/L	09/25/23 11:15	10/17/23 11:58	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					09/25/23 11:15	10/17/23 11:58	1
Y Carrier	79.3		30 - 110					09/25/23 11:15	10/17/23 11:58	1

Lab Sample ID: LCS 160-629460/2-A
 Matrix: Water
 Analysis Batch: 632159

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 629460

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.79	8.834		1.22	1.00	0.506	pCi/L	113	75 - 125

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

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

Lab Sample ID: LCS 160-629460/2-A
Matrix: Water
Analysis Batch: 632159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629460

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	94.1		30 - 110
Y Carrier	83.4		30 - 110

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Metals

Prep Batch: 588055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total Recoverable	Water	3005A	
240-191998-2	2022-05-F-20230915-01	Total Recoverable	Water	3005A	
240-191998-3	2022-04-F-20230915-01	Total Recoverable	Water	3005A	
240-191998-4	2016-06-F-20230915-01	Total Recoverable	Water	3005A	
240-191998-5	EB-001-F-20230915-01	Total Recoverable	Water	3005A	
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-588055/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-588055/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 588058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total/NA	Water	7470A	
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	7470A	
240-191998-3	2022-04-F-20230915-01	Total/NA	Water	7470A	
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	7470A	
240-191998-5	EB-001-F-20230915-01	Total/NA	Water	7470A	
MB 240-588058/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-588058/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 588359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total Recoverable	Water	6010D	588055
240-191998-2	2022-05-F-20230915-01	Total Recoverable	Water	6010D	588055
240-191998-3	2022-04-F-20230915-01	Total Recoverable	Water	6010D	588055
240-191998-4	2016-06-F-20230915-01	Total Recoverable	Water	6010D	588055
240-191998-5	EB-001-F-20230915-01	Total Recoverable	Water	6010D	588055
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	6010D	588055
LCS 240-588055/2-A	Lab Control Sample	Total Recoverable	Water	6010D	588055

Analysis Batch: 588396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total/NA	Water	7470A	588058
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	7470A	588058
240-191998-3	2022-04-F-20230915-01	Total/NA	Water	7470A	588058
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	7470A	588058
240-191998-5	EB-001-F-20230915-01	Total/NA	Water	7470A	588058
MB 240-588058/1-A	Method Blank	Total/NA	Water	7470A	588058
LCS 240-588058/2-A	Lab Control Sample	Total/NA	Water	7470A	588058

Analysis Batch: 588399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-2	2022-05-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-3	2022-04-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-4	2016-06-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-5	EB-001-F-20230915-01	Total Recoverable	Water	6020B	588055
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	6020B	588055
LCS 240-588055/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588055

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Metals

Analysis Batch: 588570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-2	2022-05-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-3	2022-04-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-4	2016-06-F-20230915-01	Total Recoverable	Water	6020B	588055
240-191998-5	EB-001-F-20230915-01	Total Recoverable	Water	6020B	588055
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	6020B	588055
LCS 240-588055/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588055

General Chemistry

Analysis Batch: 587979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total/NA	Water	SM 2540C	
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	SM 2540C	
240-191998-3	2022-04-F-20230915-01	Total/NA	Water	SM 2540C	
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	SM 2540C	
240-191998-5	EB-001-F-20230915-01	Total/NA	Water	SM 2540C	
MB 240-587979/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-587979/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-191998-1 DU	96152-F-20230915-01	Total/NA	Water	SM 2540C	

Analysis Batch: 588407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total/NA	Water	2320B-1997	
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	2320B-1997	
240-191998-3	2022-04-F-20230915-01	Total/NA	Water	2320B-1997	
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	2320B-1997	
240-191998-5	EB-001-F-20230915-01	Total/NA	Water	2320B-1997	
MB 240-588407/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-588407/57	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-588407/56	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 590093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total/NA	Water	300.0	
240-191998-1	96152-F-20230915-01	Total/NA	Water	300.0	
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	300.0	
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	300.0	
240-191998-3	2022-04-F-20230915-01	Total/NA	Water	300.0	
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	300.0	
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	300.0	
240-191998-5	EB-001-F-20230915-01	Total/NA	Water	300.0	
MB 240-590093/3	Method Blank	Total/NA	Water	300.0	
LCS 240-590093/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 629388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total/NA	Water	PrecSep-21	
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	PrecSep-21	
240-191998-3	2022-04-F-20230915-01	Total/NA	Water	PrecSep-21	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Rad (Continued)

Prep Batch: 629388 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	PrecSep-21	
240-191998-5	EB-001-F-20230915-01	Total/NA	Water	PrecSep-21	
MB 160-629388/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-629388/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 629460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191998-1	96152-F-20230915-01	Total/NA	Water	PrecSep_0	
240-191998-2	2022-05-F-20230915-01	Total/NA	Water	PrecSep_0	
240-191998-3	2022-04-F-20230915-01	Total/NA	Water	PrecSep_0	
240-191998-4	2016-06-F-20230915-01	Total/NA	Water	PrecSep_0	
240-191998-5	EB-001-F-20230915-01	Total/NA	Water	PrecSep_0	
MB 160-629460/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-629460/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	



Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 96152-F-20230915-01

Lab Sample ID: 240-191998-1

Date Collected: 09/15/23 10:59

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 18:26
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 16:52
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		10	588570	AJC	EET CLE	09/25/23 19:49
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:29
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 22:22
Total/NA	Analysis	300.0		5	590093	JWW	EET CLE	10/10/23 14:05
Total/NA	Analysis	300.0		25	590093	JWW	EET CLE	10/10/23 15:06
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:43
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:58
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Client Sample ID: 2022-05-F-20230915-01

Lab Sample ID: 240-191998-2

Date Collected: 09/15/23 12:46

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 18:52
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 16:54
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		10	588570	AJC	EET CLE	09/25/23 19:52
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:31
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 22:28
Total/NA	Analysis	300.0		1	590093	JWW	EET CLE	10/10/23 13:25
Total/NA	Analysis	300.0		10	590093	JWW	EET CLE	10/10/23 13:45
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:43
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:58
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: 2022-04-F-20230915-01

Lab Sample ID: 240-191998-3

Date Collected: 09/15/23 13:29

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 18:57
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 16:57
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588570	AJC	EET CLE	09/25/23 19:59
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:33
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 22:36
Total/NA	Analysis	300.0		1	590093	JWW	EET CLE	10/10/23 09:23
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:43
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:58
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Client Sample ID: 2016-06-F-20230915-01

Lab Sample ID: 240-191998-4

Date Collected: 09/15/23 14:21

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 19:09
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 16:59
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		10	588570	AJC	EET CLE	09/25/23 20:02
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:35
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 22:42
Total/NA	Analysis	300.0		1	590093	JWW	EET CLE	10/10/23 08:43
Total/NA	Analysis	300.0		5	590093	JWW	EET CLE	10/10/23 09:03
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:43
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:58
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Client Sample ID: EB-001-F-20230915-01

Lab Sample ID: 240-191998-5

Date Collected: 09/15/23 14:30

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 19:14
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 17:02
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588570	AJC	EET CLE	09/25/23 20:04
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:37
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 22:50
Total/NA	Analysis	300.0		1	590093	JWW	EET CLE	10/10/23 05:42
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:43
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:58
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191998-1

Laboratory: Eurofins St. Louis (Continued)

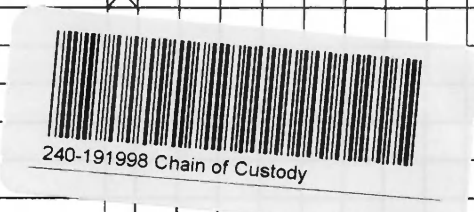
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

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

Chain of Custody Record

Client Information		Sample: <u>Bobby Costo</u>		Lab PM: <u>Cisneros, Roxanne</u>		COC No: <u>240-111832-398181</u>	
Client Contact: <u>Taylor Huffman</u>		Phone: <u>740-373-4308</u>		E-Mail: <u>roxanne.cisneros@et.eurofins.com</u>		Page: <u>Page 1 of 8</u>	
Company: <u>Lightstone Generation Gavin Power LLC</u>		Address: <u>7397 OH-7</u>		City: <u>Cheshire</u>		State of Origin: <u>OH, 45620</u>	
Phone: <u>740-925-3171(Tel)</u>		TAT Requested (days): <u> </u>		Compliance Project: <u>Δ Yes Δ No</u>		Job #: <u> </u>	
Email: <u>taylor.huffman@lightstonegen.com</u>		PO #: <u>2935505</u>		WO #: <u> </u>		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Z - other (specify)	
Project Name: <u>Gavin</u>		Project #: <u>24019633</u>		Site: <u>Gavin</u>		Special Instructions/Note: <u> </u>	
Sample Identification		Due Date Requested: <u> </u>		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sample ID		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (Water, Solid, or other)		Preservation Code		Total Number of Containers		Analysis Requested	
<u>96152-F-20230915-01</u>	<u>9-15-23</u>	<u>1059</u>	<u>6</u>	<u>Water</u>	<u>6010B, 6020, 7470A</u>	<u>2540C, Calcd, TDS</u>	<u>9315, Ra226, 9320, Ra228, Ra226Ra228, GFC</u>
<u>2022-05-F-20230915-01</u>	<u>9-15-23</u>	<u>1246</u>	<u>6</u>	<u>Water</u>			
<u>2022-04-F-20230915-01</u>	<u>9-15-23</u>	<u>1329</u>	<u>6</u>	<u>Water</u>			
<u>2016-06-F-20230915-01</u>	<u>9-15-23</u>	<u>1421</u>	<u>6</u>	<u>Water</u>			
<u>EB-001-F-20230915-01</u>	<u>9-15-23</u>	<u>1430</u>	<u>6</u>	<u>Water</u>			
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested I, II, III, IV, Other (specify)		Empty Kit Relinquished by: <u> </u>		Date: <u> </u>		Return To Client <input type="checkbox"/> Archive For <input type="checkbox"/> Months	
Relinquished by: <u> </u>		Date/Time: <u>9-19-23 / 0845</u>		Company: <u>ETA</u>		Received by: <u>Abney Deal</u>	
Relinquished by: <u> </u>		Date/Time: <u>9-19-23 / 1700</u>		Company: <u>ETA</u>		Received by: <u> </u>	
Relinquished by: <u> </u>		Date/Time: <u> </u>		Company: <u>ETA</u>		Received by: <u> </u>	
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No.: <u> </u>		Cooler Temperature(s) °C and Other Remarks: <u> </u>		Special Instructions/QC Requirements: <u> </u>	



Barberton Facility


Client Lightstone Site Name _____ Cooler unpacked by: Nancy Boyer

Cooler Received on 9-20-23 Opened on 9-20-23
 FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

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

Eurofins Cooler # CC ~~Euro~~ Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach
 - Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 - Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
- If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials?  ← Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____



Eurofins - Canton Sample Receipt Multiple Cooler Form					
Cooler Description (Circle)		IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC	Client <u>Box</u> Other	IR GUN #: 22	12.6	12.5	Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: 22	1.1	1.0	Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: 22	2.8	2.7	Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: 22	0.2	0.1	Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: 22	3.6	3.5	Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: 22	1.4	1.3	Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC	Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

See Temperature Excursion Form

Temperature readings:

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
9652-F-20230915-01	240-191998-D-1	Plastic 500ml - with Nitric Acid	<2			
9652-F-20230915-01	240-191998-E-1	Plastic 1 liter - Nitric Acid	<2			
9652-F-20230915-01	240-191998-F-1	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20230915-01	240-191998-D-2	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-20230915-01	240-191998-E-2	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20230915-01	240-191998-F-2	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-20230915-01	240-191998-D-3	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-20230915-01	240-191998-E-3	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-20230915-01	240-191998-F-3	Plastic 1 liter - Nitric Acid	<2			
2016-06-F-20230915-01	240-191998-D-4	Plastic 500ml - with Nitric Acid	<2			
2016-06-F-20230915-01	240-191998-E-4	Plastic 1 liter - Nitric Acid	<2			
2016-06-F-20230915-01	240-191998-F-4	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230915-01	240-191998-D-5	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230915-01	240-191998-E-5	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230915-01	240-191998-F-5	Plastic 1 liter - Nitric Acid	<2			

- 1
- 2
- 3
- 4
- 5
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- 10
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- 13
- 14
- 15

Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 240-174032.1
Client Contact: Shipping/Receiving		E-Mail: roxanne.cisneros@et.eurofins.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		State of Origin: Ohio	
Address: 13715 Rider Trail North,		Job #: 240-191998-1	
City: Earth City	Due Date Requested: 10/23/2023	Analysis Requested	
State, Zip: MO, 63045	TAT Requested (days):	Total Number of containers	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:	9315_Ra226/PreSep_21 Radium-226 and Radium-228	
Email:	WO #:	9320_Ra228/PreSep_0 Radium-228 (GFPC)	
Project Name: Federal CCR Wells	Project #: 24019633	Perform MS/MSD (Yes or No)	
Site:	SSOW#:	Field Filtered Sample (Yes or No)	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)
96152-F-20230915-01 (240-191998-1)	9/15/23	10:59 Eastern	Water
2022-05-F-20230915-01 (240-191998-2)	9/15/23	12:46 Eastern	Water
2022-04-F-20230915-01 (240-191998-3)	9/15/23	13:29 Eastern	Water
2016-06-F-20230915-01 (240-191998-4)	9/15/23	14:21 Eastern	Water
EB-001-F-20230915-01 (240-191998-5)	9/15/23	14:30 Eastern	Water
Special Instructions/Note:			
. Recount of TAR after 21 day ingrowth if > action limit; save planchet			
. Recount of TAR after 21 day ingrowth if > action limit; save planchet			
. Recount of TAR after 21 day ingrowth if > action limit; save planchet			
. Recount of TAR after 21 day ingrowth if > action limit; save planchet			
. Recount of TAR after 21 day ingrowth if > action limit; save planchet			

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - Di Water
 K - EDTA
 L - EDA
 Other:

Matrix (W=Water, S=solid, O=waste/oh, B= tissue, A=air)

Preservation Code:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Archive For Months
 Special Instructions/QC Requirements:

Empty Kit Relinquished by: [Signature] Date: 10/20/2023
Relinquished by: [Signature] Date: [Date]
Relinquished by: [Signature] Date: [Date]
Relinquished by: [Signature] Date: [Date]

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Method of Shipment: **Fedex**
 Received by: [Signature] Date/Time: [Date/Time]
 Received by: [Signature] Date/Time: [Date/Time]

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-191998-1

Login Number: 191998

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 09/21/23 05:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/20/2023 5:07:35 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-191999-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

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10/20/2023 5:07:35 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Rad

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
U	Result is less than the sample detection limit.

Glossary

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Job ID: 240-191999-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-191999-1

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

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

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

Receipt

The samples were received on 9/20/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.1°C, 1.0°C, 1.3°C, 2.7°C, 3.5°C and 12.5°C

Metals

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

General Chemistry

Method 300.0_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 240-589799 were outside control limits for chloride. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits along with all other analytes in the MS/MSD.

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

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 batch 629388: The following samples have an RER result outside of the acceptance criteria of 1. Duplicate precision is demonstrated by acceptable relative percent difference (RPD), within the limit of 40% (29%). The data have been reported with this narrative. 96158-F-20230918-01 (240-191999-5[MSD])

Method 9315_Ra226: Radium-226 batch 629388: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-04-F-20230918-01 (240-191999-1), 2016-03-F-20230918-01 (240-191999-2), 96157-F-20230918-01 (240-191999-3), DUP-002-F-20230918-01 (240-191999-4), 96158-F-20230918-01 (240-191999-5), 96158-F-20230918-01 (240-191999-5[MSJ]), 96158-F-20230918-01 (240-191999-5[MSD]), EB-001-F-20230918-01 (240-191999-6), (LCS 160-629388/2-A) and (MB 160-629388/1-A)

Method 9320_Ra228: Radium-228 batch 629460: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-04-F-20230918-01 (240-191999-1), 2016-03-F-20230918-01 (240-191999-2), 96157-F-20230918-01 (240-191999-3), DUP-002-F-20230918-01 (240-191999-4), 96158-F-20230918-01 (240-191999-5), 96158-F-20230918-01 (240-191999-5[MSJ]), 96158-F-20230918-01 (240-191999-5[MSD]), EB-001-F-20230918-01 (240-191999-6), (LCS 160-629460/2-A) and (MB 160-629460/1-A)

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

Rad

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-191999-1	2016-04-F-20230918-01	Water	09/18/23 10:42	09/20/23 08:00
240-191999-2	2016-03-F-20230918-01	Water	09/18/23 11:32	09/20/23 08:00
240-191999-3	96157-F-20230918-01	Water	09/18/23 12:38	09/20/23 08:00
240-191999-4	DUP-002-F-20230918-01	Water	09/18/23 00:00	09/20/23 08:00
240-191999-5	96158-F-20230918-01	Water	09/18/23 13:27	09/20/23 08:00
240-191999-6	EB-001-F-20230918-01	Water	09/18/23 14:40	09/20/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 2016-04-F-20230918-01

Lab Sample ID: 240-191999-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2900		100	57	ug/L	1		6010D	Total Recoverable
Barium	42		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	550000		10000	2500	ug/L	10		6020B	Total Recoverable
Chromium	2.8	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.35	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	30		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	89000	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.1	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	61000	B	10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	17		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.096		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1500		25	8.7	mg/L	25		300.0	Total/NA
Total Dissolved Solids	2400		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2016-03-F-20230918-01

Lab Sample ID: 240-191999-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2400		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	23		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	470000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	38		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	98000	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	7400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	89000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	18		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.094		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1800		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	2300		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96157-F-20230918-01

Lab Sample ID: 240-191999-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	140		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	37		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	420		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	55000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.25	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	6.4	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	12000	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	7.0		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	240000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	370		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	370		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	270		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	0.73		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1.5		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	690		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-002-F-20230918-01

Lab Sample ID: 240-191999-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	140		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	37		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	420		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	54000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.25	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	5.1	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	11000	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	7.0		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	240000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	370		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	370		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	280		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	0.73		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1.4		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	480		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96158-F-20230918-01

Lab Sample ID: 240-191999-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	360		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	370		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	63000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	7.0		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.1		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	38		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	13000	B	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	9.5		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	670000		10000	3300	ug/L	10		6020B	Total Recoverable
Thallium	0.60	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1200	F1	10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.0		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	22		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	3100		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230918-01

Lab Sample ID: 240-191999-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 2016-04-F-20230918-01

Lab Sample ID: 240-191999-1

Date Collected: 09/18/23 10:42

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2900		100	57	ug/L		09/21/23 14:00	09/22/23 19:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 17:04	1
Arsenic	ND		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 17:04	1
Barium	42		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 17:04	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 17:04	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:04	1
Calcium	550000		10000	2500	ug/L		09/21/23 14:00	09/25/23 20:07	10
Chromium	2.8	J	5.0	1.2	ug/L		09/21/23 14:00	09/22/23 17:04	1
Cobalt	0.35	J	1.0	0.19	ug/L		09/21/23 14:00	09/22/23 17:04	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 17:04	1
Lithium	30		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 17:04	1
Magnesium	89000	B	1000	61	ug/L		09/21/23 14:00	09/22/23 17:04	1
Molybdenum	1.1	J	5.0	1.1	ug/L		09/21/23 14:00	09/22/23 17:04	1
Potassium	8400		1000	220	ug/L		09/21/23 14:00	09/22/23 17:04	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 17:04	1
Sodium	61000	B	10000	3300	ug/L		09/21/23 14:00	09/25/23 20:07	10
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	270		5.0	2.6	mg/L			09/22/23 22:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	270		5.0	2.6	mg/L			09/22/23 22:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:53	1
Chloride (EPA 300.0)	17		1.0	0.13	mg/L			10/08/23 12:58	1
Fluoride (EPA 300.0)	0.096		0.050	0.024	mg/L			10/08/23 12:58	1
Sulfate (EPA 300.0)	1500		25	8.7	mg/L			10/14/23 21:15	25
Total Dissolved Solids (SM 2540C)	2400		20	16	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.231	F	0.152	0.153	1.00	0.188	pCi/L	09/25/23 10:57	10/18/23 13:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		30 - 110					09/25/23 10:57	10/18/23 13:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.650		0.413	0.418	1.00	0.611	pCi/L	09/25/23 11:15	10/17/23 11:59	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 2016-04-F-20230918-01
Date Collected: 09/18/23 10:42
Date Received: 09/20/23 08:00

Lab Sample ID: 240-191999-1
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		30 - 110	09/25/23 11:15	10/17/23 11:59	1
Y Carrier	83.7		30 - 110	09/25/23 11:15	10/17/23 11:59	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	0.881		0.440	0.445	5.00	0.611	pCi/L		10/20/23 16:50	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 2016-03-F-20230918-01

Lab Sample ID: 240-191999-2

Date Collected: 09/18/23 11:32

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2400		100	57	ug/L		09/21/23 14:00	09/22/23 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 17:07	1
Arsenic	2.2	J	5.0	0.75	ug/L		09/21/23 14:00	09/22/23 17:07	1
Barium	23		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 17:07	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 17:07	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:07	1
Calcium	470000		1000	250	ug/L		09/21/23 14:00	09/22/23 17:07	1
Chromium	ND		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 17:07	1
Cobalt	1.2		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 17:07	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 17:07	1
Lithium	38		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 17:07	1
Magnesium	98000	B	1000	61	ug/L		09/21/23 14:00	09/22/23 17:07	1
Molybdenum	1.6	J	5.0	1.1	ug/L		09/21/23 14:00	09/22/23 17:07	1
Potassium	7400		1000	220	ug/L		09/21/23 14:00	09/22/23 17:07	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 17:07	1
Sodium	89000		1000	330	ug/L		09/21/23 14:00	09/25/23 20:09	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	270		5.0	2.6	mg/L			09/22/23 22:59	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	270		5.0	2.6	mg/L			09/22/23 22:59	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 22:59	1
Chloride (EPA 300.0)	18		1.0	0.13	mg/L			10/06/23 17:06	1
Fluoride (EPA 300.0)	0.094		0.050	0.024	mg/L			10/06/23 17:06	1
Sulfate (EPA 300.0)	1800		10	3.5	mg/L			10/06/23 17:28	10
Total Dissolved Solids (SM 2540C)	2300		20	16	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.350	F	0.186	0.188	1.00	0.221	pCi/L	09/25/23 10:57	10/18/23 13:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110					09/25/23 10:57	10/18/23 13:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.07		0.435	0.446	1.00	0.558	pCi/L	09/25/23 11:15	10/17/23 11:59	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 2016-03-F-20230918-01

Lab Sample ID: 240-191999-2

Date Collected: 09/18/23 11:32

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110	09/25/23 11:15	10/17/23 11:59	1
Y Carrier	86.0		30 - 110	09/25/23 11:15	10/17/23 11:59	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.42		0.473	0.484	5.00	0.558	pCi/L		10/20/23 16:50	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96157-F-20230918-01

Lab Sample ID: 240-191999-3

Date Collected: 09/18/23 12:38

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	140		100	57	ug/L		09/21/23 14:00	09/22/23 19:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 17:14	1
Arsenic	37		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 17:14	1
Barium	420		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 17:14	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 17:14	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:14	1
Calcium	55000		1000	250	ug/L		09/21/23 14:00	09/22/23 17:14	1
Chromium	ND		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 17:14	1
Cobalt	0.25	J	1.0	0.19	ug/L		09/21/23 14:00	09/22/23 17:14	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 17:14	1
Lithium	6.4	J	8.0	1.7	ug/L		09/21/23 14:00	09/22/23 17:14	1
Magnesium	12000	B	1000	61	ug/L		09/21/23 14:00	09/22/23 17:14	1
Molybdenum	7.0		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 17:14	1
Potassium	1500		1000	220	ug/L		09/21/23 14:00	09/22/23 17:14	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 17:14	1
Sodium	240000		1000	330	ug/L		09/21/23 14:00	09/25/23 20:12	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:14	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	370		5.0	2.6	mg/L			09/22/23 23:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	370		5.0	2.6	mg/L			09/22/23 23:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 23:10	1
Chloride (EPA 300.0)	270		5.0	0.64	mg/L			10/06/23 13:08	5
Fluoride (EPA 300.0)	0.73		0.050	0.024	mg/L			10/06/23 12:46	1
Sulfate (EPA 300.0)	1.5		1.0	0.35	mg/L			10/06/23 12:46	1
Total Dissolved Solids (SM 2540C)	690		20	16	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.394	F	0.186	0.190	1.00	0.192	pCi/L	09/25/23 10:57	10/18/23 13:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		30 - 110					09/25/23 10:57	10/18/23 13:44	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.08		0.518	0.528	1.00	0.722	pCi/L	09/25/23 11:15	10/17/23 11:59	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96157-F-20230918-01

Lab Sample ID: 240-191999-3

Date Collected: 09/18/23 12:38

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		30 - 110	09/25/23 11:15	10/17/23 11:59	1
Y Carrier	73.6		30 - 110	09/25/23 11:15	10/17/23 11:59	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.47		0.550	0.561	5.00	0.722	pCi/L		10/20/23 16:50	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: DUP-002-F-20230918-01

Lab Sample ID: 240-191999-4

Date Collected: 09/18/23 00:00

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	140		100	57	ug/L		09/21/23 14:00	09/22/23 19:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 17:17	1
Arsenic	37		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 17:17	1
Barium	420		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 17:17	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 17:17	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:17	1
Calcium	54000		1000	250	ug/L		09/21/23 14:00	09/22/23 17:17	1
Chromium	ND		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 17:17	1
Cobalt	0.25	J	1.0	0.19	ug/L		09/21/23 14:00	09/22/23 17:17	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 17:17	1
Lithium	5.1	J	8.0	1.7	ug/L		09/21/23 14:00	09/22/23 17:17	1
Magnesium	11000	B	1000	61	ug/L		09/21/23 14:00	09/22/23 17:17	1
Molybdenum	7.0		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 17:17	1
Potassium	1500		1000	220	ug/L		09/21/23 14:00	09/22/23 17:17	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 17:17	1
Sodium	240000		1000	330	ug/L		09/21/23 14:00	09/25/23 20:14	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	370		5.0	2.6	mg/L			09/22/23 23:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	370		5.0	2.6	mg/L			09/22/23 23:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 23:16	1
Chloride (EPA 300.0)	280		5.0	0.64	mg/L			10/06/23 16:01	5
Fluoride (EPA 300.0)	0.73		0.050	0.024	mg/L			10/06/23 15:40	1
Sulfate (EPA 300.0)	1.4		1.0	0.35	mg/L			10/06/23 15:40	1
Total Dissolved Solids (SM 2540C)	480		10	7.8	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.749	F	0.245	0.254	1.00	0.198	pCi/L	09/25/23 10:57	10/18/23 13:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					09/25/23 10:57	10/18/23 13:45	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.09		0.417	0.428	1.00	0.509	pCi/L	09/25/23 11:15	10/17/23 11:57	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: DUP-002-F-20230918-01

Lab Sample ID: 240-191999-4

Date Collected: 09/18/23 00:00

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110	09/25/23 11:15	10/17/23 11:57	1
Y Carrier	85.6		30 - 110	09/25/23 11:15	10/17/23 11:57	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.83		0.484	0.498	5.00	0.509	pCi/L		10/20/23 16:50	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96158-F-20230918-01

Lab Sample ID: 240-191999-5

Date Collected: 09/18/23 13:27

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	360		100	57	ug/L		09/21/23 14:00	09/22/23 17:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 16:04	1
Arsenic	1.1	J	5.0	0.75	ug/L		09/21/23 14:00	09/22/23 16:04	1
Barium	370		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 16:04	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 16:04	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:04	1
Calcium	63000		1000	250	ug/L		09/21/23 14:00	09/22/23 16:04	1
Chromium	7.0		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 16:04	1
Cobalt	1.7		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 16:04	1
Lead	1.1		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 16:04	1
Lithium	38		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 16:04	1
Magnesium	13000	B	1000	61	ug/L		09/21/23 14:00	09/22/23 16:04	1
Molybdenum	9.5		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 16:04	1
Potassium	3200		1000	220	ug/L		09/21/23 14:00	09/22/23 16:04	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 16:04	1
Sodium	670000		10000	3300	ug/L		09/21/23 14:00	09/25/23 19:37	10
Thallium	0.60	J	1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	340		5.0	2.6	mg/L			09/22/23 23:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	340		5.0	2.6	mg/L			09/22/23 23:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 23:22	1
Chloride (EPA 300.0)	1200	F1	10	1.3	mg/L			10/08/23 11:32	10
Fluoride (EPA 300.0)	1.0		0.050	0.024	mg/L			10/08/23 10:27	1
Sulfate (EPA 300.0)	22		1.0	0.35	mg/L			10/08/23 10:27	1
Total Dissolved Solids (SM 2540C)	3100		40	31	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.872	F	0.262	0.273	1.00	0.211	pCi/L	09/25/23 10:57	10/18/23 13:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		30 - 110					09/25/23 10:57	10/18/23 13:45	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.82		0.536	0.561	1.00	0.625	pCi/L	09/25/23 11:15	10/17/23 11:57	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96158-F-20230918-01

Lab Sample ID: 240-191999-5

Date Collected: 09/18/23 13:27

Matrix: Water

Date Received: 09/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		30 - 110	09/25/23 11:15	10/17/23 11:57	1
Y Carrier	77.4		30 - 110	09/25/23 11:15	10/17/23 11:57	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	2.69		(2σ+/-) 0.597	(2σ+/-) 0.624	5.00	0.625	pCi/L		10/20/23 16:50	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: EB-001-F-20230918-01

Lab Sample ID: 240-191999-6

Date Collected: 09/18/23 14:40

Matrix: Water

Date Received: 09/20/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/21/23 14:00	09/22/23 19:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 17:19	1
Arsenic	ND		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 17:19	1
Barium	ND		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 17:19	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 17:19	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:19	1
Calcium	ND		1000	250	ug/L		09/21/23 14:00	09/22/23 17:19	1
Chromium	ND		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 17:19	1
Cobalt	ND		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 17:19	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 17:19	1
Lithium	ND		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 17:19	1
Magnesium	ND		1000	61	ug/L		09/21/23 14:00	09/22/23 17:19	1
Molybdenum	ND		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 17:19	1
Potassium	ND		1000	220	ug/L		09/21/23 14:00	09/22/23 17:19	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 17:19	1
Sodium	ND		1000	330	ug/L		09/21/23 14:00	09/25/23 20:17	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 17:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 23:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 23:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/22/23 23:28	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/06/23 11:41	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/06/23 11:41	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/06/23 11:41	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/21/23 07:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0613	U F	0.130	0.130	1.00	0.235	pCi/L	09/25/23 10:57	10/18/23 13:49	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	93.4		30 - 110					09/25/23 10:57	10/18/23 13:49	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.333	U	0.321	0.323	1.00	0.514	pCi/L	09/25/23 11:15	10/17/23 11:57	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: EB-001-F-20230918-01

Lab Sample ID: 240-191999-6

Date Collected: 09/18/23 14:40

Matrix: Water

Date Received: 09/20/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	93.4		30 - 110	09/25/23 11:15	10/17/23 11:57	1
Y Carrier	84.1		30 - 110	09/25/23 11:15	10/17/23 11:57	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
Combined Radium 226 + 228	0.394	U	(2σ+/-) 0.346	(2σ+/-) 0.348	5.00	0.514	pCi/L		10/20/23 16:50	1



Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-191999-1	2016-04-F-20230918-01	82.9	
240-191999-2	2016-03-F-20230918-01	86.8	
240-191999-3	96157-F-20230918-01	87.5	
240-191999-4	DUP-002-F-20230918-01	84.8	
240-191999-5	96158-F-20230918-01	90.0	
240-191999-5 MS	96158-F-20230918-01	89.2	
240-191999-5 MSD	96158-F-20230918-01	101	
240-191999-6	EB-001-F-20230918-01	93.4	
LCS 160-629388/2-A	Lab Control Sample	94.1	
MB 160-629388/1-A	Method Blank	91.2	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-191999-1	2016-04-F-20230918-01	82.9	83.7
240-191999-2	2016-03-F-20230918-01	86.8	86.0
240-191999-3	96157-F-20230918-01	87.5	73.6
240-191999-4	DUP-002-F-20230918-01	84.8	85.6
240-191999-5	96158-F-20230918-01	90.0	77.4
240-191999-5 MS	96158-F-20230918-01	89.2	82.2
240-191999-5 MSD	96158-F-20230918-01	101	85.2
240-191999-6	EB-001-F-20230918-01	93.4	84.1
LCS 160-629460/2-A	Lab Control Sample	94.1	83.4
MB 160-629460/1-A	Method Blank	91.2	79.3
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-588055/1-A
Matrix: Water
Analysis Batch: 588359

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/21/23 14:00	09/22/23 16:47	1

Lab Sample ID: LCS 240-588055/2-A
Matrix: Water
Analysis Batch: 588359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	952		ug/L		95	80 - 120

Lab Sample ID: 240-191999-5 MS
Matrix: Water
Analysis Batch: 588359

Client Sample ID: 96158-F-20230918-01
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	360		1000	1320		ug/L		96	75 - 125

Lab Sample ID: 240-191999-5 MSD
Matrix: Water
Analysis Batch: 588359

Client Sample ID: 96158-F-20230918-01
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Boron	360		1000	1300		ug/L		94	75 - 125	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-588055/1-A
Matrix: Water
Analysis Batch: 588399

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/21/23 14:00	09/22/23 16:00	1
Arsenic	ND		5.0	0.75	ug/L		09/21/23 14:00	09/22/23 16:00	1
Barium	ND		5.0	2.2	ug/L		09/21/23 14:00	09/22/23 16:00	1
Beryllium	ND		1.0	0.62	ug/L		09/21/23 14:00	09/22/23 16:00	1
Cadmium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:00	1
Calcium	ND		1000	250	ug/L		09/21/23 14:00	09/22/23 16:00	1
Chromium	ND		5.0	1.2	ug/L		09/21/23 14:00	09/22/23 16:00	1
Cobalt	ND		1.0	0.19	ug/L		09/21/23 14:00	09/22/23 16:00	1
Lead	ND		1.0	0.45	ug/L		09/21/23 14:00	09/22/23 16:00	1
Lithium	ND		8.0	1.7	ug/L		09/21/23 14:00	09/22/23 16:00	1
Magnesium	139	J	1000	61	ug/L		09/21/23 14:00	09/22/23 16:00	1
Molybdenum	ND		5.0	1.1	ug/L		09/21/23 14:00	09/22/23 16:00	1
Potassium	ND		1000	220	ug/L		09/21/23 14:00	09/22/23 16:00	1
Selenium	ND		5.0	0.89	ug/L		09/21/23 14:00	09/22/23 16:00	1
Thallium	ND		1.0	0.20	ug/L		09/21/23 14:00	09/22/23 16:00	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

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

Lab Sample ID: MB 240-588055/1-A
Matrix: Water
Analysis Batch: 588570

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		09/21/23 14:00	09/25/23 19:32	1

Lab Sample ID: LCS 240-588055/3-A
Matrix: Water
Analysis Batch: 588399

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.8		ug/L		99	80 - 120
Arsenic	1000	959		ug/L		96	80 - 120
Barium	1000	914		ug/L		91	80 - 120
Beryllium	500	445		ug/L		89	80 - 120
Cadmium	500	463		ug/L		93	80 - 120
Calcium	25000	23300		ug/L		93	80 - 120
Chromium	500	465		ug/L		93	80 - 120
Cobalt	500	473		ug/L		95	80 - 120
Lead	500	428		ug/L		86	80 - 120
Lithium	500	482		ug/L		96	80 - 120
Magnesium	25000	23800		ug/L		95	80 - 120
Molybdenum	500	461		ug/L		92	80 - 120
Potassium	25000	24200		ug/L		97	80 - 120
Selenium	1000	954		ug/L		95	80 - 120
Thallium	1000	921		ug/L		92	80 - 120

Lab Sample ID: LCS 240-588055/3-A
Matrix: Water
Analysis Batch: 588570

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24200		ug/L		97	80 - 120

Lab Sample ID: 240-191999-5 MS
Matrix: Water
Analysis Batch: 588399

Client Sample ID: 96158-F-20230918-01
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	98.9		ug/L		99	80 - 120
Arsenic	1.1	J	1000	974		ug/L		97	80 - 120
Barium	370		1000	1300		ug/L		93	80 - 120
Beryllium	ND		500	456		ug/L		91	80 - 120
Cadmium	ND		500	457		ug/L		91	80 - 120
Calcium	63000		25000	89000		ug/L		104	80 - 120
Chromium	7.0		500	477		ug/L		94	80 - 120
Cobalt	1.7		500	482		ug/L		96	80 - 120
Lead	1.1		500	427		ug/L		85	80 - 120
Lithium	38		500	537		ug/L		100	80 - 120
Magnesium	13000	B	25000	37000		ug/L		95	80 - 120
Molybdenum	9.5		500	484		ug/L		95	80 - 120
Potassium	3200		25000	27000		ug/L		95	80 - 120
Selenium	ND		1000	971		ug/L		97	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

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

Lab Sample ID: 240-191999-5 MS
Matrix: Water
Analysis Batch: 588399

Client Sample ID: 96158-F-20230918-01
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.60	J	1000	900		ug/L		90	80 - 120

Lab Sample ID: 240-191999-5 MS
Matrix: Water
Analysis Batch: 588570

Client Sample ID: 96158-F-20230918-01
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	670000		25000	725000	4	ug/L		206	80 - 120

Lab Sample ID: 240-191999-5 MSD
Matrix: Water
Analysis Batch: 588399

Client Sample ID: 96158-F-20230918-01
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		100	97.7		ug/L		98	80 - 120	1	20
Arsenic	1.1	J	1000	958		ug/L		96	80 - 120	2	20
Barium	370		1000	1280		ug/L		91	80 - 120	2	20
Beryllium	ND		500	449		ug/L		90	80 - 120	2	20
Cadmium	ND		500	450		ug/L		90	80 - 120	2	20
Calcium	63000		25000	86500		ug/L		94	80 - 120	3	20
Chromium	7.0		500	462		ug/L		91	80 - 120	3	20
Cobalt	1.7		500	472		ug/L		94	80 - 120	2	20
Lead	1.1		500	427		ug/L		85	80 - 120	0	20
Lithium	38		500	509		ug/L		94	80 - 120	5	20
Magnesium	13000	B	25000	36100		ug/L		91	80 - 120	2	20
Molybdenum	9.5		500	479		ug/L		94	80 - 120	1	20
Potassium	3200		25000	26500		ug/L		93	80 - 120	2	20
Selenium	ND		1000	918		ug/L		92	80 - 120	6	20
Thallium	0.60	J	1000	896		ug/L		89	80 - 120	0	20

Lab Sample ID: 240-191999-5 MSD
Matrix: Water
Analysis Batch: 588570

Client Sample ID: 96158-F-20230918-01
Prep Type: Total Recoverable
Prep Batch: 588055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Sodium	670000		25000	708000	4	ug/L		135	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-588058/1-A
Matrix: Water
Analysis Batch: 588396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 588058

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/21/23 14:00	09/22/23 14:01	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-588058/2-A
Matrix: Water
Analysis Batch: 588396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 588058

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.15		ug/L		103	80 - 120

Lab Sample ID: 240-191999-5 MS
Matrix: Water
Analysis Batch: 588396

Client Sample ID: 96158-F-20230918-01
Prep Type: Total/NA
Prep Batch: 588058

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND	F1	1.00	1.22	F1	ug/L		122	80 - 120

Lab Sample ID: 240-191999-5 MSD
Matrix: Water
Analysis Batch: 588396

Client Sample ID: 96158-F-20230918-01
Prep Type: Total/NA
Prep Batch: 588058

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	F1	1.00	1.20		ug/L		120	80 - 120	1	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-588407/30
Matrix: Water
Analysis Batch: 588407

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/22/23 19:24	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 19:24	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 19:24	1

Lab Sample ID: MB 240-588407/57
Matrix: Water
Analysis Batch: 588407

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/22/23 21:50	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 21:50	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/22/23 21:50	1

Lab Sample ID: LCS 240-588407/56
Matrix: Water
Analysis Batch: 588407

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.5		mg/L		102	86 - 123

Lab Sample ID: 240-191999-2 DU
Matrix: Water
Analysis Batch: 588407

Client Sample ID: 2016-03-F-20230918-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	270		271		mg/L		0.07	20
Bicarbonate Alkalinity as CaCO3	270		271		mg/L		0.07	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-191999-2 DU
 Matrix: Water
 Analysis Batch: 588407

Client Sample ID: 2016-03-F-20230918-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-589799/3
 Matrix: Water
 Analysis Batch: 589799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/06/23 09:53	1
Fluoride	ND		0.050	0.024	mg/L			10/06/23 09:53	1
Sulfate	ND		1.0	0.35	mg/L			10/06/23 09:53	1

Lab Sample ID: LCS 240-589799/4
 Matrix: Water
 Analysis Batch: 589799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.7		mg/L		97	90 - 110
Fluoride	2.50	2.49		mg/L		99	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Lab Sample ID: 240-191999-5 MS
 Matrix: Water
 Analysis Batch: 589799

Client Sample ID: 96158-F-20230918-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.0		2.50	3.76		mg/L		109	80 - 120
Sulfate	22		50.0	74.1		mg/L		104	80 - 120

Lab Sample ID: 240-191999-5 MS
 Matrix: Water
 Analysis Batch: 589799

Client Sample ID: 96158-F-20230918-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1200	F1	500	1530	F1	mg/L		61	80 - 120

Lab Sample ID: 240-191999-5 MSD
 Matrix: Water
 Analysis Batch: 589799

Client Sample ID: 96158-F-20230918-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.0		2.50	3.68		mg/L		106	80 - 120	2	15
Sulfate	22		50.0	72.5		mg/L		101	80 - 120	2	15

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-191999-5 MSD
Matrix: Water
Analysis Batch: 589799

Client Sample ID: 96158-F-20230918-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1200	F1	500	1500	F1	mg/L		53	80 - 120	2	15

Lab Sample ID: MB 240-590490/3
Matrix: Water
Analysis Batch: 590490

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/14/23 09:19	1
Fluoride	ND		0.050	0.024	mg/L			10/14/23 09:19	1
Sulfate	ND		1.0	0.35	mg/L			10/14/23 09:19	1

Lab Sample ID: LCS 240-590490/4
Matrix: Water
Analysis Batch: 590490

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.6		mg/L		97	90 - 110
Fluoride	2.50	2.48		mg/L		99	90 - 110
Sulfate	50.0	49.2		mg/L		98	90 - 110

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

Lab Sample ID: MB 240-587979/1
Matrix: Water
Analysis Batch: 587979

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	ND		10	7.8	mg/L			09/21/23 07:58	1

Lab Sample ID: LCS 240-587979/2
Matrix: Water
Analysis Batch: 587979

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	303		mg/L		90	80 - 120

Lab Sample ID: 240-191999-3 DU
Matrix: Water
Analysis Batch: 587979

Client Sample ID: 96157-F-20230918-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	690		730		mg/L		5	20

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-629388/1-A
Matrix: Water
Analysis Batch: 632341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629388

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1116	U	0.135	0.135	1.00	0.221	pCi/L	09/25/23 10:57	10/18/23 13:42	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					09/25/23 10:57	10/18/23 13:42	1

Lab Sample ID: LCS 160-629388/2-A
Matrix: Water
Analysis Batch: 632341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629388

Analyte	Spike Added	LCS		Total	RL	MDC	Unit	%Rec	%Rec Limits
		Result	LCS Qual	Uncert. (2σ+/-)					
Radium-226	11.3	10.35		1.25	1.00	0.304	pCi/L	91	75 - 125
Carrier	LCS		Limits						
Ba Carrier	94.1		30 - 110						

Lab Sample ID: 240-191999-5 MS
Matrix: Water
Analysis Batch: 632341

Client Sample ID: 96158-F-20230918-01
Prep Type: Total/NA
Prep Batch: 629388

Analyte	Sample	Sample	Spike	MS	MS	Total	RL	MDC	Unit	%Rec	%Rec Limits
	Result	Qual	Added	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.872	F	11.4	11.20		1.34	1.00	0.247	pCi/L	91	60 - 140
Carrier	MS		Limits								
Ba Carrier	89.2		30 - 110								

Lab Sample ID: 240-191999-5 MSD
Matrix: Water
Analysis Batch: 632341

Client Sample ID: 96158-F-20230918-01
Prep Type: Total/NA
Prep Batch: 629388

Analyte	Sample	Sample	Spike	MSD	MSD	Total	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
	Result	Qual	Added	Result	Qual	Uncert. (2σ+/-)							
Radium-226	0.872	F	11.3	8.403	F	1.10	1.00	0.219	pCi/L	66	60 - 140	1.15	1
Carrier	MSD		Limits										
Ba Carrier	101		30 - 110										

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-629460/1-A
Matrix: Water
Analysis Batch: 632159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629460

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.4950	U	0.352	0.355	1.00	0.528	pCi/L	09/25/23 11:15	10/17/23 11:58	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

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

Carrier	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	91.2		30 - 110	09/25/23 11:15	10/17/23 11:58	1
Y Carrier	79.3		30 - 110	09/25/23 11:15	10/17/23 11:58	1

Lab Sample ID: LCS 160-629460/2-A
 Matrix: Water
 Analysis Batch: 632159

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 629460

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	94.1		30 - 110
Y Carrier	83.4		30 - 110

Lab Sample ID: 240-191999-5 MS
 Matrix: Water
 Analysis Batch: 632161

Client Sample ID: 96158-F-20230918-01
 Prep Type: Total/NA
 Prep Batch: 629460

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits

Carrier	MS MS		Limits
	%Yield	Qualifier	
Ba Carrier	89.2		30 - 110
Y Carrier	82.2		30 - 110

Lab Sample ID: 240-191999-5 MSD
 Matrix: Water
 Analysis Batch: 632161

Client Sample ID: 96158-F-20230918-01
 Prep Type: Total/NA
 Prep Batch: 629460

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit

Carrier	MSD MSD		Limits
	%Yield	Qualifier	
Ba Carrier	101		30 - 110
Y Carrier	85.2		30 - 110

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Metals

Prep Batch: 588055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-2	2016-03-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-3	96157-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-4	DUP-002-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-5	96158-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-6	EB-001-F-20230918-01	Total Recoverable	Water	3005A	
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-588055/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-588055/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-191999-5 MS	96158-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-5 MS	96158-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-5 MSD	96158-F-20230918-01	Total Recoverable	Water	3005A	
240-191999-5 MSD	96158-F-20230918-01	Total Recoverable	Water	3005A	

Prep Batch: 588058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	7470A	
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	7470A	
240-191999-3	96157-F-20230918-01	Total/NA	Water	7470A	
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	7470A	
240-191999-5	96158-F-20230918-01	Total/NA	Water	7470A	
240-191999-6	EB-001-F-20230918-01	Total/NA	Water	7470A	
MB 240-588058/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-588058/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-191999-5 MS	96158-F-20230918-01	Total/NA	Water	7470A	
240-191999-5 MSD	96158-F-20230918-01	Total/NA	Water	7470A	

Analysis Batch: 588359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total Recoverable	Water	6010D	588055
240-191999-2	2016-03-F-20230918-01	Total Recoverable	Water	6010D	588055
240-191999-3	96157-F-20230918-01	Total Recoverable	Water	6010D	588055
240-191999-4	DUP-002-F-20230918-01	Total Recoverable	Water	6010D	588055
240-191999-5	96158-F-20230918-01	Total Recoverable	Water	6010D	588055
240-191999-6	EB-001-F-20230918-01	Total Recoverable	Water	6010D	588055
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	6010D	588055
LCS 240-588055/2-A	Lab Control Sample	Total Recoverable	Water	6010D	588055
240-191999-5 MS	96158-F-20230918-01	Total Recoverable	Water	6010D	588055
240-191999-5 MSD	96158-F-20230918-01	Total Recoverable	Water	6010D	588055

Analysis Batch: 588396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	7470A	588058
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	7470A	588058
240-191999-3	96157-F-20230918-01	Total/NA	Water	7470A	588058
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	7470A	588058
240-191999-5	96158-F-20230918-01	Total/NA	Water	7470A	588058
240-191999-6	EB-001-F-20230918-01	Total/NA	Water	7470A	588058
MB 240-588058/1-A	Method Blank	Total/NA	Water	7470A	588058
LCS 240-588058/2-A	Lab Control Sample	Total/NA	Water	7470A	588058
240-191999-5 MS	96158-F-20230918-01	Total/NA	Water	7470A	588058

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Metals (Continued)

Analysis Batch: 588396 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-5 MSD	96158-F-20230918-01	Total/NA	Water	7470A	588058

Analysis Batch: 588399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-2	2016-03-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-3	96157-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-4	DUP-002-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-5	96158-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-6	EB-001-F-20230918-01	Total Recoverable	Water	6020B	588055
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	6020B	588055
LCS 240-588055/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588055
240-191999-5 MS	96158-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-5 MSD	96158-F-20230918-01	Total Recoverable	Water	6020B	588055

Analysis Batch: 588570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-2	2016-03-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-3	96157-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-4	DUP-002-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-5	96158-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-6	EB-001-F-20230918-01	Total Recoverable	Water	6020B	588055
MB 240-588055/1-A	Method Blank	Total Recoverable	Water	6020B	588055
LCS 240-588055/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588055
240-191999-5 MS	96158-F-20230918-01	Total Recoverable	Water	6020B	588055
240-191999-5 MSD	96158-F-20230918-01	Total Recoverable	Water	6020B	588055

General Chemistry

Analysis Batch: 587979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	SM 2540C	
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	SM 2540C	
240-191999-3	96157-F-20230918-01	Total/NA	Water	SM 2540C	
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	SM 2540C	
240-191999-5	96158-F-20230918-01	Total/NA	Water	SM 2540C	
240-191999-6	EB-001-F-20230918-01	Total/NA	Water	SM 2540C	
MB 240-587979/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-587979/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-191999-3 DU	96157-F-20230918-01	Total/NA	Water	SM 2540C	

Analysis Batch: 588407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	2320B-1997	
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	2320B-1997	
240-191999-3	96157-F-20230918-01	Total/NA	Water	2320B-1997	
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	2320B-1997	
240-191999-5	96158-F-20230918-01	Total/NA	Water	2320B-1997	
240-191999-6	EB-001-F-20230918-01	Total/NA	Water	2320B-1997	
MB 240-588407/30	Method Blank	Total/NA	Water	2320B-1997	

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191999-1

General Chemistry (Continued)

Analysis Batch: 588407 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-588407/57	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-588407/56	Lab Control Sample	Total/NA	Water	2320B-1997	
240-191999-2 DU	2016-03-F-20230918-01	Total/NA	Water	2320B-1997	

Analysis Batch: 589799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	300.0	
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	300.0	
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	300.0	
240-191999-3	96157-F-20230918-01	Total/NA	Water	300.0	
240-191999-3	96157-F-20230918-01	Total/NA	Water	300.0	
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	300.0	
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	300.0	
240-191999-5	96158-F-20230918-01	Total/NA	Water	300.0	
240-191999-5	96158-F-20230918-01	Total/NA	Water	300.0	
240-191999-6	EB-001-F-20230918-01	Total/NA	Water	300.0	
MB 240-589799/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589799/4	Lab Control Sample	Total/NA	Water	300.0	
240-191999-5 MS	96158-F-20230918-01	Total/NA	Water	300.0	
240-191999-5 MS	96158-F-20230918-01	Total/NA	Water	300.0	
240-191999-5 MSD	96158-F-20230918-01	Total/NA	Water	300.0	
240-191999-5 MSD	96158-F-20230918-01	Total/NA	Water	300.0	

Analysis Batch: 590490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	300.0	
MB 240-590490/3	Method Blank	Total/NA	Water	300.0	
LCS 240-590490/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 629388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	PrecSep-21	
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	PrecSep-21	
240-191999-3	96157-F-20230918-01	Total/NA	Water	PrecSep-21	
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	PrecSep-21	
240-191999-5	96158-F-20230918-01	Total/NA	Water	PrecSep-21	
240-191999-6	EB-001-F-20230918-01	Total/NA	Water	PrecSep-21	
MB 160-629388/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-629388/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-191999-5 MS	96158-F-20230918-01	Total/NA	Water	PrecSep-21	
240-191999-5 MSD	96158-F-20230918-01	Total/NA	Water	PrecSep-21	

Prep Batch: 629460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-1	2016-04-F-20230918-01	Total/NA	Water	PrecSep_0	
240-191999-2	2016-03-F-20230918-01	Total/NA	Water	PrecSep_0	
240-191999-3	96157-F-20230918-01	Total/NA	Water	PrecSep_0	
240-191999-4	DUP-002-F-20230918-01	Total/NA	Water	PrecSep_0	
240-191999-5	96158-F-20230918-01	Total/NA	Water	PrecSep_0	

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Rad (Continued)

Prep Batch: 629460 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-191999-6	EB-001-F-20230918-01	Total/NA	Water	PrecSep_0	
MB 160-629460/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-629460/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-191999-5 MS	96158-F-20230918-01	Total/NA	Water	PrecSep_0	
240-191999-5 MSD	96158-F-20230918-01	Total/NA	Water	PrecSep_0	

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

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 2016-04-F-20230918-01

Lab Sample ID: 240-191999-1

Date Collected: 09/18/23 10:42

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 19:18
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 17:04
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		10	588570	AJC	EET CLE	09/25/23 20:07
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:43
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 22:53
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/08/23 12:58
Total/NA	Analysis	300.0		25	590490	JWW	EET CLE	10/14/23 21:15
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:44
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:59
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Client Sample ID: 2016-03-F-20230918-01

Lab Sample ID: 240-191999-2

Date Collected: 09/18/23 11:32

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 19:23
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 17:07
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588570	AJC	EET CLE	09/25/23 20:09
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:45
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 22:59
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 17:06
Total/NA	Analysis	300.0		10	589799	JWW	EET CLE	10/06/23 17:28
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:44
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:59
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96157-F-20230918-01

Lab Sample ID: 240-191999-3

Date Collected: 09/18/23 12:38

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 19:27
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 17:14
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588570	AJC	EET CLE	09/25/23 20:12
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:47
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 23:10
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 12:46
Total/NA	Analysis	300.0		5	589799	JWW	EET CLE	10/06/23 13:08
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:44
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:59
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Client Sample ID: DUP-002-F-20230918-01

Lab Sample ID: 240-191999-4

Date Collected: 09/18/23 00:00

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 19:32
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 17:17
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588570	AJC	EET CLE	09/25/23 20:14
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:49
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 23:16
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 15:40
Total/NA	Analysis	300.0		5	589799	JWW	EET CLE	10/06/23 16:01
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:45
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632159	FLC	EET SL	10/17/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Client Sample ID: 96158-F-20230918-01

Lab Sample ID: 240-191999-5

Date Collected: 09/18/23 13:27

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 17:47
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 16:04
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		10	588570	AJC	EET CLE	09/25/23 19:37
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:06
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 23:22
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/08/23 10:27
Total/NA	Analysis	300.0		10	589799	JWW	EET CLE	10/08/23 11:32
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632341	FLC	EET SL	10/18/23 13:45
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632161	FLC	EET SL	10/17/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Client Sample ID: EB-001-F-20230918-01

Lab Sample ID: 240-191999-6

Date Collected: 09/18/23 14:40

Matrix: Water

Date Received: 09/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6010D		1	588359	RKT	EET CLE	09/22/23 19:36
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588399	AJC	EET CLE	09/22/23 17:19
Total Recoverable	Prep	3005A			588055	GK	EET CLE	09/21/23 14:00
Total Recoverable	Analysis	6020B		1	588570	AJC	EET CLE	09/25/23 20:17
Total/NA	Prep	7470A			588058	GK	EET CLE	09/21/23 14:00
Total/NA	Analysis	7470A		1	588396	DSH	EET CLE	09/22/23 14:51
Total/NA	Analysis	2320B-1997		1	588407	JMR	EET CLE	09/22/23 23:28
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 11:41
Total/NA	Analysis	SM 2540C		1	587979	QUY8	EET CLE	09/21/23 07:58
Total/NA	Prep	PrecSep-21			629388	KAC	EET SL	09/25/23 10:57
Total/NA	Analysis	9315		1	632342	FLC	EET SL	10/18/23 13:49
Total/NA	Prep	PrecSep_0			629460	KAC	EET SL	09/25/23 11:15
Total/NA	Analysis	9320		1	632161	FLC	EET SL	10/17/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	632901	EMH	EET SL	10/20/23 16:50

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-191999-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

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

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

Chain of Custody Record

Client Information Client Contact: <i>Bobby Caste</i> Taylor Huffman Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project Name: Gavin CCR Site: <i>Grub</i>		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@et.eurofinsus.com State of Origin: _____ Carner Tracking No(s): 240-111832-39818.1 Page: Page 1 of 8 Job #: _____	
Due Date Requested: _____ TAT Requested (days): _____ Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #: _____ Project #: 24019633 SSO#: _____		Analysis Requested 501B, 6020, 7470A 2540C, Calcd, TDS 9315, Ra226, 9320, Ra228, Ra226Ra228, GPC 300.0_28D - Chloride, Fluoride & Sulfate 2320B - (MOD) Alkalinity Total Number of Containers: _____	
Sample Identification 2016-04-F-20230918-01 2016-03-F-20230918-01 96157-F-20230918-01 DUP-002-F-20230918-01 96158-F-20230918-01 96158-F-20230918-AMS-01 96158-F-20230918-MSD-01 EB-001-F-20230918-01		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Matrix (W=water, S=solid, O=oil, M=metal, B=soil, T=tissue, A=air) Sample Type (C=Comp, G=grab) Sample Time Sample Date Preservation Code:	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested I, II, III, IV, Other (specify) _____ Empty Kit Relinquished by: _____ Relinquished by: <i>Bobby Caste</i> Relinquished by: _____ Relinquished by: _____		Method of Shipment Date/Time: 9-19-23 / 0845 Date/Time: 9-19-23 / 1700 Date/Time: _____ Received by: <i>ASMEU DEW</i> Received by: <i>ASMEU DEW</i> Received by: _____ Company: KEANICK Company: E7A Company: _____	
Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Cooler Temperature(s) °C and Other Remarks: _____	



191999


Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login # : _____

Client Lightstone Site Name _____ Cooler unpacked by: Nancy Boyer
Cooler Received on 9-20-23 Opened on 9-20-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

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

Eurofins Cooler # CC ~~Euro Box~~ Client Cooler ~~Box~~ Other _____
Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None
1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

- 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
- 3. Shippers' packing slip attached to the cooler(s)? Yes No
- 4. Did custody papers accompany the sample(s)? Yes No
- 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
- 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- 7. Did all bottles arrive in good condition (Unbroken)? Yes No
- 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
- 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
- 10. Were correct bottle(s) used for the test(s) indicated? Yes No
- 11. Sufficient quantity received to perform indicated analyses? Yes No
- 12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
- 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
- 14. Were VOAs on the COC? Yes No
- 15. Were air bubbles >6 mm in any VOA vials?  ← Larger than this. Yes No NA
- 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- 17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by:

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

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2016-04-F-20230918-01	240-191999-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2016-04-F-20230918-01	240-191999-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2016-04-F-20230918-01	240-191999-F-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2016-03-F-20230918-01	240-191999-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2016-03-F-20230918-01	240-191999-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2016-03-F-20230918-01	240-191999-F-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96157-F-20230918-01	240-191999-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96157-F-20230918-01	240-191999-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96157-F-20230918-01	240-191999-F-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-002-F-20230918-01	240-191999-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-002-F-20230918-01	240-191999-E-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-002-F-20230918-01	240-191999-F-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96158-F-20230918-01	240-191999-J-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96158-F-20230918-01	240-191999-K-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96158-F-20230918-01	240-191999-L-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96158-F-20230918-01	240-191999-M-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96158-F-20230918-01	240-191999-N-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96158-F-20230918-01	240-191999-O-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230918-01	240-191999-D-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230918-01	240-191999-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230918-01	240-191999-F-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

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

Eurofins - Canton Sample Receipt Multiple Cooler Form							
Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
IC	Client	<u>Box</u>	Other	IR GUN #: <u>22</u>	<u>12.6</u>	<u>12.5</u>	Wet Ice Blue Ice Dry Ice Water None
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>1.1</u>	<u>1.0</u>	<u>Wet Ice</u> Blue Ice Dry Ice Water None
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>2.8</u>	<u>2.7</u>	<u>Wet Ice</u> Blue Ice Dry Ice Water None
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>0.2</u>	<u>0.1</u>	<u>Wet Ice</u> Blue Ice Dry Ice Water None
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>3.6</u>	<u>3.5</u>	<u>Wet Ice</u> Blue Ice Dry Ice Water None
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>1.4</u>	<u>1.3</u>	<u>Wet Ice</u> Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC	Client	Box	Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

See Temperature Excursion Form



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:								
Client Contact:		Cisneros, Roxanne			240-174032.1								
Shipping/Receiving		Phone:	E-Mail:	State of Origin:	Page:								
Company:		TestAmerica Laboratories, Inc.	roxanne.cisneros@et.eurofins.com	Ohio	Page 1 of 1								
Address:		13715 Rider Trail North,	Job #: 240-191999-1										
City:		Earth City	Preservation Codes:										
State, Zip:		MO, 63045	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:										
Phone:		314-298-8566(Tel) 314-298-8757(Fax)	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify)										
Email:			Total Number of Containers										
Project Name:		Federal CCR Wells	Special Instructions/Note:										
Site:													
Due Date Requested:		10/23/2023											
TAT Requested (days):													
PO #:													
WO #:													
Project #:		24019633											
SOW#:													
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-waste, BT-tissue, Aak)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320 Ra228/PreSep_0 Radium-226 (GFC)	9315 Ra226/PreSep_21 Radium-226 (GFC)	Ra226a228_GFC/ Combined Radium-226 and Radium-226	Total Number of Containers	Special Instructions/Note:
2016-04-F-20230918-01 (240-191999-1)	9/18/23	10:42 Eastern	Water				X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit: save planchet		
2016-03-F-20230918-01 (240-191999-2)	9/18/23	11:32 Eastern	Water				X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit: save planchet		
96157-F-20230918-01 (240-191999-3)	9/18/23	12:38 Eastern	Water				X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit: save planchet		
DUP-002-F-20230918-01 (240-191999-4)	9/18/23	13:27 Eastern	Water				X	X	X	6	Recount of TAR after 21 day ingrowth if > action limit: save planchet		
96158-F-20230918-01 (240-191999-5)	9/18/23	13:27 Eastern	Water				X	X	X	1	Recount of TAR after 21 day ingrowth if > action limit: save planchet		
96158-F-20230918-01 (240-191999-5MS)	9/18/23	13:27 Eastern	Water	MS			X	X	X	1	Recount of TAR after 21 day ingrowth if > action limit: save planchet		
96158-F-20230918-01 (240-191999-5MSD)	9/18/23	13:27 Eastern	Water	MSD			X	X	X	1	Recount of TAR after 21 day ingrowth if > action limit: save planchet		
EB-001-F-20230918-01 (240-191999-6)	9/18/23	14:40 Eastern	Water				X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit: save planchet		

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *James Harris* Date/Time: 10/20/2023 13:35 Company: *Fedex*
 Relinquished by: *M. Pinette* Date/Time: SEP 21 2023 0850 Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

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:



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-191999-1

Login Number: 191999

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 09/21/23 05:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

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JOB DESCRIPTION

Federal CCR Wells Snap Sampler

JOB NUMBER

240-192239-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

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10/2/2023 8:38:28 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

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: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Job ID: 240-192239-1

Laboratory: Eurofins Cleveland

Narrative

**Job Narrative
240-192239-1**

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

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

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

Receipt

The samples were received on 9/23/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 0.6°C, 1.1°C, 1.5°C, 2.3°C, 2.5°C, 4.6°C, 19.5°C and 20.3°C

Metals

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

General Chemistry

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



Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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



Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-192239-1	2018-03-F-20230921-01	Water	09/21/23 10:15	09/23/23 08:00
240-192239-2	2018-04-F-20230921-01	Water	09/21/23 11:30	09/23/23 08:00
240-192239-3	2018-02-F-20230921-01	Water	09/21/23 12:40	09/23/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Client Sample ID: 2018-03-F-20230921-01

Lab Sample ID: 240-192239-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	480		100	57	ug/L	1		6010D	Total Recoverable
Calcium	29000		2000	510	ug/L	2		6020B	Total Recoverable
Magnesium	8500		2000	120	ug/L	2		6020B	Total Recoverable
Potassium	2900		2000	430	ug/L	2		6020B	Total Recoverable
Sodium	1300000		2000	660	ug/L	2		6020B	Total Recoverable
Chloride	980		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	0.90		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	950		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3400		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-04-F-20230921-01

Lab Sample ID: 240-192239-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	290		100	57	ug/L	1		6010D	Total Recoverable
Calcium	72000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	23000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	5700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	430000		1000	330	ug/L	1		6020B	Total Recoverable
Chloride	61		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.59		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	620		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1500		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-02-F-20230921-01

Lab Sample ID: 240-192239-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	310		100	57	ug/L	1		6010D	Total Recoverable
Calcium	43000		2000	510	ug/L	2		6020B	Total Recoverable
Magnesium	15000		2000	120	ug/L	2		6020B	Total Recoverable
Potassium	5600		2000	430	ug/L	2		6020B	Total Recoverable
Sodium	1800000		2000	660	ug/L	2		6020B	Total Recoverable
Chloride	2500		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.1		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	100		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	1500		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Client Sample ID: 2018-03-F-20230921-01

Lab Sample ID: 240-192239-1

Date Collected: 09/21/23 10:15

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	480		100	57	ug/L		09/26/23 14:00	09/27/23 19:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	29000		2000	510	ug/L		09/26/23 14:00	09/29/23 17:34	2
Magnesium	8500		2000	120	ug/L		09/26/23 14:00	09/29/23 17:34	2
Potassium	2900		2000	430	ug/L		09/26/23 14:00	09/29/23 17:34	2
Sodium	1300000		2000	660	ug/L		09/26/23 14:00	09/29/23 17:34	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	980		5.0	0.64	mg/L			09/29/23 23:01	5
Fluoride (EPA 300.0)	0.90		0.25	0.12	mg/L			09/29/23 23:01	5
Sulfate (EPA 300.0)	950		5.0	1.7	mg/L			09/29/23 23:01	5
Total Dissolved Solids (SM 2540C)	3400		50	39	mg/L			09/25/23 10:59	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Client Sample ID: 2018-04-F-20230921-01

Lab Sample ID: 240-192239-2

Date Collected: 09/21/23 11:30

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	290		100	57	ug/L		09/26/23 14:00	09/27/23 19:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	72000		1000	250	ug/L		09/26/23 14:00	09/29/23 17:36	1
Magnesium	23000		1000	61	ug/L		09/26/23 14:00	09/29/23 17:36	1
Potassium	5700		1000	220	ug/L		09/26/23 14:00	09/29/23 17:36	1
Sodium	430000		1000	330	ug/L		09/26/23 14:00	09/29/23 17:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	61		1.0	0.13	mg/L			09/29/23 21:34	1
Fluoride (EPA 300.0)	0.59		0.050	0.024	mg/L			09/29/23 21:34	1
Sulfate (EPA 300.0)	620		10	3.5	mg/L			09/29/23 21:56	10
Total Dissolved Solids (SM 2540C)	1500		20	16	mg/L			09/25/23 10:59	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Client Sample ID: 2018-02-F-20230921-01

Lab Sample ID: 240-192239-3

Date Collected: 09/21/23 12:40

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	310		100	57	ug/L		09/26/23 14:00	09/27/23 19:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	43000		2000	510	ug/L		09/26/23 14:00	09/29/23 17:39	2
Magnesium	15000		2000	120	ug/L		09/26/23 14:00	09/29/23 17:39	2
Potassium	5600		2000	430	ug/L		09/26/23 14:00	09/29/23 17:39	2
Sodium	1800000		2000	660	ug/L		09/26/23 14:00	09/29/23 17:39	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	2500		25	3.2	mg/L			09/30/23 00:49	25
Fluoride (EPA 300.0)	1.1		0.25	0.12	mg/L			09/30/23 00:28	5
Sulfate (EPA 300.0)	100		5.0	1.7	mg/L			09/30/23 00:28	5
Total Dissolved Solids (SM 2540C)	1500		20	16	mg/L			09/25/23 10:59	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-588627/1-A
 Matrix: Water
 Analysis Batch: 588802

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 588627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/26/23 14:00	09/27/23 18:31	1

Lab Sample ID: LCS 240-588627/2-A
 Matrix: Water
 Analysis Batch: 588802

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1060		ug/L		106	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 240-588627/3-A
 Matrix: Water
 Analysis Batch: 589205

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	23800		ug/L		95	80 - 120
Magnesium	25000	24800		ug/L		99	80 - 120
Potassium	25000	24200		ug/L		97	80 - 120
Sodium	25000	24200		ug/L		97	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-588967/3
 Matrix: Water
 Analysis Batch: 588967

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/29/23 07:59	1
Fluoride	ND		0.050	0.024	mg/L			09/29/23 07:59	1
Sulfate	ND		1.0	0.35	mg/L			09/29/23 07:59	1

Lab Sample ID: LCS 240-588967/4
 Matrix: Water
 Analysis Batch: 588967

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.4		mg/L		99	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	50.7		mg/L		101	90 - 110

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

Lab Sample ID: MB 240-588498/1
 Matrix: Water
 Analysis Batch: 588498

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	ND		10	7.8	mg/L			09/25/23 10:59	1

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

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

Lab Sample ID: LCS 240-588498/2

Matrix: Water

Analysis Batch: 588498

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	564	510		mg/L		90	80 - 120

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Metals

Prep Batch: 588627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192239-1	2018-03-F-20230921-01	Total Recoverable	Water	3005A	
240-192239-2	2018-04-F-20230921-01	Total Recoverable	Water	3005A	
240-192239-3	2018-02-F-20230921-01	Total Recoverable	Water	3005A	
MB 240-588627/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-588627/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-588627/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 588802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192239-1	2018-03-F-20230921-01	Total Recoverable	Water	6010D	588627
240-192239-2	2018-04-F-20230921-01	Total Recoverable	Water	6010D	588627
240-192239-3	2018-02-F-20230921-01	Total Recoverable	Water	6010D	588627
MB 240-588627/1-A	Method Blank	Total Recoverable	Water	6010D	588627
LCS 240-588627/2-A	Lab Control Sample	Total Recoverable	Water	6010D	588627

Analysis Batch: 589205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192239-1	2018-03-F-20230921-01	Total Recoverable	Water	6020B	588627
240-192239-2	2018-04-F-20230921-01	Total Recoverable	Water	6020B	588627
240-192239-3	2018-02-F-20230921-01	Total Recoverable	Water	6020B	588627
LCS 240-588627/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588627

General Chemistry

Analysis Batch: 588498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192239-1	2018-03-F-20230921-01	Total/NA	Water	SM 2540C	
240-192239-2	2018-04-F-20230921-01	Total/NA	Water	SM 2540C	
240-192239-3	2018-02-F-20230921-01	Total/NA	Water	SM 2540C	
MB 240-588498/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-588498/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 588967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192239-1	2018-03-F-20230921-01	Total/NA	Water	300.0	
240-192239-2	2018-04-F-20230921-01	Total/NA	Water	300.0	
240-192239-2	2018-04-F-20230921-01	Total/NA	Water	300.0	
240-192239-3	2018-02-F-20230921-01	Total/NA	Water	300.0	
240-192239-3	2018-02-F-20230921-01	Total/NA	Water	300.0	
MB 240-588967/3	Method Blank	Total/NA	Water	300.0	
LCS 240-588967/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1

Client Sample ID: 2018-03-F-20230921-01

Lab Sample ID: 240-192239-1

Date Collected: 09/21/23 10:15

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588627	BN	EET CLE	09/26/23 14:00
Total Recoverable	Analysis	6010D		1	588802	KLC	EET CLE	09/27/23 19:40
Total Recoverable	Prep	3005A			588627	BN	EET CLE	09/26/23 14:00
Total Recoverable	Analysis	6020B		2	589205	RKT	EET CLE	09/29/23 17:34
Total/NA	Analysis	300.0		5	588967	JWW	EET CLE	09/29/23 23:01
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59

Client Sample ID: 2018-04-F-20230921-01

Lab Sample ID: 240-192239-2

Date Collected: 09/21/23 11:30

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588627	BN	EET CLE	09/26/23 14:00
Total Recoverable	Analysis	6010D		1	588802	KLC	EET CLE	09/27/23 19:53
Total Recoverable	Prep	3005A			588627	BN	EET CLE	09/26/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 17:36
Total/NA	Analysis	300.0		1	588967	JWW	EET CLE	09/29/23 21:34
Total/NA	Analysis	300.0		10	588967	JWW	EET CLE	09/29/23 21:56
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59

Client Sample ID: 2018-02-F-20230921-01

Lab Sample ID: 240-192239-3

Date Collected: 09/21/23 12:40

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588627	BN	EET CLE	09/26/23 14:00
Total Recoverable	Analysis	6010D		1	588802	KLC	EET CLE	09/27/23 19:58
Total Recoverable	Prep	3005A			588627	BN	EET CLE	09/26/23 14:00
Total Recoverable	Analysis	6020B		2	589205	RKT	EET CLE	09/29/23 17:39
Total/NA	Analysis	300.0		5	588967	JWW	EET CLE	09/30/23 00:28
Total/NA	Analysis	300.0		25	588967	JWW	EET CLE	09/30/23 00:49
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59

Laboratory References:

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

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-192239-1


Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

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



Client Information		Lab PM: Cisneros, Roxanne		Carrier Tracking No(s): 240-93018-34502			
Client Contact: Taylor Huffman		E-Mail: roxanne.cisneros@Eurofins.com		Page: Page 1 of 1			
Company: Lightstone Generation Gavin Power LLC		PWSID:		Job #:			
Address: 7397 OH-7		Due Date Requested:		Preservation Codes:			
City: Cheshire		TAT Requested (days):		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:			
State, Zip: OH, 45620		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Phone: 740-925-3171 (Tel)		PO #: 2935505		Limited Volume App III and IV (Unpreserved with focus on TDS, Cl-, SO4 and F) Nitric Acid with focus on Ca and B)			
Email: taylor.huffman@lightstonegen.com		WO #: _____		Total Number of containers: <input checked="" type="checkbox"/>			
Project Name: Federal - CCR Wells Snap Sampler-		Project #: 24019633		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> N <input type="checkbox"/> D			
Site: Ohio		SSOW#: _____		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=Other, T=tissue, A=Air)	Preservation Code:	300.0, SM2540C	60204, 6020B
2018-03-F-20230921-01	9-21-23	1015	G	W	W	11	11
2018-04-F-20230921-01	9-21-23	1130	G	W	W	11	11
2018-02-F-20230921-01	9-21-23	1240	G	W	W	11	11
 240-192239 Chain of Custody							
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:	
Empty Kit Relinquished by: _____ Date: _____ Time: _____				Method of Shipment: _____			
Relinquished by: <i>[Signature]</i> Date/Time: 9-22-23 / 0900 Company: K-Ember		Relinquished by: <i>[Signature]</i> Date/Time: 9-22-23 / 0900 Company: K-Ember		Relinquished by: <i>[Signature]</i> Date/Time: 9-22-23 / 1300 Company: EFA		Relinquished by: <i>[Signature]</i> Date/Time: 9-23-23 / 800 Company: EETNC	
Relinquished by: _____ Date/Time: _____ Company: _____		Relinquished by: _____ Date/Time: _____ Company: _____		Relinquished by: _____ Date/Time: _____ Company: _____		Relinquished by: _____ Date/Time: _____ Company: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Cooler Temperature(s) °C and Other Remarks:			

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

Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login # : 192239

Client Lightstone Site Name _____
Cooler Received on 9-23-23 Opened on 9-23-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Cooler unpacked by: [Signature]

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

- 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each
 - Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 - Were tamper/custody seals intact and uncompromised? Yes No NA
- 3. Shippers' packing slip attached to the cooler(s)? Yes No
- 4. Did custody papers accompany the sample(s)? Yes No
- 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
- 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- 7. Did all bottles arrive in good condition (Unbroken)? Yes No
- 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
- 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
- 10. Were correct bottle(s) used for the test(s) indicated? Yes No
- 11. Sufficient quantity received to perform indicated analyses? Yes No
- 12. Are these work share samples and all listed on the COC? Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

- If yes, Questions 13-17 have been checked at the originating laboratory.
- 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
- 14. Were VOAs on the COC? Yes No
- 15. Were air bubbles >6 mm in any VOA vials? Yes ← Larger than this. Yes No NA
- 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- 17. Was a LL Hg or Me Hg trip blank present? Yes No

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____


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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-F-20230921-01	240-192239-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
2018-04-F-20230921-01	240-192239-B-2	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
2018-02-F-20230921-01	240-192239-D-3	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

Eurofins - Canton Sample Receipt Multiple Cooler Form						
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC Client <u>Box</u> Other	IR GUN #: <u>22</u>	19.6	19.5	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: <u>22</u>	20.4	20.3	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
<u>EC</u> Client <u>Box</u> Other	IR GUN #: <u>22</u>	1.6	1.5	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
<u>EC</u> Client <u>Box</u> Other	IR GUN #: <u>22</u>	2.6	2.5	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
<u>EC</u> Client <u>Box</u> Other	IR GUN #: <u>22</u>	2.4	2.3	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
<u>EC</u> Client <u>Box</u> Other	IR GUN #: <u>22</u>	0.7	0.6	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
<u>EC</u> Client <u>Box</u> Other	IR GUN #: <u>22</u>	4.7	4.6	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
<u>EC</u> Client <u>Box</u> Other	IR GUN #: <u>22</u>	1.2	1.1	Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		
EC Client <u>Box</u> Other	IR GUN #: _____			Wet Ice Water <u>Blue Ice</u> Dry Ice None		

See Temperature Excursion Form

Client Information		Lab PM Cisneros, Roxanne		Carrier Tracking No(s) 240-93018-34502	
Client Contact Taylor Huffman		E-Mail roxanne.cisneros@Eurofinset.com		State of Origin	
Company Lightstone Generation Gavin Power LLC		PWSID		Page 1 of 1	
Address 7397 OH-7		Due Date Requested:		Job #	
City Cheshire		TAT Requested (days):		Preservation Codes:	
State, Zip OH, 45620		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone 740-925-3171(Tel)		PO # 2935505		Other:	
Email taylor.huffman@lightstonegen.com		W/O #		Limited Volume App III and IV (Unpreserved with focus on TDS, Cl ₂ , SO4 and F) Nitric Acid with focus on Ca and B)	
Project Name Federal - CCR Wells Snap Sampler-		Project # 24019633		Total Number of containers	
Site Ohio		SSOW#		* Extra sample collected in 250ml unpreserved bottle	
Sample Identification		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste, oil, BT=tissue, A=air)	6020a, 6020b	300.0, SM2540C
9-21-23	1015	G	W	N	D
9-21-23	1130	G	W		
9-21-23	1240	G	W		
240-192239 Chain of Custody					
					
Possible Hazard Identification					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:					
Empty Kit Relinquished by:					
Relinquished by: <i>[Signature]</i>		Date: 9-22-23 / 0900		Method of Shipment	
Relinquished by: <i>[Signature]</i>		Date: 9-22-23 / 1700		Received by: <i>[Signature]</i>	
Relinquished by: <i>[Signature]</i>		Date: 9-22-23 / 1700		Company: <i>[Signature]</i>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility


Login #: 192239

Client Lightstone Site Name _____
Cooler Received on 9-23-23 Opened on 9-23-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Cooler unpacked by: [Signature]

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

- Cooler temperature upon receipt
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
- Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
- For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Are these work share samples and all listed on the COC? Yes No
- If yes, Questions 13-17 have been checked at the originating laboratory.
- Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
- Were VOAs on the COC? Yes No NA
- Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
- Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
- Was a LL Hg or Me Hg trip blank present? _____ Yes No NA

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

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____



Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 22	19.6	19.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	20.4	20.3	Water	None	
EC	Client	Box	Other	IR GUN #: 22	1.6	1.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	2.6	2.5	Water	None	
EC	Client	Box	Other	IR GUN #: 22	2.4	2.3	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	0.7	0.6	Water	None	
EC	Client	Box	Other	IR GUN #: 22	4.7	4.6	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	1.2	1.1	Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Water	None	

See Temperature Excursion Form



Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-F-20230921-01	240-192239-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
2018-04-F-20230921-01	240-192239-B-2	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
2018-02-F-20230921-01	240-192239-D-3	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/24/2023 2:22:44 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-192244-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

Generated
10/24/2023 2:22:44 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

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

Glossary

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Job ID: 240-192244-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-192244-1

Receipt

The samples were received on 9/23/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 0.6° C, 1.1° C, 1.5° C, 2.3° C, 2.5° C, 4.6° C, 19.5° C and 20.3° C.

RAD

Methods 9315: Radium-226 batch 629950: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-05-F-20230919-01 (240-192244-1), 2022-06-F-20230919-01 (240-192244-2), EB-001-F-20230919-01 (240-192244-3), (LCS 160-629950/2-A), (MB 160-629950/1-A)

Methods 9320: Radium-228 batch 629953: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2016-05-F-20230919-01 (240-192244-1), 2022-06-F-20230919-01 (240-192244-2), EB-001-F-20230919-01 (240-192244-3), (LCS 160-629953/2-A), (MB 160-629953/1-A)

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

Metals

Method 6020B: The continuing calibration verification (CCV) associated with batch 240-588728 recovered above the upper control limit for Beryllium. The samples associated with this CCV were below the reporting limits for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2016-05-F-20230919-01 (240-192244-1), 2022-06-F-20230919-01 (240-192244-2) and EB-001-F-20230919-01 (240-192244-3).

Method 6020B: The continuing calibration blank (CCB) for 240-588728 contained Sodium above the reporting limit (RL). Associated sample(s) were not re-analyzed because results were greater than 10X the value found in the CCB. 2016-05-F-20230919-01 (240-192244-1) and 2022-06-F-20230919-01 (240-192244-2)

Method 6020B: The continuing calibration blank (CCB) for 240-588728 contained Sodium above the reporting limit (RL). None of the samples associated with this CCB contained Sodium above the reporting limit; therefore, re-analysis of samples were not performed. EB-001-F-20230919-01 (240-192244-3)

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

General Chemistry

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
240-192244-1	2016-05-F-20230919-01	Water	09/19/23 09:40	09/23/23 08:00
240-192244-2	2022-06-F-20230919-01	Water	09/19/23 10:53	09/23/23 08:00
240-192244-3	EB-001-F-20230919-01	Water	09/19/23 15:00	09/23/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: 2016-05-F-20230919-01

Lab Sample ID: 240-192244-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	88	J	100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	35		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	39000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.4	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.67	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.92	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	11		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	19000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	2200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	74000	^2	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	12		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.14		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	140		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	400		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-06-F-20230919-01

Lab Sample ID: 240-192244-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	120		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.68	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	350		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	70000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	5.0		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	2.1		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	15		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	14		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3100		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: 2022-06-F-20230919-01 (Continued)

Lab Sample ID: 240-192244-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	210000	^2	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	120		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.70		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	55		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	760		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230919-01

Lab Sample ID: 240-192244-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: 2016-05-F-20230919-01

Lab Sample ID: 240-192244-1

Date Collected: 09/19/23 09:40

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	88	J	100	57	ug/L		09/25/23 14:00	09/26/23 22:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 00:58	1
Arsenic	1.8	J	5.0	0.75	ug/L		09/25/23 14:00	09/27/23 00:58	1
Barium	35		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 00:58	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 00:58	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 00:58	1
Calcium	39000		1000	250	ug/L		09/25/23 14:00	09/27/23 00:58	1
Chromium	2.4	J	5.0	1.2	ug/L		09/25/23 14:00	09/27/23 00:58	1
Cobalt	0.67	J	1.0	0.19	ug/L		09/25/23 14:00	09/27/23 00:58	1
Lead	0.92	J	1.0	0.45	ug/L		09/25/23 14:00	09/27/23 00:58	1
Lithium	11		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 00:58	1
Magnesium	19000		1000	61	ug/L		09/25/23 14:00	09/27/23 00:58	1
Molybdenum	ND		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 00:58	1
Potassium	2200		1000	220	ug/L		09/25/23 14:00	09/27/23 00:58	1
Selenium	ND		5.0	0.89	ug/L		09/25/23 14:00	09/27/23 00:58	1
Sodium	74000	^2	1000	330	ug/L		09/25/23 14:00	09/27/23 00:58	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 00:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	190		5.0	2.6	mg/L			09/25/23 16:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	190		5.0	2.6	mg/L			09/25/23 16:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 16:42	1
Chloride (EPA 300.0)	12		1.0	0.13	mg/L			10/06/23 12:03	1
Fluoride (EPA 300.0)	0.14		0.050	0.024	mg/L			10/06/23 12:03	1
Sulfate (EPA 300.0)	140		1.0	0.35	mg/L			10/06/23 12:03	1
Total Dissolved Solids (SM 2540C)	400		10	7.8	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.175	U	0.151	0.152	1.00	0.225	pCi/L	09/28/23 10:48	10/20/23 21:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		30 - 110					09/28/23 10:48	10/20/23 21:20	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413	U	0.351	0.353	1.00	0.544	pCi/L	09/28/23 10:52	10/18/23 11:30	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: 2016-05-F-20230919-01

Lab Sample ID: 240-192244-1

Date Collected: 09/19/23 09:40

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		30 - 110	09/28/23 10:52	10/18/23 11:30	1
Y Carrier	88.6		30 - 110	09/28/23 10:52	10/18/23 11:30	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.588		0.382	0.384	5.00	0.544	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: 2022-06-F-20230919-01

Lab Sample ID: 240-192244-2

Date Collected: 09/19/23 10:53

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	120		100	57	ug/L		09/25/23 14:00	09/26/23 22:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.68	J	2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:02	1
Arsenic	1.8	J	5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:02	1
Barium	350		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:02	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:02	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:02	1
Calcium	70000		1000	250	ug/L		09/25/23 14:00	09/27/23 01:02	1
Chromium	5.0		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:02	1
Cobalt	2.9		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:02	1
Lead	2.1		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:02	1
Lithium	15		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:02	1
Magnesium	15000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:02	1
Molybdenum	14		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:02	1
Potassium	3100		1000	220	ug/L		09/25/23 14:00	09/27/23 01:02	1
Selenium	ND		5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:02	1
Sodium	210000	^2	1000	330	ug/L		09/25/23 14:00	09/27/23 01:02	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			09/25/23 16:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			09/25/23 16:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 16:47	1
Chloride (EPA 300.0)	120		1.0	0.13	mg/L			10/06/23 14:56	1
Fluoride (EPA 300.0)	0.70		0.050	0.024	mg/L			10/06/23 14:56	1
Sulfate (EPA 300.0)	55		1.0	0.35	mg/L			10/06/23 14:56	1
Total Dissolved Solids (SM 2540C)	760		10	7.8	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.881		0.278	0.289	1.00	0.250	pCi/L	09/28/23 10:48	10/20/23 21:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.2		30 - 110					09/28/23 10:48	10/20/23 21:20	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.763		0.483	0.488	1.00	0.705	pCi/L	09/28/23 10:52	10/18/23 11:30	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: 2022-06-F-20230919-01

Lab Sample ID: 240-192244-2

Date Collected: 09/19/23 10:53

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.2		30 - 110	09/28/23 10:52	10/18/23 11:30	1
Y Carrier	84.1		30 - 110	09/28/23 10:52	10/18/23 11:30	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.64		0.557	0.567	5.00	0.705	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: EB-001-F-20230919-01

Lab Sample ID: 240-192244-3

Date Collected: 09/19/23 15:00

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/25/23 14:00	09/26/23 22:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:07	1
Arsenic	ND		5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:07	1
Barium	ND		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:07	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:07	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:07	1
Calcium	ND		1000	250	ug/L		09/25/23 14:00	09/27/23 01:07	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:07	1
Cobalt	ND		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:07	1
Lead	ND		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:07	1
Lithium	ND		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:07	1
Magnesium	ND		1000	61	ug/L		09/25/23 14:00	09/27/23 01:07	1
Molybdenum	ND		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:07	1
Potassium	ND		1000	220	ug/L		09/25/23 14:00	09/27/23 01:07	1
Selenium	ND		5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:07	1
Sodium	ND		1000	330	ug/L		09/25/23 14:00	09/27/23 01:07	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 16:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 16:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 16:54	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/06/23 10:36	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/06/23 10:36	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/06/23 10:36	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0538	U	0.0538	0.0540	1.00	0.159	pCi/L	09/28/23 10:48	10/20/23 21:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		30 - 110					09/28/23 10:48	10/20/23 21:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.907		0.405	0.414	1.00	0.552	pCi/L	09/28/23 10:52	10/18/23 11:35	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: EB-001-F-20230919-01

Lab Sample ID: 240-192244-3

Date Collected: 09/19/23 15:00

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		30 - 110	09/28/23 10:52	10/18/23 11:35	1
Y Carrier	87.9		30 - 110	09/28/23 10:52	10/18/23 11:35	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	0.853		(2σ+/-) 0.409	(2σ+/-) 0.418	5.00	0.552	pCi/L		10/24/23 13:10	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-192244-1	2016-05-F-20230919-01	93.4	
240-192244-2	2022-06-F-20230919-01	82.2	
240-192244-3	EB-001-F-20230919-01	91.7	
LCS 160-629950/2-A	Lab Control Sample	95.8	
MB 160-629950/1-A	Method Blank	88.0	

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-192244-1	2016-05-F-20230919-01	93.4	88.6
240-192244-2	2022-06-F-20230919-01	82.2	84.1
240-192244-3	EB-001-F-20230919-01	91.7	87.9
LCS 160-629953/2-A	Lab Control Sample	95.8	84.5
MB 160-629953/1-A	Method Blank	88.0	89.0

Tracer/Carrier Legend
Ba = Ba Carrier
Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-588485/1-A
Matrix: Water
Analysis Batch: 588635

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/25/23 14:00	09/26/23 21:13	1

Lab Sample ID: LCS 240-588485/2-A
Matrix: Water
Analysis Batch: 588635

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	988		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-588485/1-A
Matrix: Water
Analysis Batch: 588728

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/26/23 23:45	1
Arsenic	ND		5.0	0.75	ug/L		09/25/23 14:00	09/26/23 23:45	1
Barium	ND		5.0	2.2	ug/L		09/25/23 14:00	09/26/23 23:45	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/26/23 23:45	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/26/23 23:45	1
Calcium	ND		1000	250	ug/L		09/25/23 14:00	09/26/23 23:45	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/26/23 23:45	1
Cobalt	ND		1.0	0.19	ug/L		09/25/23 14:00	09/26/23 23:45	1
Lead	ND		1.0	0.45	ug/L		09/25/23 14:00	09/26/23 23:45	1
Lithium	ND		8.0	1.7	ug/L		09/25/23 14:00	09/26/23 23:45	1
Magnesium	ND		1000	61	ug/L		09/25/23 14:00	09/26/23 23:45	1
Molybdenum	ND		5.0	1.1	ug/L		09/25/23 14:00	09/26/23 23:45	1
Potassium	ND		1000	220	ug/L		09/25/23 14:00	09/26/23 23:45	1
Selenium	ND		5.0	0.89	ug/L		09/25/23 14:00	09/26/23 23:45	1
Sodium	ND		1000	330	ug/L		09/25/23 14:00	09/26/23 23:45	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/26/23 23:45	1

Lab Sample ID: LCS 240-588485/3-A
Matrix: Water
Analysis Batch: 588728

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	104		ug/L		104	80 - 120
Arsenic	1000	993		ug/L		99	80 - 120
Barium	1000	921		ug/L		92	80 - 120
Beryllium	500	555	^+	ug/L		111	80 - 120
Cadmium	500	474		ug/L		95	80 - 120
Calcium	25000	23300		ug/L		93	80 - 120
Chromium	500	515		ug/L		103	80 - 120
Cobalt	500	518		ug/L		104	80 - 120
Lead	500	478		ug/L		96	80 - 120
Lithium	500	505		ug/L		101	80 - 120
Magnesium	25000	23400		ug/L		93	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

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

Lab Sample ID: LCS 240-588485/3-A
 Matrix: Water
 Analysis Batch: 588728

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	481		ug/L		96	80 - 120
Potassium	25000	23200		ug/L		93	80 - 120
Selenium	1000	928		ug/L		93	80 - 120
Sodium	25000	23300		ug/L		93	80 - 120
Thallium	1000	1030		ug/L		103	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-588487/1-A
 Matrix: Water
 Analysis Batch: 588625

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 588487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 14:54	1

Lab Sample ID: LCS 240-588487/2-A
 Matrix: Water
 Analysis Batch: 588625

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 588487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.11		ug/L		102	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-588573/30
 Matrix: Water
 Analysis Batch: 588573

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/25/23 14:02	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 14:02	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 14:02	1

Lab Sample ID: MB 240-588573/57
 Matrix: Water
 Analysis Batch: 588573

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/25/23 15:57	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 15:57	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 15:57	1

Lab Sample ID: LCS 240-588573/56
 Matrix: Water
 Analysis Batch: 588573

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.1		mg/L		102	86 - 123

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-589799/3
Matrix: Water
Analysis Batch: 589799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/06/23 09:53	1
Fluoride	ND		0.050	0.024	mg/L			10/06/23 09:53	1
Sulfate	ND		1.0	0.35	mg/L			10/06/23 09:53	1

Lab Sample ID: LCS 240-589799/4
Matrix: Water
Analysis Batch: 589799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.7		mg/L		97	90 - 110
Fluoride	2.50	2.49		mg/L		99	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Lab Sample ID: 240-192244-3 MS
Matrix: Water
Analysis Batch: 589799

Client Sample ID: EB-001-F-20230919-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		50.0	48.9		mg/L		98	80 - 120
Fluoride	ND		2.50	2.45		mg/L		98	80 - 120
Sulfate	ND		50.0	49.2		mg/L		98	80 - 120

Lab Sample ID: 240-192244-3 MSD
Matrix: Water
Analysis Batch: 589799

Client Sample ID: EB-001-F-20230919-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	51.1		mg/L		102	80 - 120	4	15
Fluoride	ND		2.50	2.58		mg/L		103	80 - 120	5	15
Sulfate	ND		50.0	51.2		mg/L		102	80 - 120	4	15

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

Lab Sample ID: MB 240-588498/1
Matrix: Water
Analysis Batch: 588498

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	ND		10	7.8	mg/L			09/25/23 10:59	1

Lab Sample ID: LCS 240-588498/2
Matrix: Water
Analysis Batch: 588498

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	564	510		mg/L		90	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-629950/1-A
Matrix: Water
Analysis Batch: 632731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629950

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02014	U	0.0829	0.0829	1.00	0.164	pCi/L	09/28/23 10:48	10/20/23 21:18	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	88.0		30 - 110		09/28/23 10:48	10/20/23 21:18	1			

Lab Sample ID: LCS 160-629950/2-A
Matrix: Water
Analysis Batch: 632731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629950

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.53		1.27	1.00	0.156	pCi/L	102	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.8		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-629953/1-A
Matrix: Water
Analysis Batch: 632343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629953

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.09886	U	0.265	0.265	1.00	0.471	pCi/L	09/28/23 10:52	10/18/23 11:29	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	88.0		30 - 110		09/28/23 10:52	10/18/23 11:29	1			
Y Carrier	89.0		30 - 110		09/28/23 10:52	10/18/23 11:29	1			

Lab Sample ID: LCS 160-629953/2-A
Matrix: Water
Analysis Batch: 632343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629953

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	7.79	7.642		1.08	1.00	0.481	pCi/L	98	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.8		30 - 110						
Y Carrier	84.5		30 - 110						

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Metals

Prep Batch: 588485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total Recoverable	Water	3005A	
240-192244-2	2022-06-F-20230919-01	Total Recoverable	Water	3005A	
240-192244-3	EB-001-F-20230919-01	Total Recoverable	Water	3005A	
MB 240-588485/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-588485/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-588485/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 588487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total/NA	Water	7470A	
240-192244-2	2022-06-F-20230919-01	Total/NA	Water	7470A	
240-192244-3	EB-001-F-20230919-01	Total/NA	Water	7470A	
MB 240-588487/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-588487/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 588625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total/NA	Water	7470A	588487
240-192244-2	2022-06-F-20230919-01	Total/NA	Water	7470A	588487
240-192244-3	EB-001-F-20230919-01	Total/NA	Water	7470A	588487
MB 240-588487/1-A	Method Blank	Total/NA	Water	7470A	588487
LCS 240-588487/2-A	Lab Control Sample	Total/NA	Water	7470A	588487

Analysis Batch: 588635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total Recoverable	Water	6010D	588485
240-192244-2	2022-06-F-20230919-01	Total Recoverable	Water	6010D	588485
240-192244-3	EB-001-F-20230919-01	Total Recoverable	Water	6010D	588485
MB 240-588485/1-A	Method Blank	Total Recoverable	Water	6010D	588485
LCS 240-588485/2-A	Lab Control Sample	Total Recoverable	Water	6010D	588485

Analysis Batch: 588728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total Recoverable	Water	6020B	588485
240-192244-2	2022-06-F-20230919-01	Total Recoverable	Water	6020B	588485
240-192244-3	EB-001-F-20230919-01	Total Recoverable	Water	6020B	588485
MB 240-588485/1-A	Method Blank	Total Recoverable	Water	6020B	588485
LCS 240-588485/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588485

General Chemistry

Analysis Batch: 588498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total/NA	Water	SM 2540C	
240-192244-2	2022-06-F-20230919-01	Total/NA	Water	SM 2540C	
240-192244-3	EB-001-F-20230919-01	Total/NA	Water	SM 2540C	
MB 240-588498/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-588498/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

General Chemistry

Analysis Batch: 588573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total/NA	Water	2320B-1997	
240-192244-2	2022-06-F-20230919-01	Total/NA	Water	2320B-1997	
240-192244-3	EB-001-F-20230919-01	Total/NA	Water	2320B-1997	
MB 240-588573/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-588573/57	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-588573/56	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 589799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total/NA	Water	300.0	
240-192244-2	2022-06-F-20230919-01	Total/NA	Water	300.0	
240-192244-3	EB-001-F-20230919-01	Total/NA	Water	300.0	
MB 240-589799/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589799/4	Lab Control Sample	Total/NA	Water	300.0	
240-192244-3 MS	EB-001-F-20230919-01	Total/NA	Water	300.0	
240-192244-3 MSD	EB-001-F-20230919-01	Total/NA	Water	300.0	

Rad

Prep Batch: 629950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total/NA	Water	PrecSep-21	
240-192244-2	2022-06-F-20230919-01	Total/NA	Water	PrecSep-21	
240-192244-3	EB-001-F-20230919-01	Total/NA	Water	PrecSep-21	
MB 160-629950/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-629950/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 629953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192244-1	2016-05-F-20230919-01	Total/NA	Water	PrecSep_0	
240-192244-2	2022-06-F-20230919-01	Total/NA	Water	PrecSep_0	
240-192244-3	EB-001-F-20230919-01	Total/NA	Water	PrecSep_0	
MB 160-629953/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-629953/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: 2016-05-F-20230919-01
Date Collected: 09/19/23 09:40
Date Received: 09/23/23 08:00

Lab Sample ID: 240-192244-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:17
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 00:58
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:24
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 16:42
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 12:03
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632731	FLC	EET SL	10/20/23 21:20
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632343	FLC	EET SL	10/18/23 11:30
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: 2022-06-F-20230919-01
Date Collected: 09/19/23 10:53
Date Received: 09/23/23 08:00

Lab Sample ID: 240-192244-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:30
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:02
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:30
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 16:47
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 14:56
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632731	FLC	EET SL	10/20/23 21:20
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632343	FLC	EET SL	10/18/23 11:30
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: EB-001-F-20230919-01
Date Collected: 09/19/23 15:00
Date Received: 09/23/23 08:00

Lab Sample ID: 240-192244-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:34
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:07

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Client Sample ID: EB-001-F-20230919-01

Lab Sample ID: 240-192244-3

Date Collected: 09/19/23 15:00

Matrix: Water

Date Received: 09/23/23 08:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:32
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 16:54
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 10:36
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632731	FLC	EET SL	10/20/23 21:22
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192244-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

Client Information Client Contact: Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project Name: Gavin CCR Site: Gavin		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@et.euromins.com State of Origin:		COC No: 240-111832-39818.1 Page: Page 1 of 8 Job #:																																				
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #: Project #: 24019633 SSOV#:		Analysis Requested <table border="1"> <tr> <td>915_Ra226, 9320_Ra228, Ra226Ra228_GFPc</td> <td>D</td> <td>N</td> <td>D</td> <td>N</td> <td>N</td> <td>2320B - (MOD) Alkalinity</td> </tr> <tr> <td>2540C_Calcd - TDS</td> <td>D</td> <td>N</td> <td>D</td> <td>N</td> <td>N</td> <td>300_0_28D - Chloride, Fluoride & Sulfate</td> </tr> <tr> <td>6010B_6020_7470A</td> <td>D</td> <td>N</td> <td>D</td> <td>N</td> <td>N</td> <td></td> </tr> <tr> <td>Field Filtered Sample (Yes or No)</td> <td><input checked="" type="checkbox"/></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Perform MS/MSD (Yes or No)</td> <td><input checked="" type="checkbox"/></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> </table>				915_Ra226, 9320_Ra228, Ra226Ra228_GFPc	D	N	D	N	N	2320B - (MOD) Alkalinity	2540C_Calcd - TDS	D	N	D	N	N	300_0_28D - Chloride, Fluoride & Sulfate	6010B_6020_7470A	D	N	D	N	N		Field Filtered Sample (Yes or No)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				Perform MS/MSD (Yes or No)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
915_Ra226, 9320_Ra228, Ra226Ra228_GFPc	D	N	D	N	N	2320B - (MOD) Alkalinity																																		
2540C_Calcd - TDS	D	N	D	N	N	300_0_28D - Chloride, Fluoride & Sulfate																																		
6010B_6020_7470A	D	N	D	N	N																																			
Field Filtered Sample (Yes or No)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																																					
Perform MS/MSD (Yes or No)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																																					
Sample Identification 2016-05-F-20230919-01 2022-06-F-20230919-01 EB-061-F-20230919-01		Sample Date 9-19-23 9-19-23 9-19-23		Sample Time 0940 1053 1500		Sample Type (C=Comp, G=grab) 6 6 6		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air) Water Water Water Water Water Water Water Water Water		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Special Instructions/Note: XLimited Pa Volume																												
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																						
Empty Kit Relinquished by:		Date:		Method of Shipment:								Special Instructions/QC Requirements:																												
Relinquished by: <i>Taylor Huffman</i>		Date/Time: 9-22-23/0900		Company: KEMEN		Received by: <i>[Signature]</i>		Date/Time: 9-22-23/1200		Company: 879																														
Relinquished by:		Date/Time:		Company:		Received by: <i>[Signature]</i>		Date/Time: 9-23-23/800		Company: KETNC																														
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																														
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																																				



Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility


Login #: 192244

Client Lightstone Site Name _____
Cooler Received on 9-23-23 Opened on 9-23-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Cooler unpacked by: [Signature]

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
 3. Shippers' packing slip attached to the cooler(s)? Yes No
 4. Did custody papers accompany the sample(s)? Yes No
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
 10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Sufficient quantity received to perform indicated analyses? Yes No
 12. Are these work share samples and all listed on the COC? Yes No
- If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
 14. Were VOAs on the COC? Yes No NA
 15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
 17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

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

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 22	19.6	19.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	20.4	20.3	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	1.6	1.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	2.6	2.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	2.4	2.3	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	0.7	0.6	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	4.7	4.6	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	1.2	1.1	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice

See Temperature Excursion Form

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2016-05-F-20230919-01	240-192244-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2016-05-F-20230919-01	240-192244-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2016-05-F-20230919-01	240-192244-F-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-06-F-20230919-01	240-192244-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2022-06-F-20230919-01	240-192244-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-06-F-20230919-01	240-192244-F-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230919-01	240-192244-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230919-01	240-192244-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230919-01	240-192244-F-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Camer Tracking No(s):		COC No:	
Client Contact: Shipping/Receiving		Phone:		Cisneros, Roxanne		State of Origin:		240-174260.1	
Company: TestAmerica Laboratories, Inc.		E-Mail:		roxanne.cisneros@et.eurofins.com		Ohio		Page: Page 1 of 1	
Address: 13715 Rider Trail North,		Due Date Requested: 10/9/2023		Accreditations Required (See note):		Job #:		240-192244-1	
City: Earth City		TAT Requested (days):		Analysis Requested		Preservation Codes:		M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
State, Zip: MO, 63045		PO #:		Perform MS/MSD (Yes or No)		9315 Ra226/PreSep_21 Radium-226 (GFPC)		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:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:		Matrix (W=water, S=solid, O=wastefl, BT=tissue, A=AK)		9320 Ra226/PreSep_0 Radium-226 (GFPC)		Total Number of containers	
Email:		Project #: 24019633		Sample Type (C=Comp, G=grab)		9315 Ra226/PreSep_21 Radium-226 (GFPC)		. Recount of TAR after 21 day ingrowth if > action limit: save planchet	
Project Name: Federal GWM Wells		Site: SSOW#:		Sample Time		9320 Ra226/PreSep_0 Radium-226 (GFPC)		. Recount of TAR after 21 day ingrowth if > action limit: save planchet	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Perform MS/MSD (Yes or No)		. Recount of TAR after 21 day ingrowth if > action limit: save planchet	
2016-05-F-20230919-01 (240-192244-1)		9/19/23		09:40 Eastern		X		2	
2022-06-F-20230919-01 (240-192244-2)		9/19/23		10:53 Eastern		X		2	
EB-001-F-20230919-01 (240-192244-3)		9/19/23		15:00 Eastern		X		2	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.</p> <p>Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months</p>									
Relinquished by:		Date/Time:		Company		Method of Shipment:		Date/Time:	
Relinquished by:		Date/Time:		Company		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company		Received by:		Date/Time:	
Custody Seals Intact: △ Yes △ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Received by:		Date/Time:	



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-192244-1

Login Number: 192244

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 09/26/23 01:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/24/2023 2:25:09 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-192246-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

Generated
10/24/2023 2:25:09 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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.

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: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Job ID: 240-192246-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-192246-1

Receipt

The samples were received on 9/23/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 0.6° C, 1.1° C, 1.5° C, 2.3° C, 2.5° C, 4.6° C, 19.5° C and 20.3° C.

RAD

Method 9315: Radium-226 batch 629950: The barium carrier recovery was outside the upper control limit (110%) for the following sample. A native barium result was applied to the sample which brought the recovery below the 110% limit. 2019-09-F-20230921-01 (240-192246-8)

Methods 9315: Radium-226 batch 629950: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-07-F-20230919-01 (240-192246-1), MW-17-F-20230919-01 (240-192246-2), 2022-14-F-20230920-01 (240-192246-4), DUP-003-F-20230920-01 (240-192246-5), 2022-03-F-20230920-01 (240-192246-6), EB-001-F-20230920-01 (240-192246-7), 2019-09-F-20230921-01 (240-192246-8), 2022-12-F-20230921-01 (240-192246-9), EB-001-F-20230921-01 (240-192246-10), (LCS 160-629950/2-A), (MB 160-629950/1-A)

Method 9320: Radium-228 batch 629953: The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 2019-09-F-20230921-01 (240-192246-8). Analytical results are reported with the detection limit achieved.

Method 9320: Radium-228 batch 629953: The barium carrier recovery was outside the upper control limit (110%) for the following sample: 2019-09-F-20230921-01 (240-192246-8). A native barium result was applied to the sample which brought the recovery below the 110% limit.

Methods 9320: Radium-228 batch 629953: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-07-F-20230919-01 (240-192246-1), MW-17-F-20230919-01 (240-192246-2), 2022-14-F-20230920-01 (240-192246-4), DUP-003-F-20230920-01 (240-192246-5), 2022-03-F-20230920-01 (240-192246-6), EB-001-F-20230920-01 (240-192246-7), 2019-09-F-20230921-01 (240-192246-8), 2022-12-F-20230921-01 (240-192246-9), EB-001-F-20230921-01 (240-192246-10), (LCS 160-629953/2-A), (MB 160-629953/1-A)

Method PrecSep_0: Radium 228 prep batch 160-629953: The barium carrier recovery is outside the upper control limit (110%) for the following sample: 2019-09-F-20230921-01 (240-192246-8). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method PrecSep-21: Radium 226 prep batch 160-629950: The barium carrier recovery is outside the upper control limit (110%) for the following sample: 2019-09-F-20230921-01 (240-192246-8). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

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

Metals

Method 6020B: The continuing calibration verification (CCV) associated with batch 240-588728 recovered above the upper control limit for Beryllium. The samples associated with this CCV were below the reporting limits for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2019-07-F-20230919-01 (240-192246-1), MW-17-F-20230919-01 (240-192246-2), 2022-14-F-20230920-01 (240-192246-4), DUP-003-F-20230920-01 (240-192246-5), 2022-03-F-20230920-01 (240-192246-6), EB-001-F-20230920-01 (240-192246-7), 2019-09-F-20230921-01 (240-192246-8), 2022-12-F-20230921-01 (240-192246-9) and EB-001-F-20230921-01 (240-192246-10).

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Job ID: 240-192246-1 (Continued)

Laboratory: Eurofins Cleveland (Continued)

Method 6020B: The continuing calibration blank (CCB) for 240-588728 contained Sodium above the reporting limit (RL). Associated sample(s) were not re-analyzed because results were greater than 10X the value found in the CCB. 2022-12-F-20230921-01 (240-192246-9)

Method 6020B: The continuing calibration blank (CCB) for 240-588728 contained Sodium above the reporting limit (RL). None of the samples associated with this CCB contained Sodium above the reporting limit; therefore, re-analysis of samples were not performed. 2022-12-F-20230921-01 (240-192246-9)

Method 6020B: The continuing calibration verification (CCV) associated with batch 240-588728 recovered above the upper control limit for Lithium. The samples associated with this CCV were below the reporting limits for the affected analytes; therefore, the data have been reported. The associated sample is impacted: EB-001-F-20230921-01 (240-192246-10).

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

General Chemistry

Method 300.0: The following sample was diluted due to the nature of the sample matrix: 2019-07-F-20230919-01 (240-192246-1). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was diluted due to the nature of the sample matrix: 2019-09-F-20230921-01 (240-192246-8). Elevated reporting limits (RLs) are provided.

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



Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-192246-1	2019-07-F-20230919-01	Water	09/19/23 13:04	09/23/23 08:00
240-192246-2	MW-17-F-20230919-01	Water	09/19/23 14:38	09/23/23 08:00
240-192246-3	2019-06-F-20230920-01	Water	09/20/23 11:00	09/23/23 08:00
240-192246-4	2022-14-F-20230920-01	Water	09/20/23 12:27	09/23/23 08:00
240-192246-5	DUP-003-F-20230920-01	Water	09/20/23 00:00	09/23/23 08:00
240-192246-6	2022-03-F-20230920-01	Water	09/20/23 13:56	09/23/23 08:00
240-192246-7	EB-001-F-20230920-01	Water	09/20/23 14:50	09/23/23 08:00
240-192246-8	2019-09-F-20230921-01	Water	09/21/23 09:15	09/23/23 08:00
240-192246-9	2022-12-F-20230921-01	Water	09/21/23 14:41	09/23/23 08:00
240-192246-10	EB-001-F-20230921-01	Water	09/21/23 15:00	09/23/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-07-F-20230919-01

Lab Sample ID: 240-192246-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	510		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	580		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	960000		20000	5100	ug/L	20		6020B	Total Recoverable
Chromium	29		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	6.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	340		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	280000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	8.2		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	22000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.3	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9700000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	230		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	230		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	23000		1000	130	mg/L	1000		300.0	Total/NA
Sulfate	570		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	27000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-F-20230919-01

Lab Sample ID: 240-192246-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	480		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	14		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	610		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.47	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	87		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	22000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	25		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2600000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	420		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	420		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: MW-17-F-20230919-01 (Continued)

Lab Sample ID: 240-192246-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4000		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	390		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	6500		100	78	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2019-06-F-20230920-01

Lab Sample ID: 240-192246-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12000		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.56		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	390		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	14000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-14-F-20230920-01

Lab Sample ID: 240-192246-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	5.5		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	5800		50	22	ug/L	10		6020B	Total Recoverable
Calcium	300000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	5.7		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.8		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.9		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	140		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	82000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	17		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	10000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5200000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	120		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	120		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	12000		100	13	mg/L	100		300.0	Total/NA
Sulfate	170		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	11000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-003-F-20230920-01

Lab Sample ID: 240-192246-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	290		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	5.3		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	5300		50	22	ug/L	10		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: DUP-003-F-20230920-01 (Continued)

Lab Sample ID: 240-192246-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	280000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.0	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.3		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	140		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	78000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	17		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9700		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.1	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	4900000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	120		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	120		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	10000		100	13	mg/L	100		300.0	Total/NA
Sulfate	28		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	14000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-03-F-20230920-01

Lab Sample ID: 240-192246-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.68	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	320		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	270000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.4		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	750		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	100000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	200		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	26000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	16		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	7800000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	230		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	230		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-03-F-20230920-01 (Continued)

Lab Sample ID: 240-192246-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14000		100	13	mg/L	100		300.0	Total/NA
Fluoride	1.1		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	1000		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	18000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230920-01

Lab Sample ID: 240-192246-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	2.9	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Selenium	1.2	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Total Alkalinity	2.6	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	2.6	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: 2019-09-F-20230921-01

Lab Sample ID: 240-192246-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	28000		100	45	ug/L	20		6020B	Total Recoverable
Calcium	890000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	26		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	3.4		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	270		160	33	ug/L	20		6020B	Total Recoverable
Magnesium	280000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	12		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	26000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	3.3	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9100000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	23000		1000	130	mg/L	1000		300.0	Total/NA
Sulfate	150		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	26000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-12-F-20230921-01

Lab Sample ID: 240-192246-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	67	J	100	57	ug/L	1		6010D	Total Recoverable
Barium	19		5.0	2.2	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-12-F-20230921-01 (Continued)

Lab Sample ID: 240-192246-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	95000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.32	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	18		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	25000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	110000	^2	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	23		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.080		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	370		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	620		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230921-01

Lab Sample ID: 240-192246-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	3.0	J ^+	8.0	1.7	ug/L	1		6020B	Total Recoverable
Selenium	1.3	J	5.0	0.89	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-07-F-20230919-01

Lab Sample ID: 240-192246-1

Date Collected: 09/19/23 13:04

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100	57	ug/L		09/25/23 14:00	09/26/23 22:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:11	1
Arsenic	1.5	J	5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:11	1
Barium	580		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:11	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:11	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:11	1
Calcium	960000		20000	5100	ug/L		09/25/23 14:00	09/28/23 12:46	20
Chromium	29		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:11	1
Cobalt	6.9		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:11	1
Lead	1.6		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:11	1
Lithium	340		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:11	1
Magnesium	280000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:11	1
Molybdenum	8.2		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:11	1
Potassium	22000		1000	220	ug/L		09/25/23 14:00	09/27/23 01:11	1
Selenium	2.3	J	5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:11	1
Sodium	9700000		20000	6600	ug/L		09/25/23 14:00	09/28/23 12:46	20
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	230		5.0	2.6	mg/L			09/25/23 16:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	230		5.0	2.6	mg/L			09/25/23 16:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 16:58	1
Chloride (EPA 300.0)	23000		1000	130	mg/L			10/05/23 18:13	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/05/23 17:53	100
Sulfate (EPA 300.0)	570		100	35	mg/L			10/05/23 17:53	100
Total Dissolved Solids (SM 2540C)	27000		1000	780	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.789		0.295	0.304	1.00	0.259	pCi/L	09/28/23 10:48	10/20/23 21:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.8		30 - 110					09/28/23 10:48	10/20/23 21:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.648	U	0.614	0.616	1.00	0.975	pCi/L	09/28/23 10:52	10/18/23 11:35	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-07-F-20230919-01

Lab Sample ID: 240-192246-1

Date Collected: 09/19/23 13:04

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	99.8		30 - 110	09/28/23 10:52	10/18/23 11:35	1
Y Carrier	75.5		30 - 110	09/28/23 10:52	10/18/23 11:35	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.44		0.681	0.687	5.00	0.975	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: MW-17-F-20230919-01

Lab Sample ID: 240-192246-2

Date Collected: 09/19/23 14:38

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	480		100	57	ug/L		09/25/23 14:00	09/26/23 22:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:16	1
Arsenic	14		5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:16	1
Barium	610		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:16	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:16	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:16	1
Calcium	100000		1000	250	ug/L		09/25/23 14:00	09/27/23 01:16	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:16	1
Cobalt	0.47	J	1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:16	1
Lead	ND		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:16	1
Lithium	87		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:16	1
Magnesium	22000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:16	1
Molybdenum	25		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:16	1
Potassium	5500		1000	220	ug/L		09/25/23 14:00	09/27/23 01:16	1
Selenium	ND		5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:16	1
Sodium	2600000		5000	1600	ug/L		09/25/23 14:00	09/28/23 12:50	5
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	420		5.0	2.6	mg/L			09/25/23 17:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	420		5.0	2.6	mg/L			09/25/23 17:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:03	1
Chloride (EPA 300.0)	4000		50	6.4	mg/L			10/08/23 15:30	50
Fluoride (EPA 300.0)	1.3		0.25	0.12	mg/L			10/08/23 15:09	5
Sulfate (EPA 300.0)	390		5.0	1.7	mg/L			10/08/23 15:09	5
Total Dissolved Solids (SM 2540C)	6500		100	78	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.838		0.209	0.222	1.00	0.136	pCi/L	09/28/23 10:48	10/20/23 21:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.9		30 - 110					09/28/23 10:48	10/20/23 21:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.799		0.380	0.387	1.00	0.520	pCi/L	09/28/23 10:52	10/18/23 11:35	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: MW-17-F-20230919-01

Lab Sample ID: 240-192246-2

Date Collected: 09/19/23 14:38

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.9		30 - 110	09/28/23 10:52	10/18/23 11:35	1
Y Carrier	83.4		30 - 110	09/28/23 10:52	10/18/23 11:35	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	1.64		(2σ+/-) 0.434	(2σ+/-) 0.446	5.00	0.520	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-06-F-20230920-01

Lab Sample ID: 240-192246-3

Date Collected: 09/20/23 11:00

Matrix: Water

Date Received: 09/23/23 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	12000		100	13	mg/L			10/08/23 19:29	100
Fluoride (EPA 300.0)	0.56		0.50	0.24	mg/L			10/10/23 23:50	10
Sulfate (EPA 300.0)	390		100	35	mg/L			10/08/23 19:29	100
Total Dissolved Solids (SM 2540C)	14000		1000	780	mg/L			09/25/23 10:59	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-14-F-20230920-01

Lab Sample ID: 240-192246-4

Date Collected: 09/20/23 12:27

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	300		100	57	ug/L		09/25/23 14:00	09/26/23 22:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:20	1
Arsenic	5.5		5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:20	1
Barium	5800		50	22	ug/L		09/25/23 14:00	09/28/23 12:55	10
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:20	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:20	1
Calcium	300000		1000	250	ug/L		09/25/23 14:00	09/27/23 01:20	1
Chromium	5.7		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:20	1
Cobalt	2.8		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:20	1
Lead	1.9		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:20	1
Lithium	140		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:20	1
Magnesium	82000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:20	1
Molybdenum	17		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:20	1
Potassium	10000		1000	220	ug/L		09/25/23 14:00	09/27/23 01:20	1
Selenium	ND		5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:20	1
Sodium	5200000		10000	3300	ug/L		09/25/23 14:00	09/28/23 12:55	10
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	120		5.0	2.6	mg/L			09/25/23 17:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	120		5.0	2.6	mg/L			09/25/23 17:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:15	1
Chloride (EPA 300.0)	12000		100	13	mg/L			10/08/23 16:13	100
Fluoride (EPA 300.0)	ND		0.50	0.24	mg/L			10/08/23 15:52	10
Sulfate (EPA 300.0)	170		10	3.5	mg/L			10/08/23 15:52	10
Total Dissolved Solids (SM 2540C)	11000		1000	780	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	8.40		0.703	1.03	1.00	0.209	pCi/L	09/28/23 10:48	10/20/23 21:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		30 - 110					09/28/23 10:48	10/20/23 21:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.68		0.855	1.05	1.00	0.513	pCi/L	09/28/23 10:52	10/18/23 11:35	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-14-F-20230920-01

Lab Sample ID: 240-192246-4

Date Collected: 09/20/23 12:27

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	109		30 - 110	09/28/23 10:52	10/18/23 11:35	1
Y Carrier	82.6		30 - 110	09/28/23 10:52	10/18/23 11:35	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	15.1		1.11	1.47	5.00	0.513	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: DUP-003-F-20230920-01

Lab Sample ID: 240-192246-5

Date Collected: 09/20/23 00:00

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	290		100	57	ug/L		09/25/23 14:00	09/26/23 22:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:25	1
Arsenic	5.3		5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:25	1
Barium	5300		50	22	ug/L		09/25/23 14:00	09/28/23 12:59	10
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:25	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:25	1
Calcium	280000		1000	250	ug/L		09/25/23 14:00	09/27/23 01:25	1
Chromium	4.0	J	5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:25	1
Cobalt	2.6		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:25	1
Lead	1.3		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:25	1
Lithium	140		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:25	1
Magnesium	78000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:25	1
Molybdenum	17		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:25	1
Potassium	9700		1000	220	ug/L		09/25/23 14:00	09/27/23 01:25	1
Selenium	1.1	J	5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:25	1
Sodium	4900000		10000	3300	ug/L		09/25/23 14:00	09/28/23 12:59	10
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	120		5.0	2.6	mg/L			09/25/23 17:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	120		5.0	2.6	mg/L			09/25/23 17:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:20	1
Chloride (EPA 300.0)	10000		100	13	mg/L			10/08/23 19:07	100
Fluoride (EPA 300.0)	ND		0.50	0.24	mg/L			10/08/23 18:02	10
Sulfate (EPA 300.0)	28		10	3.5	mg/L			10/08/23 18:02	10
Total Dissolved Solids (SM 2540C)	14000		1000	780	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	6.99		0.640	0.898	1.00	0.194	pCi/L	09/28/23 10:48	10/20/23 21:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		30 - 110					09/28/23 10:48	10/20/23 21:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.46		0.844	1.03	1.00	0.573	pCi/L	09/28/23 10:52	10/18/23 11:35	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: DUP-003-F-20230920-01

Lab Sample ID: 240-192246-5

Date Collected: 09/20/23 00:00

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	110		30 - 110	09/28/23 10:52	10/18/23 11:35	1
Y Carrier	83.7		30 - 110	09/28/23 10:52	10/18/23 11:35	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	13.5		1.06	1.37	5.00	0.573	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-03-F-20230920-01

Lab Sample ID: 240-192246-6

Date Collected: 09/20/23 13:56

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		09/25/23 14:00	09/26/23 22:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.68	J	2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:30	1
Arsenic	4.1	J	5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:30	1
Barium	320		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:30	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:30	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:30	1
Calcium	270000		1000	250	ug/L		09/25/23 14:00	09/27/23 01:30	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:30	1
Cobalt	1.9		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:30	1
Lead	1.4		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:30	1
Lithium	750		8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:30	1
Magnesium	100000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:30	1
Molybdenum	200		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:30	1
Potassium	26000		1000	220	ug/L		09/25/23 14:00	09/27/23 01:30	1
Selenium	16		5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:30	1
Sodium	7800000		20000	6600	ug/L		09/25/23 14:00	09/28/23 13:04	20
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:30	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	230		5.0	2.6	mg/L			09/25/23 17:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	230		5.0	2.6	mg/L			09/25/23 17:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:25	1
Chloride (EPA 300.0)	14000		100	13	mg/L			10/08/23 17:19	100
Fluoride (EPA 300.0)	1.1		0.50	0.24	mg/L			10/10/23 23:29	10
Sulfate (EPA 300.0)	1000		100	35	mg/L			10/08/23 17:19	100
Total Dissolved Solids (SM 2540C)	18000		1000	780	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.35		0.319	0.342	1.00	0.213	pCi/L	09/28/23 10:48	10/20/23 21:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		30 - 110					09/28/23 10:48	10/20/23 21:28	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.91		0.712	0.761	1.00	0.740	pCi/L	09/28/23 10:52	10/18/23 11:34	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-03-F-20230920-01

Lab Sample ID: 240-192246-6

Date Collected: 09/20/23 13:56

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		30 - 110	09/28/23 10:52	10/18/23 11:34	1
Y Carrier	81.9		30 - 110	09/28/23 10:52	10/18/23 11:34	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	4.26		0.780	0.834	5.00	0.740	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: EB-001-F-20230920-01

Lab Sample ID: 240-192246-7

Date Collected: 09/20/23 14:50

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/25/23 14:00	09/26/23 23:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:34	1
Arsenic	ND		5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:34	1
Barium	ND		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:34	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:34	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:34	1
Calcium	ND		1000	250	ug/L		09/25/23 14:00	09/27/23 01:34	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:34	1
Cobalt	ND		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:34	1
Lead	ND		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:34	1
Lithium	2.9	J	8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:34	1
Magnesium	ND		1000	61	ug/L		09/25/23 14:00	09/27/23 01:34	1
Molybdenum	ND		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:34	1
Potassium	ND		1000	220	ug/L		09/25/23 14:00	09/27/23 01:34	1
Selenium	1.2	J	5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:34	1
Sodium	ND		1000	330	ug/L		09/25/23 14:00	09/28/23 13:09	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	2.6	J	5.0	2.6	mg/L			09/25/23 17:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	2.6	J	5.0	2.6	mg/L			09/25/23 17:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:30	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/08/23 12:37	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/08/23 12:37	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/08/23 12:37	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/25/23 10:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0195	U	0.0917	0.0917	1.00	0.179	pCi/L	09/28/23 10:48	10/20/23 21:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.9		30 - 110					09/28/23 10:48	10/20/23 21:28	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.269	U	0.285	0.286	1.00	0.462	pCi/L	09/28/23 10:52	10/18/23 11:34	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: EB-001-F-20230920-01

Lab Sample ID: 240-192246-7

Date Collected: 09/20/23 14:50

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.9		30 - 110	09/28/23 10:52	10/18/23 11:34	1
Y Carrier	88.6		30 - 110	09/28/23 10:52	10/18/23 11:34	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.289	U	0.299	0.300	5.00	0.462	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-09-F-20230921-01

Lab Sample ID: 240-192246-8

Date Collected: 09/21/23 09:15

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	390		100	57	ug/L		09/25/23 14:00	09/26/23 23:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:48	1
Arsenic	2.8	J	5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:48	1
Barium	28000		100	45	ug/L		09/25/23 14:00	09/28/23 13:22	20
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:48	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:48	1
Calcium	890000		1000	250	ug/L		09/25/23 14:00	09/27/23 01:48	1
Chromium	26		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:48	1
Cobalt	4.9		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:48	1
Lead	3.4		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:48	1
Lithium	270		160	33	ug/L		09/25/23 14:00	09/28/23 13:22	20
Magnesium	280000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:48	1
Molybdenum	12		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:48	1
Potassium	26000		1000	220	ug/L		09/25/23 14:00	09/27/23 01:48	1
Selenium	3.3	J	5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:48	1
Sodium	9100000		20000	6600	ug/L		09/25/23 14:00	09/28/23 13:22	20
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	190		5.0	2.6	mg/L			09/25/23 17:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	190		5.0	2.6	mg/L			09/25/23 17:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:36	1
Chloride (EPA 300.0)	23000		1000	130	mg/L			10/08/23 16:57	1000
Fluoride (EPA 300.0)	ND		1.3	0.60	mg/L			10/11/23 01:30	25
Sulfate (EPA 300.0)	150		100	35	mg/L			10/08/23 16:35	100
Total Dissolved Solids (SM 2540C)	26000		1000	780	mg/L			09/25/23 08:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	34.7		1.85	3.63	1.00	0.376	pCi/L	09/28/23 10:48	10/20/23 21:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		30 - 110					09/28/23 10:48	10/20/23 21:28	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	55.7	G	2.91	5.89	1.00	1.07	pCi/L	09/28/23 10:52	10/18/23 11:34	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-09-F-20230921-01

Lab Sample ID: 240-192246-8

Date Collected: 09/21/23 09:15

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		30 - 110	09/28/23 10:52	10/18/23 11:34	1
Y Carrier	88.2		30 - 110	09/28/23 10:52	10/18/23 11:34	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	90.4		3.45	6.92	5.00	1.07	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-12-F-20230921-01

Lab Sample ID: 240-192246-9

Date Collected: 09/21/23 14:41

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	67	J	100	57	ug/L		09/25/23 14:00	09/26/23 23:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:52	1
Arsenic	ND		5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:52	1
Barium	19		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:52	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:52	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:52	1
Calcium	95000		1000	250	ug/L		09/25/23 14:00	09/27/23 01:52	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:52	1
Cobalt	0.32	J	1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:52	1
Lead	ND		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:52	1
Lithium	18		8.0	1.7	ug/L		09/25/23 14:00	09/28/23 13:27	1
Magnesium	25000		1000	61	ug/L		09/25/23 14:00	09/27/23 01:52	1
Molybdenum	1.6	J	5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:52	1
Potassium	3000		1000	220	ug/L		09/25/23 14:00	09/27/23 01:52	1
Selenium	1.4	J	5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:52	1
Sodium	110000	^2	1000	330	ug/L		09/25/23 14:00	09/27/23 01:52	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	280		5.0	2.6	mg/L			09/25/23 17:41	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			09/25/23 17:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:41	1
Chloride (EPA 300.0)	23		1.0	0.13	mg/L			10/08/23 13:42	1
Fluoride (EPA 300.0)	0.080		0.050	0.024	mg/L			10/08/23 13:42	1
Sulfate (EPA 300.0)	370		10	3.5	mg/L			10/08/23 14:47	10
Total Dissolved Solids (SM 2540C)	620		20	16	mg/L			09/25/23 08:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.146	0.146	1.00	0.293	pCi/L	09/28/23 10:48	10/20/23 21:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		30 - 110					09/28/23 10:48	10/20/23 21:28	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.23		0.491	0.504	1.00	0.620	pCi/L	09/28/23 10:52	10/18/23 11:34	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-12-F-20230921-01

Lab Sample ID: 240-192246-9

Date Collected: 09/21/23 14:41

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		30 - 110	09/28/23 10:52	10/18/23 11:34	1
Y Carrier	91.2		30 - 110	09/28/23 10:52	10/18/23 11:34	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.23		0.512	0.525	5.00	0.620	pCi/L		10/24/23 13:10	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: EB-001-F-20230921-01

Lab Sample ID: 240-192246-10

Date Collected: 09/21/23 15:00

Matrix: Water

Date Received: 09/23/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/25/23 14:00	09/26/23 23:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/27/23 01:57	1
Arsenic	ND		5.0	0.75	ug/L		09/25/23 14:00	09/27/23 01:57	1
Barium	ND		5.0	2.2	ug/L		09/25/23 14:00	09/27/23 01:57	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/27/23 01:57	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:57	1
Calcium	ND		1000	250	ug/L		09/25/23 14:00	09/27/23 01:57	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/27/23 01:57	1
Cobalt	ND		1.0	0.19	ug/L		09/25/23 14:00	09/27/23 01:57	1
Lead	ND		1.0	0.45	ug/L		09/25/23 14:00	09/27/23 01:57	1
Lithium	3.0	J ^+	8.0	1.7	ug/L		09/25/23 14:00	09/27/23 01:57	1
Magnesium	ND		1000	61	ug/L		09/25/23 14:00	09/27/23 01:57	1
Molybdenum	ND		5.0	1.1	ug/L		09/25/23 14:00	09/27/23 01:57	1
Potassium	ND		1000	220	ug/L		09/25/23 14:00	09/27/23 01:57	1
Selenium	1.3	J	5.0	0.89	ug/L		09/25/23 14:00	09/27/23 01:57	1
Sodium	ND		1000	330	ug/L		09/25/23 14:00	09/28/23 07:35	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/27/23 01:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 15:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/25/23 17:46	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/06/23 12:24	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/06/23 12:24	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/06/23 12:24	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/25/23 08:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.188	U	0.136	0.137	1.00	0.195	pCi/L	09/28/23 10:48	10/20/23 21:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110					09/28/23 10:48	10/20/23 21:28	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.650		0.334	0.339	1.00	0.463	pCi/L	09/28/23 10:52	10/18/23 11:34	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: EB-001-F-20230921-01

Lab Sample ID: 240-192246-10

Date Collected: 09/21/23 15:00

Matrix: Water

Date Received: 09/23/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110	09/28/23 10:52	10/18/23 11:34	1
Y Carrier	89.3		30 - 110	09/28/23 10:52	10/18/23 11:34	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.838		0.361	0.366	5.00	0.463	pCi/L		10/24/23 13:10	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
240-192246-1	2019-07-F-20230919-01	99.8
240-192246-2	MW-17-F-20230919-01	93.9
240-192246-4	2022-14-F-20230920-01	109
240-192246-5	DUP-003-F-20230920-01	110
240-192246-6	2022-03-F-20230920-01	89.5
240-192246-7	EB-001-F-20230920-01	93.9
240-192246-8	2019-09-F-20230921-01	103
240-192246-9	2022-12-F-20230921-01	88.5
240-192246-10	EB-001-F-20230921-01	94.4
LCS 160-629950/2-A	Lab Control Sample	95.8
MB 160-629950/1-A	Method Blank	88.0

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-192246-1	2019-07-F-20230919-01	99.8	75.5
240-192246-2	MW-17-F-20230919-01	93.9	83.4
240-192246-4	2022-14-F-20230920-01	109	82.6
240-192246-5	DUP-003-F-20230920-01	110	83.7
240-192246-6	2022-03-F-20230920-01	89.5	81.9
240-192246-7	EB-001-F-20230920-01	93.9	88.6
240-192246-8	2019-09-F-20230921-01	103	88.2
240-192246-9	2022-12-F-20230921-01	88.5	91.2
240-192246-10	EB-001-F-20230921-01	94.4	89.3
LCS 160-629953/2-A	Lab Control Sample	95.8	84.5
MB 160-629953/1-A	Method Blank	88.0	89.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-588485/1-A
 Matrix: Water
 Analysis Batch: 588635

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 588485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/25/23 14:00	09/26/23 21:13	1

Lab Sample ID: LCS 240-588485/2-A
 Matrix: Water
 Analysis Batch: 588635

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	988		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-588485/1-A
 Matrix: Water
 Analysis Batch: 588728

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 588485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/25/23 14:00	09/26/23 23:45	1
Arsenic	ND		5.0	0.75	ug/L		09/25/23 14:00	09/26/23 23:45	1
Barium	ND		5.0	2.2	ug/L		09/25/23 14:00	09/26/23 23:45	1
Beryllium	ND	^+	1.0	0.62	ug/L		09/25/23 14:00	09/26/23 23:45	1
Cadmium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/26/23 23:45	1
Calcium	ND		1000	250	ug/L		09/25/23 14:00	09/26/23 23:45	1
Chromium	ND		5.0	1.2	ug/L		09/25/23 14:00	09/26/23 23:45	1
Cobalt	ND		1.0	0.19	ug/L		09/25/23 14:00	09/26/23 23:45	1
Lead	ND		1.0	0.45	ug/L		09/25/23 14:00	09/26/23 23:45	1
Lithium	ND		8.0	1.7	ug/L		09/25/23 14:00	09/26/23 23:45	1
Magnesium	ND		1000	61	ug/L		09/25/23 14:00	09/26/23 23:45	1
Molybdenum	ND		5.0	1.1	ug/L		09/25/23 14:00	09/26/23 23:45	1
Potassium	ND		1000	220	ug/L		09/25/23 14:00	09/26/23 23:45	1
Selenium	ND		5.0	0.89	ug/L		09/25/23 14:00	09/26/23 23:45	1
Sodium	ND		1000	330	ug/L		09/25/23 14:00	09/26/23 23:45	1
Thallium	ND		1.0	0.20	ug/L		09/25/23 14:00	09/26/23 23:45	1

Lab Sample ID: LCS 240-588485/3-A
 Matrix: Water
 Analysis Batch: 588728

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	104		ug/L		104	80 - 120
Arsenic	1000	993		ug/L		99	80 - 120
Barium	1000	921		ug/L		92	80 - 120
Beryllium	500	555	^+	ug/L		111	80 - 120
Cadmium	500	474		ug/L		95	80 - 120
Calcium	25000	23300		ug/L		93	80 - 120
Chromium	500	515		ug/L		103	80 - 120
Cobalt	500	518		ug/L		104	80 - 120
Lead	500	478		ug/L		96	80 - 120
Lithium	500	505		ug/L		101	80 - 120
Magnesium	25000	23400		ug/L		93	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

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

Lab Sample ID: LCS 240-588485/3-A
 Matrix: Water
 Analysis Batch: 588728

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 588485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	481		ug/L		96	80 - 120
Potassium	25000	23200		ug/L		93	80 - 120
Selenium	1000	928		ug/L		93	80 - 120
Sodium	25000	23300		ug/L		93	80 - 120
Thallium	1000	1030		ug/L		103	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-588487/1-A
 Matrix: Water
 Analysis Batch: 588625

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 588487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/25/23 14:00	09/26/23 14:54	1

Lab Sample ID: LCS 240-588487/2-A
 Matrix: Water
 Analysis Batch: 588625

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 588487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.11		ug/L		102	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-588573/30
 Matrix: Water
 Analysis Batch: 588573

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/25/23 14:02	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 14:02	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 14:02	1

Lab Sample ID: MB 240-588573/57
 Matrix: Water
 Analysis Batch: 588573

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/25/23 15:57	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 15:57	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/25/23 15:57	1

Lab Sample ID: LCS 240-588573/56
 Matrix: Water
 Analysis Batch: 588573

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.1		mg/L		102	86 - 123

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-192246-2 DU
Matrix: Water
Analysis Batch: 588573

Client Sample ID: MW-17-F-20230919-01
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Alkalinity	420		418		mg/L		0.2	20
Bicarbonate Alkalinity as CaCO3	420		418		mg/L		0.2	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-589799/3
Matrix: Water
Analysis Batch: 589799

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.13	mg/L			10/06/23 09:53	1
Fluoride	ND		0.050	0.024	mg/L			10/06/23 09:53	1
Sulfate	ND		1.0	0.35	mg/L			10/06/23 09:53	1

Lab Sample ID: LCS 240-589799/4
Matrix: Water
Analysis Batch: 589799

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chloride	50.0	48.7		mg/L		97	90 - 110
Fluoride	2.50	2.49		mg/L		99	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Lab Sample ID: MB 240-589804/3
Matrix: Water
Analysis Batch: 589804

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.13	mg/L			10/05/23 13:11	1
Fluoride	ND		0.050	0.024	mg/L			10/05/23 13:11	1
Sulfate	ND		1.0	0.35	mg/L			10/05/23 13:11	1

Lab Sample ID: LCS 240-589804/4
Matrix: Water
Analysis Batch: 589804

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chloride	50.0	50.4		mg/L		101	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	52.8		mg/L		106	90 - 110

Lab Sample ID: MB 240-590197/3
Matrix: Water
Analysis Batch: 590197

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		1.0	0.13	mg/L			10/10/23 17:07	1
Fluoride	ND		0.050	0.024	mg/L			10/10/23 17:07	1
Sulfate	ND		1.0	0.35	mg/L			10/10/23 17:07	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 240-590197/4
 Matrix: Water
 Analysis Batch: 590197

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.2		mg/L		102	90 - 110
Fluoride	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	53.3		mg/L		107	90 - 110

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

Lab Sample ID: MB 240-588450/1
 Matrix: Water
 Analysis Batch: 588450

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	ND		10	7.8	mg/L			09/25/23 08:58	1

Lab Sample ID: LCS 240-588450/2
 Matrix: Water
 Analysis Batch: 588450

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	564	535		mg/L		95	80 - 120

Lab Sample ID: 240-192246-8 DU
 Matrix: Water
 Analysis Batch: 588450

Client Sample ID: 2019-09-F-20230921-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	26000		23100		mg/L		13	20

Lab Sample ID: MB 240-588498/1
 Matrix: Water
 Analysis Batch: 588498

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	ND		10	7.8	mg/L			09/25/23 10:59	1

Lab Sample ID: LCS 240-588498/2
 Matrix: Water
 Analysis Batch: 588498

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	564	510		mg/L		90	80 - 120

Lab Sample ID: 240-192246-5 DU
 Matrix: Water
 Analysis Batch: 588498

Client Sample ID: DUP-003-F-20230920-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	14000		11800		mg/L		17	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-629950/1-A
Matrix: Water
Analysis Batch: 632731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629950

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02014	U	0.0829	0.0829	1.00	0.164	pCi/L	09/28/23 10:48	10/20/23 21:18	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	
Ba Carrier	88.0		30 - 110				09/28/23 10:48		10/20/23 21:18	

Lab Sample ID: LCS 160-629950/2-A
Matrix: Water
Analysis Batch: 632731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629950

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.53		1.27	1.00	0.156	pCi/L	102	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.8		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-629953/1-A
Matrix: Water
Analysis Batch: 632343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629953

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.09886	U	0.265	0.265	1.00	0.471	pCi/L	09/28/23 10:52	10/18/23 11:29	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	
Ba Carrier	88.0		30 - 110				09/28/23 10:52		10/18/23 11:29	
Y Carrier	89.0		30 - 110				09/28/23 10:52		10/18/23 11:29	

Lab Sample ID: LCS 160-629953/2-A
Matrix: Water
Analysis Batch: 632343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629953

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	7.79	7.642		1.08	1.00	0.481	pCi/L	98	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.8		30 - 110						
Y Carrier	84.5		30 - 110						

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Metals

Prep Batch: 588485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total Recoverable	Water	3005A	
240-192246-2	MW-17-F-20230919-01	Total Recoverable	Water	3005A	
240-192246-4	2022-14-F-20230920-01	Total Recoverable	Water	3005A	
240-192246-5	DUP-003-F-20230920-01	Total Recoverable	Water	3005A	
240-192246-6	2022-03-F-20230920-01	Total Recoverable	Water	3005A	
240-192246-7	EB-001-F-20230920-01	Total Recoverable	Water	3005A	
240-192246-8	2019-09-F-20230921-01	Total Recoverable	Water	3005A	
240-192246-9	2022-12-F-20230921-01	Total Recoverable	Water	3005A	
240-192246-10	EB-001-F-20230921-01	Total Recoverable	Water	3005A	
MB 240-588485/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-588485/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-588485/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 588487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	7470A	
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	7470A	
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	7470A	
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	7470A	
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	7470A	
240-192246-7	EB-001-F-20230920-01	Total/NA	Water	7470A	
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	7470A	
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	7470A	
240-192246-10	EB-001-F-20230921-01	Total/NA	Water	7470A	
MB 240-588487/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-588487/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 588625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	7470A	588487
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	7470A	588487
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	7470A	588487
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	7470A	588487
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	7470A	588487
240-192246-7	EB-001-F-20230920-01	Total/NA	Water	7470A	588487
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	7470A	588487
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	7470A	588487
240-192246-10	EB-001-F-20230921-01	Total/NA	Water	7470A	588487
MB 240-588487/1-A	Method Blank	Total/NA	Water	7470A	588487
LCS 240-588487/2-A	Lab Control Sample	Total/NA	Water	7470A	588487

Analysis Batch: 588635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total Recoverable	Water	6010D	588485
240-192246-2	MW-17-F-20230919-01	Total Recoverable	Water	6010D	588485
240-192246-4	2022-14-F-20230920-01	Total Recoverable	Water	6010D	588485
240-192246-5	DUP-003-F-20230920-01	Total Recoverable	Water	6010D	588485
240-192246-6	2022-03-F-20230920-01	Total Recoverable	Water	6010D	588485
240-192246-7	EB-001-F-20230920-01	Total Recoverable	Water	6010D	588485
240-192246-8	2019-09-F-20230921-01	Total Recoverable	Water	6010D	588485
240-192246-9	2022-12-F-20230921-01	Total Recoverable	Water	6010D	588485

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Metals (Continued)

Analysis Batch: 588635 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-10	EB-001-F-20230921-01	Total Recoverable	Water	6010D	588485
MB 240-588485/1-A	Method Blank	Total Recoverable	Water	6010D	588485
LCS 240-588485/2-A	Lab Control Sample	Total Recoverable	Water	6010D	588485

Analysis Batch: 588728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total Recoverable	Water	6020B	588485
240-192246-2	MW-17-F-20230919-01	Total Recoverable	Water	6020B	588485
240-192246-4	2022-14-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-5	DUP-003-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-6	2022-03-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-7	EB-001-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-8	2019-09-F-20230921-01	Total Recoverable	Water	6020B	588485
240-192246-9	2022-12-F-20230921-01	Total Recoverable	Water	6020B	588485
240-192246-10	EB-001-F-20230921-01	Total Recoverable	Water	6020B	588485
MB 240-588485/1-A	Method Blank	Total Recoverable	Water	6020B	588485
LCS 240-588485/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588485

Analysis Batch: 588860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-10	EB-001-F-20230921-01	Total Recoverable	Water	6020B	588485

Analysis Batch: 589075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total Recoverable	Water	6020B	588485
240-192246-2	MW-17-F-20230919-01	Total Recoverable	Water	6020B	588485
240-192246-4	2022-14-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-5	DUP-003-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-6	2022-03-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-7	EB-001-F-20230920-01	Total Recoverable	Water	6020B	588485
240-192246-8	2019-09-F-20230921-01	Total Recoverable	Water	6020B	588485
240-192246-9	2022-12-F-20230921-01	Total Recoverable	Water	6020B	588485

General Chemistry

Analysis Batch: 588450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	SM 2540C	
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	SM 2540C	
240-192246-10	EB-001-F-20230921-01	Total/NA	Water	SM 2540C	
MB 240-588450/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-588450/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-192246-8 DU	2019-09-F-20230921-01	Total/NA	Water	SM 2540C	

Analysis Batch: 588498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	SM 2540C	
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	SM 2540C	
240-192246-3	2019-06-F-20230920-01	Total/NA	Water	SM 2540C	
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	SM 2540C	
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

General Chemistry (Continued)

Analysis Batch: 588498 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	SM 2540C	
240-192246-7	EB-001-F-20230920-01	Total/NA	Water	SM 2540C	
MB 240-588498/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-588498/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-192246-5 DU	DUP-003-F-20230920-01	Total/NA	Water	SM 2540C	

Analysis Batch: 588573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	2320B-1997	
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	2320B-1997	
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	2320B-1997	
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	2320B-1997	
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	2320B-1997	
240-192246-7	EB-001-F-20230920-01	Total/NA	Water	2320B-1997	
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	2320B-1997	
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	2320B-1997	
240-192246-10	EB-001-F-20230921-01	Total/NA	Water	2320B-1997	
MB 240-588573/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-588573/57	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-588573/56	Lab Control Sample	Total/NA	Water	2320B-1997	
240-192246-2 DU	MW-17-F-20230919-01	Total/NA	Water	2320B-1997	

Analysis Batch: 589799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	300.0	
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	300.0	
240-192246-3	2019-06-F-20230920-01	Total/NA	Water	300.0	
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	300.0	
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	300.0	
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	300.0	
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	300.0	
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	300.0	
240-192246-7	EB-001-F-20230920-01	Total/NA	Water	300.0	
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	300.0	
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	300.0	
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	300.0	
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	300.0	
240-192246-10	EB-001-F-20230921-01	Total/NA	Water	300.0	
MB 240-589799/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589799/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 589804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	300.0	
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	300.0	
MB 240-589804/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589804/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 590197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-3	2019-06-F-20230920-01	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

General Chemistry (Continued)

Analysis Batch: 590197 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	300.0	
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	300.0	
MB 240-590197/3	Method Blank	Total/NA	Water	300.0	
LCS 240-590197/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 629950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	PrecSep-21	
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	PrecSep-21	
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	PrecSep-21	
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	PrecSep-21	
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	PrecSep-21	
240-192246-7	EB-001-F-20230920-01	Total/NA	Water	PrecSep-21	
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	PrecSep-21	
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	PrecSep-21	
240-192246-10	EB-001-F-20230921-01	Total/NA	Water	PrecSep-21	
MB 160-629950/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-629950/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 629953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192246-1	2019-07-F-20230919-01	Total/NA	Water	PrecSep_0	
240-192246-2	MW-17-F-20230919-01	Total/NA	Water	PrecSep_0	
240-192246-4	2022-14-F-20230920-01	Total/NA	Water	PrecSep_0	
240-192246-5	DUP-003-F-20230920-01	Total/NA	Water	PrecSep_0	
240-192246-6	2022-03-F-20230920-01	Total/NA	Water	PrecSep_0	
240-192246-7	EB-001-F-20230920-01	Total/NA	Water	PrecSep_0	
240-192246-8	2019-09-F-20230921-01	Total/NA	Water	PrecSep_0	
240-192246-9	2022-12-F-20230921-01	Total/NA	Water	PrecSep_0	
240-192246-10	EB-001-F-20230921-01	Total/NA	Water	PrecSep_0	
MB 160-629953/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-629953/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-07-F-20230919-01

Lab Sample ID: 240-192246-1

Date Collected: 09/19/23 13:04

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:39
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:11
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		20	589075	DSH	EET CLE	09/28/23 12:46
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:34
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 16:58
Total/NA	Analysis	300.0		100	589804	JWW	EET CLE	10/05/23 17:53
Total/NA	Analysis	300.0		1000	589804	JWW	EET CLE	10/05/23 18:13
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632731	FLC	EET SL	10/20/23 21:22
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: MW-17-F-20230919-01

Lab Sample ID: 240-192246-2

Date Collected: 09/19/23 14:38

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:43
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:16
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		5	589075	DSH	EET CLE	09/28/23 12:50
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:36
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:03
Total/NA	Analysis	300.0		5	589799	JWW	EET CLE	10/08/23 15:09
Total/NA	Analysis	300.0		50	589799	JWW	EET CLE	10/08/23 15:30
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632731	FLC	EET SL	10/20/23 21:22
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2019-06-F-20230920-01

Lab Sample ID: 240-192246-3

Date Collected: 09/20/23 11:00

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		100	589799	JWW	EET CLE	10/08/23 19:29
Total/NA	Analysis	300.0		10	590197	JWW	EET CLE	10/10/23 23:50
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59

Client Sample ID: 2022-14-F-20230920-01

Lab Sample ID: 240-192246-4

Date Collected: 09/20/23 12:27

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:48
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:20
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		10	589075	DSH	EET CLE	09/28/23 12:55
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:38
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:15
Total/NA	Analysis	300.0		10	589799	JWW	EET CLE	10/08/23 15:52
Total/NA	Analysis	300.0		100	589799	JWW	EET CLE	10/08/23 16:13
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632731	FLC	EET SL	10/20/23 21:22
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: DUP-003-F-20230920-01

Lab Sample ID: 240-192246-5

Date Collected: 09/20/23 00:00

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:52
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:25
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		10	589075	DSH	EET CLE	09/28/23 12:59
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:40
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:20
Total/NA	Analysis	300.0		10	589799	JWW	EET CLE	10/08/23 18:02
Total/NA	Analysis	300.0		100	589799	JWW	EET CLE	10/08/23 19:07
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: DUP-003-F-20230920-01

Lab Sample ID: 240-192246-5

Date Collected: 09/20/23 00:00

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632731	FLC	EET SL	10/20/23 21:22
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: 2022-03-F-20230920-01

Lab Sample ID: 240-192246-6

Date Collected: 09/20/23 13:56

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 22:57
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:30
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		20	589075	DSH	EET CLE	09/28/23 13:04
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:42
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:25
Total/NA	Analysis	300.0		100	589799	JWW	EET CLE	10/08/23 17:19
Total/NA	Analysis	300.0		10	590197	JWW	EET CLE	10/10/23 23:29
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632839	FLC	EET SL	10/20/23 21:28
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:34
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: EB-001-F-20230920-01

Lab Sample ID: 240-192246-7

Date Collected: 09/20/23 14:50

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 23:01
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:34
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	589075	DSH	EET CLE	09/28/23 13:09
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:44
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:30
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/08/23 12:37

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: EB-001-F-20230920-01

Lab Sample ID: 240-192246-7

Date Collected: 09/20/23 14:50

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	588498	QUY8	EET CLE	09/25/23 10:59
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632839	FLC	EET SL	10/20/23 21:28
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:34
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: 2019-09-F-20230921-01

Lab Sample ID: 240-192246-8

Date Collected: 09/21/23 09:15

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 23:05
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:48
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		20	589075	DSH	EET CLE	09/28/23 13:22
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:46
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:36
Total/NA	Analysis	300.0		100	589799	JWW	EET CLE	10/08/23 16:35
Total/NA	Analysis	300.0		1000	589799	JWW	EET CLE	10/08/23 16:57
Total/NA	Analysis	300.0		25	590197	JWW	EET CLE	10/11/23 01:30
Total/NA	Analysis	SM 2540C		1	588450	QUY8	EET CLE	09/25/23 08:58
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632839	FLC	EET SL	10/20/23 21:28
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:34
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: 2022-12-F-20230921-01

Lab Sample ID: 240-192246-9

Date Collected: 09/21/23 14:41

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 23:10
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:52
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	589075	DSH	EET CLE	09/28/23 13:27
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:48

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Client Sample ID: 2022-12-F-20230921-01

Lab Sample ID: 240-192246-9

Date Collected: 09/21/23 14:41

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:41
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/08/23 13:42
Total/NA	Analysis	300.0		10	589799	JWW	EET CLE	10/08/23 14:47
Total/NA	Analysis	SM 2540C		1	588450	QUY8	EET CLE	09/25/23 08:58
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632839	FLC	EET SL	10/20/23 21:28
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:34
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Client Sample ID: EB-001-F-20230921-01

Lab Sample ID: 240-192246-10

Date Collected: 09/21/23 15:00

Matrix: Water

Date Received: 09/23/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6010D		1	588635	KLC	EET CLE	09/26/23 23:23
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588728	DSH	EET CLE	09/27/23 01:57
Total Recoverable	Prep	3005A			588485	BN	EET CLE	09/25/23 14:00
Total Recoverable	Analysis	6020B		1	588860	DSH	EET CLE	09/28/23 07:35
Total/NA	Prep	7470A			588487	BN	EET CLE	09/25/23 14:00
Total/NA	Analysis	7470A		1	588625	GK	EET CLE	09/26/23 15:55
Total/NA	Analysis	2320B-1997		1	588573	JMR	EET CLE	09/25/23 17:46
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 12:24
Total/NA	Analysis	SM 2540C		1	588450	QUY8	EET CLE	09/25/23 08:58
Total/NA	Prep	PrecSep-21			629950	KAC	EET SL	09/28/23 10:48
Total/NA	Analysis	9315		1	632839	FLC	EET SL	10/20/23 21:28
Total/NA	Prep	PrecSep_0			629953	KAC	EET SL	09/28/23 10:52
Total/NA	Analysis	9320		1	632341	FLC	EET SL	10/18/23 11:34
Total/NA	Analysis	Ra226_Ra228		1	633292	EMH	EET SL	10/24/23 13:10

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192246-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

Eurofins - Cleveland Sample Receipt Form/Narrative Login # : 192246
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: [Signature]
Cooler Received on 9-23-23 Opened on 9-23-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? TR-9-23-23 Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

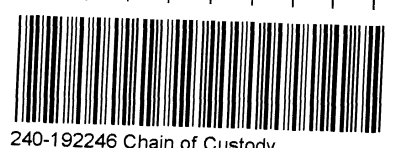
18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____
2019-06-F-20230920-01 - no Alkalinity bottle.

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

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings:

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2019-07-F-20230919-01	240-192246-D-1	Plastic 500ml - with Nitric Acid	<2			
2019-07-F-20230919-01	240-192246-E-1	Plastic 1 liter - Nitric Acid	<2			
2019-07-F-20230919-01	240-192246-F-1	Plastic 1 liter - Nitric Acid	<2			
MW-17-F-20230919-01	240-192246-D-2	Plastic 500ml - with Nitric Acid	<2			
MW-17-F-20230919-01	240-192246-E-2	Plastic 1 liter - Nitric Acid	<2			
MW-17-F-20230919-01	240-192246-F-2	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-20230920-01	240-192246-D-4	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-20230920-01	240-192246-E-4	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-20230920-01	240-192246-F-4	Plastic 1 liter - Nitric Acid	<2			
DUP-003-F-20230920-01	240-192246-D-5	Plastic 500ml - with Nitric Acid	<2			
DUP-003-F-20230920-01	240-192246-E-5	Plastic 1 liter - Nitric Acid	<2			
DUP-003-F-20230920-01	240-192246-F-5	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-20230920-01	240-192246-D-6	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-20230920-01	240-192246-E-6	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-20230920-01	240-192246-F-6	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230920-01	240-192246-D-7	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230920-01	240-192246-E-7	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230920-01	240-192246-F-7	Plastic 1 liter - Nitric Acid	<2			
2019-09-F-20230921-01	240-192246-D-8	Plastic 500ml - with Nitric Acid	<2			
2019-09-F-20230921-01	240-192246-E-8	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-20230921-01	240-192246-D-9	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-20230921-01	240-192246-E-9	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-20230921-01	240-192246-F-9	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230921-01	240-192246-D-10	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230921-01	240-192246-E-10	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230921-01	240-192246-F-10	Plastic 1 liter - Nitric Acid	<2			


Client Information		Lab PM Cisneros, Roxanne		COC No 240-111832-39818.1	
Client Contact Taylor Huffman		E-Mail: roxanne.cisneros@et.eurofins.com		Page: Page 1 of 8	
Company: Lightstone Generation Gavin Power LLC		Address: 7397 OH-7		Job #:	
City Cheshire		State, Zip: OH, 45620		Preservation Codes:	
Phone: 740-925-3171(Tel)		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		M - Hexane N - None O - NaOH P - AsNaO2 Q - Na2O4S R - Na2SO3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Y - Tazma Z - other (specify)	
Email: taylor.huffman@lightstonegen.com		Project # 24019633		Other:	
Site Gavin		SSOW#		Total Number of containers	
Due Date Requested:		Analysis Requested		Special Instructions/Note:	
TAT Requested (days):		Perform MS/MSD (Yes or No)		 240-192246 Chain of Custody	
Sample Date		Field Filtered Sample (Yes or No)			
Sample Time		D N D N			
Sample Type (C=Comp, G=grab)		9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc			
Preservation Code:		2540C_Calcid - TDS			
Matrix (W=water, S=solid, O=water, G=grab)		6010B, 6020, 7470A			
Sample Date		300.0_28D - Chloride, Fluoride & Sulfate			
Sample Time		2320B - (MOD) Alkalinity			
Sample Type					
Preservation Code:					
Sample Date					
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Client Lightstone Site Name _____
 Cooler Received on 9-23-23 Opened on 9-23-23
 FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Cooler unpacked by:
Vandy Pugh

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No NA
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
17. Was a LL Hg or Me Hg trip blank present? Yes No NA

Tests that are not checked for pH by Receiving:

VOAs
 Oil and Grease
 TOC

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

2019-06 - F - 20230920-01 - NO Alkalinity bottle.

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 22	19.6	19.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	20.4	20.3	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	1.6	1.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	2.6	2.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	2.4	2.3	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	0.7	0.6	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	4.7	4.6	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	1.2	1.1	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	

See Temperature Excursion Form

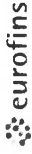


Temperature readings:

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2019-07-F-20230919-01	240-192246-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2019-07-F-20230919-01	240-192246-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2019-07-F-20230919-01	240-192246-F-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230919-01	240-192246-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230919-01	240-192246-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230919-01	240-192246-F-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-14-F-20230920-01	240-192246-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2022-14-F-20230920-01	240-192246-E-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-14-F-20230920-01	240-192246-F-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-003-F-20230920-01	240-192246-D-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-003-F-20230920-01	240-192246-E-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-003-F-20230920-01	240-192246-F-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-03-F-20230920-01	240-192246-D-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2022-03-F-20230920-01	240-192246-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-03-F-20230920-01	240-192246-F-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230920-01	240-192246-D-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230920-01	240-192246-E-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230920-01	240-192246-F-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2019-09-F-20230921-01	240-192246-D-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2019-09-F-20230921-01	240-192246-E-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-12-F-20230921-01	240-192246-D-9	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2022-12-F-20230921-01	240-192246-E-9	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-12-F-20230921-01	240-192246-F-9	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230921-01	240-192246-D-10	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230921-01	240-192246-E-10	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230921-01	240-192246-F-10	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

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

Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 240-174260.1
Client Contact: Shipping/Receiving	Phone: 13715 Rider Trail North,	E-Mail: roxanne.cisneros@et.eurofins.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.	Address: 13715 Rider Trail North,	State of Origin: Ohio	Job #: 240-192246-1
City: Earth City	State, Zip: MO, 63045	Accreditations Required (See note):	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - Trizma Y - Trizma Z - other (Specify)
PO #:	WO #:	Project #: 24019633	Other:
SSOW#:	Due Date Requested: 10/9/2023	TAT Requested (days):	Special Instructions/Note:
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Preservation Code:
2019-07-F-20230919-01 (240-192246-1)	9/19/23	13:04 Eastern	Water
MW-17-F-20230919-01 (240-192246-2)	9/19/23	14:38 Eastern	Water
2022-14-F-20230920-01 (240-192246-4)	9/20/23	12:27 Eastern	Water
DUP-003-F-20230920-01 (240-192246-5)	9/20/23	Eastern	Water
2022-03-F-20230920-01 (240-192246-6)	9/20/23	13:56 Eastern	Water
EB-001-F-20230920-01 (240-192246-7)	9/20/23	14:50 Eastern	Water
2019-09-F-20230921-01 (240-192246-8)	9/21/23	09:15 Eastern	Water
2022-12-F-20230921-01 (240-192246-9)	9/21/23	14:41 Eastern	Water
EB-001-F-20230921-01 (240-192246-10)	9/21/23	15:00 Eastern	Water
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.</p>			
Possible Hazard Identification			
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:			
Deliverable Requested: I, II, III, IV, Other (specify) _____			
Primary Deliverable Rank: 2			
Empty Kit Relinquished by: _____			
Relinquished by: _____			
Relinquished by: _____			
Relinquished by: _____			
Custody Seal No.: _____			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Cooler Temperature(s) °C and Other Remarks:			

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

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-192246-1

Login Number: 192246

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 09/26/23 01:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/26/2023 9:39:06 AM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-192399-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

Generated
10/26/2023 9:39:06 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Qualifiers

Metals

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

Rad

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

Glossary

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Job ID: 240-192399-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-192399-1

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

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

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

Receipt

The samples were received on 9/27/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 11 coolers at receipt time were 0.1°C, 0.3°C, 0.5°C, 1.4°C, 2.3°C, 2.4°C, 2.5°C, 3.5°C, 4.7°C, 5.0°C and 20.0°C

Metals

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

General Chemistry

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

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 batch 630048: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 93108-F-20230925-01 (240-192399-1), 2000-F-20230925-01 (240-192399-2), EB-001-F-20230925-01 (240-192399-3), (LCS 160-630048/2-A), (MB 160-630048/1-A)

Method 9320_Ra228: Radium 228 batch 630050: The LCS recovered at (133%). 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 (63-150%) per method requirements. The LCS passes, no further action is required. (LCS 160-630050/2-A)

Method 9320_Ra228: Radium-228 batch 630050: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 93108-F-20230925-01 (240-192399-1), 2000-F-20230925-01 (240-192399-2), EB-001-F-20230925-01 (240-192399-3), (LCS 160-630050/2-A), (MB 160-630050/1-A)

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

Rad

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
240-192399-1	93108-F-20230925-01	Water	09/25/23 09:44	09/27/23 08:00
240-192399-2	2000-F-20230925-01	Water	09/25/23 13:06	09/27/23 08:00
240-192399-3	EB-001-F-20230925-01	Water	09/25/23 14:45	09/27/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: 93108-F-20230925-01

Lab Sample ID: 240-192399-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	470		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	15000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	42		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	96		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1300000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.53	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1800		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	3.2		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	22		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3200		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2000-F-20230925-01

Lab Sample ID: 240-192399-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	24		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	2600		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Lithium	17		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	720	J	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	32		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	880	J	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	470000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	400		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	360		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	40		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	89		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	2.4		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	550		10	3.5	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: 2000-F-20230925-01 (Continued)

Lab Sample ID: 240-192399-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	1200		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230925-01

Lab Sample ID: 240-192399-3

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: 93108-F-20230925-01

Lab Sample ID: 240-192399-1

Date Collected: 09/25/23 09:44

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		09/28/23 14:00	09/29/23 17:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 19:06	1
Arsenic	3.5	J	5.0	0.75	ug/L		09/28/23 14:00	09/29/23 19:06	1
Barium	470		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 19:06	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 19:06	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:06	1
Calcium	15000		1000	250	ug/L		09/28/23 14:00	09/29/23 19:06	1
Chromium	ND		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 19:06	1
Cobalt	ND		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 19:06	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 19:06	1
Lithium	42		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 19:06	1
Magnesium	4600		1000	61	ug/L		09/28/23 14:00	09/29/23 19:06	1
Molybdenum	96		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 19:06	1
Potassium	2000		1000	220	ug/L		09/28/23 14:00	09/29/23 19:06	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 19:06	1
Sodium	1300000		1000	330	ug/L		09/28/23 14:00	09/29/23 19:06	1
Thallium	0.53	J	1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			10/04/23 17:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			10/04/23 17:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/04/23 17:01	1
Chloride (EPA 300.0)	1800		25	3.2	mg/L			10/05/23 17:33	25
Fluoride (EPA 300.0)	3.2		0.25	0.12	mg/L			10/05/23 17:13	5
Sulfate (EPA 300.0)	22		5.0	1.7	mg/L			10/05/23 17:13	5
Total Dissolved Solids (SM 2540C)	3200		50	39	mg/L			09/29/23 07:46	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.615		0.158	0.168	1.00	0.120	pCi/L	09/29/23 10:32	10/24/23 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		30 - 110					09/29/23 10:32	10/24/23 09:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.16		0.451	0.463	1.00	0.602	pCi/L	09/29/23 10:36	10/19/23 11:26	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: 93108-F-20230925-01

Lab Sample ID: 240-192399-1

Date Collected: 09/25/23 09:44

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		30 - 110	09/29/23 10:36	10/19/23 11:26	1
Y Carrier	85.2		30 - 110	09/29/23 10:36	10/19/23 11:26	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.78		0.478	0.493	5.00	0.602	pCi/L		10/25/23 16:15	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: 2000-F-20230925-01

Lab Sample ID: 240-192399-2

Date Collected: 09/25/23 13:06

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	300		100	57	ug/L		09/28/23 14:00	09/29/23 17:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 19:46	1
Arsenic	1.3	J	5.0	0.75	ug/L		09/28/23 14:00	09/29/23 19:46	1
Barium	24		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 19:46	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 19:46	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:46	1
Calcium	2600		1000	250	ug/L		09/28/23 14:00	09/29/23 19:46	1
Chromium	1.9	J	5.0	1.2	ug/L		09/28/23 14:00	09/29/23 19:46	1
Cobalt	ND		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 19:46	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 19:46	1
Lithium	17		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 19:46	1
Magnesium	720	J	1000	61	ug/L		09/28/23 14:00	09/29/23 19:46	1
Molybdenum	32		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 19:46	1
Potassium	880	J	1000	220	ug/L		09/28/23 14:00	09/29/23 19:46	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 19:46	1
Sodium	47000		1000	330	ug/L		09/28/23 14:00	09/29/23 19:46	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 15:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	400		5.0	2.6	mg/L			10/04/23 17:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	360		5.0	2.6	mg/L			10/04/23 17:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	40		5.0	2.6	mg/L			10/04/23 17:07	1
Chloride (EPA 300.0)	89		1.0	0.13	mg/L			10/08/23 23:08	1
Fluoride (EPA 300.0)	2.4		0.050	0.024	mg/L			10/08/23 23:08	1
Sulfate (EPA 300.0)	550		10	3.5	mg/L			10/08/23 23:28	10
Total Dissolved Solids (SM 2540C)	1200		20	16	mg/L			09/29/23 07:46	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144	U	0.150	0.151	1.00	0.239	pCi/L	09/29/23 10:32	10/24/23 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		30 - 110					09/29/23 10:32	10/24/23 09:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.31		0.616	0.628	1.00	0.826	pCi/L	09/29/23 10:36	10/19/23 11:26	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: 2000-F-20230925-01

Lab Sample ID: 240-192399-2

Date Collected: 09/25/23 13:06

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		30 - 110	09/29/23 10:36	10/19/23 11:26	1
Y Carrier	83.0		30 - 110	09/29/23 10:36	10/19/23 11:26	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	1.45		(2σ+/-) 0.634	(2σ+/-) 0.646	5.00	0.826	pCi/L		10/25/23 16:15	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: EB-001-F-20230925-01

Lab Sample ID: 240-192399-3

Date Collected: 09/25/23 14:45

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/28/23 14:00	09/29/23 17:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 19:49	1
Arsenic	ND		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 19:49	1
Barium	ND		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 19:49	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 19:49	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:49	1
Calcium	ND		1000	250	ug/L		09/28/23 14:00	09/29/23 19:49	1
Chromium	ND		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 19:49	1
Cobalt	ND		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 19:49	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 19:49	1
Lithium	ND		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 19:49	1
Magnesium	ND		1000	61	ug/L		09/28/23 14:00	09/29/23 19:49	1
Molybdenum	ND		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 19:49	1
Potassium	ND		1000	220	ug/L		09/28/23 14:00	09/29/23 19:49	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 19:49	1
Sodium	ND		1000	330	ug/L		09/28/23 14:00	09/29/23 19:49	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:49	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 15:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/04/23 17:12	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/04/23 17:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/04/23 17:12	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/08/23 12:24	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/08/23 12:24	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/08/23 12:24	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/29/23 07:46	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0384	U	0.103	0.103	1.00	0.187	pCi/L	09/29/23 10:32	10/24/23 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.4		30 - 110					09/29/23 10:32	10/24/23 09:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13		0.440	0.452	1.00	0.555	pCi/L	09/29/23 10:36	10/19/23 11:26	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: EB-001-F-20230925-01

Lab Sample ID: 240-192399-3

Date Collected: 09/25/23 14:45

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.4		30 - 110	09/29/23 10:36	10/19/23 11:26	1
Y Carrier	86.0		30 - 110	09/29/23 10:36	10/19/23 11:26	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	1.17		(2σ+/-) 0.452	(2σ+/-) 0.464	5.00	0.555	pCi/L		10/25/23 16:15	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-192399-1	93108-F-20230925-01	96.3	
240-192399-2	2000-F-20230925-01	73.8	
240-192399-3	EB-001-F-20230925-01	82.4	
LCS 160-630048/2-A	Lab Control Sample	95.8	
MB 160-630048/1-A	Method Blank	79.0	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-192399-1	93108-F-20230925-01	96.3	85.2
240-192399-2	2000-F-20230925-01	73.8	83.0
240-192399-3	EB-001-F-20230925-01	82.4	86.0
LCS 160-630050/2-A	Lab Control Sample	95.8	84.1
MB 160-630050/1-A	Method Blank	79.0	85.6
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-588921/1-A
Matrix: Water
Analysis Batch: 589138

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/28/23 14:00	09/29/23 16:53	1

Lab Sample ID: LCS 240-588921/2-A
Matrix: Water
Analysis Batch: 589138

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588921

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

Lab Sample ID: 240-192399-1 MS
Matrix: Water
Analysis Batch: 589138

Client Sample ID: 93108-F-20230925-01
Prep Type: Total Recoverable
Prep Batch: 588921

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	410		1000	1470		ug/L		106	75 - 125

Lab Sample ID: 240-192399-1 MSD
Matrix: Water
Analysis Batch: 589138

Client Sample ID: 93108-F-20230925-01
Prep Type: Total Recoverable
Prep Batch: 588921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Boron	410		1000	1420		ug/L		102	75 - 125	3	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-588921/1-A
Matrix: Water
Analysis Batch: 589205

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 19:01	1
Arsenic	ND		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 19:01	1
Barium	ND		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 19:01	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 19:01	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:01	1
Calcium	ND		1000	250	ug/L		09/28/23 14:00	09/29/23 19:01	1
Chromium	ND		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 19:01	1
Cobalt	ND		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 19:01	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 19:01	1
Lithium	ND		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 19:01	1
Magnesium	ND		1000	61	ug/L		09/28/23 14:00	09/29/23 19:01	1
Molybdenum	ND		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 19:01	1
Potassium	ND		1000	220	ug/L		09/28/23 14:00	09/29/23 19:01	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 19:01	1
Sodium	ND		1000	330	ug/L		09/28/23 14:00	09/29/23 19:01	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 19:01	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

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

Lab Sample ID: LCS 240-588921/3-A
Matrix: Water
Analysis Batch: 589205

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	105		ug/L		105	80 - 120
Arsenic	1000	922		ug/L		92	80 - 120
Barium	1000	975		ug/L		97	80 - 120
Beryllium	500	490		ug/L		98	80 - 120
Cadmium	500	485		ug/L		97	80 - 120
Calcium	25000	24700		ug/L		99	80 - 120
Chromium	500	505		ug/L		101	80 - 120
Cobalt	500	474		ug/L		95	80 - 120
Lead	500	483		ug/L		97	80 - 120
Lithium	500	502		ug/L		100	80 - 120
Magnesium	25000	26100		ug/L		105	80 - 120
Molybdenum	500	487		ug/L		97	80 - 120
Potassium	25000	25500		ug/L		102	80 - 120
Selenium	1000	928		ug/L		93	80 - 120
Sodium	25000	25800		ug/L		103	80 - 120
Thallium	1000	937		ug/L		94	80 - 120

Lab Sample ID: 240-192399-1 MS
Matrix: Water
Analysis Batch: 589205

Client Sample ID: 93108-F-20230925-01
Prep Type: Total Recoverable
Prep Batch: 588921

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	106		ug/L		106	80 - 120
Arsenic	3.5	J	1000	965		ug/L		96	80 - 120
Barium	470		1000	1430		ug/L		96	80 - 120
Beryllium	ND		500	494		ug/L		99	80 - 120
Cadmium	ND		500	465		ug/L		93	80 - 120
Calcium	15000		25000	39100		ug/L		98	80 - 120
Chromium	ND		500	483		ug/L		97	80 - 120
Cobalt	ND		500	482		ug/L		96	80 - 120
Lead	ND		500	460		ug/L		92	80 - 120
Lithium	42		500	545		ug/L		101	80 - 120
Magnesium	4600		25000	29600		ug/L		100	80 - 120
Molybdenum	96		500	594		ug/L		100	80 - 120
Potassium	2000		25000	26700		ug/L		99	80 - 120
Selenium	ND		1000	916		ug/L		92	80 - 120
Sodium	1300000		25000	1300000	4	ug/L		153	80 - 120
Thallium	0.53	J	1000	882		ug/L		88	80 - 120

Lab Sample ID: 240-192399-1 MSD
Matrix: Water
Analysis Batch: 589205

Client Sample ID: 93108-F-20230925-01
Prep Type: Total Recoverable
Prep Batch: 588921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		100	108		ug/L		108	80 - 120	2	20
Arsenic	3.5	J	1000	974		ug/L		97	80 - 120	1	20
Barium	470		1000	1450		ug/L		98	80 - 120	1	20
Beryllium	ND		500	507		ug/L		101	80 - 120	3	20
Cadmium	ND		500	467		ug/L		93	80 - 120	1	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

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

Lab Sample ID: 240-192399-1 MSD
 Matrix: Water
 Analysis Batch: 589205

Client Sample ID: 93108-F-20230925-01
 Prep Type: Total Recoverable
 Prep Batch: 588921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	15000		25000	39600		ug/L		100	80 - 120	1	20
Chromium	ND		500	485		ug/L		97	80 - 120	0	20
Cobalt	ND		500	487		ug/L		97	80 - 120	1	20
Lead	ND		500	467		ug/L		93	80 - 120	1	20
Lithium	42		500	537		ug/L		99	80 - 120	1	20
Magnesium	4600		25000	30000		ug/L		101	80 - 120	1	20
Molybdenum	96		500	603		ug/L		101	80 - 120	1	20
Potassium	2000		25000	26900		ug/L		100	80 - 120	1	20
Selenium	ND		1000	927		ug/L		93	80 - 120	1	20
Sodium	1300000		25000	1330000	4	ug/L		275	80 - 120	2	20
Thallium	0.53	J	1000	890		ug/L		89	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-588924/1-A
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 588924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 15:10	1

Lab Sample ID: LCS 240-588924/2-A
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 588924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.58		ug/L		92	80 - 120

Lab Sample ID: 240-192399-1 MS
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: 93108-F-20230925-01
 Prep Type: Total/NA
 Prep Batch: 588924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.02		ug/L		102	80 - 120

Lab Sample ID: 240-192399-1 MSD
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: 93108-F-20230925-01
 Prep Type: Total/NA
 Prep Batch: 588924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.955		ug/L		96	80 - 120	6	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-589723/4
 Matrix: Water
 Analysis Batch: 589723

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/04/23 15:23	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-589723/4
Matrix: Water
Analysis Batch: 589723

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/04/23 15:23	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/04/23 15:23	1

Lab Sample ID: LCS 240-589723/3
Matrix: Water
Analysis Batch: 589723

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	81.5		mg/L		101	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-589804/3
Matrix: Water
Analysis Batch: 589804

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/05/23 13:11	1
Fluoride	ND		0.050	0.024	mg/L			10/05/23 13:11	1
Sulfate	ND		1.0	0.35	mg/L			10/05/23 13:11	1

Lab Sample ID: LCS 240-589804/4
Matrix: Water
Analysis Batch: 589804

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.4		mg/L		101	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	52.8		mg/L		106	90 - 110

Lab Sample ID: MB 240-589830/3
Matrix: Water
Analysis Batch: 589830

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/08/23 10:43	1
Fluoride	ND		0.050	0.024	mg/L			10/08/23 10:43	1
Sulfate	ND		1.0	0.35	mg/L			10/08/23 10:43	1

Lab Sample ID: LCS 240-589830/4
Matrix: Water
Analysis Batch: 589830

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.8		mg/L		102	90 - 110
Fluoride	2.50	2.64		mg/L		105	90 - 110
Sulfate	50.0	53.1		mg/L		106	90 - 110

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

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

Lab Sample ID: MB 240-589017/1
 Matrix: Water
 Analysis Batch: 589017

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

Analyte	MB Result	MB Qualifier	RL	MDC	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/29/23 07:46	1

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-630048/1-A
 Matrix: Water
 Analysis Batch: 633299

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 630048

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02726	U	0.0816	0.0816	1.00	0.154	pCi/L	09/29/23 10:32	10/24/23 09:31	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.0		30 - 110					09/29/23 10:32	10/24/23 09:31	1

Lab Sample ID: LCS 160-630048/2-A
 Matrix: Water
 Analysis Batch: 633299

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 630048

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.26		1.11	1.00	0.155	pCi/L	91	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.8		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-630050/1-A
 Matrix: Water
 Analysis Batch: 632573

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 630050

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4059	U	0.328	0.330	1.00	0.503	pCi/L	09/29/23 10:36	10/19/23 11:21	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.0		30 - 110					09/29/23 10:36	10/19/23 11:21	1
Y Carrier	85.6		30 - 110					09/29/23 10:36	10/19/23 11:21	1

Lab Sample ID: LCS 160-630050/2-A
 Matrix: Water
 Analysis Batch: 632573

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 630050

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.79	10.39		1.35	1.00	0.457	pCi/L	133	75 - 125

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

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

Lab Sample ID: LCS 160-630050/2-A

Matrix: Water

Analysis Batch: 632573

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 630050

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	95.8		30 - 110
Y Carrier	84.1		30 - 110

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Metals

Prep Batch: 588921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total Recoverable	Water	3005A	
240-192399-2	2000-F-20230925-01	Total Recoverable	Water	3005A	
240-192399-3	EB-001-F-20230925-01	Total Recoverable	Water	3005A	
MB 240-588921/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-588921/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-588921/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-192399-1 MS	93108-F-20230925-01	Total Recoverable	Water	3005A	
240-192399-1 MS	93108-F-20230925-01	Total Recoverable	Water	3005A	
240-192399-1 MSD	93108-F-20230925-01	Total Recoverable	Water	3005A	
240-192399-1 MSD	93108-F-20230925-01	Total Recoverable	Water	3005A	

Prep Batch: 588924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total/NA	Water	7470A	
240-192399-2	2000-F-20230925-01	Total/NA	Water	7470A	
240-192399-3	EB-001-F-20230925-01	Total/NA	Water	7470A	
MB 240-588924/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-588924/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-192399-1 MS	93108-F-20230925-01	Total/NA	Water	7470A	
240-192399-1 MSD	93108-F-20230925-01	Total/NA	Water	7470A	

Analysis Batch: 589109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total/NA	Water	7470A	588924
240-192399-2	2000-F-20230925-01	Total/NA	Water	7470A	588924
240-192399-3	EB-001-F-20230925-01	Total/NA	Water	7470A	588924
MB 240-588924/1-A	Method Blank	Total/NA	Water	7470A	588924
LCS 240-588924/2-A	Lab Control Sample	Total/NA	Water	7470A	588924
240-192399-1 MS	93108-F-20230925-01	Total/NA	Water	7470A	588924
240-192399-1 MSD	93108-F-20230925-01	Total/NA	Water	7470A	588924

Analysis Batch: 589138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total Recoverable	Water	6010D	588921
240-192399-2	2000-F-20230925-01	Total Recoverable	Water	6010D	588921
240-192399-3	EB-001-F-20230925-01	Total Recoverable	Water	6010D	588921
MB 240-588921/1-A	Method Blank	Total Recoverable	Water	6010D	588921
LCS 240-588921/2-A	Lab Control Sample	Total Recoverable	Water	6010D	588921
240-192399-1 MS	93108-F-20230925-01	Total Recoverable	Water	6010D	588921
240-192399-1 MSD	93108-F-20230925-01	Total Recoverable	Water	6010D	588921

Analysis Batch: 589205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total Recoverable	Water	6020B	588921
240-192399-2	2000-F-20230925-01	Total Recoverable	Water	6020B	588921
240-192399-3	EB-001-F-20230925-01	Total Recoverable	Water	6020B	588921
MB 240-588921/1-A	Method Blank	Total Recoverable	Water	6020B	588921
LCS 240-588921/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588921
240-192399-1 MS	93108-F-20230925-01	Total Recoverable	Water	6020B	588921
240-192399-1 MSD	93108-F-20230925-01	Total Recoverable	Water	6020B	588921

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

General Chemistry

Analysis Batch: 589017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total/NA	Water	SM 2540C	
240-192399-2	2000-F-20230925-01	Total/NA	Water	SM 2540C	
240-192399-3	EB-001-F-20230925-01	Total/NA	Water	SM 2540C	
MB 240-589017/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-589017/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 589723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total/NA	Water	2320B-1997	
240-192399-2	2000-F-20230925-01	Total/NA	Water	2320B-1997	
240-192399-3	EB-001-F-20230925-01	Total/NA	Water	2320B-1997	
MB 240-589723/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-589723/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 589804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total/NA	Water	300.0	
240-192399-1	93108-F-20230925-01	Total/NA	Water	300.0	
MB 240-589804/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589804/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 589830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-2	2000-F-20230925-01	Total/NA	Water	300.0	
240-192399-2	2000-F-20230925-01	Total/NA	Water	300.0	
240-192399-3	EB-001-F-20230925-01	Total/NA	Water	300.0	
MB 240-589830/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589830/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 630048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total/NA	Water	PrecSep-21	
240-192399-2	2000-F-20230925-01	Total/NA	Water	PrecSep-21	
240-192399-3	EB-001-F-20230925-01	Total/NA	Water	PrecSep-21	
MB 160-630048/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-630048/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 630050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192399-1	93108-F-20230925-01	Total/NA	Water	PrecSep_0	
240-192399-2	2000-F-20230925-01	Total/NA	Water	PrecSep_0	
240-192399-3	EB-001-F-20230925-01	Total/NA	Water	PrecSep_0	
MB 160-630050/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-630050/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: 93108-F-20230925-01

Lab Sample ID: 240-192399-1

Date Collected: 09/25/23 09:44

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588921	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/29/23 17:01
Total Recoverable	Prep	3005A			588921	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 19:06
Total/NA	Prep	7470A			588924	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 15:14
Total/NA	Analysis	2320B-1997		1	589723	JMR	EET CLE	10/04/23 17:01
Total/NA	Analysis	300.0		5	589804	JWW	EET CLE	10/05/23 17:13
Total/NA	Analysis	300.0		25	589804	JWW	EET CLE	10/05/23 17:33
Total/NA	Analysis	SM 2540C		1	589017	QUY8	EET CLE	09/29/23 07:46
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633299	FLC	EET SL	10/24/23 09:33
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:26
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: 2000-F-20230925-01

Lab Sample ID: 240-192399-2

Date Collected: 09/25/23 13:06

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588921	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/29/23 17:31
Total Recoverable	Prep	3005A			588921	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 19:46
Total/NA	Prep	7470A			588924	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 15:39
Total/NA	Analysis	2320B-1997		1	589723	JMR	EET CLE	10/04/23 17:07
Total/NA	Analysis	300.0		1	589830	JWW	EET CLE	10/08/23 23:08
Total/NA	Analysis	300.0		10	589830	JWW	EET CLE	10/08/23 23:28
Total/NA	Analysis	SM 2540C		1	589017	QUY8	EET CLE	09/29/23 07:46
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633299	FLC	EET SL	10/24/23 09:33
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:26
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: EB-001-F-20230925-01

Lab Sample ID: 240-192399-3

Date Collected: 09/25/23 14:45

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588921	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/29/23 17:36

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Client Sample ID: EB-001-F-20230925-01

Lab Sample ID: 240-192399-3

Date Collected: 09/25/23 14:45

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588921	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 19:49
Total/NA	Prep	7470A			588924	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 15:41
Total/NA	Analysis	2320B-1997		1	589723	JMR	EET CLE	10/04/23 17:12
Total/NA	Analysis	300.0		1	589830	JWW	EET CLE	10/08/23 12:24
Total/NA	Analysis	SM 2540C		1	589017	QUY8	EET CLE	09/29/23 07:46
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633299	FLC	EET SL	10/24/23 09:33
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:26
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Laboratory References:

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

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



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192399-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login # : 192399

Client Lightstone Site Name _____ Cooler unpacked by: Danny Rye
 Cooler Received on 9-27-23 Opened on 9-27-23
 FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # EC Foam Box _____ Client Cooler _____ Box _____ Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
 IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 See Multiple Cooler Form
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC?
 If yes, Questions 13-17 have been checked at the originating laboratory. Yes No
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

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

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
93108-F-20230925-01	240-192399-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
93108-F-20230925-01	240-192399-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
93108-F-20230925-01	240-192399-F-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2000-F-20230925-01	240-192399-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2000-F-20230925-01	240-192399-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2000-F-20230925-01	240-192399-F-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230925-01	240-192399-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230925-01	240-192399-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230925-01	240-192399-F-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Eurofins - Canton Sample Receipt Multiple Cooler Form									
Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
IC	Client	<u>Box</u>	Other	IR GUN #: <u>22</u>	<u>20.1</u>	<u>20.0</u>	Wet Ice	Blue Ice	Dry Ice
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>2.6</u>	<u>2.5</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>2.4</u>	<u>2.3</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>2.5</u>	<u>2.4</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>3.6</u>	<u>3.5</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>4.8</u>	<u>4.7</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>1.5</u>	<u>1.4</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>0.6</u>	<u>0.5</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>0.2</u>	<u>0.1</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>5.1</u>	<u>5.0</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
<u>IC</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	IR GUN #: <u>22</u>	<u>0.4</u>	<u>0.3</u>	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice

See Temperature Excursion Form

Chain of Custody Record



Environment Testi-

Client Information Client Contact: Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project Name: Gavin CCR Site: <u>Sagin</u>		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@et.eurofins.com State of Origin:		Carner Tracking No(s): 240-111832-39818-1 Page: Page 1 of 8 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #:		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc 300.28D - Chloride, Fluoride & Sulfate 2320B - (MOD) Alkalinity			
PWSID:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Sample Identification 93108-F-20230925-01 2000-F-20230925-01 EB-001-F-20230925-01		Sample Date 9-25-23 9-25-23 9-25-23	Sample Time 0944 1306 1445	Sample Type (C=Comp, G=grab) G G G	Matrix (W=water, S=solid, O=water, BT=BIOS, J=Jelly) Water Water Water Water Water Water Water Water Water
Special Instructions/Note: Total Number of containers:		Special Instructions/OC Requirements: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)		Empty Kit Relinquished by:			
Relinquished by: <u>Bobby Caste</u> Relinquished by: <u>Ashtley Deal</u> Relinquished by:		Date/Time: 9-26-23 / 0915 Date/Time: 9-26-23 1700 Date/Time:		Date/Time: 9/26/23 12:00 Date/Time: 9-27-23 800 Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			



Eurofins - Cleveland Sample Receipt Form/Narrative Login # : 192399
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: Danny Rye
Cooler Received on 9-27-23 Opened on 9-27-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None _____

1. Cooler temperature upon receipt _____ See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
- Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
- Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION

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

20. SAMPLE PRESERVATION

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login #: _____

Eurofins - Canton Sample Receipt Multiple Cooler Form									
Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 22	20.1	20.0	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	2.6	2.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	2.4	2.3	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	2.5	2.4	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	3.6	3.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	4.8	4.7	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	1.5	1.4	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	0.6	0.5	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	0.2	0.1	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	5.1	5.0	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: 22	0.4	0.3	Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice

See Temperature Excursion Form

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
93108-F-20230925-01	240-192399-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
93108-F-20230925-01	240-192399-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
93108-F-20230925-01	240-192399-F-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2000-F-20230925-01	240-192399-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2000-F-20230925-01	240-192399-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2000-F-20230925-01	240-192399-F-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230925-01	240-192399-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230925-01	240-192399-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230925-01	240-192399-F-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____



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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)
 Client Contact: Cisneros, Roxanne
 Shipping/Receiving: roxanne.cisneros@et.eurofins.com
 Company: TestAmerica Laboratories, Inc.
 Address: 13715 Rider Trail North, Earth City, MO 63045
 Phone: 314-298-8566 (Tel) 314-298-8757 (Fax)
 Email: [Redacted]
 Project Name: Federal CCR Wells
 Site: [Redacted]

Sampler: Lab PM: Cisneros, Roxanne
 Phone: [Redacted]
 E-Mail: roxanne.cisneros@et.eurofins.com
 State of Origin: Ohio
 Carrier Tracking No(s): [Redacted]
 Page: Page 1 of 1
 Job #: 240-192399-1

Due Date Requested: 10/30/2023
TAT Requested (days): [Redacted]
PO #: [Redacted]
WO #: [Redacted]
Project #: 24019633
SSOW#: [Redacted]

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soils, Organics, Biotissue, A-Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra226/PreSep_0 Radium-226 (GFPC)	9315_Ra226/PreSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
93108-F-20230925-01 (240-192399-1)	9/25/23	09:44 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2000-F-20230925-01 (240-192399-2)	9/25/23	13:06 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20230925-01 (240-192399-3)	9/25/23	14:45 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Special Instructions/QC Requirements: [Redacted]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months
 Received by: [Signature] Date/Time: [Redacted]
 Received by: [Signature] Date/Time: [Redacted]
 Company: [Redacted]
 Company: [Redacted]
 Company: [Redacted]
 Custody Seals Intact: [Redacted] Custody Seal No.: [Redacted]



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-192399-1

Login Number: 192399

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 09/28/23 01:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/26/2023 9:41:28 AM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-192405-1

Eurofins Cleveland

Job Notes

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

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

Authorization

Roxanne Cisneros

Generated
10/26/2023 9:41:28 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Qualifiers

Metals

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

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Job ID: 240-192405-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-192405-1

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

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

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

Receipt

The samples were received on 9/27/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 11 coolers at receipt time were 0.1°C, 0.3°C, 0.5°C, 1.4°C, 2.3°C, 2.4°C, 2.5°C, 3.5°C, 4.7°C, 5.0°C and 20.0°C

Metals

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

General Chemistry

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

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 batch 630048: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 9802-F-20230922-01 (240-192405-1), 9802-F-20230922-01 (240-192405-1[MSJ]), 9802-F-20230922-01 (240-192405-1[MSD]), 9801-F-20230922-01 (240-192405-2), 2003-F-202309022-01 (240-192405-3), 94137-F-20230922-01 (240-192405-4), 94136-F-20230922-01 (240-192405-5), DUP-004-F-20230922-01 (240-192405-6), 2022-13-F-20230922-01 (240-192405-7), EB-001-F-20230922-01 (240-192405-8), (LCS 160-630048/2-A) and (MB 160-630048/1-A)

Method 9320_Ra228: Radium 228 batch 630050: The LCS recovered at (133%). 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 (63-150%) per method requirements. The LCS passes, no further action is required. (LCS 160-630050/2-A)

Method 9320_Ra228: Radium-228 batch 630050: The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 2003-F-202309022-01 (240-192405-3). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 630050: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 9802-F-20230922-01 (240-192405-1), 9802-F-20230922-01 (240-192405-1[MSJ]), 9802-F-20230922-01 (240-192405-1[MSD]), 9801-F-20230922-01 (240-192405-2), 2003-F-202309022-01 (240-192405-3), 94137-F-20230922-01 (240-192405-4), 94136-F-20230922-01 (240-192405-5), DUP-004-F-20230922-01 (240-192405-6), 2022-13-F-20230922-01 (240-192405-7), EB-001-F-20230922-01 (240-192405-8), (LCS 160-630050/2-A) and (MB 160-630050/1-A)

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Job ID: 240-192405-1 (Continued)

Laboratory: Eurofins Cleveland (Continued)

Rad

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

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Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-192405-1	9802-F-20230922-01	Water	09/22/23 10:04	09/27/23 08:00
240-192405-2	9801-F-20230922-01	Water	09/22/23 11:10	09/27/23 08:00
240-192405-3	2003-F-202309022-01	Water	09/22/23 12:34	09/27/23 08:00
240-192405-4	94137-F-20230922-01	Water	09/22/23 13:32	09/27/23 08:00
240-192405-5	94136-F-20230922-01	Water	09/22/23 14:13	09/27/23 08:00
240-192405-6	DUP-004-F-20230922-01	Water	09/22/23 00:00	09/27/23 08:00
240-192405-7	2022-13-F-20230922-01	Water	09/22/23 15:18	09/27/23 08:00
240-192405-8	EB-001-F-20230922-01	Water	09/22/23 15:30	09/27/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 9802-F-20230922-01

Lab Sample ID: 240-192405-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	150		100	57	ug/L	1		6010D	Total Recoverable
Barium	71		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	32000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.72	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	13		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	9000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.8	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	280000	B	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	600	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	580	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	15		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	38		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	1.0		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	66		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	740		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9801-F-20230922-01

Lab Sample ID: 240-192405-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Barium	4700		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	200000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.0		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	130		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	63000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	4600000	B	10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	140	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	140	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	8500		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.99		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	11		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	9100		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 2003-F-202309022-01

Lab Sample ID: 240-192405-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	460		100	57	ug/L	1		6010D	Total
									Recoverable
Arsenic	28		5.0	0.75	ug/L	1		6020B	Total
									Recoverable
Barium	150		5.0	2.2	ug/L	1		6020B	Total
									Recoverable
Calcium	7100		1000	250	ug/L	1		6020B	Total
									Recoverable
Chromium	14		5.0	1.2	ug/L	1		6020B	Total
									Recoverable
Cobalt	3.8		1.0	0.19	ug/L	1		6020B	Total
									Recoverable
Lead	3.8		1.0	0.45	ug/L	1		6020B	Total
									Recoverable
Lithium	30		8.0	1.7	ug/L	1		6020B	Total
									Recoverable
Magnesium	2700		1000	61	ug/L	1		6020B	Total
									Recoverable
Molybdenum	130		5.0	1.1	ug/L	1		6020B	Total
									Recoverable
Potassium	3200		1000	220	ug/L	1		6020B	Total
									Recoverable
Selenium	8.0		5.0	0.89	ug/L	1		6020B	Total
									Recoverable
Sodium	700000	B	1000	330	ug/L	1		6020B	Total
									Recoverable
Total Alkalinity	830	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	820	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	17		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	440		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	3.5		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	72		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1700		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94137-F-20230922-01

Lab Sample ID: 240-192405-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.9	J	5.0	0.75	ug/L	1		6020B	Total
									Recoverable
Barium	53		5.0	2.2	ug/L	1		6020B	Total
									Recoverable
Calcium	150000		1000	250	ug/L	1		6020B	Total
									Recoverable
Chromium	7.8		5.0	1.2	ug/L	1		6020B	Total
									Recoverable
Cobalt	210		1.0	0.19	ug/L	1		6020B	Total
									Recoverable
Lithium	10		8.0	1.7	ug/L	1		6020B	Total
									Recoverable
Magnesium	50000		1000	61	ug/L	1		6020B	Total
									Recoverable
Molybdenum	2.1	J	5.0	1.1	ug/L	1		6020B	Total
									Recoverable
Potassium	1800		1000	220	ug/L	1		6020B	Total
									Recoverable
Sodium	65000	B	1000	330	ug/L	1		6020B	Total
									Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 94137-F-20230922-01 (Continued)

Lab Sample ID: 240-192405-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity	350	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	27		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	360		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	870		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94136-F-20230922-01

Lab Sample ID: 240-192405-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	290		100	57	ug/L	1		6010D	Total Recoverable
Barium	110		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	7.1		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.61	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	26		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	13		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	690000	B	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	340	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	340	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	940		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.4		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	58		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1700		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-004-F-20230922-01

Lab Sample ID: 240-192405-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.79	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	110		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	14000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	8.5		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.66	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	29		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3700		1000	61	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: DUP-004-F-20230922-01 (Continued)

Lab Sample ID: 240-192405-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	14		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	700000	B	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	340	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	340	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1000		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.2		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	50		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1700		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-13-F-20230922-01

Lab Sample ID: 240-192405-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	200		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	4.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	190		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	12000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.8	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.59	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.64	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	18		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3100		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	75		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	900000	B	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	140	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	130	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	13		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1300		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	2.8		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	11		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	2200		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230922-01

Lab Sample ID: 240-192405-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	1.9	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Sodium	510	J B	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	4.2	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: EB-001-F-20230922-01 (Continued)

Lab Sample ID: 240-192405-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	4.2	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

1

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This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 9802-F-20230922-01

Lab Sample ID: 240-192405-1

Date Collected: 09/22/23 10:04

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	150		100	57	ug/L		09/28/23 14:00	09/29/23 23:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 20:46	1
Arsenic	ND		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 20:46	1
Barium	71		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 20:46	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 20:46	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 20:46	1
Calcium	32000		1000	250	ug/L		09/28/23 14:00	09/29/23 20:46	1
Chromium	ND		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 20:46	1
Cobalt	0.72	J	1.0	0.19	ug/L		09/28/23 14:00	09/29/23 20:46	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 20:46	1
Lithium	13		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 20:46	1
Magnesium	9000		1000	61	ug/L		09/28/23 14:00	09/29/23 20:46	1
Molybdenum	3.8	J	5.0	1.1	ug/L		09/28/23 14:00	09/29/23 20:46	1
Potassium	1400		1000	220	ug/L		09/28/23 14:00	09/29/23 20:46	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 20:46	1
Sodium	280000	B	1000	330	ug/L		09/28/23 14:00	09/29/23 20:46	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 20:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	600	B	5.0	2.6	mg/L			10/05/23 20:12	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	580	B	5.0	2.6	mg/L			10/05/23 20:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	15		5.0	2.6	mg/L			10/05/23 20:12	1
Chloride (EPA 300.0)	38		1.0	0.13	mg/L			10/10/23 10:04	1
Fluoride (EPA 300.0)	1.0		0.050	0.024	mg/L			10/10/23 10:04	1
Sulfate (EPA 300.0)	66		1.0	0.35	mg/L			10/10/23 10:04	1
Total Dissolved Solids (SM 2540C)	740		10	7.8	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0176	U	0.0961	0.0961	1.00	0.181	pCi/L	09/29/23 10:32	10/24/23 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		30 - 110					09/29/23 10:32	10/24/23 09:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.808		0.383	0.390	1.00	0.519	pCi/L	09/29/23 10:36	10/19/23 11:26	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 9802-F-20230922-01

Lab Sample ID: 240-192405-1

Date Collected: 09/22/23 10:04

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		30 - 110	09/29/23 10:36	10/19/23 11:26	1
Y Carrier	82.6		30 - 110	09/29/23 10:36	10/19/23 11:26	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	0.825		(2σ+/-) 0.395	(2σ+/-) 0.402	5.00	0.519	pCi/L		10/25/23 16:15	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 9801-F-20230922-01

Lab Sample ID: 240-192405-2

Date Collected: 09/22/23 11:10

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	390		100	57	ug/L		09/28/23 14:00	09/30/23 00:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 21:28	1
Arsenic	ND		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 21:28	1
Barium	4700		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 21:28	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 21:28	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:28	1
Calcium	200000		1000	250	ug/L		09/28/23 14:00	09/29/23 21:28	1
Chromium	ND		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 21:28	1
Cobalt	1.0		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 21:28	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 21:28	1
Lithium	130		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 21:28	1
Magnesium	63000		1000	61	ug/L		09/28/23 14:00	09/29/23 21:28	1
Molybdenum	3.4	J	5.0	1.1	ug/L		09/28/23 14:00	09/29/23 21:28	1
Potassium	9600		1000	220	ug/L		09/28/23 14:00	09/29/23 21:28	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 21:28	1
Sodium	4600000	B	10000	3300	ug/L		09/28/23 14:00	10/02/23 13:58	10
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	140	B	5.0	2.6	mg/L			10/05/23 20:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	140	B	5.0	2.6	mg/L			10/05/23 20:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 20:18	1
Chloride (EPA 300.0)	8500		100	13	mg/L			10/05/23 18:53	100
Fluoride (EPA 300.0)	0.99		0.50	0.24	mg/L			10/05/23 18:33	10
Sulfate (EPA 300.0)	11		10	3.5	mg/L			10/05/23 18:33	10
Total Dissolved Solids (SM 2540C)	9100		1000	780	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.88		0.303	0.398	1.00	0.115	pCi/L	09/29/23 10:32	10/24/23 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		30 - 110					09/29/23 10:32	10/24/23 09:32	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.23		0.651	0.809	1.00	0.394	pCi/L	09/29/23 10:36	10/19/23 11:28	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 9801-F-20230922-01

Lab Sample ID: 240-192405-2

Date Collected: 09/22/23 11:10

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	110		30 - 110	09/29/23 10:36	10/19/23 11:28	1
Y Carrier	84.1		30 - 110	09/29/23 10:36	10/19/23 11:28	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	8.11		0.718	0.902	5.00	0.394	pCi/L		10/25/23 16:15	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 2003-F-202309022-01

Lab Sample ID: 240-192405-3

Date Collected: 09/22/23 12:34

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	460		100	57	ug/L		09/28/23 14:00	09/30/23 00:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 21:31	1
Arsenic	28		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 21:31	1
Barium	150		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 21:31	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 21:31	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:31	1
Calcium	7100		1000	250	ug/L		09/28/23 14:00	09/29/23 21:31	1
Chromium	14		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 21:31	1
Cobalt	3.8		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 21:31	1
Lead	3.8		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 21:31	1
Lithium	30		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 21:31	1
Magnesium	2700		1000	61	ug/L		09/28/23 14:00	09/29/23 21:31	1
Molybdenum	130		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 21:31	1
Potassium	3200		1000	220	ug/L		09/28/23 14:00	09/29/23 21:31	1
Selenium	8.0		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 21:31	1
Sodium	70000	B	1000	330	ug/L		09/28/23 14:00	09/29/23 21:31	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	830	B	5.0	2.6	mg/L			10/05/23 20:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	820	B	5.0	2.6	mg/L			10/05/23 20:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	17		5.0	2.6	mg/L			10/05/23 20:23	1
Chloride (EPA 300.0)	440		10	1.3	mg/L			10/09/23 01:29	10
Fluoride (EPA 300.0)	3.5		0.10	0.048	mg/L			10/09/23 01:09	2
Sulfate (EPA 300.0)	72		2.0	0.70	mg/L			10/09/23 01:09	2
Total Dissolved Solids (SM 2540C)	1700		40	31	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.274	U	0.203	0.205	1.00	0.293	pCi/L	09/29/23 10:32	10/24/23 09:32	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	<i>87.8</i>		<i>30 - 110</i>					<i>09/29/23 10:32</i>	<i>10/24/23 09:32</i>	<i>1</i>

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.41	G	0.789	0.800	1.00	1.13	pCi/L	09/29/23 10:36	10/19/23 11:28	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 2003-F-202309022-01

Lab Sample ID: 240-192405-3

Date Collected: 09/22/23 12:34

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110	09/29/23 10:36	10/19/23 11:28	1
Y Carrier	83.0		30 - 110	09/29/23 10:36	10/19/23 11:28	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.69		0.815	0.826	5.00	1.13	pCi/L		10/25/23 16:15	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 94137-F-20230922-01

Lab Sample ID: 240-192405-4

Date Collected: 09/22/23 13:32

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/28/23 14:00	09/30/23 00:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 21:33	1
Arsenic	4.9	J	5.0	0.75	ug/L		09/28/23 14:00	09/29/23 21:33	1
Barium	53		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 21:33	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 21:33	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:33	1
Calcium	150000		1000	250	ug/L		09/28/23 14:00	09/29/23 21:33	1
Chromium	7.8		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 21:33	1
Cobalt	210		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 21:33	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 21:33	1
Lithium	10		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 21:33	1
Magnesium	50000		1000	61	ug/L		09/28/23 14:00	09/29/23 21:33	1
Molybdenum	2.1	J	5.0	1.1	ug/L		09/28/23 14:00	09/29/23 21:33	1
Potassium	1800		1000	220	ug/L		09/28/23 14:00	09/29/23 21:33	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 21:33	1
Sodium	65000	B	1000	330	ug/L		09/28/23 14:00	09/29/23 21:33	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:33	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	350	B	5.0	2.6	mg/L			10/05/23 20:31	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	350	B	5.0	2.6	mg/L			10/05/23 20:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 20:31	1
Chloride (EPA 300.0)	27		1.0	0.13	mg/L			10/08/23 20:27	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			10/08/23 20:27	1
Sulfate (EPA 300.0)	360		5.0	1.7	mg/L			10/08/23 20:47	5
Total Dissolved Solids (SM 2540C)	870		10	7.8	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0754	U	0.0951	0.0953	1.00	0.158	pCi/L	09/29/23 10:32	10/24/23 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		30 - 110					09/29/23 10:32	10/24/23 09:32	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.926		0.451	0.459	1.00	0.611	pCi/L	09/29/23 10:36	10/19/23 11:28	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 94137-F-20230922-01

Lab Sample ID: 240-192405-4

Date Collected: 09/22/23 13:32

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		30 - 110	09/29/23 10:36	10/19/23 11:28	1
Y Carrier	78.5		30 - 110	09/29/23 10:36	10/19/23 11:28	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.00		0.461	0.469	5.00	0.611	pCi/L		10/25/23 16:15	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 94136-F-20230922-01

Lab Sample ID: 240-192405-5

Date Collected: 09/22/23 14:13

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	290		100	57	ug/L		09/28/23 14:00	09/30/23 00:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 21:36	1
Arsenic	ND		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 21:36	1
Barium	110		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 21:36	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 21:36	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:36	1
Calcium	13000		1000	250	ug/L		09/28/23 14:00	09/29/23 21:36	1
Chromium	7.1		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 21:36	1
Cobalt	0.61	J	1.0	0.19	ug/L		09/28/23 14:00	09/29/23 21:36	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 21:36	1
Lithium	26		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 21:36	1
Magnesium	3600		1000	61	ug/L		09/28/23 14:00	09/29/23 21:36	1
Molybdenum	13		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 21:36	1
Potassium	1900		1000	220	ug/L		09/28/23 14:00	09/29/23 21:36	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 21:36	1
Sodium	690000	B	1000	330	ug/L		09/28/23 14:00	09/29/23 21:36	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:36	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	340	B	5.0	2.6	mg/L			10/05/23 20:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	340	B	5.0	2.6	mg/L			10/05/23 20:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 20:37	1
Chloride (EPA 300.0)	940		10	1.3	mg/L			10/09/23 00:09	10
Fluoride (EPA 300.0)	1.4		0.10	0.048	mg/L			10/08/23 23:49	2
Sulfate (EPA 300.0)	58		2.0	0.70	mg/L			10/08/23 23:49	2
Total Dissolved Solids (SM 2540C)	1700		40	31	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.501		0.176	0.182	1.00	0.179	pCi/L	09/29/23 10:32	10/24/23 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110					09/29/23 10:32	10/24/23 09:32	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.22		0.516	0.528	1.00	0.653	pCi/L	09/29/23 10:36	10/19/23 11:28	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 94136-F-20230922-01

Lab Sample ID: 240-192405-5

Date Collected: 09/22/23 14:13

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110	09/29/23 10:36	10/19/23 11:28	1
Y Carrier	84.1		30 - 110	09/29/23 10:36	10/19/23 11:28	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.72		0.545	0.558	5.00	0.653	pCi/L		10/25/23 16:15	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: DUP-004-F-20230922-01

Lab Sample ID: 240-192405-6

Date Collected: 09/22/23 00:00

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	300		100	57	ug/L		09/28/23 14:00	09/30/23 00:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 21:38	1
Arsenic	0.79	J	5.0	0.75	ug/L		09/28/23 14:00	09/29/23 21:38	1
Barium	110		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 21:38	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 21:38	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:38	1
Calcium	14000		1000	250	ug/L		09/28/23 14:00	09/29/23 21:38	1
Chromium	8.5		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 21:38	1
Cobalt	0.66	J	1.0	0.19	ug/L		09/28/23 14:00	09/29/23 21:38	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 21:38	1
Lithium	29		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 21:38	1
Magnesium	3700		1000	61	ug/L		09/28/23 14:00	09/29/23 21:38	1
Molybdenum	14		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 21:38	1
Potassium	1900		1000	220	ug/L		09/28/23 14:00	09/29/23 21:38	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 21:38	1
Sodium	700000	B	1000	330	ug/L		09/28/23 14:00	09/29/23 21:38	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:38	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	340	B	5.0	2.6	mg/L			10/05/23 20:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	340	B	5.0	2.6	mg/L			10/05/23 20:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 20:43	1
Chloride (EPA 300.0)	1000		10	1.3	mg/L			10/09/23 02:50	10
Fluoride (EPA 300.0)	1.2		0.10	0.048	mg/L			10/09/23 01:49	2
Sulfate (EPA 300.0)	50		2.0	0.70	mg/L			10/09/23 01:49	2
Total Dissolved Solids (SM 2540C)	1700		40	31	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.592		0.213	0.219	1.00	0.223	pCi/L	09/29/23 10:32	10/24/23 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.0		30 - 110					09/29/23 10:32	10/24/23 09:32	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.76		0.646	0.666	1.00	0.801	pCi/L	09/29/23 10:36	10/19/23 11:33	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: DUP-004-F-20230922-01

Lab Sample ID: 240-192405-6

Date Collected: 09/22/23 00:00

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	77.0		30 - 110	09/29/23 10:36	10/19/23 11:33	1
Y Carrier	86.4		30 - 110	09/29/23 10:36	10/19/23 11:33	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	2.36		0.680	0.701	5.00	0.801	pCi/L		10/25/23 16:15	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 2022-13-F-20230922-01

Lab Sample ID: 240-192405-7

Date Collected: 09/22/23 15:18

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	200		100	57	ug/L		09/28/23 14:00	09/30/23 00:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 21:46	1
Arsenic	4.9	J	5.0	0.75	ug/L		09/28/23 14:00	09/29/23 21:46	1
Barium	190		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 21:46	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 21:46	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:46	1
Calcium	12000		1000	250	ug/L		09/28/23 14:00	09/29/23 21:46	1
Chromium	2.8	J	5.0	1.2	ug/L		09/28/23 14:00	09/29/23 21:46	1
Cobalt	0.59	J	1.0	0.19	ug/L		09/28/23 14:00	09/29/23 21:46	1
Lead	0.64	J	1.0	0.45	ug/L		09/28/23 14:00	09/29/23 21:46	1
Lithium	18		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 21:46	1
Magnesium	3100		1000	61	ug/L		09/28/23 14:00	09/29/23 21:46	1
Molybdenum	75		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 21:46	1
Potassium	2500		1000	220	ug/L		09/28/23 14:00	09/29/23 21:46	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 21:46	1
Sodium	900000	B	1000	330	ug/L		09/28/23 14:00	09/29/23 21:46	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	140	B	5.0	2.6	mg/L			10/05/23 20:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	130	B	5.0	2.6	mg/L			10/05/23 20:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	13		5.0	2.6	mg/L			10/05/23 20:49	1
Chloride (EPA 300.0)	1300		25	3.2	mg/L			10/08/23 16:46	25
Fluoride (EPA 300.0)	2.8		0.25	0.12	mg/L			10/08/23 16:25	5
Sulfate (EPA 300.0)	11		5.0	1.7	mg/L			10/08/23 16:25	5
Total Dissolved Solids (SM 2540C)	2200		40	31	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.423		0.175	0.179	1.00	0.200	pCi/L	09/29/23 10:32	10/24/23 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110					09/29/23 10:32	10/24/23 09:32	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.698		0.432	0.436	1.00	0.619	pCi/L	09/29/23 10:36	10/19/23 11:33	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 2022-13-F-20230922-01

Lab Sample ID: 240-192405-7

Date Collected: 09/22/23 15:18

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110	09/29/23 10:36	10/19/23 11:33	1
Y Carrier	84.5		30 - 110	09/29/23 10:36	10/19/23 11:33	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	1.12		0.466	0.471	5.00	0.619	pCi/L		10/25/23 16:15	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: EB-001-F-20230922-01

Lab Sample ID: 240-192405-8

Date Collected: 09/22/23 15:30

Matrix: Water

Date Received: 09/27/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/28/23 14:00	09/30/23 00:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 21:48	1
Arsenic	ND		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 21:48	1
Barium	ND		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 21:48	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 21:48	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:48	1
Calcium	ND		1000	250	ug/L		09/28/23 14:00	09/29/23 21:48	1
Chromium	ND		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 21:48	1
Cobalt	ND		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 21:48	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 21:48	1
Lithium	1.9	J	8.0	1.7	ug/L		09/28/23 14:00	09/29/23 21:48	1
Magnesium	ND		1000	61	ug/L		09/28/23 14:00	09/29/23 21:48	1
Molybdenum	ND		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 21:48	1
Potassium	ND		1000	220	ug/L		09/28/23 14:00	09/29/23 21:48	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 21:48	1
Sodium	510	J B	1000	330	ug/L		09/28/23 14:00	09/29/23 21:48	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 21:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 17:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	4.2	J B	5.0	2.6	mg/L			10/05/23 20:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	4.2	J B	5.0	2.6	mg/L			10/05/23 20:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 20:55	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/08/23 12:44	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/08/23 12:44	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/08/23 12:44	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/28/23 07:54	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0803	U	0.0890	0.0893	1.00	0.143	pCi/L	09/29/23 10:32	10/24/23 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110					09/29/23 10:32	10/24/23 09:32	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.556	U	0.385	0.389	1.00	0.585	pCi/L	09/29/23 10:36	10/19/23 11:33	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: EB-001-F-20230922-01

Lab Sample ID: 240-192405-8

Date Collected: 09/22/23 15:30

Matrix: Water

Date Received: 09/27/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110	09/29/23 10:36	10/19/23 11:33	1
Y Carrier	88.6		30 - 110	09/29/23 10:36	10/19/23 11:33	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	0.637		(2σ+/-) 0.395	(2σ+/-) 0.399	5.00	0.585	pCi/L		10/25/23 16:15	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-192405-1	9802-F-20230922-01	92.9	
240-192405-1 MS	9802-F-20230922-01	91.7	
240-192405-1 MSD	9802-F-20230922-01	87.5	
240-192405-2	9801-F-20230922-01	110	
240-192405-3	2003-F-202309022-01	87.8	
240-192405-4	94137-F-20230922-01	80.2	
240-192405-5	94136-F-20230922-01	86.8	
240-192405-6	DUP-004-F-20230922-01	77.0	
240-192405-7	2022-13-F-20230922-01	90.7	
240-192405-8	EB-001-F-20230922-01	85.8	
LCS 160-630048/2-A	Lab Control Sample	95.8	
MB 160-630048/1-A	Method Blank	79.0	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-192405-1	9802-F-20230922-01	92.9	82.6
240-192405-1 MS	9802-F-20230922-01	91.7	89.3
240-192405-1 MSD	9802-F-20230922-01	87.5	84.9
240-192405-2	9801-F-20230922-01	110	84.1
240-192405-3	2003-F-202309022-01	87.8	83.0
240-192405-4	94137-F-20230922-01	80.2	78.5
240-192405-5	94136-F-20230922-01	86.8	84.1
240-192405-6	DUP-004-F-20230922-01	77.0	86.4
240-192405-7	2022-13-F-20230922-01	90.7	84.5
240-192405-8	EB-001-F-20230922-01	85.8	88.6
LCS 160-630050/2-A	Lab Control Sample	95.8	84.1
MB 160-630050/1-A	Method Blank	79.0	85.6
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-588926/1-A
Matrix: Water
Analysis Batch: 589138

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/28/23 14:00	09/29/23 22:52	1

Lab Sample ID: LCS 240-588926/2-A
Matrix: Water
Analysis Batch: 589138

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Lab Sample ID: 240-192405-1 MS
Matrix: Water
Analysis Batch: 589138

Client Sample ID: 9802-F-20230922-01
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	150		1000	1170		ug/L		101	75 - 125

Lab Sample ID: 240-192405-1 MSD
Matrix: Water
Analysis Batch: 589138

Client Sample ID: 9802-F-20230922-01
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	150		1000	1170		ug/L		102	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-588926/1-A
Matrix: Water
Analysis Batch: 589205

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/23 14:00	09/29/23 20:36	1
Arsenic	ND		5.0	0.75	ug/L		09/28/23 14:00	09/29/23 20:36	1
Barium	ND		5.0	2.2	ug/L		09/28/23 14:00	09/29/23 20:36	1
Beryllium	ND		1.0	0.62	ug/L		09/28/23 14:00	09/29/23 20:36	1
Cadmium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 20:36	1
Calcium	ND		1000	250	ug/L		09/28/23 14:00	09/29/23 20:36	1
Chromium	ND		5.0	1.2	ug/L		09/28/23 14:00	09/29/23 20:36	1
Cobalt	ND		1.0	0.19	ug/L		09/28/23 14:00	09/29/23 20:36	1
Lead	ND		1.0	0.45	ug/L		09/28/23 14:00	09/29/23 20:36	1
Lithium	ND		8.0	1.7	ug/L		09/28/23 14:00	09/29/23 20:36	1
Magnesium	ND		1000	61	ug/L		09/28/23 14:00	09/29/23 20:36	1
Molybdenum	ND		5.0	1.1	ug/L		09/28/23 14:00	09/29/23 20:36	1
Potassium	ND		1000	220	ug/L		09/28/23 14:00	09/29/23 20:36	1
Selenium	ND		5.0	0.89	ug/L		09/28/23 14:00	09/29/23 20:36	1
Sodium	483	J	1000	330	ug/L		09/28/23 14:00	09/29/23 20:36	1
Thallium	ND		1.0	0.20	ug/L		09/28/23 14:00	09/29/23 20:36	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

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

Lab Sample ID: LCS 240-588926/3-A
Matrix: Water
Analysis Batch: 589205

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	102		ug/L		102	80 - 120
Arsenic	1000	908		ug/L		91	80 - 120
Barium	1000	948		ug/L		95	80 - 120
Beryllium	500	496		ug/L		99	80 - 120
Cadmium	500	466		ug/L		93	80 - 120
Calcium	25000	24300		ug/L		97	80 - 120
Chromium	500	483		ug/L		97	80 - 120
Cobalt	500	462		ug/L		92	80 - 120
Lead	500	470		ug/L		94	80 - 120
Lithium	500	489		ug/L		98	80 - 120
Magnesium	25000	25200		ug/L		101	80 - 120
Molybdenum	500	474		ug/L		95	80 - 120
Potassium	25000	25100		ug/L		100	80 - 120
Selenium	1000	899		ug/L		90	80 - 120
Sodium	25000	24800		ug/L		99	80 - 120
Thallium	1000	917		ug/L		92	80 - 120

Lab Sample ID: 240-192405-1 MS
Matrix: Water
Analysis Batch: 589205

Client Sample ID: 9802-F-20230922-01
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	104		ug/L		104	80 - 120
Arsenic	ND		1000	907		ug/L		91	80 - 120
Barium	71		1000	1010		ug/L		93	80 - 120
Beryllium	ND		500	482		ug/L		96	80 - 120
Cadmium	ND		500	459		ug/L		92	80 - 120
Calcium	32000		25000	54400		ug/L		90	80 - 120
Chromium	ND		500	477		ug/L		95	80 - 120
Cobalt	0.72	J	500	453		ug/L		91	80 - 120
Lead	ND		500	454		ug/L		91	80 - 120
Lithium	13		500	502		ug/L		98	80 - 120
Magnesium	9000		25000	33100		ug/L		96	80 - 120
Molybdenum	3.8	J	500	479		ug/L		95	80 - 120
Potassium	1400		25000	25700		ug/L		97	80 - 120
Selenium	ND		1000	880		ug/L		88	80 - 120
Sodium	280000	B	25000	291000	4	ug/L		59	80 - 120
Thallium	ND		1000	881		ug/L		88	80 - 120

Lab Sample ID: 240-192405-1 MSD
Matrix: Water
Analysis Batch: 589205

Client Sample ID: 9802-F-20230922-01
Prep Type: Total Recoverable
Prep Batch: 588926

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		100	105		ug/L		105	80 - 120	1	20
Arsenic	ND		1000	916		ug/L		92	80 - 120	1	20
Barium	71		1000	1030		ug/L		95	80 - 120	2	20
Beryllium	ND		500	497		ug/L		99	80 - 120	3	20
Cadmium	ND		500	466		ug/L		93	80 - 120	2	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

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

Lab Sample ID: 240-192405-1 MSD
 Matrix: Water
 Analysis Batch: 589205

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total Recoverable
 Prep Batch: 588926

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Calcium	32000		25000	55000		ug/L		92	80 - 120	1	20
Chromium	ND		500	480		ug/L		96	80 - 120	1	20
Cobalt	0.72	J	500	465		ug/L		93	80 - 120	2	20
Lead	ND		500	460		ug/L		92	80 - 120	1	20
Lithium	13		500	505		ug/L		98	80 - 120	1	20
Magnesium	9000		25000	33300		ug/L		97	80 - 120	1	20
Molybdenum	3.8	J	500	486		ug/L		96	80 - 120	1	20
Potassium	1400		25000	25700		ug/L		97	80 - 120	0	20
Selenium	ND		1000	908		ug/L		91	80 - 120	3	20
Sodium	280000	B	25000	292000	4	ug/L		63	80 - 120	0	20
Thallium	ND		1000	886		ug/L		89	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-588928/1-A
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 588928

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.13	ug/L		09/28/23 14:00	09/29/23 16:05	1

Lab Sample ID: LCS 240-588928/2-A
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 588928

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
							Result
Mercury	5.00	4.48		ug/L		90	80 - 120

Lab Sample ID: 240-192405-1 MS
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total/NA
 Prep Batch: 588928

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				Limits
Mercury	ND		1.00	0.911		ug/L		91	80 - 120

Lab Sample ID: 240-192405-1 MSD
 Matrix: Water
 Analysis Batch: 589109

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total/NA
 Prep Batch: 588928

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Mercury	ND		1.00	0.884		ug/L		88	80 - 120	3	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-589914/4
 Matrix: Water
 Analysis Batch: 589914

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity	2.83	J	5.0	2.6	mg/L			10/05/23 20:02	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-589914/4
Matrix: Water
Analysis Batch: 589914

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	2.83	J	5.0	2.6	mg/L			10/05/23 20:02	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/05/23 20:02	1

Lab Sample ID: LCS 240-589914/3
Matrix: Water
Analysis Batch: 589914

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	84.6		mg/L		105	86 - 123

Lab Sample ID: 240-192405-1 DU
Matrix: Water
Analysis Batch: 589914

Client Sample ID: 9802-F-20230922-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	600	B	597		mg/L		0.4	20
Bicarbonate Alkalinity as CaCO3	580	B	584		mg/L		0	20
Carbonate Alkalinity as CaCO3	15		13.3		mg/L		14	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-589804/3
Matrix: Water
Analysis Batch: 589804

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/05/23 13:11	1
Fluoride	ND		0.050	0.024	mg/L			10/05/23 13:11	1
Sulfate	ND		1.0	0.35	mg/L			10/05/23 13:11	1

Lab Sample ID: LCS 240-589804/4
Matrix: Water
Analysis Batch: 589804

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.4		mg/L		101	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	52.8		mg/L		106	90 - 110

Lab Sample ID: MB 240-589830/3
Matrix: Water
Analysis Batch: 589830

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/08/23 10:43	1
Fluoride	ND		0.050	0.024	mg/L			10/08/23 10:43	1
Sulfate	ND		1.0	0.35	mg/L			10/08/23 10:43	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-589830/4
 Matrix: Water
 Analysis Batch: 589830

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.8		mg/L		102	90 - 110
Fluoride	2.50	2.64		mg/L		105	90 - 110
Sulfate	50.0	53.1		mg/L		106	90 - 110

Lab Sample ID: MB 240-590093/3
 Matrix: Water
 Analysis Batch: 590093

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/10/23 03:00	1
Fluoride	ND		0.050	0.024	mg/L			10/10/23 03:00	1
Sulfate	ND		1.0	0.35	mg/L			10/10/23 03:00	1

Lab Sample ID: LCS 240-590093/4
 Matrix: Water
 Analysis Batch: 590093

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.2		mg/L		102	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	53.5		mg/L		107	90 - 110

Lab Sample ID: 240-192405-1 MS
 Matrix: Water
 Analysis Batch: 590093

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	38		50.0	91.0		mg/L		107	80 - 120
Fluoride	1.0		2.50	3.89		mg/L		115	80 - 120
Sulfate	66		50.0	119		mg/L		106	80 - 120

Lab Sample ID: 240-192405-1 MSD
 Matrix: Water
 Analysis Batch: 590093

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	38		50.0	89.7		mg/L		104	80 - 120	1	15
Fluoride	1.0		2.50	3.82		mg/L		112	80 - 120	2	15
Sulfate	66		50.0	118		mg/L		103	80 - 120	1	15

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

Lab Sample ID: MB 240-588859/1
 Matrix: Water
 Analysis Batch: 588859

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	ND		10	7.8	mg/L			09/28/23 07:54	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

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

Lab Sample ID: LCS 240-588859/2
 Matrix: Water
 Analysis Batch: 588859

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	564	508		mg/L		90	80 - 120

Lab Sample ID: 240-192405-1 DU
 Matrix: Water
 Analysis Batch: 588859

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	740		753		mg/L		2	20

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-630048/1-A
 Matrix: Water
 Analysis Batch: 633299

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 630048

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02726	U	0.0816	0.0816	1.00	0.154	pCi/L	09/29/23 10:32	10/24/23 09:31	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.0		30 - 110					09/29/23 10:32	10/24/23 09:31	1

Lab Sample ID: LCS 160-630048/2-A
 Matrix: Water
 Analysis Batch: 633299

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 630048

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.26		1.11	1.00	0.155	pCi/L	91	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.8		30 - 110						

Lab Sample ID: 240-192405-1 MS
 Matrix: Water
 Analysis Batch: 633301

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total/NA
 Prep Batch: 630048

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	0.0176	U	11.4	10.83		1.16	1.00	0.147	pCi/L	95	60 - 140
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	91.7		30 - 110								

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: 240-192405-1 MSD
Matrix: Water
Analysis Batch: 633301

Client Sample ID: 9802-F-20230922-01
Prep Type: Total/NA
Prep Batch: 630048

Analyte	Sample	Sample	Spike Added	MSD	MSD	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
	Result	Qual		Result	Qual								
Radium-226	0.0176	U	11.4	10.28		1.11	1.00	0.159	pCi/L	90	60 - 140	0.25	1
MSD MSD													
Carrier	%Yield	Qualifier	Limits										
Ba Carrier	87.5		30 - 110										

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-630050/1-A
Matrix: Water
Analysis Batch: 632573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 630050

Analyte	MB	MB	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.4059	U	0.328	0.330	1.00	0.503	pCi/L	09/29/23 10:36	10/19/23 11:21	1
MB MB										
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Ba Carrier	79.0		30 - 110	09/29/23 10:36	10/19/23 11:21	1				
Y Carrier	85.6		30 - 110	09/29/23 10:36	10/19/23 11:21	1				

Lab Sample ID: LCS 160-630050/2-A
Matrix: Water
Analysis Batch: 632573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 630050

Analyte	Spike Added	LCS	LCS	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual						
Radium-228	7.79	10.39		1.35	1.00	0.457	pCi/L	133	75 - 125
LCS LCS									
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	95.8		30 - 110						
Y Carrier	84.1		30 - 110						

Lab Sample ID: 240-192405-1 MS
Matrix: Water
Analysis Batch: 632563

Client Sample ID: 9802-F-20230922-01
Prep Type: Total/NA
Prep Batch: 630050

Analyte	Sample	Sample	Spike Added	MS	MS	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
	Result	Qual		Result	Qual						
Radium-228	0.808		7.80	9.458		1.26	1.00	0.473	pCi/L	111	60 - 140
MS MS											
Carrier	%Yield	Qualifier	Limits								
Ba Carrier	91.7		30 - 110								
Y Carrier	89.3		30 - 110								

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

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

Lab Sample ID: 240-192405-1 MSD
 Matrix: Water
 Analysis Batch: 632563

Client Sample ID: 9802-F-20230922-01
 Prep Type: Total/NA
 Prep Batch: 630050

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.808		7.82	9.320		1.29	1.00	0.569	pCi/L	109	60 - 140	0.05	1
Carrier	%Yield	MSD Qualifier	MSD Limits										
Ba Carrier	87.5		30 - 110										
Y Carrier	84.9		30 - 110										



QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Metals

Prep Batch: 588926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-2	9801-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-3	2003-F-202309022-01	Total Recoverable	Water	3005A	
240-192405-4	94137-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-5	94136-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-6	DUP-004-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-7	2022-13-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-8	EB-001-F-20230922-01	Total Recoverable	Water	3005A	
MB 240-588926/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-588926/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-588926/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-192405-1 MS	9802-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-1 MS	9802-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-1 MSD	9802-F-20230922-01	Total Recoverable	Water	3005A	
240-192405-1 MSD	9802-F-20230922-01	Total Recoverable	Water	3005A	

Prep Batch: 588928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total/NA	Water	7470A	
240-192405-2	9801-F-20230922-01	Total/NA	Water	7470A	
240-192405-3	2003-F-202309022-01	Total/NA	Water	7470A	
240-192405-4	94137-F-20230922-01	Total/NA	Water	7470A	
240-192405-5	94136-F-20230922-01	Total/NA	Water	7470A	
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	7470A	
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	7470A	
240-192405-8	EB-001-F-20230922-01	Total/NA	Water	7470A	
MB 240-588928/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-588928/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-192405-1 MS	9802-F-20230922-01	Total/NA	Water	7470A	
240-192405-1 MSD	9802-F-20230922-01	Total/NA	Water	7470A	

Analysis Batch: 589109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total/NA	Water	7470A	588928
240-192405-2	9801-F-20230922-01	Total/NA	Water	7470A	588928
240-192405-3	2003-F-202309022-01	Total/NA	Water	7470A	588928
240-192405-4	94137-F-20230922-01	Total/NA	Water	7470A	588928
240-192405-5	94136-F-20230922-01	Total/NA	Water	7470A	588928
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	7470A	588928
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	7470A	588928
240-192405-8	EB-001-F-20230922-01	Total/NA	Water	7470A	588928
MB 240-588928/1-A	Method Blank	Total/NA	Water	7470A	588928
LCS 240-588928/2-A	Lab Control Sample	Total/NA	Water	7470A	588928
240-192405-1 MS	9802-F-20230922-01	Total/NA	Water	7470A	588928
240-192405-1 MSD	9802-F-20230922-01	Total/NA	Water	7470A	588928

Analysis Batch: 589138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total Recoverable	Water	6010D	588926
240-192405-2	9801-F-20230922-01	Total Recoverable	Water	6010D	588926
240-192405-3	2003-F-202309022-01	Total Recoverable	Water	6010D	588926

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Metals (Continued)

Analysis Batch: 589138 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-4	94137-F-20230922-01	Total Recoverable	Water	6010D	588926
240-192405-5	94136-F-20230922-01	Total Recoverable	Water	6010D	588926
240-192405-6	DUP-004-F-20230922-01	Total Recoverable	Water	6010D	588926
240-192405-7	2022-13-F-20230922-01	Total Recoverable	Water	6010D	588926
240-192405-8	EB-001-F-20230922-01	Total Recoverable	Water	6010D	588926
MB 240-588926/1-A	Method Blank	Total Recoverable	Water	6010D	588926
LCS 240-588926/2-A	Lab Control Sample	Total Recoverable	Water	6010D	588926
240-192405-1 MS	9802-F-20230922-01	Total Recoverable	Water	6010D	588926
240-192405-1 MSD	9802-F-20230922-01	Total Recoverable	Water	6010D	588926

Analysis Batch: 589205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total Recoverable	Water	6020B	588926
240-192405-2	9801-F-20230922-01	Total Recoverable	Water	6020B	588926
240-192405-3	2003-F-202309022-01	Total Recoverable	Water	6020B	588926
240-192405-4	94137-F-20230922-01	Total Recoverable	Water	6020B	588926
240-192405-5	94136-F-20230922-01	Total Recoverable	Water	6020B	588926
240-192405-6	DUP-004-F-20230922-01	Total Recoverable	Water	6020B	588926
240-192405-7	2022-13-F-20230922-01	Total Recoverable	Water	6020B	588926
240-192405-8	EB-001-F-20230922-01	Total Recoverable	Water	6020B	588926
MB 240-588926/1-A	Method Blank	Total Recoverable	Water	6020B	588926
LCS 240-588926/3-A	Lab Control Sample	Total Recoverable	Water	6020B	588926
240-192405-1 MS	9802-F-20230922-01	Total Recoverable	Water	6020B	588926
240-192405-1 MSD	9802-F-20230922-01	Total Recoverable	Water	6020B	588926

Analysis Batch: 589376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-2	9801-F-20230922-01	Total Recoverable	Water	6020B	588926

General Chemistry

Analysis Batch: 588859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total/NA	Water	SM 2540C	
240-192405-2	9801-F-20230922-01	Total/NA	Water	SM 2540C	
240-192405-3	2003-F-202309022-01	Total/NA	Water	SM 2540C	
240-192405-4	94137-F-20230922-01	Total/NA	Water	SM 2540C	
240-192405-5	94136-F-20230922-01	Total/NA	Water	SM 2540C	
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	SM 2540C	
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	SM 2540C	
240-192405-8	EB-001-F-20230922-01	Total/NA	Water	SM 2540C	
MB 240-588859/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-588859/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-192405-1 DU	9802-F-20230922-01	Total/NA	Water	SM 2540C	

Analysis Batch: 589804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-2	9801-F-20230922-01	Total/NA	Water	300.0	
240-192405-2	9801-F-20230922-01	Total/NA	Water	300.0	
MB 240-589804/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589804/4	Lab Control Sample	Total/NA	Water	300.0	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

General Chemistry

Analysis Batch: 589830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-3	2003-F-202309022-01	Total/NA	Water	300.0	
240-192405-3	2003-F-202309022-01	Total/NA	Water	300.0	
240-192405-4	94137-F-20230922-01	Total/NA	Water	300.0	
240-192405-4	94137-F-20230922-01	Total/NA	Water	300.0	
240-192405-5	94136-F-20230922-01	Total/NA	Water	300.0	
240-192405-5	94136-F-20230922-01	Total/NA	Water	300.0	
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	300.0	
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	300.0	
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	300.0	
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	300.0	
240-192405-8	EB-001-F-20230922-01	Total/NA	Water	300.0	
MB 240-589830/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589830/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 589914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total/NA	Water	2320B-1997	
240-192405-2	9801-F-20230922-01	Total/NA	Water	2320B-1997	
240-192405-3	2003-F-202309022-01	Total/NA	Water	2320B-1997	
240-192405-4	94137-F-20230922-01	Total/NA	Water	2320B-1997	
240-192405-5	94136-F-20230922-01	Total/NA	Water	2320B-1997	
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	2320B-1997	
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	2320B-1997	
240-192405-8	EB-001-F-20230922-01	Total/NA	Water	2320B-1997	
MB 240-589914/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-589914/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-192405-1 DU	9802-F-20230922-01	Total/NA	Water	2320B-1997	

Analysis Batch: 590093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total/NA	Water	300.0	
MB 240-590093/3	Method Blank	Total/NA	Water	300.0	
LCS 240-590093/4	Lab Control Sample	Total/NA	Water	300.0	
240-192405-1 MS	9802-F-20230922-01	Total/NA	Water	300.0	
240-192405-1 MSD	9802-F-20230922-01	Total/NA	Water	300.0	

Rad

Prep Batch: 630048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total/NA	Water	PrecSep-21	
240-192405-2	9801-F-20230922-01	Total/NA	Water	PrecSep-21	
240-192405-3	2003-F-202309022-01	Total/NA	Water	PrecSep-21	
240-192405-4	94137-F-20230922-01	Total/NA	Water	PrecSep-21	
240-192405-5	94136-F-20230922-01	Total/NA	Water	PrecSep-21	
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	PrecSep-21	
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	PrecSep-21	
240-192405-8	EB-001-F-20230922-01	Total/NA	Water	PrecSep-21	
MB 160-630048/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-630048/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-192405-1 MS	9802-F-20230922-01	Total/NA	Water	PrecSep-21	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Rad (Continued)

Prep Batch: 630048 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1 MSD	9802-F-20230922-01	Total/NA	Water	PrecSep-21	

Prep Batch: 630050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192405-1	9802-F-20230922-01	Total/NA	Water	PrecSep_0	
240-192405-2	9801-F-20230922-01	Total/NA	Water	PrecSep_0	
240-192405-3	2003-F-202309022-01	Total/NA	Water	PrecSep_0	
240-192405-4	94137-F-20230922-01	Total/NA	Water	PrecSep_0	
240-192405-5	94136-F-20230922-01	Total/NA	Water	PrecSep_0	
240-192405-6	DUP-004-F-20230922-01	Total/NA	Water	PrecSep_0	
240-192405-7	2022-13-F-20230922-01	Total/NA	Water	PrecSep_0	
240-192405-8	EB-001-F-20230922-01	Total/NA	Water	PrecSep_0	
MB 160-630050/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-630050/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-192405-1 MS	9802-F-20230922-01	Total/NA	Water	PrecSep_0	
240-192405-1 MSD	9802-F-20230922-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 9802-F-20230922-01

Lab Sample ID: 240-192405-1

Date Collected: 09/22/23 10:04

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/29/23 23:00
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 20:46
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 16:09
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:12
Total/NA	Analysis	300.0		1	590093	JWW	EET CLE	10/10/23 10:04
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633299	FLC	EET SL	10/24/23 09:33
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:26
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: 9801-F-20230922-01

Lab Sample ID: 240-192405-2

Date Collected: 09/22/23 11:10

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/30/23 00:32
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 21:28
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		10	589376	DSH	EET CLE	10/02/23 13:58
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 16:48
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:18
Total/NA	Analysis	300.0		10	589804	JWW	EET CLE	10/05/23 18:33
Total/NA	Analysis	300.0		100	589804	JWW	EET CLE	10/05/23 18:53
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633301	FLC	EET SL	10/24/23 09:32
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:28
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 2003-F-202309022-01

Lab Sample ID: 240-192405-3

Date Collected: 09/22/23 12:34

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/30/23 00:37
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 21:31
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 16:50
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:23
Total/NA	Analysis	300.0		2	589830	JWW	EET CLE	10/09/23 01:09
Total/NA	Analysis	300.0		10	589830	JWW	EET CLE	10/09/23 01:29
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633301	FLC	EET SL	10/24/23 09:32
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:28
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: 94137-F-20230922-01

Lab Sample ID: 240-192405-4

Date Collected: 09/22/23 13:32

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/30/23 00:41
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 21:33
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 16:52
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:31
Total/NA	Analysis	300.0		1	589830	JWW	EET CLE	10/08/23 20:27
Total/NA	Analysis	300.0		5	589830	JWW	EET CLE	10/08/23 20:47
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633301	FLC	EET SL	10/24/23 09:32
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:28
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: 94136-F-20230922-01

Lab Sample ID: 240-192405-5

Date Collected: 09/22/23 14:13

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/30/23 00:45

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 94136-F-20230922-01
Date Collected: 09/22/23 14:13
Date Received: 09/27/23 08:00

Lab Sample ID: 240-192405-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 21:36
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 16:54
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:37
Total/NA	Analysis	300.0		2	589830	JWW	EET CLE	10/08/23 23:49
Total/NA	Analysis	300.0		10	589830	JWW	EET CLE	10/09/23 00:09
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633301	FLC	EET SL	10/24/23 09:32
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632563	FLC	EET SL	10/19/23 11:28
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: DUP-004-F-20230922-01
Date Collected: 09/22/23 00:00
Date Received: 09/27/23 08:00

Lab Sample ID: 240-192405-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/30/23 00:50
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 21:38
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 16:57
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:43
Total/NA	Analysis	300.0		2	589830	JWW	EET CLE	10/09/23 01:49
Total/NA	Analysis	300.0		10	589830	JWW	EET CLE	10/09/23 02:50
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633301	FLC	EET SL	10/24/23 09:32
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632572	FLC	EET SL	10/19/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: 2022-13-F-20230922-01
Date Collected: 09/22/23 15:18
Date Received: 09/27/23 08:00

Lab Sample ID: 240-192405-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/30/23 00:55
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 21:46

Eurofins Cleveland

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Client Sample ID: 2022-13-F-20230922-01

Lab Sample ID: 240-192405-7

Date Collected: 09/22/23 15:18

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 16:59
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:49
Total/NA	Analysis	300.0		5	589830	JWW	EET CLE	10/08/23 16:25
Total/NA	Analysis	300.0		25	589830	JWW	EET CLE	10/08/23 16:46
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633301	FLC	EET SL	10/24/23 09:32
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632572	FLC	EET SL	10/19/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Client Sample ID: EB-001-F-20230922-01

Lab Sample ID: 240-192405-8

Date Collected: 09/22/23 15:30

Matrix: Water

Date Received: 09/27/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6010D		1	589138	KLC	EET CLE	09/30/23 00:59
Total Recoverable	Prep	3005A			588926	BN	EET CLE	09/28/23 14:00
Total Recoverable	Analysis	6020B		1	589205	RKT	EET CLE	09/29/23 21:48
Total/NA	Prep	7470A			588928	BN	EET CLE	09/28/23 14:00
Total/NA	Analysis	7470A		1	589109	GK	EET CLE	09/29/23 17:01
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 20:55
Total/NA	Analysis	300.0		1	589830	JWW	EET CLE	10/08/23 12:44
Total/NA	Analysis	SM 2540C		1	588859	QUY8	EET CLE	09/28/23 07:54
Total/NA	Prep	PrecSep-21			630048	KAC	EET SL	09/29/23 10:32
Total/NA	Analysis	9315		1	633301	FLC	EET SL	10/24/23 09:32
Total/NA	Prep	PrecSep_0			630050	KAC	EET SL	09/29/23 10:36
Total/NA	Analysis	9320		1	632572	FLC	EET SL	10/19/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	633460	EMH	EET SL	10/25/23 16:15

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192405-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

Chain of Custody Record

Client Information		Sampler: Bobby Castle		Lab PM: Cisneros, Roxanne		Carrier Tracking No(s): CCO No 240-111832-39818.1	
Client Contact: Taylor Huffman		Phone: 740-373-4308		E-Mail: roxanne.cisneros@et.eurofins.com		Page: Page 1 of 8	
Company: Lightstone Generation Gavin Power LLC		Address: 7397 OH-7		City: Cheshire		State of Origin: OH, 45620	
Phone: 740-925-3171(Tel)		TAT Requested (days): 7		Compliance Project: Δ Yes Δ No		Job #:	
Email: taylor.huffman@lightstonegen.com		PO #: 2935505		WO #: 24019633		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Project Name: Gavin CCR		Project #: 24019633		SSOW#		Analysis Requested: 5010B, 6020, 7470A 2540C, Calcd, TDS 915, Ra226, 9320, Ra228, Ra226Ra228, GFC 300, 0, 28D - Chloride, Fluoride & Sulfate 2320B - (MOD) Alkalinity	
Site: Gavin		Due Date Requested:		Field Filtered Sample (Yes or No)		Total Number of Containers: 8	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab) (E=tissue, A=ur)	
9802-F-20230922-01		9-22-23		1004		Water	
9802-F-20230922-MS-01		9-22-23		1004		Water	
9802-F-20230922-MSD-01		9-22-23		1004		Water	
9801-F-20230922-01		9-22-23		1110		Water	
2003-F-20230922-01		9-22-23		1234		Water	
94137-F-20230922-01		9-22-23		1332		Water	
94136-F-20230922-01		9-22-23		1413		Water	
DUP-004-F-20230922-01		9-22-23		—		Water	
2022-13-f-20230922-01		9-22-23		1518		Water	
EB-001-F-20230922-01		9-22-23		1530		Water	
Possible Hazard Identification		Sample Date		Sample Time		Matrix (W=water, S=solid, O=wastefl, E=tissue, A=ur)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		9-22-23		1004		Water	
Deliverable Requested I, II, III, IV, Other (specify)		9-22-23		1004		Water	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Bobby Castle		9-26-23/0915		1500		Company: FEARON	
Relinquished by: AS1104 Deal		9-20-23/1200		1500		Company: ETA	
Relinquished by:		Date:		Time:		Method of Shipment:	
Custody Seals Intact: Δ Yes Δ No		Date:		Time:		Method of Shipment:	
Custody Seal No.:		Date:		Time:		Method of Shipment:	
Received by: Abney Deal		Date/Time: 9/26/23/0915		Date/Time: 9/27-23/800		Company: ETA	
Received by: Abney Deal		Date/Time: 9/26/23/1200		Date/Time: 9/27-23/800		Company: ETA	
Received by:		Date/Time:		Date/Time:		Company:	
Cooler Temperature(s) °C and Other Remarks:		Date:		Time:		Method of Shipment:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Date:		Time:		Method of Shipment:	
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Date:		Time:		Method of Shipment:	
Special Instructions/QC Requirements:		Date:		Time:		Method of Shipment:	
Special Instructions/Note:		Date:		Time:		Method of Shipment:	
Barcode: 240-192405 Chain of Custody		Date:		Time:		Method of Shipment:	



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18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

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

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

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

20. SAMPLE PRESERVATION

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

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Barberton Facility

Client: Lightstone

Site Name: _____

Cooler Received on: 9-27-23

FedEx: 1st Grd Exp URS FAS Waypoint

Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # _____

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

COOLANT: Blue Ice Wet Ice Dry Ice Water None _____

1. Cooler temperature upon receipt _____

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____

Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Leach

Were the seals on the outside of the cooler(s) signed & dated? Yes Yes No No NA _____

-Were tamper/custody seals on the bottle(s) or bottle kits (LTHg/MeHg)? Yes Yes No No NA _____

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

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

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

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

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

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

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

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

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

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

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

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes Yes No No NA _____

14. Were VOAs on the COC? Yes Yes No No NA _____

15. Were air bubbles > 6 mm in any VOA vials? Yes Larger than this: _____

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____

17. Was a LL Hg or Me Hg trip blank present? Yes Yes No No NA _____

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

Tests that are not checked for pH by Receiving:

VOAs

Oil and Grease

TOC

Cooler unpacked by: [Signature]

Login #: 192405

Temperature readings:

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
9802-F-20230922-01	240-192405-J-1	Plastic 500ml - with Nitric Acid	<2			
9802-F-20230922-01	240-192405-K-1	Plastic 500ml - with Nitric Acid	<2			
9802-F-20230922-01	240-192405-L-1	Plastic 500ml - with Nitric Acid	<2			
9802-F-20230922-01	240-192405-M-1	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230922-01	240-192405-N-1	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230922-01	240-192405-O-1	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230922-01	240-192405-P-1	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230922-01	240-192405-Q-1	Plastic 1 liter - Nitric Acid	<2			
9802-F-20230922-01	240-192405-R-1	Plastic 1 liter - Nitric Acid	<2			
9801-F-20230922-01	240-192405-D-2	Plastic 500ml - with Nitric Acid	<2			
9801-F-20230922-01	240-192405-E-2	Plastic 1 liter - Nitric Acid	<2			
9801-F-20230922-01	240-192405-F-2	Plastic 1 liter - Nitric Acid	<2			
2003-F-202309022-01	240-192405-D-3	Plastic 500ml - with Nitric Acid	<2			
2003-F-202309022-01	240-192405-E-3	Plastic 1 liter - Nitric Acid	<2			
2003-F-202309022-01	240-192405-F-3	Plastic 1 liter - Nitric Acid	<2			
94137-F-20230922-01	240-192405-D-4	Plastic 500ml - with Nitric Acid	<2			
94137-F-20230922-01	240-192405-E-4	Plastic 1 liter - Nitric Acid	<2			
94137-F-20230922-01	240-192405-F-4	Plastic 1 liter - Nitric Acid	<2			
94136-F-20230922-01	240-192405-D-5	Plastic 500ml - with Nitric Acid	<2			
94136-F-20230922-01	240-192405-E-5	Plastic 1 liter - Nitric Acid	<2			
94136-F-20230922-01	240-192405-F-5	Plastic 1 liter - Nitric Acid	<2			
DUP-004-F-20230922-01	240-192405-D-6	Plastic 500ml - with Nitric Acid	<2			
DUP-004-F-20230922-01	240-192405-E-6	Plastic 1 liter - Nitric Acid	<2			
DUP-004-F-20230922-01	240-192405-F-6	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-20230922-01	240-192405-D-7	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-20230922-01	240-192405-E-7	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-20230922-01	240-192405-F-7	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230922-01	240-192405-D-8	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20230922-01	240-192405-E-8	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20230922-01	240-192405-F-8	Plastic 1 liter - Nitric Acid	<2			

Eurofins - Canton Sample Receipt Multiple Cooler Form									
Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
IC	Client	<u>Box</u>	Other	IR GUN #: <u>22</u>	20.1	20.0	Wet Ice	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	2.6	2.5	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	2.4	2.3	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	2.5	2.4	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	3.6	3.5	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	4.8	4.7	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	1.5	1.4	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	0.6	0.5	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	0.2	0.1	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	5.1	5.0	<u>Wet Ice</u>	Blue Ice	Dry Ice
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	0.4	0.3	<u>Wet Ice</u>	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice

See Temperature Excursion Form

Chain of Custody Record

Client Information		Lab PM: Cisternos, Roxanne		Carrier Tracking No(s): 240-111832-39818.1	
Client Contact: Taylor Huffman		E-Mail: roxanne.cisternos@eurofins.com		Page: Page 1 of 8	
Company: Lightstone Generation Gavin Power LLC		Address: 7397 OH-7		Job #:	
City: Cheshire		State: Zip: OH, 45620		Preservation Codes:	
Phone: 740-925-3171 (Tel)		Compliance Project: A Yes A No		M - Hexane	
Email: taylor.huffman@lightstonegen.com		PO #: 2935505		N - None	
Project Name: Gavin CCR		WO #: 24019633		O - AsNaO2	
Site: Gavin		Due Date Requested:		P - Zn Acetate	
Sample Identification		TAT Requested (days):		D - Nitric Acid	
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, etc.)	F - MeOH
9802-F-20230922-01	9-22-23	1004	6	Water	G - Amchlor
9802-F-20230922-MS-01	9-22-23	1004	6	Water	H - Ascorbic Acid
9802-F-20230922-MSD-01	9-22-23	1004	6	Water	I - Ice
9801-F-20230922-01	9-22-23	1110	6	Water	J - DI Water
2003-F-20230922-01	9-22-23	1234	6	Water	K - EDTA
94137-F-20230922-01	9-22-23	1332	6	Water	L - EDA
94136-F-20230922-01	9-22-23	1413	6	Water	Other:
DGP-004-F-20230922-01	9-22-23	1518	6	Water	
2022-13-F-20230922-01	9-22-23	1518	6	Water	
EB-001-F-20230922-01	9-22-23	1530	6	Water	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested I, II, III, IV, Other (specify) _____					
Empty Kit Relinquished by: <i>Bobby Case</i> Date: 9-26-23/0915					
Relinquished by: <i>Asnicu Deal</i> Date/Time: 9-26-23/1200					
Relinquished by: <i>Asnicu Deal</i> Date/Time: 9-26-23/1200					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Custy Seal No.: _____					
Cooler Temperature(s) °C and Other Remarks: _____					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements: _____					
Analysis Requested: _____					
Total Number of containers: _____					
Special Instructions/Note: _____					
240-192405 Chain of Custody					



Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login # : 192405

Client Lightstone Site Name _____ Cooler unpacked by: Danny Pyle
Cooler Received on 9-27-23 Opened on 9-27-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
9802-F-20230922-01	240-192405-J-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-K-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-L-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-M-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-N-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-O-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-P-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-Q-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-R-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9801-F-20230922-01	240-192405-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9801-F-20230922-01	240-192405-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9801-F-20230922-01	240-192405-F-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2003-F-202309022-01	240-192405-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2003-F-202309022-01	240-192405-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2003-F-202309022-01	240-192405-F-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94137-F-20230922-01	240-192405-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94137-F-20230922-01	240-192405-E-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94137-F-20230922-01	240-192405-F-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94136-F-20230922-01	240-192405-D-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94136-F-20230922-01	240-192405-E-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94136-F-20230922-01	240-192405-F-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-004-F-20230922-01	240-192405-D-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-004-F-20230922-01	240-192405-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-004-F-20230922-01	240-192405-F-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-13-F-20230922-01	240-192405-D-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2022-13-F-20230922-01	240-192405-E-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-13-F-20230922-01	240-192405-F-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230922-01	240-192405-D-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230922-01	240-192405-E-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230922-01	240-192405-F-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____



Chain of Custody Record

environment Test

Client Information		Lab P/N:		COC No	
Client Contact:	Bobby Castle	Cisneros, Roxanne	240-111832-39818.1	Page:	Page 1 of 8
Phone:	740-373-4308	E-Mail:	roxanne.cisneros@et.eurofinsus.com	Job #:	
Company:	Lightstone Generation Gavin Power LLC				
Address:	7397 OH-7				
City:	Cheshire				
State, Zip:	OH, 45620				
Phone:	740-925-3171 (Tel)				
Email:	taylor.huffman@lightstonegen.com				
Project Name:	Gavin CCR				
Site:	Gavin				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, O-waste, Oil, B-Tissue, Acid)	Preservation Code:	Analysis Requested		Special Instructions/Note:
						300.0_28D - Chloride, Fluoride & Sulfate	2220B - (MOD) Alkalinity	
9802-F-20230922-01	9-22-23	1004	G	Water		D	N	
9802-F-20230922-MS-01	9-22-23	1004	G	Water		D	N	
9802-F-20230922-MSD-01	9-22-23	1004	G	Water		D	N	
9801-F-20230922-01	9-22-23	1110	G	Water		D	N	
2003-F-20230922-01	9-22-23	1234	G	Water		D	N	
94137-F-20230922-01	9-22-23	1332	G	Water		D	N	
94136-F-20230922-01	9-22-23	1413	G	Water		D	N	
DUP-004-F-20230922-01	9-22-23	—	G	Water		D	N	
2022-13-F-20230922-01	9-22-23	1518	G	Water		D	N	
EB-001-F-20230922-01	9-22-23	1530	G	Water		D	N	

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab
<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological
Deliverable Requested I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Method of Shipment:	
Relinquished by: Bobby Castle	9-26-23/0915	Received by: Ashley Deal	
Relinquished by: Ashley Deal	9-26-23/1200	Received by: Ashley Deal	
Relinquished by:		Received by:	
Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	
Δ Yes Δ No			



Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility


Login # : 192405

Client Lightstone Site Name _____
Cooler Received on 9-27-23 Opened on 9-27-23 Cooler unpacked by: Danny Rye
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt _____
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No NA
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No NA
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION

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

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

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

20. SAMPLE PRESERVATION

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

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

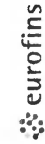
Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
9802-F-20230922-01	240-192405-J-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-K-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-L-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-M-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-N-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-O-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-P-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-Q-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9802-F-20230922-01	240-192405-R-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9801-F-20230922-01	240-192405-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9801-F-20230922-01	240-192405-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
9801-F-20230922-01	240-192405-F-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2003-F-202309022-01	240-192405-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2003-F-202309022-01	240-192405-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2003-F-202309022-01	240-192405-F-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94137-F-20230922-01	240-192405-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94137-F-20230922-01	240-192405-E-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94137-F-20230922-01	240-192405-F-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94136-F-20230922-01	240-192405-D-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94136-F-20230922-01	240-192405-E-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
94136-F-20230922-01	240-192405-F-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-004-F-20230922-01	240-192405-D-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-004-F-20230922-01	240-192405-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-004-F-20230922-01	240-192405-F-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-13-F-20230922-01	240-192405-D-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2022-13-F-20230922-01	240-192405-E-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2022-13-F-20230922-01	240-192405-F-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230922-01	240-192405-D-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230922-01	240-192405-E-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230922-01	240-192405-F-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____



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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)
 Client Contact: Shipping/Receiving
 Company: TestAmerica Laboratories, Inc.
 Address: 13715 Rider Trail North, Earth City, MO, 63045
 Phone: 314-298-8566(Tel) 314-298-8757(Fax)
 Email: roxanne.cisneros@et.eurofins.com
 Lab P.M.: Cisneros, Roxanne
 E-Mail: roxanne.cisneros@et.eurofins.com
 State of Origin: Ohio

Sampler: Due Date Requested: 10/2/2023
 TAT Requested (days):
 Project #: 24019633
 SOW#:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, B=brine, A=air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra226/PreSep_0 Radium-226 (GFPc)	9315_Ra226/PreSep_21 Radium-226 (GFPc)	R226Ra228 GFPc/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
9802-F-20230922-01 (240-192405-1)	9/22/23	10:04 Eastern	Water	Water		X	X	X	X	X	6	Recount of TAR after 21 day ingrowth if > action limit; save planchet
9802-F-20230922-01 (240-192405-1MS)	9/22/23	10:04 Eastern	MS	Water		X	X	X	X	X	1	Recount of TAR after 21 day ingrowth if > action limit; save planchet
9802-F-20230922-01 (240-192405-1MSD)	9/22/23	10:04 Eastern	MSD	Water		X	X	X	X	X	1	Recount of TAR after 21 day ingrowth if > action limit; save planchet
9801-F-20230922-01 (240-192405-2)	9/22/23	11:10 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2003-F-20230922-01 (240-192405-3)	9/22/23	12:34 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
94137-F-20230922-01 (240-192405-4)	9/22/23	13:32 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
94136-F-20230922-01 (240-192405-5)	9/22/23	14:13 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-004-F-20230922-01 (240-192405-6)	9/22/23	Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-13-F-20230922-01 (240-192405-7)	9/22/23	15:18 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____
 Primary Deliverable Rank: 2
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Empty Relinquished by: _____
Relinquished by: *[Signature]* Date: 9/27/23 14:35
Relinquished by: *[Signature]* Date: SEP 28 2023 08:40
Relinquished by: *[Signature]* Date: _____
 Company: *[Signature]* Company: *[Signature]*
 Custody Seals Intact: Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-192405-1

Login Number: 192405

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 09/28/23 02:19 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?	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/31/2023 4:35:34 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-192597-1

Eurofins Cleveland

Job Notes

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

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

Authorization



Generated
10/31/2023 4:35:34 PM

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Job ID: 240-192597-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-192597-1

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

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

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

Receipt

The samples were received on 9/30/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 7 coolers at receipt time were 0.1°C, 0.8°C, 1.1°C, 2.0°C, 3.7°C, 14.4°C and 21.3°C

Metals

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

General Chemistry

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

Gas Flow Proportional Counter

Method 9315_Ra226: Radium 226 batch 630672

The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 94139-F-20230926-01 (240-192597-2). Analytical results are reported with the detection limit achieved.

Method 9315_Ra226: Radium 226 batch 630672

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

93100-F-20230926-01 (240-192597-1), 94139-F-20230926-01 (240-192597-2), 9806-F-20230926-01 (240-192597-3), EB-001-F-20230926-01 (240-192597-4), (LCS 160-630672/2-A), (MB 160-630672/1-A), (240-192599-R-10-A), (240-192599-M-10-A MS) and (240-192599-N-10-A MSD)

Method 9320_Ra228: Radium-228 batch 630677

The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 94139-F-20230926-01 (240-192597-2). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 630677

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

93100-F-20230926-01 (240-192597-1), 94139-F-20230926-01 (240-192597-2), 9806-F-20230926-01 (240-192597-3), EB-001-F-20230926-01 (240-192597-4), (LCS 160-630677/2-A), (MB 160-630677/1-A), (240-192599-R-10-B), (240-192599-M-10-B MS) and (240-192599-N-10-B MSD)

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

Rad

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Job ID: 240-192597-1 (Continued)

Laboratory: Eurofins Cleveland (Continued)

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

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Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-192597-1	93100-F-20230926-01	Water	09/26/23 12:07	09/30/23 08:00
240-192597-2	94139-F-20230926-01	Water	09/26/23 12:44	09/30/23 08:00
240-192597-3	9806-F-20230926-01	Water	09/26/23 13:15	09/30/23 08:00
240-192597-4	EB-001-F-20230926-01	Water	09/26/23 15:00	09/30/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 93100-F-20230926-01

Lab Sample ID: 240-192597-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	470		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.1	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	3.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	540		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.26	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	17000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	5.4		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	3.4		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.78	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	44		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	5400		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	130		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2700		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	0.94	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1500000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	1.1		1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	350	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2000		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	2.5		1.3	0.60	mg/L	25		300.0	Total/NA
Sulfate	35		25	8.7	mg/L	25		300.0	Total/NA
Total Dissolved Solids	3200		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94139-F-20230926-01

Lab Sample ID: 240-192597-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	520		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.60	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	7.9		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	160		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.20	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	8.6		5.0	1.2	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 94139-F-20230926-01 (Continued)

Lab Sample ID: 240-192597-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	3.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	20		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	21		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4100		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	190		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	570000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.34	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	21		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	510		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	4.7		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	60		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9806-F-20230926-01

Lab Sample ID: 240-192597-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	290		100	57	ug/L	1		6010D	Total Recoverable
Barium	42		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	3700		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.53	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	2.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	11		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	920	J	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	11		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	990	J	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	340000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	340	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	310	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	31		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	220		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	1.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	120		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	890		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: EB-001-F-20230926-01

Lab Sample ID: 240-192597-4

No Detections.

1

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This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 93100-F-20230926-01

Lab Sample ID: 240-192597-1

Date Collected: 09/26/23 12:07

Matrix: Water

Date Received: 09/30/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	470		100	57	ug/L		10/02/23 14:00	10/05/23 00:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	J	2.0	0.57	ug/L		10/02/23 14:00	10/03/23 15:59	1
Arsenic	3.1	J	5.0	0.75	ug/L		10/02/23 14:00	10/03/23 15:59	1
Barium	540		5.0	2.2	ug/L		10/02/23 14:00	10/03/23 15:59	1
Beryllium	ND		1.0	0.62	ug/L		10/02/23 14:00	10/03/23 15:59	1
Cadmium	0.26	J	1.0	0.20	ug/L		10/02/23 14:00	10/03/23 15:59	1
Calcium	17000		1000	250	ug/L		10/02/23 14:00	10/03/23 15:59	1
Chromium	5.4		5.0	1.2	ug/L		10/02/23 14:00	10/03/23 15:59	1
Cobalt	3.4		1.0	0.19	ug/L		10/02/23 14:00	10/03/23 15:59	1
Lead	0.78	J	1.0	0.45	ug/L		10/02/23 14:00	10/03/23 15:59	1
Lithium	44		8.0	1.7	ug/L		10/02/23 14:00	10/04/23 12:21	1
Magnesium	5400		1000	61	ug/L		10/02/23 14:00	10/03/23 15:59	1
Molybdenum	130		5.0	1.1	ug/L		10/02/23 14:00	10/03/23 15:59	1
Potassium	2700		1000	220	ug/L		10/02/23 14:00	10/03/23 15:59	1
Selenium	0.94	J	5.0	0.89	ug/L		10/02/23 14:00	10/03/23 15:59	1
Sodium	1500000		1000	330	ug/L		10/02/23 14:00	10/03/23 15:59	1
Thallium	1.1		1.0	0.20	ug/L		10/02/23 14:00	10/03/23 15:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/02/23 14:00	10/03/23 18:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	350	B	5.0	2.6	mg/L			10/05/23 21:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	350	B	5.0	2.6	mg/L			10/05/23 21:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 21:38	1
Chloride (EPA 300.0)	2000		25	3.2	mg/L			10/05/23 16:52	25
Fluoride (EPA 300.0)	2.5		1.3	0.60	mg/L			10/05/23 16:52	25
Sulfate (EPA 300.0)	35		25	8.7	mg/L			10/05/23 16:52	25
Total Dissolved Solids (SM 2540C)	3200		50	39	mg/L			10/02/23 08:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.810		0.402	0.409	1.00	0.521	pCi/L	10/04/23 11:23	10/26/23 21:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		30 - 110					10/04/23 11:23	10/26/23 21:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.43		0.571	0.586	1.00	0.728	pCi/L	10/04/23 11:31	10/26/23 11:21	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 93100-F-20230926-01

Lab Sample ID: 240-192597-1

Date Collected: 09/26/23 12:07

Matrix: Water

Date Received: 09/30/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		30 - 110	10/04/23 11:31	10/26/23 11:21	1
Y Carrier	80.7		30 - 110	10/04/23 11:31	10/26/23 11:21	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	2.24		0.698	0.715	5.00	0.728	pCi/L		10/30/23 10:31	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 94139-F-20230926-01

Lab Sample ID: 240-192597-2

Date Collected: 09/26/23 12:44

Matrix: Water

Date Received: 09/30/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	520		100	57	ug/L		10/02/23 14:00	10/05/23 00:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.60	J	2.0	0.57	ug/L		10/02/23 14:00	10/03/23 16:01	1
Arsenic	7.9		5.0	0.75	ug/L		10/02/23 14:00	10/03/23 16:01	1
Barium	160		5.0	2.2	ug/L		10/02/23 14:00	10/03/23 16:01	1
Beryllium	ND		1.0	0.62	ug/L		10/02/23 14:00	10/03/23 16:01	1
Cadmium	0.20	J	1.0	0.20	ug/L		10/02/23 14:00	10/03/23 16:01	1
Calcium	13000		1000	250	ug/L		10/02/23 14:00	10/03/23 16:01	1
Chromium	8.6		5.0	1.2	ug/L		10/02/23 14:00	10/03/23 16:01	1
Cobalt	3.1		1.0	0.19	ug/L		10/02/23 14:00	10/03/23 16:01	1
Lead	20		1.0	0.45	ug/L		10/02/23 14:00	10/03/23 16:01	1
Lithium	21		8.0	1.7	ug/L		10/02/23 14:00	10/04/23 12:24	1
Magnesium	4100		1000	61	ug/L		10/02/23 14:00	10/03/23 16:01	1
Molybdenum	190		5.0	1.1	ug/L		10/02/23 14:00	10/03/23 16:01	1
Potassium	2400		1000	220	ug/L		10/02/23 14:00	10/03/23 16:01	1
Selenium	ND		5.0	0.89	ug/L		10/02/23 14:00	10/03/23 16:01	1
Sodium	570000		1000	330	ug/L		10/02/23 14:00	10/03/23 16:01	1
Thallium	0.34	J	1.0	0.20	ug/L		10/02/23 14:00	10/03/23 16:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/02/23 14:00	10/03/23 18:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	510	B	5.0	2.6	mg/L			10/05/23 21:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	490	B	5.0	2.6	mg/L			10/05/23 21:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	21		5.0	2.6	mg/L			10/05/23 21:46	1
Chloride (EPA 300.0)	510		10	1.3	mg/L			10/08/23 20:07	10
Fluoride (EPA 300.0)	4.7		0.050	0.024	mg/L			10/08/23 19:47	1
Sulfate (EPA 300.0)	60		1.0	0.35	mg/L			10/08/23 19:47	1
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			10/02/23 08:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.551	U G	0.636	0.638	1.00	1.04	pCi/L	10/04/23 11:23	10/26/23 21:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		30 - 110					10/04/23 11:23	10/26/23 21:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.97	G	1.11	1.12	1.00	1.61	pCi/L	10/04/23 11:31	10/26/23 11:21	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 94139-F-20230926-01

Lab Sample ID: 240-192597-2

Date Collected: 09/26/23 12:44

Matrix: Water

Date Received: 09/30/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	67.2		30 - 110	10/04/23 11:31	10/26/23 11:21	1
Y Carrier	81.1		30 - 110	10/04/23 11:31	10/26/23 11:21	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	2.52		1.28	1.29	5.00	1.61	pCi/L		10/30/23 10:31	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 9806-F-20230926-01

Lab Sample ID: 240-192597-3

Date Collected: 09/26/23 13:15

Matrix: Water

Date Received: 09/30/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	290		100	57	ug/L		10/02/23 14:00	10/05/23 00:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/02/23 14:00	10/03/23 16:04	1
Arsenic	ND		5.0	0.75	ug/L		10/02/23 14:00	10/03/23 16:04	1
Barium	42		5.0	2.2	ug/L		10/02/23 14:00	10/03/23 16:04	1
Beryllium	ND		1.0	0.62	ug/L		10/02/23 14:00	10/03/23 16:04	1
Cadmium	ND		1.0	0.20	ug/L		10/02/23 14:00	10/03/23 16:04	1
Calcium	3700		1000	250	ug/L		10/02/23 14:00	10/03/23 16:04	1
Chromium	2.5	J	5.0	1.2	ug/L		10/02/23 14:00	10/03/23 16:04	1
Cobalt	0.53	J	1.0	0.19	ug/L		10/02/23 14:00	10/03/23 16:04	1
Lead	2.2		1.0	0.45	ug/L		10/02/23 14:00	10/03/23 16:04	1
Lithium	11		8.0	1.7	ug/L		10/02/23 14:00	10/04/23 12:26	1
Magnesium	920	J	1000	61	ug/L		10/02/23 14:00	10/03/23 16:04	1
Molybdenum	11		5.0	1.1	ug/L		10/02/23 14:00	10/03/23 16:04	1
Potassium	990	J	1000	220	ug/L		10/02/23 14:00	10/03/23 16:04	1
Selenium	ND		5.0	0.89	ug/L		10/02/23 14:00	10/03/23 16:04	1
Sodium	340000		1000	330	ug/L		10/02/23 14:00	10/03/23 16:04	1
Thallium	ND		1.0	0.20	ug/L		10/02/23 14:00	10/03/23 16:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/02/23 14:00	10/03/23 18:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	340	B	5.0	2.6	mg/L			10/05/23 21:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	310	B	5.0	2.6	mg/L			10/05/23 21:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	31		5.0	2.6	mg/L			10/05/23 21:52	1
Chloride (EPA 300.0)	220		5.0	0.64	mg/L			10/06/23 14:34	5
Fluoride (EPA 300.0)	1.2		0.050	0.024	mg/L			10/06/23 14:13	1
Sulfate (EPA 300.0)	120		1.0	0.35	mg/L			10/06/23 14:13	1
Total Dissolved Solids (SM 2540C)	890		10	7.8	mg/L			10/02/23 08:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0897	U	0.219	0.219	1.00	0.403	pCi/L	10/04/23 11:23	10/26/23 21:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		30 - 110					10/04/23 11:23	10/26/23 21:20	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.33		0.495	0.509	1.00	0.597	pCi/L	10/04/23 11:31	10/26/23 11:21	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 9806-F-20230926-01

Lab Sample ID: 240-192597-3

Date Collected: 09/26/23 13:15

Matrix: Water

Date Received: 09/30/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		30 - 110	10/04/23 11:31	10/26/23 11:21	1
Y Carrier	85.6		30 - 110	10/04/23 11:31	10/26/23 11:21	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	1.42		0.541	0.554	5.00	0.597	pCi/L		10/30/23 10:31	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: EB-001-F-20230926-01

Lab Sample ID: 240-192597-4

Date Collected: 09/26/23 15:00

Matrix: Water

Date Received: 09/30/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/02/23 14:00	10/05/23 00:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/02/23 14:00	10/03/23 16:11	1
Arsenic	ND		5.0	0.75	ug/L		10/02/23 14:00	10/03/23 16:11	1
Barium	ND		5.0	2.2	ug/L		10/02/23 14:00	10/03/23 16:11	1
Beryllium	ND		1.0	0.62	ug/L		10/02/23 14:00	10/03/23 16:11	1
Cadmium	ND		1.0	0.20	ug/L		10/02/23 14:00	10/03/23 16:11	1
Calcium	ND		1000	250	ug/L		10/02/23 14:00	10/03/23 16:11	1
Chromium	ND		5.0	1.2	ug/L		10/02/23 14:00	10/03/23 16:11	1
Cobalt	ND		1.0	0.19	ug/L		10/02/23 14:00	10/03/23 16:11	1
Lead	ND		1.0	0.45	ug/L		10/02/23 14:00	10/03/23 16:11	1
Lithium	ND		8.0	1.7	ug/L		10/02/23 14:00	10/04/23 12:29	1
Magnesium	ND		1000	61	ug/L		10/02/23 14:00	10/03/23 16:11	1
Molybdenum	ND		5.0	1.1	ug/L		10/02/23 14:00	10/03/23 16:11	1
Potassium	ND		1000	220	ug/L		10/02/23 14:00	10/03/23 16:11	1
Selenium	ND		5.0	0.89	ug/L		10/02/23 14:00	10/03/23 16:11	1
Sodium	ND		1000	330	ug/L		10/02/23 14:00	10/03/23 16:11	1
Thallium	ND		1.0	0.20	ug/L		10/02/23 14:00	10/03/23 16:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/02/23 14:00	10/03/23 18:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 21:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 21:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/05/23 21:57	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/08/23 13:24	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/08/23 13:24	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/08/23 13:24	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			10/02/23 08:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0781	U	0.153	0.153	1.00	0.272	pCi/L	10/04/23 11:23	10/27/23 07:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		30 - 110					10/04/23 11:23	10/27/23 07:37	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.544	U	0.407	0.410	1.00	0.634	pCi/L	10/04/23 11:31	10/26/23 11:21	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: EB-001-F-20230926-01

Lab Sample ID: 240-192597-4

Date Collected: 09/26/23 15:00

Matrix: Water

Date Received: 09/30/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	91.4		30 - 110	10/04/23 11:31	10/26/23 11:21	1
Y Carrier	84.9		30 - 110	10/04/23 11:31	10/26/23 11:21	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	0.622	U	0.435	0.438	5.00	0.634	pCi/L		10/30/23 10:31	1



Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
240-192597-1	93100-F-20230926-01	87.5
240-192597-2	94139-F-20230926-01	67.2
240-192597-3	9806-F-20230926-01	92.2
240-192597-4	EB-001-F-20230926-01	91.4
LCS 160-630672/2-A	Lab Control Sample	98.3
MB 160-630672/1-A	Method Blank	99.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-192597-1	93100-F-20230926-01	87.5	80.7
240-192597-2	94139-F-20230926-01	67.2	81.1
240-192597-3	9806-F-20230926-01	92.2	85.6
240-192597-4	EB-001-F-20230926-01	91.4	84.9
LCS 160-630677/2-A	Lab Control Sample	98.3	84.5
MB 160-630677/1-A	Method Blank	99.3	77.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-589305/1-A
Matrix: Water
Analysis Batch: 589763

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 589305

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/02/23 14:00	10/04/23 23:25	1

Lab Sample ID: LCS 240-589305/2-A
Matrix: Water
Analysis Batch: 589763

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 589305

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	995		ug/L		100	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-589305/1-A
Matrix: Water
Analysis Batch: 589577

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 589305

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/02/23 14:00	10/03/23 15:41	1
Arsenic	ND		5.0	0.75	ug/L		10/02/23 14:00	10/03/23 15:41	1
Barium	ND		5.0	2.2	ug/L		10/02/23 14:00	10/03/23 15:41	1
Beryllium	ND		1.0	0.62	ug/L		10/02/23 14:00	10/03/23 15:41	1
Cadmium	ND		1.0	0.20	ug/L		10/02/23 14:00	10/03/23 15:41	1
Calcium	ND		1000	250	ug/L		10/02/23 14:00	10/03/23 15:41	1
Chromium	ND		5.0	1.2	ug/L		10/02/23 14:00	10/03/23 15:41	1
Cobalt	ND		1.0	0.19	ug/L		10/02/23 14:00	10/03/23 15:41	1
Lead	ND		1.0	0.45	ug/L		10/02/23 14:00	10/03/23 15:41	1
Lithium	ND	^+	8.0	1.7	ug/L		10/02/23 14:00	10/03/23 15:41	1
Magnesium	ND		1000	61	ug/L		10/02/23 14:00	10/03/23 15:41	1
Molybdenum	ND		5.0	1.1	ug/L		10/02/23 14:00	10/03/23 15:41	1
Potassium	ND		1000	220	ug/L		10/02/23 14:00	10/03/23 15:41	1
Selenium	ND		5.0	0.89	ug/L		10/02/23 14:00	10/03/23 15:41	1
Sodium	ND		1000	330	ug/L		10/02/23 14:00	10/03/23 15:41	1
Thallium	ND		1.0	0.20	ug/L		10/02/23 14:00	10/03/23 15:41	1

Lab Sample ID: LCS 240-589305/3-A
Matrix: Water
Analysis Batch: 589577

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 589305

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	106		ug/L		106	80 - 120
Arsenic	1000	929		ug/L		93	80 - 120
Barium	1000	922		ug/L		92	80 - 120
Beryllium	500	512		ug/L		102	80 - 120
Cadmium	500	505		ug/L		101	80 - 120
Calcium	25000	24200		ug/L		97	80 - 120
Chromium	500	499		ug/L		100	80 - 120
Cobalt	500	468		ug/L		94	80 - 120
Lead	500	499		ug/L		100	80 - 120
Lithium	500	522	^+	ug/L		104	80 - 120
Magnesium	25000	25100		ug/L		101	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

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

Lab Sample ID: LCS 240-589305/3-A
 Matrix: Water
 Analysis Batch: 589577

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 589305

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	479		ug/L		96	80 - 120
Potassium	25000	24400		ug/L		98	80 - 120
Selenium	1000	929		ug/L		93	80 - 120
Sodium	25000	25000		ug/L		100	80 - 120
Thallium	1000	1000		ug/L		100	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-589306/1-A
 Matrix: Water
 Analysis Batch: 589519

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 589306

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/02/23 14:00	10/03/23 17:55	1

Lab Sample ID: LCS 240-589306/2-A
 Matrix: Water
 Analysis Batch: 589519

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 589306

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.20		ug/L		84	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-589914/4
 Matrix: Water
 Analysis Batch: 589914

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.83	J	5.0	2.6	mg/L			10/05/23 20:02	1
Bicarbonate Alkalinity as CaCO3	2.83	J	5.0	2.6	mg/L			10/05/23 20:02	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/05/23 20:02	1

Lab Sample ID: LCS 240-589914/3
 Matrix: Water
 Analysis Batch: 589914

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	84.6		mg/L		105	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-589799/3
 Matrix: Water
 Analysis Batch: 589799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/06/23 09:53	1
Fluoride	ND		0.050	0.024	mg/L			10/06/23 09:53	1
Sulfate	ND		1.0	0.35	mg/L			10/06/23 09:53	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-589799/4
Matrix: Water
Analysis Batch: 589799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.7		mg/L		97	90 - 110
Fluoride	2.50	2.49		mg/L		99	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Lab Sample ID: MB 240-589804/3
Matrix: Water
Analysis Batch: 589804

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/05/23 13:11	1
Fluoride	ND		0.050	0.024	mg/L			10/05/23 13:11	1
Sulfate	ND		1.0	0.35	mg/L			10/05/23 13:11	1

Lab Sample ID: LCS 240-589804/4
Matrix: Water
Analysis Batch: 589804

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.4		mg/L		101	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	52.8		mg/L		106	90 - 110

Lab Sample ID: MB 240-589830/3
Matrix: Water
Analysis Batch: 589830

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/08/23 10:43	1
Fluoride	ND		0.050	0.024	mg/L			10/08/23 10:43	1
Sulfate	ND		1.0	0.35	mg/L			10/08/23 10:43	1

Lab Sample ID: LCS 240-589830/4
Matrix: Water
Analysis Batch: 589830

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.8		mg/L		102	90 - 110
Fluoride	2.50	2.64		mg/L		105	90 - 110
Sulfate	50.0	53.1		mg/L		106	90 - 110

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

Lab Sample ID: MB 240-589235/1
Matrix: Water
Analysis Batch: 589235

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	ND		10	7.8	mg/L			10/02/23 08:29	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

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

Lab Sample ID: LCS 240-589235/2
 Matrix: Water
 Analysis Batch: 589235

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	564	535		mg/L		95	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-630672/1-A
 Matrix: Water
 Analysis Batch: 633700

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 630672

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1727	U	0.169	0.169	1.00	0.260	pCi/L	10/04/23 11:23	10/26/23 21:22	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.3		30 - 110					10/04/23 11:23	10/26/23 21:22	1

Lab Sample ID: LCS 160-630672/2-A
 Matrix: Water
 Analysis Batch: 633700

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 630672

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	9.502		1.22	1.00	0.321	pCi/L	84	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	98.3		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-630677/1-A
 Matrix: Water
 Analysis Batch: 633700

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 630677

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.7694		0.361	0.368	1.00	0.479	pCi/L	10/04/23 11:31	10/26/23 11:20	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.3		30 - 110					10/04/23 11:31	10/26/23 11:20	1
Y Carrier	77.4		30 - 110					10/04/23 11:31	10/26/23 11:20	1

Lab Sample ID: LCS 160-630677/2-A
 Matrix: Water
 Analysis Batch: 633700

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 630677

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.77	9.525		1.26	1.00	0.489	pCi/L	123	75 - 125

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

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

Lab Sample ID: LCS 160-630677/2-A

Matrix: Water

Analysis Batch: 633700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 630677

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	98.3		30 - 110
Y Carrier	84.5		30 - 110

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Metals

Prep Batch: 589305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total Recoverable	Water	3005A	
240-192597-2	94139-F-20230926-01	Total Recoverable	Water	3005A	
240-192597-3	9806-F-20230926-01	Total Recoverable	Water	3005A	
240-192597-4	EB-001-F-20230926-01	Total Recoverable	Water	3005A	
MB 240-589305/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-589305/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-589305/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 589306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total/NA	Water	7470A	
240-192597-2	94139-F-20230926-01	Total/NA	Water	7470A	
240-192597-3	9806-F-20230926-01	Total/NA	Water	7470A	
240-192597-4	EB-001-F-20230926-01	Total/NA	Water	7470A	
MB 240-589306/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-589306/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 589519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total/NA	Water	7470A	589306
240-192597-2	94139-F-20230926-01	Total/NA	Water	7470A	589306
240-192597-3	9806-F-20230926-01	Total/NA	Water	7470A	589306
240-192597-4	EB-001-F-20230926-01	Total/NA	Water	7470A	589306
MB 240-589306/1-A	Method Blank	Total/NA	Water	7470A	589306
LCS 240-589306/2-A	Lab Control Sample	Total/NA	Water	7470A	589306

Analysis Batch: 589577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total Recoverable	Water	6020B	589305
240-192597-2	94139-F-20230926-01	Total Recoverable	Water	6020B	589305
240-192597-3	9806-F-20230926-01	Total Recoverable	Water	6020B	589305
240-192597-4	EB-001-F-20230926-01	Total Recoverable	Water	6020B	589305
MB 240-589305/1-A	Method Blank	Total Recoverable	Water	6020B	589305
LCS 240-589305/3-A	Lab Control Sample	Total Recoverable	Water	6020B	589305

Analysis Batch: 589682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total Recoverable	Water	6020B	589305
240-192597-2	94139-F-20230926-01	Total Recoverable	Water	6020B	589305
240-192597-3	9806-F-20230926-01	Total Recoverable	Water	6020B	589305
240-192597-4	EB-001-F-20230926-01	Total Recoverable	Water	6020B	589305

Analysis Batch: 589763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total Recoverable	Water	6010D	589305
240-192597-2	94139-F-20230926-01	Total Recoverable	Water	6010D	589305
240-192597-3	9806-F-20230926-01	Total Recoverable	Water	6010D	589305
240-192597-4	EB-001-F-20230926-01	Total Recoverable	Water	6010D	589305
MB 240-589305/1-A	Method Blank	Total Recoverable	Water	6010D	589305
LCS 240-589305/2-A	Lab Control Sample	Total Recoverable	Water	6010D	589305

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

General Chemistry

Analysis Batch: 589235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total/NA	Water	SM 2540C	
240-192597-2	94139-F-20230926-01	Total/NA	Water	SM 2540C	
240-192597-3	9806-F-20230926-01	Total/NA	Water	SM 2540C	
240-192597-4	EB-001-F-20230926-01	Total/NA	Water	SM 2540C	
MB 240-589235/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-589235/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 589799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-3	9806-F-20230926-01	Total/NA	Water	300.0	
240-192597-3	9806-F-20230926-01	Total/NA	Water	300.0	
MB 240-589799/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589799/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 589804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total/NA	Water	300.0	
MB 240-589804/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589804/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 589830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-2	94139-F-20230926-01	Total/NA	Water	300.0	
240-192597-2	94139-F-20230926-01	Total/NA	Water	300.0	
240-192597-4	EB-001-F-20230926-01	Total/NA	Water	300.0	
MB 240-589830/3	Method Blank	Total/NA	Water	300.0	
LCS 240-589830/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 589914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total/NA	Water	2320B-1997	
240-192597-2	94139-F-20230926-01	Total/NA	Water	2320B-1997	
240-192597-3	9806-F-20230926-01	Total/NA	Water	2320B-1997	
240-192597-4	EB-001-F-20230926-01	Total/NA	Water	2320B-1997	
MB 240-589914/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-589914/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Rad

Prep Batch: 630672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total/NA	Water	PrecSep-21	
240-192597-2	94139-F-20230926-01	Total/NA	Water	PrecSep-21	
240-192597-3	9806-F-20230926-01	Total/NA	Water	PrecSep-21	
240-192597-4	EB-001-F-20230926-01	Total/NA	Water	PrecSep-21	
MB 160-630672/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-630672/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 630677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-1	93100-F-20230926-01	Total/NA	Water	PrecSep_0	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Rad (Continued)

Prep Batch: 630677 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-192597-2	94139-F-20230926-01	Total/NA	Water	PrecSep_0	
240-192597-3	9806-F-20230926-01	Total/NA	Water	PrecSep_0	
240-192597-4	EB-001-F-20230926-01	Total/NA	Water	PrecSep_0	
MB 160-630677/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-630677/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

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Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 93100-F-20230926-01

Lab Sample ID: 240-192597-1

Date Collected: 09/26/23 12:07

Matrix: Water

Date Received: 09/30/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6010D		1	589763	RKT	EET CLE	10/05/23 00:03
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589577	DSH	EET CLE	10/03/23 15:59
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589682	DSH	EET CLE	10/04/23 12:21
Total/NA	Prep	7470A			589306	BN	EET CLE	10/02/23 14:00
Total/NA	Analysis	7470A		1	589519	GK	EET CLE	10/03/23 18:05
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 21:38
Total/NA	Analysis	300.0		25	589804	JWW	EET CLE	10/05/23 16:52
Total/NA	Analysis	SM 2540C		1	589235	QUY8	EET CLE	10/02/23 08:29
Total/NA	Prep	PrecSep-21			630672	KAC	EET SL	10/04/23 11:23
Total/NA	Analysis	9315		1	633700	FLC	EET SL	10/26/23 21:22
Total/NA	Prep	PrecSep_0			630677	KAC	EET SL	10/04/23 11:31
Total/NA	Analysis	9320		1	633700	FLC	EET SL	10/26/23 11:21
Total/NA	Analysis	Ra226_Ra228		1	634309	SCB	EET SL	10/30/23 10:31

Client Sample ID: 94139-F-20230926-01

Lab Sample ID: 240-192597-2

Date Collected: 09/26/23 12:44

Matrix: Water

Date Received: 09/30/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6010D		1	589763	RKT	EET CLE	10/05/23 00:08
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589577	DSH	EET CLE	10/03/23 16:01
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589682	DSH	EET CLE	10/04/23 12:24
Total/NA	Prep	7470A			589306	BN	EET CLE	10/02/23 14:00
Total/NA	Analysis	7470A		1	589519	GK	EET CLE	10/03/23 18:07
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 21:46
Total/NA	Analysis	300.0		1	589830	JWW	EET CLE	10/08/23 19:47
Total/NA	Analysis	300.0		10	589830	JWW	EET CLE	10/08/23 20:07
Total/NA	Analysis	SM 2540C		1	589235	QUY8	EET CLE	10/02/23 08:29
Total/NA	Prep	PrecSep-21			630672	KAC	EET SL	10/04/23 11:23
Total/NA	Analysis	9315		1	633700	FLC	EET SL	10/26/23 21:22
Total/NA	Prep	PrecSep_0			630677	KAC	EET SL	10/04/23 11:31
Total/NA	Analysis	9320		1	633700	FLC	EET SL	10/26/23 11:21
Total/NA	Analysis	Ra226_Ra228		1	634309	SCB	EET SL	10/30/23 10:31

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Client Sample ID: 9806-F-20230926-01

Lab Sample ID: 240-192597-3

Date Collected: 09/26/23 13:15

Matrix: Water

Date Received: 09/30/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6010D		1	589763	RKT	EET CLE	10/05/23 00:12
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589577	DSH	EET CLE	10/03/23 16:04
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589682	DSH	EET CLE	10/04/23 12:26
Total/NA	Prep	7470A			589306	BN	EET CLE	10/02/23 14:00
Total/NA	Analysis	7470A		1	589519	GK	EET CLE	10/03/23 18:09
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 21:52
Total/NA	Analysis	300.0		1	589799	JWW	EET CLE	10/06/23 14:13
Total/NA	Analysis	300.0		5	589799	JWW	EET CLE	10/06/23 14:34
Total/NA	Analysis	SM 2540C		1	589235	QUY8	EET CLE	10/02/23 08:29
Total/NA	Prep	PrecSep-21			630672	KAC	EET SL	10/04/23 11:23
Total/NA	Analysis	9315		1	633701	FLC	EET SL	10/26/23 21:20
Total/NA	Prep	PrecSep_0			630677	KAC	EET SL	10/04/23 11:31
Total/NA	Analysis	9320		1	633700	FLC	EET SL	10/26/23 11:21
Total/NA	Analysis	Ra226_Ra228		1	634309	SCB	EET SL	10/30/23 10:31

Client Sample ID: EB-001-F-20230926-01

Lab Sample ID: 240-192597-4

Date Collected: 09/26/23 15:00

Matrix: Water

Date Received: 09/30/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6010D		1	589763	RKT	EET CLE	10/05/23 00:17
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589577	DSH	EET CLE	10/03/23 16:11
Total Recoverable	Prep	3005A			589305	BN	EET CLE	10/02/23 14:00
Total Recoverable	Analysis	6020B		1	589682	DSH	EET CLE	10/04/23 12:29
Total/NA	Prep	7470A			589306	BN	EET CLE	10/02/23 14:00
Total/NA	Analysis	7470A		1	589519	GK	EET CLE	10/03/23 18:16
Total/NA	Analysis	2320B-1997		1	589914	JMR	EET CLE	10/05/23 21:57
Total/NA	Analysis	300.0		1	589830	JWW	EET CLE	10/08/23 13:24
Total/NA	Analysis	SM 2540C		1	589235	QUY8	EET CLE	10/02/23 08:29
Total/NA	Prep	PrecSep-21			630672	KAC	EET SL	10/04/23 11:23
Total/NA	Analysis	9315		1	633885	FLC	EET SL	10/27/23 07:37
Total/NA	Prep	PrecSep_0			630677	KAC	EET SL	10/04/23 11:31
Total/NA	Analysis	9320		1	633700	FLC	EET SL	10/26/23 11:21
Total/NA	Analysis	Ra226_Ra228		1	634309	SCB	EET SL	10/30/23 10:31

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

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

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-192597-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-23

Eurofins - Cleveland Sample Receipt Form/Narrative

Login #: 192597

Barberton Facility

Client Light Stone

Site Name

Cooler unpacked by:

Cooler Received on 9-30-23

Opened on 9-30-23

Nancy Boyer

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

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

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

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA

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

3. Shippers' packing slip attached to the cooler(s)?

4. Did custody papers accompany the sample(s)?

5. Were the custody papers relinquished & signed in the appropriate place?

6. Was/were the person(s) who collected the samples clearly identified on the COC?

7. Did all bottles arrive in good condition (Unbroken)?

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?

9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?

10. Were correct bottle(s) used for the test(s) indicated?

11. Sufficient quantity received to perform indicated analyses?

12. Are these work share samples and all listed on the COC?

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt?

14. Were VOAs on the COC?

15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA

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

17. Was a LL Hg or Me Hg trip blank present? Yes No

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

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by:

19. SAMPLE CONDITION

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

Sample(s) were received in a broken container.

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

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

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

VOA Sample Preservation - Date/Time VOAs Frozen:

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
93100-F-20230926-01	240-192597-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94139-F-20230926-01	240-192597-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9806-F-20230926-01	240-192597-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230926-01	240-192597-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____

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Client Information Client Contact: Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171 (Tel) Email: taylor.huffman@lightstonegen.com Project Name: Gavin CCR Site: <u>Savah</u>		Lab PM (Cisneros, Roxanne) E-Mail: roxanne.cisneros@et.eurofinsus.com		Carrier Tracking No(s): 240-111832-39818.1 Page: Page 1 of 8 Job #: Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #: Project #: 24019633 SSOW#:		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc 300.0_28D - Chloride, Fluoride & Sulfate 2540C_Calcd - TDS 6010B_6020_7470A Form MS/MSD (Yes or No) Field Filtered Sample (Yes or No)		Total Number of containers: <input checked="" type="checkbox"/> <input type="checkbox"/> Special Instructions/Note: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other:	
Sample Identification Sample ID: 93KCC-F-20230926-c1 94139-F-20230926-c1 9806-F-20230926-c1 FB-c1-F-20230926-c1		Sample Information Sample Date: 9-26-23 Sample Time: 1227 Sample Type (C=Comp, G=grab): S Matrix (W=water, S=solid, O=waste, B=Tissue, A=air): Water		Analysis Results D N D N	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: <input type="checkbox"/> I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: <u>Roxanne Cisneros</u> Relinquished by: <u>Roxanne Cisneros</u> Relinquished by: <u>Roxanne Cisneros</u>		Date: 9-29-23 / 0845 9-29-23 1700		Method of Shipment: _____ Received by: <u>Roxanne Cisneros</u> Company: E7A Received by: <u>Roxanne Cisneros</u> Company: E7A Received by: <u>Roxanne Cisneros</u> Company: E7A	
Custody Seal(s) Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login #: 192597

Client Light Stone Site Name _____ Cooler unpacked by: Nancy Boyer
Cooler Received on 9-30-23 Opened on 9-30-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312501
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins - Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	1.2	1.1	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	2.1	2.0	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	14.5	14.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	0.2	0.1	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	0.9	0.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	3.8	3.7	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	21.4	21.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

See Temperature Excursion Form

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
93100-F-20230926-01	240-192597-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
94139-F-20230926-01	240-192597-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
9806-F-20230926-01	240-192597-D-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230926-01	240-192597-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____

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Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Cisneros, Roxanne	Carrier Tracking No(s):	GOC No:	240-174541-1					
Client Contact:		Phone:	E-Mail:	roxanne.cisneros@et.eurofins.com	State of Origin:	Page:	Page 1 of 1					
Shipping/Receiving		Accreditations Required (See note):										
Company:		TestAmerica Laboratories, Inc.										
Address:		13715 Rider Trail North,										
City:		Earth City										
State, Zip:		MO, 63045										
Phone:		314-298-8566(Tel) 314-298-8757(Fax)										
Email:												
Project Name:		Federal GWM Wells										
Site:		24019633										
Project #:		SSOW#:										
Due Date Requested:		10/16/2023										
TAT Requested (days):												
PO #:												
WO #:												
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Tissue, Aque)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra226/precSep_0 Radium-226 (GFPC)	9315_Ra226/precSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
93100-F-20230926-01 (240-192597-1)	9/26/23	12:07 Eastern	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet	
94139-F-20230926-01 (240-192597-2)	9/26/23	12:44 Eastern	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet	
9806-F-20230926-01 (240-192597-3)	9/26/23	13:15 Eastern	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet	
EB-001-F-20230926-01 (240-192597-4)	9/26/23	15:00 Eastern	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet	

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

Possible Hazard Identification

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

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

Special Instructions/QC Requirements:

Method of Shipment: Date: Time: Received by: Company: Date/Time: Received by: Company: Date/Time: Received by: Company: Date/Time: Cooler Temperature(s) °C and Other Remarks: Custody Seal No.: Yes No



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-192597-1

Login Number: 192597

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 10/03/23 12:29 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?	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 3/28/2023 4:56:00 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-180919-1

Eurofins Canton

Job Notes

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

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

Authorization

Roxanne Cisneros

Generated
3/28/2023 4:56:00 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Qualifiers

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.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Rad

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

Glossary

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

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Job ID: 240-180919-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-180919-1

Comments

No additional comments.

Receipt

The samples were received on 2/24/2023 1:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

RAD

Methods 9315: Radium-226 batch 602183: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 96152-F-20230223-01 (240-180919-1), DUP-001-96152-F-20230223-01 (240-180919-2), EB-001-F-20230223-01 (240-180919-3), (LCS 160-602183/2-A), (MB 160-602183/1-A)

Methods 9320: Radium-228 batch 602192: The LCS recovered at (130%). 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 (62-148%) per method requirements. The LCS passes, no further action is required. (LCS 160-602192/2-A)

Methods 9320: Radium-228 batch 602192: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 96152-F-20230223-01 (240-180919-1), DUP-001-96152-F-20230223-01 (240-180919-2), EB-001-F-20230223-01 (240-180919-3), (LCS 160-602192/2-A), (MB 160-602192/1-A)

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

Metals

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

General Chemistry

Method 300.0: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to sample needing a lower dilution run.

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

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CAN
7470A	Mercury (CVAA)	SW846	EET CAN
2320B-1997	Alkalinity, Total	SM	EET CAN
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CAN
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN
7470A	Preparation, Mercury	SW846	EET CAN
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.

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

Laboratory References:

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

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

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-180919-1	96152-F-20230223-01	Water	02/23/23 10:34	02/24/23 13:20
240-180919-2	DUP-001-96152-F-20230223-01	Water	02/23/23 10:34	02/24/23 13:20
240-180919-3	EB-001-F-20230223-01	Water	02/23/23 15:00	02/24/23 13:20

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: 96152-F-20230223-01

Lab Sample ID: 240-180919-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.1		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	620		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	84		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	3.5 J		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2100000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	470		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	470		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride - RA	0.91 H		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: DUP-001-96152-F-20230223-01

Lab Sample ID: 240-180919-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.1		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	630		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	85		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	3.5 J		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2100000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	470		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	470		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride - RA	0.90 H		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: EB-001-F-20230223-01

Lab Sample ID: 240-180919-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	670 J		1000	330	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: 96152-F-20230223-01

Lab Sample ID: 240-180919-1

Date Collected: 02/23/23 10:34

Matrix: Water

Date Received: 02/24/23 13:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/27/23 08:32	02/28/23 11:39	1
Arsenic	6.1		5.0	0.75	ug/L		02/27/23 08:32	02/28/23 11:39	1
Barium	620		5.0	2.2	ug/L		02/27/23 08:32	02/28/23 11:39	1
Beryllium	ND		1.0	0.62	ug/L		02/27/23 08:32	02/28/23 11:39	1
Cadmium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 11:39	1
Chromium	ND		5.0	2.5	ug/L		02/27/23 08:32	02/28/23 11:39	1
Cobalt	2.6		1.0	0.19	ug/L		02/27/23 08:32	02/28/23 11:39	1
Lead	ND		1.0	0.45	ug/L		02/27/23 08:32	02/28/23 11:39	1
Lithium	84		8.0	1.7	ug/L		02/27/23 08:32	02/28/23 11:39	1
Magnesium	15000		1000	200	ug/L		02/27/23 08:32	02/28/23 11:39	1
Molybdenum	3.5 J		5.0	1.1	ug/L		02/27/23 08:32	02/28/23 11:39	1
Potassium	8100		1000	220	ug/L		02/27/23 08:32	02/28/23 11:39	1
Selenium	ND		5.0	0.89	ug/L		02/27/23 08:32	02/28/23 11:39	1
Sodium	2100000		5000	1600	ug/L		02/27/23 08:32	02/28/23 15:35	5
Thallium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 11:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/27/23 09:00	02/27/23 18:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	470		5.0	2.6	mg/L			03/06/23 14:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	470		5.0	2.6	mg/L			03/06/23 14:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 14:23	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			03/23/23 20:30	50

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (EPA 300.0-1993 R2.1)	0.91	H	0.25	0.12	mg/L			03/27/23 23:31	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	1.46		0.240	0.274	1.00	0.156	pCi/L	03/02/23 09:21	03/27/23 16:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		30 - 110					03/02/23 09:21	03/27/23 16:08	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-228	2.64		0.690	0.731	1.00	0.787	pCi/L	03/02/23 09:53	03/13/23 12:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		30 - 110					03/02/23 09:53	03/13/23 12:15	1
Y Carrier	84.5		30 - 110					03/02/23 09:53	03/13/23 12:15	1

Eurofins Canton

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: 96152-F-20230223-01

Lab Sample ID: 240-180919-1

Date Collected: 02/23/23 10:34

Matrix: Water

Date Received: 02/24/23 13:20

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.10		0.731	0.781	5.00	0.787	pCi/L		03/28/23 13:07	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: DUP-001-96152-F-20230223-01

Lab Sample ID: 240-180919-2

Date Collected: 02/23/23 10:34

Matrix: Water

Date Received: 02/24/23 13:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/27/23 08:32	02/28/23 11:41	1
Arsenic	6.1		5.0	0.75	ug/L		02/27/23 08:32	02/28/23 11:41	1
Barium	630		5.0	2.2	ug/L		02/27/23 08:32	02/28/23 11:41	1
Beryllium	ND		1.0	0.62	ug/L		02/27/23 08:32	02/28/23 11:41	1
Cadmium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 11:41	1
Chromium	ND		5.0	2.5	ug/L		02/27/23 08:32	02/28/23 11:41	1
Cobalt	2.7		1.0	0.19	ug/L		02/27/23 08:32	02/28/23 11:41	1
Lead	ND		1.0	0.45	ug/L		02/27/23 08:32	02/28/23 11:41	1
Lithium	85		8.0	1.7	ug/L		02/27/23 08:32	02/28/23 11:41	1
Magnesium	15000		1000	200	ug/L		02/27/23 08:32	02/28/23 11:41	1
Molybdenum	3.5 J		5.0	1.1	ug/L		02/27/23 08:32	02/28/23 11:41	1
Potassium	8200		1000	220	ug/L		02/27/23 08:32	02/28/23 11:41	1
Selenium	ND		5.0	0.89	ug/L		02/27/23 08:32	02/28/23 11:41	1
Sodium	2100000		5000	1600	ug/L		02/27/23 08:32	02/28/23 15:38	5
Thallium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 11:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/27/23 09:00	02/27/23 18:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	470		5.0	2.6	mg/L			03/06/23 14:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	470		5.0	2.6	mg/L			03/06/23 14:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 14:28	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			03/23/23 21:35	50

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (EPA 300.0-1993 R2.1)	0.90	H	0.25	0.12	mg/L			03/27/23 23:51	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	1.51		0.242	0.277	1.00	0.149	pCi/L	03/02/23 09:21	03/27/23 16:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		30 - 110					03/02/23 09:21	03/27/23 16:09	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-228	1.55		0.562	0.580	1.00	0.709	pCi/L	03/02/23 09:53	03/13/23 12:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		30 - 110					03/02/23 09:53	03/13/23 12:15	1
Y Carrier	86.7		30 - 110					03/02/23 09:53	03/13/23 12:15	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: DUP-001-96152-F-20230223-01

Lab Sample ID: 240-180919-2

Date Collected: 02/23/23 10:34

Matrix: Water

Date Received: 02/24/23 13:20

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.06		0.612	0.643	5.00	0.709	pCi/L		03/28/23 13:07	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: EB-001-F-20230223-01

Lab Sample ID: 240-180919-3

Date Collected: 02/23/23 15:00

Matrix: Water

Date Received: 02/24/23 13:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/27/23 08:32	02/28/23 11:44	1
Arsenic	ND		5.0	0.75	ug/L		02/27/23 08:32	02/28/23 11:44	1
Barium	ND		5.0	2.2	ug/L		02/27/23 08:32	02/28/23 11:44	1
Beryllium	ND		1.0	0.62	ug/L		02/27/23 08:32	02/28/23 11:44	1
Cadmium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 11:44	1
Chromium	ND		5.0	2.5	ug/L		02/27/23 08:32	02/28/23 11:44	1
Cobalt	ND		1.0	0.19	ug/L		02/27/23 08:32	02/28/23 11:44	1
Lead	ND		1.0	0.45	ug/L		02/27/23 08:32	02/28/23 11:44	1
Lithium	ND		8.0	1.7	ug/L		02/27/23 08:32	02/28/23 11:44	1
Magnesium	ND		1000	200	ug/L		02/27/23 08:32	02/28/23 11:44	1
Molybdenum	ND		5.0	1.1	ug/L		02/27/23 08:32	02/28/23 11:44	1
Potassium	ND		1000	220	ug/L		02/27/23 08:32	02/28/23 11:44	1
Selenium	ND		5.0	0.89	ug/L		02/27/23 08:32	02/28/23 11:44	1
Sodium	670	J	1000	330	ug/L		02/27/23 08:32	02/28/23 11:44	1
Thallium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 11:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/27/23 09:00	02/27/23 19:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 14:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 14:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 14:32	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			03/23/23 21:57	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0481	U	0.0718	0.0719	1.00	0.122	pCi/L	03/02/23 09:21	03/27/23 16:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		30 - 110					03/02/23 09:21	03/27/23 16:09	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.0406	U	0.279	0.280	1.00	0.514	pCi/L	03/02/23 09:53	03/13/23 12:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		30 - 110					03/02/23 09:53	03/13/23 12:16	1
Y Carrier	84.9		30 - 110					03/02/23 09:53	03/13/23 12:16	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: EB-001-F-20230223-01

Lab Sample ID: 240-180919-3

Date Collected: 02/23/23 15:00

Matrix: Water

Date Received: 02/24/23 13:20

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0887	U	0.288	0.289	5.00	0.514	pCi/L		03/28/23 13:07	1

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Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-180919-1	96152-F-20230223-01	95.5	
240-180919-2	DUP-001-96152-F-20230223-01	95.2	
240-180919-3	EB-001-F-20230223-01	94.1	
LCS 160-602183/2-A	Lab Control Sample	85.6	
MB 160-602183/1-A	Method Blank	94.4	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-180919-1	96152-F-20230223-01	95.5	84.5
240-180919-2	DUP-001-96152-F-20230223-01	95.2	86.7
240-180919-3	EB-001-F-20230223-01	94.1	84.9
LCS 160-602192/2-A	Lab Control Sample	85.6	86.0
MB 160-602192/1-A	Method Blank	94.4	85.2
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-563494/1-A
Matrix: Water
Analysis Batch: 563773

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 563494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/27/23 08:32	02/28/23 10:33	1
Arsenic	ND		5.0	0.75	ug/L		02/27/23 08:32	02/28/23 10:33	1
Barium	ND		5.0	2.2	ug/L		02/27/23 08:32	02/28/23 10:33	1
Beryllium	ND		1.0	0.62	ug/L		02/27/23 08:32	02/28/23 10:33	1
Cadmium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 10:33	1
Chromium	ND		5.0	2.5	ug/L		02/27/23 08:32	02/28/23 10:33	1
Cobalt	ND		1.0	0.19	ug/L		02/27/23 08:32	02/28/23 10:33	1
Lead	ND		1.0	0.45	ug/L		02/27/23 08:32	02/28/23 10:33	1
Lithium	ND		8.0	1.7	ug/L		02/27/23 08:32	02/28/23 10:33	1
Magnesium	ND		1000	200	ug/L		02/27/23 08:32	02/28/23 10:33	1
Molybdenum	ND		5.0	1.1	ug/L		02/27/23 08:32	02/28/23 10:33	1
Potassium	ND		1000	220	ug/L		02/27/23 08:32	02/28/23 10:33	1
Selenium	ND		5.0	0.89	ug/L		02/27/23 08:32	02/28/23 10:33	1
Sodium	ND		1000	330	ug/L		02/27/23 08:32	02/28/23 10:33	1
Thallium	ND		1.0	0.20	ug/L		02/27/23 08:32	02/28/23 10:33	1

Lab Sample ID: LCS 240-563494/2-A
Matrix: Water
Analysis Batch: 563773

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 563494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	100		ug/L		100	80 - 120
Arsenic	1000	926		ug/L		93	80 - 120
Barium	1000	914		ug/L		91	80 - 120
Beryllium	500	490		ug/L		98	80 - 120
Cadmium	500	465		ug/L		93	80 - 120
Chromium	500	476		ug/L		95	80 - 120
Cobalt	500	466		ug/L		93	80 - 120
Lead	500	469		ug/L		94	80 - 120
Lithium	500	471		ug/L		94	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	466		ug/L		93	80 - 120
Potassium	25000	24600		ug/L		99	80 - 120
Selenium	1000	931		ug/L		93	80 - 120
Sodium	25000	24600		ug/L		98	80 - 120
Thallium	1000	931		ug/L		93	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-563517/1-A
Matrix: Water
Analysis Batch: 563612

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/27/23 09:00	02/27/23 18:09	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-563517/2-A
 Matrix: Water
 Analysis Batch: 563612

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 563517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.73		ug/L		115	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-564459/30
 Matrix: Water
 Analysis Batch: 564459

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 13:08	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 13:08	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 13:08	1

Lab Sample ID: MB 240-564459/4
 Matrix: Water
 Analysis Batch: 564459

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 11:25	1

Lab Sample ID: LCS 240-564459/29
 Matrix: Water
 Analysis Batch: 564459

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	138		mg/L		95	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-566418/3
 Matrix: Water
 Analysis Batch: 566418

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/23/23 12:41	1

Lab Sample ID: LCS 240-566418/4
 Matrix: Water
 Analysis Batch: 566418

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.68		mg/L		107	90 - 110

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-566919/3
 Matrix: Water
 Analysis Batch: 566919

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/27/23 14:30	1

Lab Sample ID: LCS 240-566919/4
 Matrix: Water
 Analysis Batch: 566919

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.56		mg/L		103	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-602183/1-A
 Matrix: Water
 Analysis Batch: 605096

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 602183

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01097	U	0.0446	0.0446	1.00	0.0873	pCi/L	03/02/23 09:21	03/27/23 10:07	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110					03/02/23 09:21	03/27/23 10:07	1

Lab Sample ID: LCS 160-602183/2-A
 Matrix: Water
 Analysis Batch: 605096

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 602183

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	12.27		1.26	1.00	0.132	pCi/L	108	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	85.6		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-602192/1-A
 Matrix: Water
 Analysis Batch: 603500

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 602192

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.008484	U	0.285	0.285	1.00	0.530	pCi/L	03/02/23 09:53	03/13/23 12:02	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110					03/02/23 09:53	03/13/23 12:02	1
Y Carrier	85.2		30 - 110					03/02/23 09:53	03/13/23 12:02	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

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

Lab Sample ID: LCS 160-602192/2-A
 Matrix: Water
 Analysis Batch: 603500

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 602192

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.12	10.59		1.41	1.00	0.496	pCi/L	130	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.6		30 - 110
Y Carrier	86.0		30 - 110

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Metals

Prep Batch: 563494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total Recoverable	Water	3005A	
240-180919-2	DUP-001-96152-F-20230223-01	Total Recoverable	Water	3005A	
240-180919-3	EB-001-F-20230223-01	Total Recoverable	Water	3005A	
MB 240-563494/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-563494/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 563517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total/NA	Water	7470A	
240-180919-2	DUP-001-96152-F-20230223-01	Total/NA	Water	7470A	
240-180919-3	EB-001-F-20230223-01	Total/NA	Water	7470A	
MB 240-563517/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-563517/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 563612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total/NA	Water	7470A	563517
240-180919-2	DUP-001-96152-F-20230223-01	Total/NA	Water	7470A	563517
240-180919-3	EB-001-F-20230223-01	Total/NA	Water	7470A	563517
MB 240-563517/1-A	Method Blank	Total/NA	Water	7470A	563517
LCS 240-563517/2-A	Lab Control Sample	Total/NA	Water	7470A	563517

Analysis Batch: 563773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total Recoverable	Water	6020B	563494
240-180919-1	96152-F-20230223-01	Total Recoverable	Water	6020B	563494
240-180919-2	DUP-001-96152-F-20230223-01	Total Recoverable	Water	6020B	563494
240-180919-2	DUP-001-96152-F-20230223-01	Total Recoverable	Water	6020B	563494
240-180919-3	EB-001-F-20230223-01	Total Recoverable	Water	6020B	563494
MB 240-563494/1-A	Method Blank	Total Recoverable	Water	6020B	563494
LCS 240-563494/2-A	Lab Control Sample	Total Recoverable	Water	6020B	563494

General Chemistry

Analysis Batch: 564459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total/NA	Water	2320B-1997	
240-180919-2	DUP-001-96152-F-20230223-01	Total/NA	Water	2320B-1997	
240-180919-3	EB-001-F-20230223-01	Total/NA	Water	2320B-1997	
MB 240-564459/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-564459/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-564459/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 566418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
240-180919-2	DUP-001-96152-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
240-180919-3	EB-001-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-566418/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-566418/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

General Chemistry

Analysis Batch: 566919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1 - RA	96152-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
240-180919-2 - RA	DUP-001-96152-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-566919/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-566919/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 602183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total/NA	Water	PrecSep-21	
240-180919-2	DUP-001-96152-F-20230223-01	Total/NA	Water	PrecSep-21	
240-180919-3	EB-001-F-20230223-01	Total/NA	Water	PrecSep-21	
MB 160-602183/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602183/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 602192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180919-1	96152-F-20230223-01	Total/NA	Water	PrecSep_0	
240-180919-2	DUP-001-96152-F-20230223-01	Total/NA	Water	PrecSep_0	
240-180919-3	EB-001-F-20230223-01	Total/NA	Water	PrecSep_0	
MB 160-602192/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602192/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: 96152-F-20230223-01

Lab Sample ID: 240-180919-1

Date Collected: 02/23/23 10:34

Matrix: Water

Date Received: 02/24/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			563494	AJC	EET CAN	02/27/23 08:32
Total Recoverable	Analysis	6020B		1	563773	DSH	EET CAN	02/28/23 11:39
Total Recoverable	Prep	3005A			563494	AJC	EET CAN	02/27/23 08:32
Total Recoverable	Analysis	6020B		5	563773	DSH	EET CAN	02/28/23 15:35
Total/NA	Prep	7470A			563517	AJC	EET CAN	02/27/23 09:00
Total/NA	Analysis	7470A		1	563612	MRL	EET CAN	02/27/23 18:56
Total/NA	Analysis	2320B-1997		1	564459	JMR	EET CAN	03/06/23 14:23
Total/NA	Analysis	300.0-1993 R2.1		50	566418	JMB	EET CAN	03/23/23 20:30
Total/NA	Analysis	300.0-1993 R2.1	RA	5	566919	JWW	EET CAN	03/27/23 23:31
Total/NA	Prep	PrecSep-21			602183	DJP	EET SL	03/02/23 09:21
Total/NA	Analysis	9315		1	605096	FLC	EET SL	03/27/23 16:08
Total/NA	Prep	PrecSep_0			602192	DJP	EET SL	03/02/23 09:53
Total/NA	Analysis	9320		1	603501	FLC	EET SL	03/13/23 12:15
Total/NA	Analysis	Ra226_Ra228		1	605252	EMH	EET SL	03/28/23 13:07

Client Sample ID: DUP-001-96152-F-20230223-01

Lab Sample ID: 240-180919-2

Date Collected: 02/23/23 10:34

Matrix: Water

Date Received: 02/24/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			563494	AJC	EET CAN	02/27/23 08:32
Total Recoverable	Analysis	6020B		1	563773	DSH	EET CAN	02/28/23 11:41
Total Recoverable	Prep	3005A			563494	AJC	EET CAN	02/27/23 08:32
Total Recoverable	Analysis	6020B		5	563773	DSH	EET CAN	02/28/23 15:38
Total/NA	Prep	7470A			563517	AJC	EET CAN	02/27/23 09:00
Total/NA	Analysis	7470A		1	563612	MRL	EET CAN	02/27/23 18:58
Total/NA	Analysis	2320B-1997		1	564459	JMR	EET CAN	03/06/23 14:28
Total/NA	Analysis	300.0-1993 R2.1		50	566418	JMB	EET CAN	03/23/23 21:35
Total/NA	Analysis	300.0-1993 R2.1	RA	5	566919	JWW	EET CAN	03/27/23 23:51
Total/NA	Prep	PrecSep-21			602183	DJP	EET SL	03/02/23 09:21
Total/NA	Analysis	9315		1	605096	FLC	EET SL	03/27/23 16:09
Total/NA	Prep	PrecSep_0			602192	DJP	EET SL	03/02/23 09:53
Total/NA	Analysis	9320		1	603501	FLC	EET SL	03/13/23 12:15
Total/NA	Analysis	Ra226_Ra228		1	605252	EMH	EET SL	03/28/23 13:07

Client Sample ID: EB-001-F-20230223-01

Lab Sample ID: 240-180919-3

Date Collected: 02/23/23 15:00

Matrix: Water

Date Received: 02/24/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			563494	AJC	EET CAN	02/27/23 08:32
Total Recoverable	Analysis	6020B		1	563773	DSH	EET CAN	02/28/23 11:44
Total/NA	Prep	7470A			563517	AJC	EET CAN	02/27/23 09:00
Total/NA	Analysis	7470A		1	563612	MRL	EET CAN	02/27/23 19:00

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Client Sample ID: EB-001-F-20230223-01

Lab Sample ID: 240-180919-3

Date Collected: 02/23/23 15:00

Matrix: Water

Date Received: 02/24/23 13:20

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Analysis	2320B-1997		1	564459	JMR	EET CAN	03/06/23 14:32
Total/NA	Analysis	300.0-1993 R2.1		1	566418	JMB	EET CAN	03/23/23 21:57
Total/NA	Prep	PrecSep-21			602183	DJP	EET SL	03/02/23 09:21
Total/NA	Analysis	9315		1	605096	FLC	EET SL	03/27/23 16:09
Total/NA	Prep	PrecSep_0			602192	DJP	EET SL	03/02/23 09:53
Total/NA	Analysis	9320		1	603501	FLC	EET SL	03/13/23 12:16
Total/NA	Analysis	Ra226_Ra228		1	605252	EMH	EET SL	03/28/23 13:07

Laboratory References:

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

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



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Laboratory: Eurofins Canton

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

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

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	04-01-23
North Carolina (DW)	State	29700	07-31-23

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

Eurofins Canton

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180919-1

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	06-11-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-24
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Chain of Custody Record

Client Information

Company: Lightstone Generation Gavin Power LLC
 Address: 7397 OH-7
 City: Cheshire
 State, Zip: OH, 45620
 Phone: 740-925-3171(Tel)
 Email: taylor.huffman@lightstonegen.com
 Project Name: Federal CCR Wells - App IV
 Site:

Sample Information

Sample: *Robby Cook*
 Lab PM: Cisneros, Roxanne
 Phone: 740-273-4308
 E-Mail: roxanne.cisneros@Eurofins.net.com

Logistics

Carrier Tracking No(s): 240-93466-34578.1
 State of Origin:
 COC No: 240-93466-34578.1
 Page 1 of 1
 Job #:

Due Date Requested:

TAT Requested (days):
 Compliance Project: Δ Yes Δ No
 PO #: 2935505
 WO #:
 Project #: 24019633
 SSOW#:

Analysis Requested

Analysis Requested	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020_7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	D	N	D	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	N	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	N	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	N	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	N	

Preservation Codes:

A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:

Sample Identification

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code:	Matrix (Water, Seawater, Groundwater, etc.)
96152-F-20230223-01	2-23-23	1034	G	5	Water
Dupeel-96152-F-20230223-01	2-23-23	1034	G	5	Water
EB-001-F-20230223-01	2-23-23	1500	G	6	Water
					Water
					Water

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/Note:

240-180919 Chain of Custody

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

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Method of Shipment:

Empty Kit Relinquished by:

Relinquished by: *Robby Cook*
 Date: 2-24-23/0915
 Relinquished by: *Tom Edwards*
 Date: 2-24-23 1430
 Relinquished by:

Received by:

Received by: *Tom Edwards*
 Date/Time: 2-24-23 11:10
 Received by: *Tommy Berg*
 Date/Time: 2-24-23 1320
 Received by:

Company:

Company: *Hub Options*
 Company: *Hub Options*
 Company: *Hub Options*

Custody Seals Intact:

Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:



Eurofins - Canton Sample Receipt Form/Narrative
Barberton Facility

Login # : _____

Client Gravin Site Name _____

Cooler unpacked by: Alex [Signature]

Cooler Received on 2/24/23 Opened on _____

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

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

Eurofins Cooler # _____ Foam Box Client Cooler Box Other _____

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

COOLANT: Wet Ice Blue Ice Dry Ice Water None

- 1. Cooler temperature upon receipt See Multiple Cooler Form
 - IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. 1.7 °C Corrected Cooler Temp. 1.6 °C
 - IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 - IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

- 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 - Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 - Were tamper/custody seals intact and uncompromised? Yes No NA
- 3. Shippers' packing slip attached to the cooler(s)? Yes No
- 4. Did custody papers accompany the sample(s)? Yes No
- 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
- 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- 7. Did all bottles arrive in good condition (Unbroken)? Yes No
- 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
- 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
- 10. Were correct bottle(s) used for the test(s) indicated? Yes No
- 11. Sufficient quantity received to perform indicated analyses? Yes No
- 12. Are these work share samples and all listed on the COC? Yes No

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

- If yes, Questions 13-17 have been checked at the originating laboratory.
- 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
- 14. Were VOAs on the COC? Yes No
- 15. Were air bubbles >6 mm in any VOA vials? Yes No NA ← Larger than this.
- 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- 17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____


VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
96152-F-20230223-01	240-180919-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96152-F-20230223-01	240-180919-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96152-F-20230223-01	240-180919-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-001-96152-F-20230223-01	240-180919-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-001-96152-F-20230223-01	240-180919-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-001-96152-F-20230223-01	240-180919-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230223-01	240-180919-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230223-01	240-180919-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230223-01	240-180919-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Client Information		Lab PM: Cisneros, Roxanne		Carrier Tracking No(s): 240-93466-34578.1							
Client Contact: Taylor Huffman		E-Mail: roxanne.cisneros@Euroinset.com		State of Origin:							
Company: Lightstone Generation Gavin Power LLC		IPWSID:		Page: 1 of 1							
Address: 7397 OH-7		Due Date Requested:		Job #:							
City: Cheshire		TAT Requested (days):		Preservation Codes:							
State, Zip: OH, 45620		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:							
Phone: 740-925-3171 (Tel)		PO #: 2935505		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)							
Email: taylor.huffman@lightstonegen.com		WO #:		Special Instructions/Note:							
Project Name: Federal CCR Wells - App IV		Project #: 24019633		Total Number of containers: <input checked="" type="checkbox"/>							
Site:		SSOW#:									
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=titimus, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0, 28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc	Analysis Requested
96152-F-20230223-01	2-23-23	1034	G	Water	N	X	1	1	1	2	D
Depos. 96152-F-20230223-01	2-23-23	1034	G	Water	N	X	1	1	1	2	D
EB-001-F-20230223-01	2-23-23	1500	G	Water	N	X	1	1	1	2	D
				Water							
				Water							

240-180919 Chain of Custody



<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Special Instructions/QC Requirements:	

Empty Kit Relinquished by:	Date:	Method of Shipment:
Relinquished by: <i>Tom Edwards</i>	2-24-23 / 0915	Company: <i>Kenwood Tom Edwards</i>
Relinquished by: <i>Tom Edwards</i>	2-24-23 1430	Company: <i>Auto Optics</i>
Relinquished by:		Company: <i>FFC NC</i>

Custody Seal No.: Yes No

Cooler Temperature(s) °C and Other Remarks:



Eurofins - Canton Sample Receipt Form/Narrative
Barberton Facility

Login # : _____

Client Gravin Site Name _____
Cooler Received on 2/24/23 Opened on 2-24-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Cooler unpacked by: Alex

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # _____ Foam Box Client Cooler Box _____ Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None _____

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. 1.7 °C Corrected Cooler Temp. 1.6 °C
IR GUN # IR-16 (CF -0.1°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN # IR-17 (CF -0.3°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
-Were tamper/custody seals intact and uncompromised? Yes No NA

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
96152-F-20230223-01	240-180919-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96152-F-20230223-01	240-180919-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96152-F-20230223-01	240-180919-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-001-96152-F-20230223-01	240-180919-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-001-96152-F-20230223-01	240-180919-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-001-96152-F-20230223-01	240-180919-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230223-01	240-180919-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230223-01	240-180919-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230223-01	240-180919-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-180919-1

Login Number: 180919

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 03/01/23 07:41 AM

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?	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 3/28/2023 4:57:38 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-180920-1

Eurofins Canton

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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Authorization

Roxanne Cisneros

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
^	Continuing Calibration Verification (CCV) is outside acceptance limits, low biased.
H	Sample was prepped or analyzed beyond the specified holding time

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Job ID: 240-180920-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-180920-1

Comments

No additional comments.

Receipt

The samples were received on 2/24/2023 1:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.5° C.

RAD

Methods 9315: Radium-226 batch 602183: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-17-F-20230223-01 (240-180920-1), MW-17-F-20230223-01 (240-180920-1[MS]), MW-17-F-20230223-01 (240-180920-1[MSD]), (LCS 160-602183/2-A) and (MB 160-602183/1-A)

Methods 9320: Radium-228 batch 602192: The LCS recovered at (130%). 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 (62-148%) per method requirements. The LCS passes, no further action is required. (LCS 160-602192/2-A)

Methods 9320: Radium-228 batch 602192: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-17-F-20230223-01 (240-180920-1), MW-17-F-20230223-01 (240-180920-1[MS]), MW-17-F-20230223-01 (240-180920-1[MSD]), (LCS 160-602192/2-A) and (MB 160-602192/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 300.0: CCV and LCS recoveries were low for fluoride. Sample is being reported for in hold results and will be reanalyzed outside of hold time with both sets of data reported. MW-17-F-20230223-01 (240-180920-1), MW-17-F-20230223-01 (240-180920-1[MS]) and MW-17-F-20230223-01 (240-180920-1[MSD])

Method 300.0: Reanalysis of the following samples were performed outside of the analytical holding time due to failing QC in initial run : MW-17-F-20230223-01 (240-180920-1), MW-17-F-20230223-01 (240-180920-1[MS]) and MW-17-F-20230223-01 (240-180920-1[MSD]). Both in hold and out of hold data to be reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CAN
7470A	Mercury (CVAA)	SW846	EET CAN
2320B-1997	Alkalinity, Total	SM	EET CAN
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CAN
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN
7470A	Preparation, Mercury	SW846	EET CAN
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.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-180920-1	MW-17-F-20230223-01	Water	02/23/23 14:30	02/24/23 13:20

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Client Sample ID: MW-17-F-20230223-01

Lab Sample ID: 240-180920-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	2000		5.0	2.2	ug/L	1		6020B	Total Recoverable
Lithium	74		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	4.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2400000		5000	1600	ug/L	5		6020B	Total Recoverable
Thallium	0.36	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.36	*- ^-	0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA
Fluoride - RA	0.76	H	0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Client Sample ID: MW-17-F-20230223-01

Lab Sample ID: 240-180920-1

Date Collected: 02/23/23 14:30

Matrix: Water

Date Received: 02/24/23 13:20

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/27/23 12:00	02/28/23 13:10	1
Arsenic	12		5.0	0.75	ug/L		02/27/23 12:00	02/28/23 13:10	1
Barium	2000		5.0	2.2	ug/L		02/27/23 12:00	02/28/23 13:10	1
Beryllium	ND		1.0	0.62	ug/L		02/27/23 12:00	02/28/23 13:10	1
Cadmium	ND		1.0	0.20	ug/L		02/27/23 12:00	02/28/23 13:10	1
Chromium	ND		5.0	2.5	ug/L		02/27/23 12:00	02/28/23 13:10	1
Cobalt	ND		1.0	0.19	ug/L		02/27/23 12:00	02/28/23 13:10	1
Lead	ND		1.0	0.45	ug/L		02/27/23 12:00	02/28/23 13:10	1
Lithium	74		8.0	1.7	ug/L		02/27/23 12:00	02/28/23 13:10	1
Magnesium	15000		1000	200	ug/L		02/27/23 12:00	02/28/23 13:10	1
Molybdenum	4.2 J		5.0	1.1	ug/L		02/27/23 12:00	02/28/23 13:10	1
Potassium	5100		1000	220	ug/L		02/27/23 12:00	02/28/23 13:10	1
Selenium	ND		5.0	0.89	ug/L		02/27/23 12:00	02/28/23 13:10	1
Sodium	2400000		5000	1600	ug/L		02/27/23 12:00	02/28/23 15:17	5
Thallium	0.36 J		1.0	0.20	ug/L		02/27/23 12:00	02/28/23 13:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.20	0.13	ug/L		02/27/23 09:00	02/28/23 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	240		5.0	2.6	mg/L			03/06/23 14:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	240		5.0	2.6	mg/L			03/06/23 14:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 14:36	1
Fluoride (EPA 300.0-1993 R2.1)	0.36	*- ^-	0.25	0.12	mg/L			03/21/23 18:30	5

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (EPA 300.0-1993 R2.1)	0.76	H	0.25	0.12	mg/L			03/24/23 06:59	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	2.82		0.274	0.374	1.00	0.0940	pCi/L	03/02/23 09:21	03/27/23 16:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					03/02/23 09:21	03/27/23 16:09	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	2.91		0.582	0.641	1.00	0.524	pCi/L	03/02/23 09:53	03/13/23 12:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					03/02/23 09:53	03/13/23 12:16	1
Y Carrier	82.6		30 - 110					03/02/23 09:53	03/13/23 12:16	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Client Sample ID: MW-17-F-20230223-01

Lab Sample ID: 240-180920-1

Date Collected: 02/23/23 14:30

Matrix: Water

Date Received: 02/24/23 13:20

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.73		0.643	0.742	5.00	0.524	pCi/L		03/28/23 13:07	1

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Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-180920-1	MW-17-F-20230223-01	91.2	
240-180920-1 MS	MW-17-F-20230223-01	87.6	
240-180920-1 MSD	MW-17-F-20230223-01	93.2	
LCS 160-602183/2-A	Lab Control Sample	85.6	
MB 160-602183/1-A	Method Blank	94.4	

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-180920-1	MW-17-F-20230223-01	91.2	82.6
240-180920-1 MS	MW-17-F-20230223-01	87.6	83.0
240-180920-1 MSD	MW-17-F-20230223-01	93.2	90.1
LCS 160-602192/2-A	Lab Control Sample	85.6	86.0
MB 160-602192/1-A	Method Blank	94.4	85.2

Tracer/Carrier Legend
Ba = Ba Carrier
Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-563521/1-A
Matrix: Water
Analysis Batch: 563773

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 563521

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		2.0	0.57	ug/L		02/27/23 12:00	02/28/23 12:52	1
Arsenic	ND		5.0	0.75	ug/L		02/27/23 12:00	02/28/23 12:52	1
Barium	ND		5.0	2.2	ug/L		02/27/23 12:00	02/28/23 12:52	1
Beryllium	ND		1.0	0.62	ug/L		02/27/23 12:00	02/28/23 12:52	1
Cadmium	ND		1.0	0.20	ug/L		02/27/23 12:00	02/28/23 12:52	1
Chromium	ND		5.0	2.5	ug/L		02/27/23 12:00	02/28/23 12:52	1
Cobalt	ND		1.0	0.19	ug/L		02/27/23 12:00	02/28/23 12:52	1
Lead	ND		1.0	0.45	ug/L		02/27/23 12:00	02/28/23 12:52	1
Lithium	ND		8.0	1.7	ug/L		02/27/23 12:00	02/28/23 12:52	1
Magnesium	ND		1000	200	ug/L		02/27/23 12:00	02/28/23 12:52	1
Molybdenum	ND		5.0	1.1	ug/L		02/27/23 12:00	02/28/23 12:52	1
Potassium	ND		1000	220	ug/L		02/27/23 12:00	02/28/23 12:52	1
Selenium	ND		5.0	0.89	ug/L		02/27/23 12:00	02/28/23 12:52	1
Sodium	ND		1000	330	ug/L		02/27/23 12:00	02/28/23 12:52	1
Thallium	ND		1.0	0.20	ug/L		02/27/23 12:00	02/28/23 12:52	1

Lab Sample ID: LCS 240-563521/3-A
Matrix: Water
Analysis Batch: 563773

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 563521

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Antimony	100	97.4		ug/L		97	80 - 120
Arsenic	1000	893		ug/L		89	80 - 120
Barium	1000	899		ug/L		90	80 - 120
Beryllium	500	505		ug/L		101	80 - 120
Cadmium	500	456		ug/L		91	80 - 120
Chromium	500	458		ug/L		92	80 - 120
Cobalt	500	453		ug/L		91	80 - 120
Lead	500	463		ug/L		93	80 - 120
Lithium	500	480		ug/L		96	80 - 120
Magnesium	25000	23500		ug/L		94	80 - 120
Molybdenum	500	456		ug/L		91	80 - 120
Potassium	25000	23700		ug/L		95	80 - 120
Selenium	1000	906		ug/L		91	80 - 120
Sodium	25000	23600		ug/L		94	80 - 120
Thallium	1000	889		ug/L		89	80 - 120

Lab Sample ID: 240-180920-1 MS
Matrix: Water
Analysis Batch: 563773

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total Recoverable
Prep Batch: 563521

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Antimony	ND		100	96.5		ug/L		96	80 - 120
Arsenic	12		1000	959		ug/L		95	80 - 120
Barium	2000		1000	2830		ug/L		85	80 - 120
Beryllium	ND		500	507		ug/L		101	80 - 120
Cadmium	ND		500	430		ug/L		86	80 - 120
Chromium	ND		500	433		ug/L		87	80 - 120
Cobalt	ND		500	468		ug/L		94	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-180920-1 MS
Matrix: Water
Analysis Batch: 563773

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total Recoverable
Prep Batch: 563521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		500	458		ug/L		92	80 - 120
Lithium	74		500	555		ug/L		96	80 - 120
Magnesium	15000		25000	36400		ug/L		87	80 - 120
Molybdenum	4.2	J	500	479		ug/L		95	80 - 120
Potassium	5100		25000	27100		ug/L		88	80 - 120
Selenium	ND		1000	824		ug/L		82	80 - 120
Thallium	0.36	J	1000	818		ug/L		82	80 - 120

Lab Sample ID: 240-180920-1 MS
Matrix: Water
Analysis Batch: 563773

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total Recoverable
Prep Batch: 563521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	2400000		25000	2450000	4	ug/L		45	80 - 120

Lab Sample ID: 240-180920-1 MSD
Matrix: Water
Analysis Batch: 563773

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total Recoverable
Prep Batch: 563521

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		100	101		ug/L		101	80 - 120	5	20
Arsenic	12		1000	1010		ug/L		100	80 - 120	5	20
Barium	2000		1000	2940		ug/L		96	80 - 120	4	20
Beryllium	ND		500	519		ug/L		104	80 - 120	2	20
Cadmium	ND		500	450		ug/L		90	80 - 120	5	20
Chromium	ND		500	452		ug/L		90	80 - 120	4	20
Cobalt	ND		500	496		ug/L		99	80 - 120	6	20
Lead	ND		500	478		ug/L		96	80 - 120	4	20
Lithium	74		500	572		ug/L		99	80 - 120	3	20
Magnesium	15000		25000	38300		ug/L		95	80 - 120	5	20
Molybdenum	4.2	J	500	506		ug/L		100	80 - 120	5	20
Potassium	5100		25000	28500		ug/L		94	80 - 120	5	20
Selenium	ND		1000	850		ug/L		85	80 - 120	3	20
Thallium	0.36	J	1000	851		ug/L		85	80 - 120	4	20

Lab Sample ID: 240-180920-1 MSD
Matrix: Water
Analysis Batch: 563773

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total Recoverable
Prep Batch: 563521

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Sodium	2400000		25000	2520000	4	ug/L		313	80 - 120	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-563524/1-A
Matrix: Water
Analysis Batch: 563727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563524

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/27/23 09:00	02/28/23 12:57	1

Eurofins Canton

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 240-563524/2-A
Matrix: Water
Analysis Batch: 563727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563524

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.12		ug/L		102	80 - 120

Lab Sample ID: 240-180920-1 MS
Matrix: Water
Analysis Batch: 563727

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA
Prep Batch: 563524

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND	F1	1.00	1.24	F1	ug/L		124	80 - 120

Lab Sample ID: 240-180920-1 MSD
Matrix: Water
Analysis Batch: 563727

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA
Prep Batch: 563524

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	F1	1.00	1.23	F1	ug/L		123	80 - 120	1	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-564459/30
Matrix: Water
Analysis Batch: 564459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 13:08	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 13:08	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 13:08	1

Lab Sample ID: MB 240-564459/4
Matrix: Water
Analysis Batch: 564459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 11:25	1

Lab Sample ID: LCS 240-564459/29
Matrix: Water
Analysis Batch: 564459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	138		mg/L		95	86 - 123

Lab Sample ID: 240-180920-1 DU
Matrix: Water
Analysis Batch: 564459

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	240		235		mg/L		4	20
Bicarbonate Alkalinity as CaCO3	240		235		mg/L		4	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-180920-1 DU
 Matrix: Water
 Analysis Batch: 564459

Client Sample ID: MW-17-F-20230223-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-566235/3
 Matrix: Water
 Analysis Batch: 566235

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	^-	0.050	0.024	mg/L			03/21/23 14:28	1

Lab Sample ID: LCS 240-566235/4
 Matrix: Water
 Analysis Batch: 566235

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.18	*- ^-	mg/L		87	90 - 110

Lab Sample ID: 240-180920-1 MS
 Matrix: Water
 Analysis Batch: 566235

Client Sample ID: MW-17-F-20230223-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.36	*- ^-	12.5	11.1	^-	mg/L		86	80 - 120

Lab Sample ID: 240-180920-1 MSD
 Matrix: Water
 Analysis Batch: 566235

Client Sample ID: MW-17-F-20230223-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.36	*- ^-	12.5	11.4	^-	mg/L		88	80 - 120	2	15

Lab Sample ID: MB 240-566418/51
 Matrix: Water
 Analysis Batch: 566418

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/24/23 06:16	1

Lab Sample ID: LCS 240-566418/52
 Matrix: Water
 Analysis Batch: 566418

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.33		mg/L		93	90 - 110

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography - RA

Lab Sample ID: 240-180920-1 MS
Matrix: Water
Analysis Batch: 566418

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride - RA	0.76	H	12.5	13.2	H	mg/L		100	80 - 120

Lab Sample ID: 240-180920-1 MSD
Matrix: Water
Analysis Batch: 566418

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride - RA	0.76	H	12.5	13.3	H	mg/L		100	80 - 120	1	15

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-602183/1-A
Matrix: Water
Analysis Batch: 605096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602183

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01097	U	0.0446	0.0446	1.00	0.0873	pCi/L	03/02/23 09:21	03/27/23 10:07	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110					03/02/23 09:21	03/27/23 10:07	1

Lab Sample ID: LCS 160-602183/2-A
Matrix: Water
Analysis Batch: 605096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602183

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	12.27		1.26	1.00	0.132	pCi/L	108	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	85.6		30 - 110						

Lab Sample ID: 240-180920-1 MS
Matrix: Water
Analysis Batch: 605095

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA
Prep Batch: 602183

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	2.82		11.4	12.94		1.30	1.00	0.112	pCi/L	89	60 - 140
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	87.6		30 - 110								

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: 240-180920-1 MSD
Matrix: Water
Analysis Batch: 605095

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA
Prep Batch: 602183

Analyte	Sample	Sample	Spike	MSD	MSD	Total	RL	MDC	Unit	%Rec	%Rec	RER	RER
	Result	Qual		Result	Qual	Uncert.					Limits		Limit
Radium-226	2.82		11.3	13.06		1.31	1.00	0.111	pCi/L	90	60 - 140	0.04	1
Carrier	%Yield	MSD	MSD	Qualifier	Limits								
Ba Carrier	93.2				30 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-602192/1-A
Matrix: Water
Analysis Batch: 603500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602192

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.008484	U	0.285	0.285	1.00	0.530	pCi/L	03/02/23 09:53	03/13/23 12:02	1
Carrier	%Yield	MB	MB	Limits				Prepared	Analyzed	Dil Fac
Ba Carrier	94.4			30 - 110				03/02/23 09:53	03/13/23 12:02	1
Y Carrier	85.2			30 - 110				03/02/23 09:53	03/13/23 12:02	1

Lab Sample ID: LCS 160-602192/2-A
Matrix: Water
Analysis Batch: 603500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602192

Analyte	Spike	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec
		Result	Qual						Uncert.
Radium-228	8.12	10.59		1.41	1.00	0.496	pCi/L	130	75 - 125
Carrier	%Yield	LCS	LCS	Limits					
Ba Carrier	85.6			30 - 110					
Y Carrier	86.0			30 - 110					

Lab Sample ID: 240-180920-1 MS
Matrix: Water
Analysis Batch: 603501

Client Sample ID: MW-17-F-20230223-01
Prep Type: Total/NA
Prep Batch: 602192

Analyte	Sample	Sample	Spike	MS	MS	Total	RL	MDC	Unit	%Rec	%Rec
	Result	Qual		Result	Qual	Uncert.					Limits
Radium-228	2.91		8.16	9.894		1.37	1.00	0.543	pCi/L	86	60 - 140
Carrier	%Yield	MS	MS	Qualifier	Limits						
Ba Carrier	87.6				30 - 110						
Y Carrier	83.0				30 - 110						

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-180920-1 MSD

Matrix: Water

Analysis Batch: 603501

Client Sample ID: MW-17-F-20230223-01

Prep Type: Total/NA

Prep Batch: 602192

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	2.91		8.11	11.88		1.50	1.00	0.493	pCi/L	111	60 - 140	0.69	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	93.2		30 - 110
Y Carrier	90.1		30 - 110

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Metals

Prep Batch: 563521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total Recoverable	Water	3005A	
MB 240-563521/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-563521/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-180920-1 MS	MW-17-F-20230223-01	Total Recoverable	Water	3005A	
240-180920-1 MSD	MW-17-F-20230223-01	Total Recoverable	Water	3005A	

Prep Batch: 563524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total/NA	Water	7470A	
MB 240-563524/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-563524/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-180920-1 MS	MW-17-F-20230223-01	Total/NA	Water	7470A	
240-180920-1 MSD	MW-17-F-20230223-01	Total/NA	Water	7470A	

Analysis Batch: 563727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total/NA	Water	7470A	563524
MB 240-563524/1-A	Method Blank	Total/NA	Water	7470A	563524
LCS 240-563524/2-A	Lab Control Sample	Total/NA	Water	7470A	563524
240-180920-1 MS	MW-17-F-20230223-01	Total/NA	Water	7470A	563524
240-180920-1 MSD	MW-17-F-20230223-01	Total/NA	Water	7470A	563524

Analysis Batch: 563773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total Recoverable	Water	6020B	563521
240-180920-1	MW-17-F-20230223-01	Total Recoverable	Water	6020B	563521
MB 240-563521/1-A	Method Blank	Total Recoverable	Water	6020B	563521
LCS 240-563521/3-A	Lab Control Sample	Total Recoverable	Water	6020B	563521
240-180920-1 MS	MW-17-F-20230223-01	Total Recoverable	Water	6020B	563521
240-180920-1 MS	MW-17-F-20230223-01	Total Recoverable	Water	6020B	563521
240-180920-1 MSD	MW-17-F-20230223-01	Total Recoverable	Water	6020B	563521
240-180920-1 MSD	MW-17-F-20230223-01	Total Recoverable	Water	6020B	563521

General Chemistry

Analysis Batch: 564459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total/NA	Water	2320B-1997	
MB 240-564459/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-564459/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-564459/29	Lab Control Sample	Total/NA	Water	2320B-1997	
240-180920-1 DU	MW-17-F-20230223-01	Total/NA	Water	2320B-1997	

Analysis Batch: 566235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-566235/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-566235/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-180920-1 MS	MW-17-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
240-180920-1 MSD	MW-17-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

General Chemistry

Analysis Batch: 566418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1 - RA	MW-17-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-566418/51	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-566418/52	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-180920-1 MS - RA	MW-17-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	
240-180920-1 MSD - RA	MW-17-F-20230223-01	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 602183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total/NA	Water	PrecSep-21	
MB 160-602183/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602183/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-180920-1 MS	MW-17-F-20230223-01	Total/NA	Water	PrecSep-21	
240-180920-1 MSD	MW-17-F-20230223-01	Total/NA	Water	PrecSep-21	

Prep Batch: 602192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-180920-1	MW-17-F-20230223-01	Total/NA	Water	PrecSep_0	
MB 160-602192/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602192/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-180920-1 MS	MW-17-F-20230223-01	Total/NA	Water	PrecSep_0	
240-180920-1 MSD	MW-17-F-20230223-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Client Sample ID: MW-17-F-20230223-01

Lab Sample ID: 240-180920-1

Date Collected: 02/23/23 14:30

Matrix: Water

Date Received: 02/24/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			563521	AJC	EET CAN	02/27/23 12:00
Total Recoverable	Analysis	6020B		1	563773	DSH	EET CAN	02/28/23 13:10
Total Recoverable	Prep	3005A			563521	AJC	EET CAN	02/27/23 12:00
Total Recoverable	Analysis	6020B		5	563773	DSH	EET CAN	02/28/23 15:17
Total/NA	Prep	7470A			563524	AJC	EET CAN	02/27/23 09:00
Total/NA	Analysis	7470A		1	563727	MRL	EET CAN	02/28/23 13:08
Total/NA	Analysis	2320B-1997		1	564459	JMR	EET CAN	03/06/23 14:36
Total/NA	Analysis	300.0-1993 R2.1	RA	5	566418	JMB	EET CAN	03/24/23 06:59
Total/NA	Analysis	300.0-1993 R2.1		5	566235	JMB	EET CAN	03/21/23 18:30
Total/NA	Prep	PrecSep-21			602183	DJP	EET SL	03/02/23 09:21
Total/NA	Analysis	9315		1	605096	FLC	EET SL	03/27/23 16:09
Total/NA	Prep	PrecSep_0			602192	DJP	EET SL	03/02/23 09:53
Total/NA	Analysis	9320		1	603501	FLC	EET SL	03/13/23 12:16
Total/NA	Analysis	Ra226_Ra228		1	605252	EMH	EET SL	03/28/23 13:07

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23 *
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23 *
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-23 *
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	04-01-23
North Carolina (DW)	State	29700	07-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-180920-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	06-11-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-24
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Chain of Custody Record



Client Information Client Contact: Bobby Castle Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project Name: Federal CCR Wells - App IV Site:		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@Eurofins.com State of Origin:		Carrier Tracking No(s): Page: Page 1 of 1 Job #:		COC No: 240-93466-34578.1	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #:		PWSID: Perform MSD (Yes or No)		Analysis Requested		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification MW-17-F-20230223-C1 MW-17-F-20230223-MS MW-17-F-20230223-MSD		Sample Date 2-23-23 2-23-23 2-23-23		Sample Time 1430 1430 1430		Sample Type (C=Comp, G=grab) G G G	
Matrix (Water, Soil, Sediment, Other) Water Water Water Water		Field Filtered Sample (Yes or No) N Y Y		Preservation Code: N N N		Special Instructions/Note: Total Number of containers:	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: Bobby Castle Relinquished by: Tom Edwards Relinquished by:		Date/Time: 2-24-23 10:15 Date/Time: 2-24-23 14:30 Date/Time:		Received by: Tom Edwards Received by:		Date/Time: 2-24-23 11:10 Date/Time: 2-24-23 13:20 Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Relinquished by:		Company: Auto Options Company: FF TNC Company:		Cooler Temperature(s) °C and Other Remarks:	



Client Gravin Site Name _____

Cooler unpacked by: Alex Ch.

Cooler Received on 2/24/23 Opened on _____

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # FC ~~rad~~ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None _____

1. Cooler temperature upon receipt See Multiple Cooler Form
- IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. 1.7 °C Corrected Cooler Temp. 1.5 °C
- IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
- IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No No NA
- Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
- Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers Y/N, and sample type of grab/comp Y/N?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
- If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

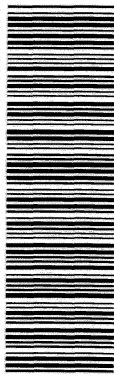
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
MW-17-F-20230223-01	240-180920-G-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-H-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-I-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-J-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-K-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-L-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-M-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-N-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-O-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

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180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Client Information Client Contact: Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project Name: Federal CCR Wells - App IV Site:		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@Eurofinset.com Carrier Tracking No(s): State of Origin:		COC No: 240-93466-34578-1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #:		Analysis Requested 6020, 7470A 300.0, 28D - Fluoride 2308 - Alkalinity 8315, Ra226, 9320, Ra228, Ra226Ra228, GPFC		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification MW-17-F-20230223-01 MW-17-F-20230223-MS MW-17-F-20230223-MSD		Field Filtered Sample (Yes or No) X D N D X D N D X D N D X D N D		Total Number of Containers X Special Instructions/Note:	
Sample Date 2-23-23 1430 2-23-23 1430 2-23-23 1430		Sample Time X X X		Matrix (W=water, S=solid, O=oil, A=acid) Water Water Water Water Water	
Sample Type (C=Comp, G=grab) G G G		Preservation Code: G G G		Special Instructions/Note: 240-180920 Chain of Custody 	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by:					
Relinquished by: <i>Tom Edwards</i> Date/Time: 2-24-23 14:30		Relinquished by: <i>Tom Edwards</i> Date/Time: 2-24-23 14:30		Relinquished by: <i>Tom Edwards</i> Date/Time: 2-24-23 14:30	
Relinquished by: <i>Tom Edwards</i> Date/Time: 2-24-23 14:30		Relinquished by: <i>Tom Edwards</i> Date/Time: 2-24-23 14:30		Relinquished by: <i>Tom Edwards</i> Date/Time: 2-24-23 14:30	
Cooler Temperature(s) °C and Other Remarks:					



Client Gravin Site Name _____

Cooler unpacked by: Alex

Cooler Received on 2/24/23 Opened on 2-24-23

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # FC ~~NA~~ Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. 1.7 °C Corrected Cooler Temp. 1.5 °C
IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

- 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
- 3. Shippers' packing slip attached to the cooler(s)? Yes No
- 4. Did custody papers accompany the sample(s)? Yes No
- 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
- 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- 7. Did all bottles arrive in good condition (Unbroken)? Yes No
- 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
- 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
- 10. Were correct bottle(s) used for the test(s) indicated? Yes No
- 11. Sufficient quantity received to perform indicated analyses? Yes No
- 12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
- 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
- 14. Were VOAs on the COC? Yes No
- 15. Were air bubbles >6 mm in any VOA vials? Yes No NA ← Larger than this.
- 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- 17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

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Temperature readings:

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
MW-17-F-20230223-01	240-180920-G-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-H-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-I-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-J-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-K-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-L-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-M-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-N-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230223-01	240-180920-O-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Camer Tracking No(s):	
Client Contact: Shipping/Receiving		Phone:	Cisneros, Roxanne	240-164363-1	
Company: TestAmerica Laboratories, Inc.		E-Mail: roxanne.cisneros@eurofins.com	State of Origin: Ohio		
Address: 13715 Rider Trail North, Earth City, State, Zip: MO, 63045		Due Date Requested: 3/9/2023	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
PO #:	WO #:	TAT Requested (days):	Analysis Requested		
Project #: 24019633	SSOW#:	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)
Project Name: Federal GWM Wells	Site:	2/23/23	14:30 Eastern	Water	Water
Sample Identification - Client ID (Lab ID)		MW-17-F-20230223-01 (240-180920-1)			
Special Instructions/Note:		Recount of TAR after 21 day ingrowth if > action limit, save planchet			
Total Number of Containers		6			
Perform MS/MSD (Yes or No)		X			
Field Filtered Sample (Yes or No)		X			
9315_Ra226/PreSep_21 Radium-226 (GFPC)		X			
9320_Ra228/PreSep_0 Radium-228 (GFPC)		X			
Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228		X			

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Received by: _____ Date/Time: _____
 Received by: *Sara Worthington* Date/Time: FEB 28 2023 0900
 Received by: _____ Date/Time: _____

Company: _____
 Company: _____
 Company: _____

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-180920-1

Login Number: 180920

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 03/01/23 07:41 AM

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?	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-180920-1

Login Number: 180920

List Number: 3

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 03/02/23 12:11 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?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 3/18/2023 1:27:59 PM

JOB DESCRIPTION

Federal CCR Wells - App III and IV Combined

JOB NUMBER

240-181014-1

Eurofins Canton

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



Generated
3/18/2023 1:27:59 PM

Authorized for release by
Patrick O'Meara, Manager of Project Management
Patrick.O'Meara@et.eurofinsus.com
Designee for
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



Table of Contents

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Job ID: 240-181014-1

Laboratory: Eurofins Canton

Narrative

**Job Narrative
240-181014-1**

Receipt

The sample was received on 2/27/2023 @ 1:20 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.7°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CAN
6020B	Metals (ICP/MS)	SW846	EET CAN
7470A	Mercury (CVAA)	SW846	EET CAN
2320B-1997	Alkalinity, Total	SM	EET CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN
7470A	Preparation, Mercury	SW846	EET CAN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-181014-1	9910-F-20230224-01	Water	02/24/23 10:30	02/27/23 13:20

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Client Sample ID: 9910-F-20230224-01

Lab Sample ID: 240-181014-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	520		100	57	ug/L	1		6010D	Total
									Recoverable
Antimony	0.82	J	2.0	0.57	ug/L	1		6020B	Total
									Recoverable
Arsenic	5.2		5.0	0.75	ug/L	1		6020B	Total
									Recoverable
Barium	240		5.0	2.2	ug/L	1		6020B	Total
									Recoverable
Cadmium	0.23	J	1.0	0.20	ug/L	1		6020B	Total
									Recoverable
Chromium	17		5.0	2.5	ug/L	1		6020B	Total
									Recoverable
Cobalt	1.1		1.0	0.19	ug/L	1		6020B	Total
									Recoverable
Lead	1.4		1.0	0.45	ug/L	1		6020B	Total
									Recoverable
Lithium	34		8.0	1.7	ug/L	1		6020B	Total
									Recoverable
Magnesium	4600		1000	200	ug/L	1		6020B	Total
									Recoverable
Molybdenum	15		5.0	1.1	ug/L	1		6020B	Total
									Recoverable
Potassium	3100		1000	220	ug/L	1		6020B	Total
									Recoverable
Selenium	11		5.0	0.89	ug/L	1		6020B	Total
									Recoverable
Sodium	1100000		10000	3300	ug/L	10		6020B	Total
									Recoverable
Thallium	0.66	J	1.0	0.20	ug/L	1		6020B	Total
									Recoverable
Total Alkalinity	790		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	790		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Client Sample ID: 9910-F-20230224-01

Lab Sample ID: 240-181014-1

Date Collected: 02/24/23 10:30

Matrix: Water

Date Received: 02/27/23 13:20

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	520		100	57	ug/L		03/13/23 14:00	03/15/23 00:15	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.82	J	2.0	0.57	ug/L		03/13/23 14:00	03/14/23 20:18	1
Arsenic	5.2		5.0	0.75	ug/L		03/13/23 14:00	03/14/23 20:18	1
Barium	240		5.0	2.2	ug/L		03/13/23 14:00	03/14/23 20:18	1
Beryllium	ND		1.0	0.62	ug/L		03/13/23 14:00	03/14/23 20:18	1
Cadmium	0.23	J	1.0	0.20	ug/L		03/13/23 14:00	03/14/23 20:18	1
Chromium	17		5.0	2.5	ug/L		03/13/23 14:00	03/14/23 20:18	1
Cobalt	1.1		1.0	0.19	ug/L		03/13/23 14:00	03/14/23 20:18	1
Lead	1.4		1.0	0.45	ug/L		03/13/23 14:00	03/14/23 20:18	1
Lithium	34		8.0	1.7	ug/L		03/13/23 14:00	03/14/23 20:18	1
Magnesium	4600		1000	200	ug/L		03/13/23 14:00	03/14/23 20:18	1
Molybdenum	15		5.0	1.1	ug/L		03/13/23 14:00	03/14/23 20:18	1
Potassium	3100		1000	220	ug/L		03/13/23 14:00	03/14/23 20:18	1
Selenium	11		5.0	0.89	ug/L		03/13/23 14:00	03/14/23 20:18	1
Sodium	1100000		10000	3300	ug/L		03/13/23 14:00	03/15/23 16:41	10
Thallium	0.66	J	1.0	0.20	ug/L		03/13/23 14:00	03/14/23 20:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.20	0.13	ug/L		03/13/23 14:00	03/16/23 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	790		5.0	2.6	mg/L			03/06/23 14:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	790		5.0	2.6	mg/L			03/06/23 14:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 14:47	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-565194/1-A
Matrix: Water
Analysis Batch: 565413

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 565194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/13/23 14:00	03/14/23 23:58	1

Lab Sample ID: LCS 240-565194/2-A
Matrix: Water
Analysis Batch: 565413

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 565194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1020		ug/L		102	80 - 120

Lab Sample ID: 240-181014-1 MS
Matrix: Water
Analysis Batch: 565413

Client Sample ID: 9910-F-20230224-01
Prep Type: Total Recoverable
Prep Batch: 565194

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	520		1000	1530		ug/L		101	75 - 125

Lab Sample ID: 240-181014-1 MSD
Matrix: Water
Analysis Batch: 565413

Client Sample ID: 9910-F-20230224-01
Prep Type: Total Recoverable
Prep Batch: 565194

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Boron	520		1000	1560		ug/L		104	75 - 125	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-565194/1-A
Matrix: Water
Analysis Batch: 565410

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 565194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/23 14:00	03/14/23 20:13	1
Arsenic	ND		5.0	0.75	ug/L		03/13/23 14:00	03/14/23 20:13	1
Barium	ND		5.0	2.2	ug/L		03/13/23 14:00	03/14/23 20:13	1
Beryllium	ND		1.0	0.62	ug/L		03/13/23 14:00	03/14/23 20:13	1
Cadmium	ND		1.0	0.20	ug/L		03/13/23 14:00	03/14/23 20:13	1
Chromium	ND		5.0	2.5	ug/L		03/13/23 14:00	03/14/23 20:13	1
Cobalt	ND		1.0	0.19	ug/L		03/13/23 14:00	03/14/23 20:13	1
Lead	ND		1.0	0.45	ug/L		03/13/23 14:00	03/14/23 20:13	1
Lithium	ND		8.0	1.7	ug/L		03/13/23 14:00	03/14/23 20:13	1
Magnesium	ND		1000	200	ug/L		03/13/23 14:00	03/14/23 20:13	1
Molybdenum	ND		5.0	1.1	ug/L		03/13/23 14:00	03/14/23 20:13	1
Potassium	ND		1000	220	ug/L		03/13/23 14:00	03/14/23 20:13	1
Selenium	ND		5.0	0.89	ug/L		03/13/23 14:00	03/14/23 20:13	1
Sodium	ND		1000	330	ug/L		03/13/23 14:00	03/14/23 20:13	1
Thallium	ND		1.0	0.20	ug/L		03/13/23 14:00	03/14/23 20:13	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-565194/3-A
 Matrix: Water
 Analysis Batch: 565410

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 565194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	902		ug/L		90	80 - 120
Barium	1000	943		ug/L		94	80 - 120
Beryllium	500	504		ug/L		101	80 - 120
Cadmium	500	466		ug/L		93	80 - 120
Chromium	500	487		ug/L		97	80 - 120
Cobalt	500	456		ug/L		91	80 - 120
Lead	500	484		ug/L		97	80 - 120
Lithium	500	498		ug/L		100	80 - 120
Magnesium	25000	25000		ug/L		100	80 - 120
Molybdenum	500	466		ug/L		93	80 - 120
Potassium	25000	24400		ug/L		98	80 - 120
Selenium	1000	885		ug/L		89	80 - 120
Sodium	25000	24900		ug/L		100	80 - 120
Thallium	1000	967		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-565197/1-A
 Matrix: Water
 Analysis Batch: 565701

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 565197

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/23 14:00	03/16/23 14:57	1

Lab Sample ID: LCS 240-565197/2-A
 Matrix: Water
 Analysis Batch: 565701

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 565197

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.37		ug/L		107	80 - 120

Lab Sample ID: 240-181014-1 MS
 Matrix: Water
 Analysis Batch: 565701

Client Sample ID: 9910-F-20230224-01
 Prep Type: Total/NA
 Prep Batch: 565197

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND	F1	1.00	1.30	F1	ug/L		130	80 - 120

Lab Sample ID: 240-181014-1 MSD
 Matrix: Water
 Analysis Batch: 565701

Client Sample ID: 9910-F-20230224-01
 Prep Type: Total/NA
 Prep Batch: 565197

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limit	RPD	RPD Limit
Mercury	ND	F1	1.00	1.25	F1	ug/L		125	80 - 120	4	20

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-564459/30
Matrix: Water
Analysis Batch: 564459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 13:08	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 13:08	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 13:08	1

Lab Sample ID: MB 240-564459/4
Matrix: Water
Analysis Batch: 564459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 11:25	1

Lab Sample ID: LCS 240-564459/29
Matrix: Water
Analysis Batch: 564459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	138		mg/L		95	86 - 123

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Metals

Prep Batch: 565194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181014-1	9910-F-20230224-01	Total Recoverable	Water	3005A	
MB 240-565194/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-565194/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-565194/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-181014-1 MS	9910-F-20230224-01	Total Recoverable	Water	3005A	
240-181014-1 MSD	9910-F-20230224-01	Total Recoverable	Water	3005A	

Prep Batch: 565197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181014-1	9910-F-20230224-01	Total/NA	Water	7470A	
MB 240-565197/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-565197/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-181014-1 MS	9910-F-20230224-01	Total/NA	Water	7470A	
240-181014-1 MSD	9910-F-20230224-01	Total/NA	Water	7470A	

Analysis Batch: 565410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181014-1	9910-F-20230224-01	Total Recoverable	Water	6020B	565194
MB 240-565194/1-A	Method Blank	Total Recoverable	Water	6020B	565194
LCS 240-565194/3-A	Lab Control Sample	Total Recoverable	Water	6020B	565194

Analysis Batch: 565413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181014-1	9910-F-20230224-01	Total Recoverable	Water	6010D	565194
MB 240-565194/1-A	Method Blank	Total Recoverable	Water	6010D	565194
LCS 240-565194/2-A	Lab Control Sample	Total Recoverable	Water	6010D	565194
240-181014-1 MS	9910-F-20230224-01	Total Recoverable	Water	6010D	565194
240-181014-1 MSD	9910-F-20230224-01	Total Recoverable	Water	6010D	565194

Analysis Batch: 565511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181014-1	9910-F-20230224-01	Total Recoverable	Water	6020B	565194

Analysis Batch: 565701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181014-1	9910-F-20230224-01	Total/NA	Water	7470A	565197
MB 240-565197/1-A	Method Blank	Total/NA	Water	7470A	565197
LCS 240-565197/2-A	Lab Control Sample	Total/NA	Water	7470A	565197
240-181014-1 MS	9910-F-20230224-01	Total/NA	Water	7470A	565197
240-181014-1 MSD	9910-F-20230224-01	Total/NA	Water	7470A	565197

General Chemistry

Analysis Batch: 564459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181014-1	9910-F-20230224-01	Total/NA	Water	2320B-1997	
MB 240-564459/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-564459/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-564459/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Client Sample ID: 9910-F-20230224-01

Lab Sample ID: 240-181014-1

Date Collected: 02/24/23 10:30

Matrix: Water

Date Received: 02/27/23 13:20

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total Recoverable	Prep	3005A			565194	MRL	EET CAN	03/13/23 14:00
Total Recoverable	Analysis	6010D		1	565413	RKT	EET CAN	03/15/23 00:15
Total Recoverable	Prep	3005A			565194	MRL	EET CAN	03/13/23 14:00
Total Recoverable	Analysis	6020B		1	565410	AJC	EET CAN	03/14/23 20:18
Total Recoverable	Prep	3005A			565194	MRL	EET CAN	03/13/23 14:00
Total Recoverable	Analysis	6020B		10	565511	AJC	EET CAN	03/15/23 16:41
Total/NA	Prep	7470A			565197	MRL	EET CAN	03/13/23 14:00
Total/NA	Analysis	7470A		1	565701	DSH	EET CAN	03/16/23 15:06
Total/NA	Analysis	2320B-1997		1	564459	JMR	EET CAN	03/06/23 14:47

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and IV Combined

Job ID: 240-181014-1

Laboratory: Eurofins Canton

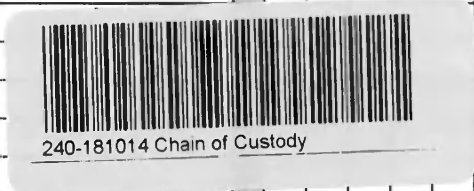
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23 *
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23 *
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23 *
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-23 *
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23 *
Ohio VAP	State	CL0024	02-27-23 *
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record

Client Information		Carrier Tracking No(s):		COC No:	
Client Contact: Taylor Huffman		Lab PM: Cisneros, Roxanne		240-97179-35520.1	
Company: Lightstone Generation Gavin Power LLC		E-Mail: roxanne.cisneros@et.eurofins.com		Page: Page 1 of 1	
Address: 7397 OH-7		State of Origin:		Job #:	
City: Cheshire		Due Date Requested:		Analysis Requested	
State, Zip: OH, 45620		TAT Requested (days):		Preservation Codes:	
Phone: 740-925-3171(Tel)		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		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:	
Email: taylor.huffman@lightstonegen.com		PO #: 2935505		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 Y - Trizma Z - other (specify)	
Project Name: Gavin CCR - Appendix III and IV - Combined		WO #:		Special Instructions/Note:	
Site: Oach Plant		Project #: 24019633		Total Number of Containers	
SSOW#:		Sample Date		Special Instructions/Note:	
Sample Identification		Sample Time		Special Instructions/Note:	
990-F-20230224-C1		2-24-23 1030		Special Instructions/Note:	
Sample Type (C=comp, G=grab)		Preservation Code:		Special Instructions/Note:	
G		W		Special Instructions/Note:	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Special Instructions/Note:	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		Special Instructions/Note:	
300.0_28D - Fluoride (APPV)/Cl, F, SO4 (APPV)		300.0_28D - Fluoride (APPV)/Cl, F, SO4 (APPV)		Special Instructions/Note:	
6010B, 6020, 7470A		6010B, 6020, 7470A		Special Instructions/Note:	
2320B - Alkalinity		2320B - Alkalinity		Special Instructions/Note:	
9315_Ra226, 9320_Ra228		9315_Ra226, 9320_Ra228		Special Instructions/Note:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Disposal By Lab		Months	
<input type="checkbox"/> Return To Client		<input type="checkbox"/> Disposal By Lab		Months	
Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:	
Possible Hazard Identification		Date:		Date/Time:	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		2-27-23 / 0855		2-27-23 9:41	
Deliverable Requested: I, II, III, IV, Other (specify)		Date/Time:		Date/Time:	
Empty Kit Relinquished by:		Date/Time:		Date/Time:	
Relinquished by: <i>Tom Edwards</i>		2-27-23 1330 hrs		2-27-23 15:20	
Relinquished by: <i>Tom Edwards</i>		Date/Time:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Company	
Cooler Temperature(s) °C and Other Remarks:		Company		Company	
		Company		Company	



Barberton Facility

Client Lightstone

Site Name _____

Cooler unpacked by:

Cooler Received on 2-27-23

Opened on 2-28-23

Vandy Rye

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # ES Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

- 1. Cooler temperature upon receipt See Multiple Cooler Form
 - IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 - IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 - IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

- 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each
 - Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 - Were tamper/custody seals intact and uncompromised? Yes No NA
- 3. Shippers' packing slip attached to the cooler(s)? Yes No
- 4. Did custody papers accompany the sample(s)? Yes No
- 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
- 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- 7. Did all bottles arrive in good condition (Unbroken)? Yes No
- 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
- 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
- 10. Were correct bottle(s) used for the test(s) indicated? Yes No
- 11. Sufficient quantity received to perform indicated analyses? Yes No
- 12. Are these work share samples and all listed on the COC? Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

- If yes, Questions 13-17 have been checked at the originating laboratory.
- 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
- 14. Were VOAs on the COC? Yes No
- 15. Were air bubbles >6 mm in any VOA vials? Yes Larger than this.
- 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
- 17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
9910-F-20230224-01	240-181014-A-1	Plastic 250ml - unpreserved	_____	_____	_____	_____
9910-F-20230224-01	240-181014-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____



ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 4/5/2023 12:59:34 PM

JOB DESCRIPTION

Federal CCR Wells - App III and App IV Combined

JOB NUMBER

240-181279-1

Eurofins Canton

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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4/5/2023 12:59:34 PM

Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV Combines

Job ID: 240-181279-1

Qualifiers

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.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV Combined

Job ID: 240-181279-1

Job ID: 240-181279-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-181279-1

Comments

No additional comments.

Receipt

The samples were received on 3/3/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.7° C, 2.3° C, 2.5° C, 2.7° C and 14.5° C.

RAD

Methods 9315: Radium-226 batch 602828: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-07-F-20230228-01 (240-181279-1), EB-001-F-20230228-01 (240-181279-2), (LCS 160-602828/2-A), (LCSD 160-602828/3-A) and (MB 160-602828/1-A)

Methods 9320: Radium-228 batch 602829: The LCS recovered at (139%). 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 (62-148%) per method requirements. The LCS passes, no further action is required. (LCSD 160-602829/3-A)

Methods 9320: Radium-228 batch 602829: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-07-F-20230228-01 (240-181279-1), EB-001-F-20230228-01 (240-181279-2), (LCS 160-602829/2-A), (LCSD 160-602829/3-A) and (MB 160-602829/1-A)

Method PrecSep_0: Radium-228 Prep Batch 602829: The following sample was prepared at a reduced aliquot due to Matrix: 2019-07-F-20230228-01 (240-181279-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 602829: Insufficient sample volume was available to perform a sample duplicate for the following samples: EB-001-F-20230228-01 (240-181279-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-602828: The following sample was prepared at a reduced aliquot due to Matrix: 2019-07-F-20230228-01 (240-181279-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-602828: Insufficient sample volume was available to perform a sample duplicate for the following samples: EB-001-F-20230228-01 (240-181279-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 300.0: The following sample was diluted due to the nature of the sample matrix: 2019-07-F-20230228-01 (240-181279-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CAN
6020B	Metals (ICP/MS)	SW846	EET CAN
7470A	Mercury (CVAA)	SW846	EET CAN
2320B-1997	Alkalinity, Total	SM	EET CAN
300.0	Anions, Ion Chromatography	EPA	EET CAN
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN
7470A	Preparation, Mercury	SW846	EET CAN
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.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV
Combined

Job ID: 240-181279-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
240-181279-1	2019-07-F-20230228-01	Water	02/28/23 12:47	03/03/23 08:00
240-181279-2	EB-001-F-20230228-01	Water	02/28/23 15:30	03/03/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Client Sample ID: 2019-07-F-20230228-01

Lab Sample ID: 240-181279-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	590		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	570		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	16		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	3.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.1		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	350		80	17	ug/L	10		6020B	Total Recoverable
Magnesium	280000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	8.4		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	22000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	3.6	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	10000000		100000	33000	ug/L	100		6020B	Total Recoverable
Total Alkalinity	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	19000		500	64	mg/L	500		300.0	Total/NA
Sulfate	450		50	17	mg/L	50		300.0	Total/NA

Client Sample ID: EB-001-F-20230228-01

Lab Sample ID: 240-181279-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	2.0	J	8.0	1.7	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Client Sample ID: 2019-07-F-20230228-01

Lab Sample ID: 240-181279-1

Date Collected: 02/28/23 12:47

Matrix: Water

Date Received: 03/03/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	590		100	57	ug/L		03/06/23 14:00	03/07/23 14:31	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/06/23 14:00	03/07/23 17:43	1
Arsenic	2.3	J	5.0	0.75	ug/L		03/06/23 14:00	03/07/23 17:43	1
Barium	570		5.0	2.2	ug/L		03/06/23 14:00	03/07/23 17:43	1
Beryllium	ND		1.0	0.62	ug/L		03/06/23 14:00	03/07/23 17:43	1
Cadmium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 17:43	1
Chromium	16		5.0	2.5	ug/L		03/06/23 14:00	03/07/23 17:43	1
Cobalt	3.7		1.0	0.19	ug/L		03/06/23 14:00	03/07/23 17:43	1
Lead	1.1		1.0	0.45	ug/L		03/06/23 14:00	03/07/23 17:43	1
Lithium	350		80	17	ug/L		03/06/23 14:00	03/07/23 17:47	10
Magnesium	280000		1000	200	ug/L		03/06/23 14:00	03/07/23 17:43	1
Molybdenum	8.4		5.0	1.1	ug/L		03/06/23 14:00	03/07/23 17:43	1
Potassium	22000		1000	220	ug/L		03/06/23 14:00	03/07/23 17:43	1
Selenium	3.6	J	5.0	0.89	ug/L		03/06/23 14:00	03/07/23 17:43	1
Sodium	10000000		100000	33000	ug/L		03/06/23 14:00	03/09/23 17:07	100
Thallium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 17:43	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/06/23 16:00	03/07/23 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	220		5.0	2.6	mg/L			03/06/23 19:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	220		5.0	2.6	mg/L			03/06/23 19:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 19:01	1
Chloride (EPA 300.0)	19000		500	64	mg/L			03/28/23 00:31	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			03/28/23 00:11	50
Sulfate (EPA 300.0)	450		50	17	mg/L			03/28/23 00:11	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.733		0.164	0.177	1.00	0.108	pCi/L	03/08/23 11:39	04/04/23 19:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.2		30 - 110					03/08/23 11:39	04/04/23 19:58	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.923		0.457	0.465	1.00	0.630	pCi/L	03/08/23 12:03	03/22/23 12:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.2		30 - 110					03/08/23 12:03	03/22/23 12:41	1

Eurofins Canton

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Client Sample ID: 2019-07-F-20230228-01

Lab Sample ID: 240-181279-1

Date Collected: 02/28/23 12:47

Matrix: Water

Date Received: 03/03/23 08:00

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	86.0		30 - 110	03/08/23 12:03	03/22/23 12:41	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.66		0.486	0.498	5.00	0.630	pCi/L		04/05/23 12:45	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Client Sample ID: EB-001-F-20230228-01

Lab Sample ID: 240-181279-2

Date Collected: 02/28/23 15:30

Matrix: Water

Date Received: 03/03/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/06/23 14:00	03/07/23 14:35	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/06/23 14:00	03/07/23 17:52	1
Arsenic	ND		5.0	0.75	ug/L		03/06/23 14:00	03/07/23 17:52	1
Barium	ND		5.0	2.2	ug/L		03/06/23 14:00	03/07/23 17:52	1
Beryllium	ND		1.0	0.62	ug/L		03/06/23 14:00	03/07/23 17:52	1
Cadmium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 17:52	1
Chromium	ND		5.0	2.5	ug/L		03/06/23 14:00	03/07/23 17:52	1
Cobalt	ND		1.0	0.19	ug/L		03/06/23 14:00	03/07/23 17:52	1
Lead	ND		1.0	0.45	ug/L		03/06/23 14:00	03/07/23 17:52	1
Lithium	2.0	J	8.0	1.7	ug/L		03/06/23 14:00	03/07/23 17:52	1
Magnesium	ND		1000	200	ug/L		03/06/23 14:00	03/07/23 17:52	1
Molybdenum	ND		5.0	1.1	ug/L		03/06/23 14:00	03/07/23 17:52	1
Potassium	ND		1000	220	ug/L		03/06/23 14:00	03/07/23 17:52	1
Selenium	ND		5.0	0.89	ug/L		03/06/23 14:00	03/07/23 17:52	1
Sodium	ND		1000	330	ug/L		03/06/23 14:00	03/09/23 17:10	1
Thallium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 17:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/06/23 16:00	03/07/23 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 19:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 19:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/06/23 19:05	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			03/27/23 22:30	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			03/27/23 22:30	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			03/27/23 22:30	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00394	U	0.0437	0.0437	1.00	0.0934	pCi/L	03/08/23 11:39	04/04/23 19:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110					03/08/23 11:39	04/04/23 19:58	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.152	U	0.279	0.279	1.00	0.484	pCi/L	03/08/23 12:03	03/22/23 12:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110					03/08/23 12:03	03/22/23 12:41	1

Eurofins Canton

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Client Sample ID: EB-001-F-20230228-01

Lab Sample ID: 240-181279-2

Date Collected: 02/28/23 15:30

Matrix: Water

Date Received: 03/03/23 08:00

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	85.2		30 - 110	03/08/23 12:03	03/22/23 12:41	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.148	U	0.282	0.282	5.00	0.484	pCi/L		04/05/23 12:45	1



Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)		
240-181279-1	2019-07-F-20230228-01	99.2		
240-181279-2	EB-001-F-20230228-01	94.4		
LCS 160-602828/2-A	Lab Control Sample	85.3		
LCSD 160-602828/3-A	Lab Control Sample Dup	80.8		
MB 160-602828/1-A	Method Blank	85.9		

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)		
240-181279-1	2019-07-F-20230228-01	99.2	86.0		
240-181279-2	EB-001-F-20230228-01	94.4	85.2		
LCS 160-602829/2-A	Lab Control Sample	85.3	85.2		
LCSD 160-602829/3-A	Lab Control Sample Dup	80.8	81.1		
MB 160-602829/1-A	Method Blank	85.9	84.1		

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-564414/1-A
 Matrix: Water
 Analysis Batch: 564578

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 564414

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/06/23 14:00	03/07/23 13:44	1

Lab Sample ID: LCS 240-564414/2-A
 Matrix: Water
 Analysis Batch: 564578

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 564414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1100		ug/L		110	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-564414/1-A
 Matrix: Water
 Analysis Batch: 564654

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 564414

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/06/23 14:00	03/07/23 16:27	1
Arsenic	ND		5.0	0.75	ug/L		03/06/23 14:00	03/07/23 16:27	1
Barium	ND		5.0	2.2	ug/L		03/06/23 14:00	03/07/23 16:27	1
Beryllium	ND		1.0	0.62	ug/L		03/06/23 14:00	03/07/23 16:27	1
Cadmium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 16:27	1
Chromium	ND		5.0	2.5	ug/L		03/06/23 14:00	03/07/23 16:27	1
Cobalt	ND		1.0	0.19	ug/L		03/06/23 14:00	03/07/23 16:27	1
Lead	ND		1.0	0.45	ug/L		03/06/23 14:00	03/07/23 16:27	1
Lithium	ND		8.0	1.7	ug/L		03/06/23 14:00	03/07/23 16:27	1
Magnesium	ND		1000	200	ug/L		03/06/23 14:00	03/07/23 16:27	1
Molybdenum	ND		5.0	1.1	ug/L		03/06/23 14:00	03/07/23 16:27	1
Potassium	ND		1000	220	ug/L		03/06/23 14:00	03/07/23 16:27	1
Selenium	ND		5.0	0.89	ug/L		03/06/23 14:00	03/07/23 16:27	1
Thallium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 16:27	1

Lab Sample ID: MB 240-564414/1-A
 Matrix: Water
 Analysis Batch: 564901

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 564414

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		03/06/23 14:00	03/09/23 16:28	1

Lab Sample ID: LCS 240-564414/3-A
 Matrix: Water
 Analysis Batch: 564654

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 564414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	103		ug/L		103	80 - 120
Arsenic	1000	954		ug/L		95	80 - 120
Barium	1000	964		ug/L		96	80 - 120
Beryllium	500	484		ug/L		97	80 - 120
Cadmium	500	481		ug/L		96	80 - 120
Chromium	500	474		ug/L		95	80 - 120
Cobalt	500	480		ug/L		96	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-564414/3-A
 Matrix: Water
 Analysis Batch: 564654

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 564414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	500	486		ug/L		97	80 - 120
Lithium	500	480		ug/L		96	80 - 120
Magnesium	25000	24000		ug/L		96	80 - 120
Molybdenum	500	478		ug/L		96	80 - 120
Potassium	25000	23700		ug/L		95	80 - 120
Selenium	1000	954		ug/L		95	80 - 120
Thallium	1000	929		ug/L		93	80 - 120

Lab Sample ID: LCS 240-564414/3-A
 Matrix: Water
 Analysis Batch: 564901

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 564414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24700		ug/L		99	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-564415/1-A
 Matrix: Water
 Analysis Batch: 564598

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 564415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/06/23 16:00	03/07/23 14:34	1

Lab Sample ID: LCS 240-564415/2-A
 Matrix: Water
 Analysis Batch: 564598

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 564415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.00		ug/L		100	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-564459/109
 Matrix: Water
 Analysis Batch: 564459

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 18:23	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 18:23	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 18:23	1

Lab Sample ID: MB 240-564459/83
 Matrix: Water
 Analysis Batch: 564459

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/06/23 16:43	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 16:43	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/06/23 16:43	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-564459/108
 Matrix: Water
 Analysis Batch: 564459

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	141		mg/L		97	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-566919/3
 Matrix: Water
 Analysis Batch: 566919

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/27/23 14:30	1
Fluoride	ND		0.050	0.024	mg/L			03/27/23 14:30	1
Sulfate	ND		1.0	0.35	mg/L			03/27/23 14:30	1

Lab Sample ID: LCS 240-566919/4
 Matrix: Water
 Analysis Batch: 566919

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.1		mg/L		98	90 - 110
Fluoride	2.50	2.56		mg/L		103	90 - 110
Sulfate	50.0	51.5		mg/L		103	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-602828/1-A
 Matrix: Water
 Analysis Batch: 605835

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 602828

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03913	U	0.0688	0.0689	1.00	0.121	pCi/L	03/08/23 11:39	04/03/23 21:42	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		30 - 110					03/08/23 11:39	04/03/23 21:42	1

Lab Sample ID: LCS 160-602828/2-A
 Matrix: Water
 Analysis Batch: 605835

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 602828

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	11.96		1.23	1.00	0.0945	pCi/L	106	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	85.3		30 - 110						

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCSD 160-602828/3-A
Matrix: Water
Analysis Batch: 605835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602828

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec		RER	RER Limit
									Limits	RER		
Radium-226	11.3	12.07		1.24	1.00	0.0956	pCi/L	106	75 - 125	0.04		1
Carrier		LCS	LCS									
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>								
		80.8		30 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-602829/1-A
Matrix: Water
Analysis Batch: 604715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602829

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Carrier		MB	MB							
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
		85.9		30 - 110				03/08/23 12:03	03/22/23 12:35	1
<i>Y Carrier</i>		84.1		30 - 110				03/08/23 12:03	03/22/23 12:35	1

Lab Sample ID: LCS 160-602829/2-A
Matrix: Water
Analysis Batch: 604715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602829

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec	
									Limits	RER
Radium-228	8.10	9.897		1.37	1.00	0.649	pCi/L	122	75 - 125	
Carrier		LCS	LCS							
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>						
		85.3		30 - 110						
<i>Y Carrier</i>		85.2		30 - 110						

Lab Sample ID: LCSD 160-602829/3-A
Matrix: Water
Analysis Batch: 604715

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602829

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec		RER	RER Limit
									Limits	RER		
Radium-228	8.10	11.22		1.52	1.00	0.594	pCi/L	139	75 - 125	0.46		1
Carrier		LCS	LCS									
<i>Ba Carrier</i>		<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>								
		80.8		30 - 110								
<i>Y Carrier</i>		81.1		30 - 110								

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Metals

Prep Batch: 564414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total Recoverable	Water	3005A	
240-181279-2	EB-001-F-20230228-01	Total Recoverable	Water	3005A	
MB 240-564414/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-564414/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-564414/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 564415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total/NA	Water	7470A	
240-181279-2	EB-001-F-20230228-01	Total/NA	Water	7470A	
MB 240-564415/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-564415/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 564578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total Recoverable	Water	6010D	564414
240-181279-2	EB-001-F-20230228-01	Total Recoverable	Water	6010D	564414
MB 240-564414/1-A	Method Blank	Total Recoverable	Water	6010D	564414
LCS 240-564414/2-A	Lab Control Sample	Total Recoverable	Water	6010D	564414

Analysis Batch: 564598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total/NA	Water	7470A	564415
240-181279-2	EB-001-F-20230228-01	Total/NA	Water	7470A	564415
MB 240-564415/1-A	Method Blank	Total/NA	Water	7470A	564415
LCS 240-564415/2-A	Lab Control Sample	Total/NA	Water	7470A	564415

Analysis Batch: 564654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total Recoverable	Water	6020B	564414
240-181279-1	2019-07-F-20230228-01	Total Recoverable	Water	6020B	564414
240-181279-2	EB-001-F-20230228-01	Total Recoverable	Water	6020B	564414
MB 240-564414/1-A	Method Blank	Total Recoverable	Water	6020B	564414
LCS 240-564414/3-A	Lab Control Sample	Total Recoverable	Water	6020B	564414

Analysis Batch: 564901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total Recoverable	Water	6020B	564414
240-181279-2	EB-001-F-20230228-01	Total Recoverable	Water	6020B	564414
MB 240-564414/1-A	Method Blank	Total Recoverable	Water	6020B	564414
LCS 240-564414/3-A	Lab Control Sample	Total Recoverable	Water	6020B	564414

General Chemistry

Analysis Batch: 564459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total/NA	Water	2320B-1997	
240-181279-2	EB-001-F-20230228-01	Total/NA	Water	2320B-1997	
MB 240-564459/109	Method Blank	Total/NA	Water	2320B-1997	
MB 240-564459/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-564459/108	Lab Control Sample	Total/NA	Water	2320B-1997	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

General Chemistry

Analysis Batch: 566919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total/NA	Water	300.0	
240-181279-1	2019-07-F-20230228-01	Total/NA	Water	300.0	
240-181279-2	EB-001-F-20230228-01	Total/NA	Water	300.0	
MB 240-566919/3	Method Blank	Total/NA	Water	300.0	
LCS 240-566919/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 602828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total/NA	Water	PrecSep-21	
240-181279-2	EB-001-F-20230228-01	Total/NA	Water	PrecSep-21	
MB 160-602828/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602828/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-602828/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 602829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181279-1	2019-07-F-20230228-01	Total/NA	Water	PrecSep_0	
240-181279-2	EB-001-F-20230228-01	Total/NA	Water	PrecSep_0	
MB 160-602829/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602829/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-602829/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Client Sample ID: 2019-07-F-20230228-01

Lab Sample ID: 240-181279-1

Date Collected: 02/28/23 12:47

Matrix: Water

Date Received: 03/03/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			564414	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6010D		1	564578	KLC	EET CAN	03/07/23 14:31
Total Recoverable	Prep	3005A			564414	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6020B		1	564654	AJC	EET CAN	03/07/23 17:43
Total Recoverable	Prep	3005A			564414	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6020B		10	564654	AJC	EET CAN	03/07/23 17:47
Total Recoverable	Prep	3005A			564414	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6020B		100	564901	AJC	EET CAN	03/09/23 17:07
Total/NA	Prep	7470A			564415	MRL	EET CAN	03/06/23 16:00
Total/NA	Analysis	7470A		1	564598	DSH	EET CAN	03/07/23 15:13
Total/NA	Analysis	2320B-1997		1	564459	JMR	EET CAN	03/06/23 19:01
Total/NA	Analysis	300.0		50	566919	JWW	EET CAN	03/28/23 00:11
Total/NA	Analysis	300.0		500	566919	JWW	EET CAN	03/28/23 00:31
Total/NA	Prep	PrecSep-21			602828	DJP	EET SL	03/08/23 11:39
Total/NA	Analysis	9315		1	606125	FLC	EET SL	04/04/23 19:58
Total/NA	Prep	PrecSep_0			602829	DJP	EET SL	03/08/23 12:03
Total/NA	Analysis	9320		1	604718	FLC	EET SL	03/22/23 12:41
Total/NA	Analysis	Ra226_Ra228		1	606185	SCB	EET SL	04/05/23 12:45

Client Sample ID: EB-001-F-20230228-01

Lab Sample ID: 240-181279-2

Date Collected: 02/28/23 15:30

Matrix: Water

Date Received: 03/03/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			564414	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6010D		1	564578	KLC	EET CAN	03/07/23 14:35
Total Recoverable	Prep	3005A			564414	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6020B		1	564654	AJC	EET CAN	03/07/23 17:52
Total Recoverable	Prep	3005A			564414	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6020B		1	564901	AJC	EET CAN	03/09/23 17:10
Total/NA	Prep	7470A			564415	MRL	EET CAN	03/06/23 16:00
Total/NA	Analysis	7470A		1	564598	DSH	EET CAN	03/07/23 15:15
Total/NA	Analysis	2320B-1997		1	564459	JMR	EET CAN	03/06/23 19:05
Total/NA	Analysis	300.0		1	566919	JWW	EET CAN	03/27/23 22:30
Total/NA	Prep	PrecSep-21			602828	DJP	EET SL	03/08/23 11:39
Total/NA	Analysis	9315		1	606125	FLC	EET SL	04/04/23 19:58
Total/NA	Prep	PrecSep_0			602829	DJP	EET SL	03/08/23 12:03
Total/NA	Analysis	9320		1	604718	FLC	EET SL	03/22/23 12:41
Total/NA	Analysis	Ra226_Ra228		1	606185	SCB	EET SL	04/05/23 12:45

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV Combines

Job ID: 240-181279-1

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23 *
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23 *
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-23 *
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	03-29-23
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV Combiner

Job ID: 240-181279-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	06-11-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Eurofins - Canton Sample Receipt Form/Narrative
Barberton Facility

Login # : _____

Client Lightstone Site Name _____
 Cooler Received on 3-3-23 Opened on 3-3-23
 FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Cooler unpacked by:
Rachelle Haidet

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____


Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Elastic Bag None _____ Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
 4. Did custody papers accompany the sample(s)? Yes No
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
 10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Sufficient quantity received to perform indicated analyses? Yes No
 12. Are these work share samples and all listed on the COC? Yes No

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

If yes, Questions 13-17 have been checked at the originating laboratory.
 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC293086
 14. Were VOAs on the COC? Yes No
 15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
 17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
 Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
 Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2019-07-F-20230228-01	240-181279-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2019-07-F-20230228-01	240-181279-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2019-07-F-20230228-01	240-181279-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230228-01	240-181279-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230228-01	240-181279-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230228-01	240-181279-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking No(s):									
Client Contact: Shipping/Receiving		Cisneros, Roxanne	240-164595.1									
Company: TestAmerica Laboratories, Inc.		E-Mail: roxanne.cisneros@eurofinsus.com	Page: Page 1 of 1									
Address: 13715 Rider Trail North, Earth City State, Zip: MO, 63045		State of Origin: Ohio	Job #: 240-181279-1									
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma L - EDTA Z - other (specify)										
Email:		Other:										
Project Name: Federal GWM Wells		Total Number of Containers										
Site: SSOW#:		Analysis Requested										
Due Date Requested: 3/16/2023		9315_Ra226PreSep_21 Radium-226 (GFPC)										
TAT Requested (days):		9320_Ra226PreSep_0 Radium-226 (GFPC)										
PO #:		Radium-226 GFPC/ Combined Radium-226 and										
WO #:		Radium-226										
Project #: 24019633		Perform MS/MSD (Yes or No)										
SSOW#:		Field Filled Sample (Yes or No)										
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=tissue, A=air)	Preservation Code:	Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226PreSep_21 Radium-226 (GFPC)	9320_Ra226PreSep_0 Radium-226 (GFPC)	Radium-226 GFPC/ Combined Radium-226 and	Total Number of Containers	Special Instructions/Note:
2019-07-F-20230228-01 (240-181279-1)	2/28/23	12:47 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20230228-01 (240-181279-2)	2/28/23	15:30 Eastern	Water	Water		X	X	X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/testis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.</p> <p>Possible Hazard Identification <input type="checkbox"/> Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2</p> <p>Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____ Relinquished by: <i>FEOSX</i> Date/Time: <i>3/23</i> Received by: <i>BR</i> Date/Time: <i>3/16/23 0500</i> Relinquished by: _____ Date/Time: _____ Received by: <i>BR</i> Date/Time: <i>3/16/23 0500</i> Relinquished by: _____ Date/Time: _____ Received by: <i>BR</i> Date/Time: <i>3/16/23 0500</i></p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No (Custody Seal No.: _____) Cooler Temperature(s) °C and Other Remarks: _____</p>												



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-181279-1

Login Number: 181279

List Number: 2

Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis

List Creation: 03/06/23 01:59 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 3/16/2023 5:38:40 PM

JOB DESCRIPTION

Federal CCR Wells Snap Sampler - App 3&4 combined

JOB NUMBER

240-181323-1

Eurofins Canton

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Designee for
Roxanne Cisneros, Senior Project Manager
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3&4
combined

Job ID: 240-181323-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CFI	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: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3&4 combine

Job ID: 240-181323-1

Job ID: 240-181323-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-181323-1

Receipt

The sample was received on 3/3/2023 @ 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.7°C, 2.3°C, 2.5°C, 2.7°C and 14.5°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3&4
combined

Job ID: 240-181323-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CAN
300.0	Anions, Ion Chromatography	EPA	EET CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3&4
combined

Job ID: 240-181323-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-181323-1	2018-03-F20130301-01	Water	03/01/23 10:26	03/03/23 08:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3&4
 combined

Job ID: 240-181323-1

Client Sample ID: 2018-03-F20130301-01

Lab Sample ID: 240-181323-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.86	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	18		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	590		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	5.1		5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	4.3		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.3		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	50		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	26000		1000	200	ug/L	1		6020B	Total Recoverable
Molybdenum	6.1		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1000000	B	1000	330	ug/L	1		6020B	Total Recoverable
Chloride	500		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	0.59		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	820		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1800		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3&4
 combined

Job ID: 240-181323-1

Client Sample ID: 2018-03-F20130301-01

Lab Sample ID: 240-181323-1

Date Collected: 03/01/23 10:26

Matrix: Water

Date Received: 03/03/23 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.86	J	2.0	0.57	ug/L		03/06/23 14:00	03/07/23 22:18	1
Arsenic	18		5.0	0.75	ug/L		03/06/23 14:00	03/07/23 22:18	1
Barium	590		5.0	2.2	ug/L		03/06/23 14:00	03/07/23 22:18	1
Beryllium	ND		1.0	0.62	ug/L		03/06/23 14:00	03/07/23 22:18	1
Cadmium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 22:18	1
Chromium	5.1		5.0	2.5	ug/L		03/06/23 14:00	03/07/23 22:18	1
Cobalt	4.3		1.0	0.19	ug/L		03/06/23 14:00	03/07/23 22:18	1
Lead	1.3		1.0	0.45	ug/L		03/06/23 14:00	03/07/23 22:18	1
Lithium	50		8.0	1.7	ug/L		03/06/23 14:00	03/07/23 22:18	1
Magnesium	26000		1000	200	ug/L		03/06/23 14:00	03/07/23 22:18	1
Molybdenum	6.1		5.0	1.1	ug/L		03/06/23 14:00	03/07/23 22:18	1
Potassium	3600		1000	220	ug/L		03/06/23 14:00	03/07/23 22:18	1
Selenium	ND		5.0	0.89	ug/L		03/06/23 14:00	03/07/23 22:18	1
Sodium	1000000	B	1000	330	ug/L		03/06/23 14:00	03/07/23 22:18	1
Thallium	ND		1.0	0.20	ug/L		03/06/23 14:00	03/07/23 22:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	500		10	1.3	mg/L			03/16/23 03:51	10
Fluoride (EPA 300.0)	0.59		0.50	0.24	mg/L			03/16/23 03:51	10
Sulfate (EPA 300.0)	820		10	3.5	mg/L			03/16/23 03:51	10
Total Dissolved Solids (SM 2540C)	1800		20	16	mg/L			03/08/23 16:22	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3&4
 combined

Job ID: 240-181323-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-564409/1-A
Matrix: Water
Analysis Batch: 564654

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 564409

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/06/23 14:00	03/07/23 21:02	1
Arsenic	ND		5.0	0.75	ug/L		03/06/23 14:00	03/07/23 21:02	1
Barium	ND	^+	5.0	2.2	ug/L		03/06/23 14:00	03/07/23 21:02	1
Beryllium	ND		1.0	0.62	ug/L		03/06/23 14:00	03/07/23 21:02	1
Cadmium	ND	^+	1.0	0.20	ug/L		03/06/23 14:00	03/07/23 21:02	1
Chromium	ND		5.0	2.5	ug/L		03/06/23 14:00	03/07/23 21:02	1
Cobalt	ND	^+	1.0	0.19	ug/L		03/06/23 14:00	03/07/23 21:02	1
Lead	ND	^+	1.0	0.45	ug/L		03/06/23 14:00	03/07/23 21:02	1
Lithium	ND		8.0	1.7	ug/L		03/06/23 14:00	03/07/23 21:02	1
Magnesium	ND		1000	200	ug/L		03/06/23 14:00	03/07/23 21:02	1
Molybdenum	ND		5.0	1.1	ug/L		03/06/23 14:00	03/07/23 21:02	1
Potassium	ND		1000	220	ug/L		03/06/23 14:00	03/07/23 21:02	1
Selenium	ND		5.0	0.89	ug/L		03/06/23 14:00	03/07/23 21:02	1
Sodium	531	J	1000	330	ug/L		03/06/23 14:00	03/07/23 21:02	1
Thallium	ND	^+	1.0	0.20	ug/L		03/06/23 14:00	03/07/23 21:02	1

Lab Sample ID: LCS 240-564409/2-A
Matrix: Water
Analysis Batch: 564654

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 564409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	104		ug/L		104	80 - 120
Arsenic	1000	979		ug/L		98	80 - 120
Barium	1000	992	^+	ug/L		99	80 - 120
Beryllium	500	509		ug/L		102	80 - 120
Cadmium	500	488	^+	ug/L		98	80 - 120
Chromium	500	488		ug/L		98	80 - 120
Cobalt	500	492	^+	ug/L		98	80 - 120
Lead	500	501	^+	ug/L		100	80 - 120
Lithium	500	480		ug/L		96	80 - 120
Magnesium	25000	24300		ug/L		97	80 - 120
Molybdenum	500	486		ug/L		97	80 - 120
Potassium	25000	24400		ug/L		98	80 - 120
Selenium	1000	985		ug/L		98	80 - 120
Sodium	25000	24200		ug/L		97	80 - 120
Thallium	1000	950	^+	ug/L		95	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-565543/3
Matrix: Water
Analysis Batch: 565543

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/15/23 14:29	1
Fluoride	ND		0.050	0.024	mg/L			03/15/23 14:29	1
Sulfate	ND		1.0	0.35	mg/L			03/15/23 14:29	1

Eurofins Canton

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3&4
 combined

Job ID: 240-181323-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-565543/4
Matrix: Water
Analysis Batch: 565543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.3		mg/L		99	90 - 110
Fluoride	2.50	2.72		mg/L		109	90 - 110
Sulfate	50.0	50.8		mg/L		102	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-564695/1
Matrix: Water
Analysis Batch: 564695

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	ND		10	7.8	mg/L			03/08/23 16:22	1

Lab Sample ID: LCS 240-564695/2
Matrix: Water
Analysis Batch: 564695

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	500	458		mg/L		92	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3&4
combined

Job ID: 240-181323-1

Metals

Prep Batch: 564409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181323-1	2018-03-F20130301-01	Total Recoverable	Water	3005A	
MB 240-564409/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-564409/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 564654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181323-1	2018-03-F20130301-01	Total Recoverable	Water	6020B	564409
MB 240-564409/1-A	Method Blank	Total Recoverable	Water	6020B	564409
LCS 240-564409/2-A	Lab Control Sample	Total Recoverable	Water	6020B	564409

General Chemistry

Analysis Batch: 564695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181323-1	2018-03-F20130301-01	Total/NA	Water	SM 2540C	
MB 240-564695/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-564695/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 565543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-181323-1	2018-03-F20130301-01	Total/NA	Water	300.0	
MB 240-565543/3	Method Blank	Total/NA	Water	300.0	
LCS 240-565543/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3&4
combined

Job ID: 240-181323-1

Client Sample ID: 2018-03-F20130301-01

Lab Sample ID: 240-181323-1

Date Collected: 03/01/23 10:26

Matrix: Water

Date Received: 03/03/23 08:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total Recoverable	Prep	3005A			564409	MRL	EET CAN	03/06/23 14:00
Total Recoverable	Analysis	6020B		1	564654	AJC	EET CAN	03/07/23 22:18
Total/NA	Analysis	300.0		10	565543	JMB	EET CAN	03/16/23 03:51
Total/NA	Analysis	SM 2540C		1	564695	GH	EET CAN	03/08/23 16:22

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3&4
combined

Job ID: 240-181323-1

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23 *
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23 *
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23 *
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-23 *
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23 *
Ohio VAP	State	CL0024	02-27-23 *
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins - Canton Sample Receipt Form/Narrative Login # : _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: Rachelle Haidet
Cooler Received on 3-3-23 Opened on 3-3-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ **Storage Location** _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC293086**
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-F20130301-01	240-181323-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

Login #: _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 16	14.6	14.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 16	2.8	2.7	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 16	2.6	2.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 16	2.4	2.3	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 16	1.8	1.7	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	

See Temperature Excursion Form



ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 5/1/2023 8:59:32 AM

JOB DESCRIPTION

Federal CCR Wells - Snap Sampler

JOB NUMBER

240-183701-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
5/1/2023 8:59:32 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Job ID: 240-183701-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-183701-1

Receipt

The samples were received on 4/18/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.6°C, 2.8°C, 3.2°C and 13.4°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-183701-1	2018-03-F-20230414-01	Water	04/14/23 14:00	04/18/23 08:00
240-183701-2	EB-001-F-20230414-01	Water	04/14/23 15:00	04/18/23 08:00

1

2

3

4

5

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7

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10

11

12

13

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Client Sample ID: 2018-03-F-20230414-01

Lab Sample ID: 240-183701-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Calcium	110000		1000	250	ug/L	1		6020B	Total Recoverable
Chloride	400		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	0.54		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	910		20	7.0	mg/L	20		300.0	Total/NA
Total Dissolved Solids	2200		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20230414-01

Lab Sample ID: 240-183701-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Client Sample ID: 2018-03-F-20230414-01

Lab Sample ID: 240-183701-1

Date Collected: 04/14/23 14:00

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		04/19/23 14:00	04/20/23 23:27	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		1000	250	ug/L		04/19/23 14:00	04/20/23 19:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	400		20	2.6	mg/L			04/28/23 05:45	20
Fluoride (EPA 300.0)	0.54		0.10	0.048	mg/L			04/28/23 05:24	2
Sulfate (EPA 300.0)	910		20	7.0	mg/L			04/28/23 05:45	20
Total Dissolved Solids (SM 2540C)	2200		40	31	mg/L			04/19/23 10:22	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Client Sample ID: EB-001-F-20230414-01

Lab Sample ID: 240-183701-2

Date Collected: 04/14/23 15:00

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/19/23 14:00	04/20/23 23:32	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		04/19/23 14:00	04/20/23 19:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/28/23 06:07	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/28/23 06:07	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/28/23 06:07	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/19/23 10:22	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-569981/1-A
 Matrix: Water
 Analysis Batch: 570110

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 569981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/19/23 14:00	04/20/23 08:13	1

Lab Sample ID: LCS 240-569981/2-A
 Matrix: Water
 Analysis Batch: 570110

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 569981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	974		ug/L		97	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-569981/1-A
 Matrix: Water
 Analysis Batch: 570329

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 569981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		04/19/23 14:00	04/20/23 18:39	1

Lab Sample ID: LCS 240-569981/3-A
 Matrix: Water
 Analysis Batch: 570329

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 569981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24000		ug/L		96	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-571197/3
 Matrix: Water
 Analysis Batch: 571197

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/28/23 01:03	1
Fluoride	ND		0.050	0.024	mg/L			04/28/23 01:03	1
Sulfate	ND		1.0	0.35	mg/L			04/28/23 01:03	1

Lab Sample ID: LCS 240-571197/4
 Matrix: Water
 Analysis Batch: 571197

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.1		mg/L		98	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	50.6		mg/L		101	90 - 110

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-569951/1
Matrix: Water
Analysis Batch: 569951

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	ND		10	7.8	mg/L			04/19/23 10:22	1

Lab Sample ID: LCS 240-569951/2
Matrix: Water
Analysis Batch: 569951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580	549		mg/L		95	80 - 120



QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Metals

Prep Batch: 569981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183701-1	2018-03-F-20230414-01	Total Recoverable	Water	3005A	
240-183701-2	EB-001-F-20230414-01	Total Recoverable	Water	3005A	
MB 240-569981/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-569981/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-569981/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 570110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-569981/1-A	Method Blank	Total Recoverable	Water	6010D	569981
LCS 240-569981/2-A	Lab Control Sample	Total Recoverable	Water	6010D	569981

Analysis Batch: 570264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183701-1	2018-03-F-20230414-01	Total Recoverable	Water	6010D	569981
240-183701-2	EB-001-F-20230414-01	Total Recoverable	Water	6010D	569981

Analysis Batch: 570329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183701-1	2018-03-F-20230414-01	Total Recoverable	Water	6020B	569981
240-183701-2	EB-001-F-20230414-01	Total Recoverable	Water	6020B	569981
MB 240-569981/1-A	Method Blank	Total Recoverable	Water	6020B	569981
LCS 240-569981/3-A	Lab Control Sample	Total Recoverable	Water	6020B	569981

General Chemistry

Analysis Batch: 569951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183701-1	2018-03-F-20230414-01	Total/NA	Water	SM 2540C	
240-183701-2	EB-001-F-20230414-01	Total/NA	Water	SM 2540C	
MB 240-569951/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-569951/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 571197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183701-1	2018-03-F-20230414-01	Total/NA	Water	300.0	
240-183701-1	2018-03-F-20230414-01	Total/NA	Water	300.0	
240-183701-2	EB-001-F-20230414-01	Total/NA	Water	300.0	
MB 240-571197/3	Method Blank	Total/NA	Water	300.0	
LCS 240-571197/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Client Sample ID: 2018-03-F-20230414-01

Lab Sample ID: 240-183701-1

Date Collected: 04/14/23 14:00

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6010D		1	570264	KLC	EET CLE	04/20/23 23:27
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/20/23 19:43
Total/NA	Analysis	300.0		2	571197	JWW	EET CLE	04/28/23 05:24
Total/NA	Analysis	300.0		20	571197	JWW	EET CLE	04/28/23 05:45
Total/NA	Analysis	SM 2540C		1	569951	GH	EET CLE	04/19/23 10:22

Client Sample ID: EB-001-F-20230414-01

Lab Sample ID: 240-183701-2

Date Collected: 04/14/23 15:00

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6010D		1	570264	KLC	EET CLE	04/20/23 23:32
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/20/23 19:45
Total/NA	Analysis	300.0		1	571197	JWW	EET CLE	04/28/23 06:07
Total/NA	Analysis	SM 2540C		1	569951	GH	EET CLE	04/19/23 10:22

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - Snap Sampler

Job ID: 240-183701-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

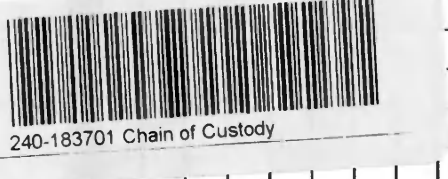
Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23 *
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23 *
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-23 *
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland

Chain of Custody Record

Client Information Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3111 (Tel) Email: taylor.huffman@lightstonegen.com Project Name: Federal - C: F: Wells Snap Sampler-APP 3 and 4 combined Site: Ohio		Sample Information Sample: Bobby Caste Phone: 740-373-4308 PWSID:		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@Eurofinset.com		CO2 No: 40-93018-34502 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #:		Analysis Requested Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ascorbic Acid H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		M - Hexane N - None O - AsNaO2 P - Na2CO3 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylalate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		Limited Volume App III and IV (Unpreserved with focus on TDS, Cl-, SO4 and F) Nitric Acid with focus on Ca and B)	
Sample Identification Sample ID: 2018-03-F-20230414-01 FB-001-F-20230414-01		Sample Date: 4-14-23 Sample Time: 1400 Sample Type: G Matrix: W		Total Number of Containers: 1 Extra bottle 450 sent with 2018-03 about ~100 ml Extra		Performance MS/MSD (Yes or No): 300.0, SM2540C Field Filtered Sample (Yes or No): 6020a, 6020b	
Possible Hazard Identification <input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Requisitioned by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished:		Relinquished:		Relinquished:		Method of Shipment:	
Date/Time: 4-17-23 0945 Company:		Date/Time: 4-17-23 1150 Company: 57A		Date/Time: 4-18-23 800 Company: PETRO		Date/Time:	
Date/Time: 4-17-23 0945 Company:		Date/Time: 4-17-23 1150 Company: 57A		Date/Time: 4-18-23 800 Company: PETRO		Date/Time:	
Date/Time: 4-17-23 0945 Company:		Date/Time: 4-17-23 1150 Company: 57A		Date/Time: 4-18-23 800 Company: PETRO		Date/Time:	
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			



Eurofins - Canton Sample Receipt Form/Narrative
 Barberton Facility

Client Lightstone Site Name _____ Login #: 183701
 Cooler Received on 4-18-23 Opened on 4-18-23 Cooler unpacked by: Vandy Boyer
 FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____
 Receipt After-hours: Drop-off Date/Time _____ Storage Location _____
 Eurofins Cooler # ES Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None _____
 1. Cooler temperature upon receipt _____ See Multiple Cooler Form
 IR GUN # 22 (CF 70.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
 3. Shippers' packing slip attached to the cooler(s)? Yes NO
 4. Did custody papers accompany the sample(s)? Yes No
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes NO
 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
 10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Sufficient quantity received to perform indicated analyses? Yes No
 12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
 13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
 14. Were VOAs on the COC? Yes NO
 15. Were air bubbles >6 mm in any VOA vials? NO Larger than this: NA
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes NO
 17. Was a LL Hg or Me Hg trip blank present? Yes NO
 Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
 Concerning _____

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____
Sample - 2018 03-F -202 30414-01
EXTRA 250-imp.

19. SAMPLE CONDITION
 Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____



ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 5/19/2023 12:23:17 PM

JOB DESCRIPTION

Federal CCR Wells - App III and App IV combined

JOB NUMBER

240-183705-1

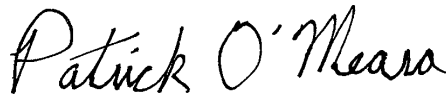
Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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5/19/2023 12:23:17 PM

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Designee for
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Qualifiers

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.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Job ID: 240-183705-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-183705-1

Receipt

The samples were received on 4/18/2023 @ 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.6°C, 2.8°C, 3.2°C and 13.4°C

Receipt Exceptions

Container E for the following sample was received half full. 2019-09-F-20230413-01 (240-183705-2)

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 2019-07-F-20230413-01 (240-183705-1) and 2019-09-F-20230413-01 (240-183705-2). Elevated reporting limits (RLs) are provided.

Method 300.0_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 240-572511 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 batch 608874The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: 2019-07-F-20230413-01 (240-183705-1). Analytical results are reported with the detection limit achieved.

Method 9315_Ra226: Radium-226 batch 608874Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.2019-07-F-20230413-01 (240-183705-1), 2019-09-F-20230413-01 (240-183705-2), FB-001-F-20230413-01 (240-183705-3), (LCS 160-608874/2-A), (MB 160-608874/1-A), (680-233514-C-1-A) and (680-233514-F-1-B DU)

Method 9320_Ra228: Radium-228 batch 608918The detection goal was not met for the following sample(s). Samples were prepped at a reduced volume due to the presence of matrix interferences: 2019-07-F-20230413-01 (240-183705-1) and 2019-09-F-20230413-01 (240-183705-2). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 608918Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.2019-07-F-20230413-01 (240-183705-1), 2019-09-F-20230413-01 (240-183705-2), FB-001-F-20230413-01 (240-183705-3), (LCS 160-608918/2-A), (MB 160-608918/1-A), (680-233514-C-1-B) and (680-233514-F-1-C DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV
combined

Job ID: 240-183705-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-183705-1	2019-07-F-20230413-01	Water	04/13/23 11:56	04/18/23 08:00
240-183705-2	2019-09-F-20230413-01	Water	04/13/23 14:46	04/18/23 08:00
240-183705-3	FB-001-F-20230413-01	Water	04/13/23 15:30	04/18/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: 2019-07-F-20230413-01

Lab Sample ID: 240-183705-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	590		100	57	ug/L	1		6010D	Total Recoverable
Antimony	2.2		2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	16		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	1300		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	2.4		1.0	0.62	ug/L	1		6020B	Total Recoverable
Cadmium	0.54	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chromium	180		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	19		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	18		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	350		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	260000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	17		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	26000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.6	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9100000		5000	1600	ug/L	5		6020B	Total Recoverable
Thallium	0.82	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	18000		500	64	mg/L	500		300.0	Total/NA
Sulfate	410		50	17	mg/L	50		300.0	Total/NA

Client Sample ID: 2019-09-F-20230413-01

Lab Sample ID: 240-183705-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	440		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.4	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	33		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	31000		50	22	ug/L	10		6020B	Total Recoverable
Beryllium	6.0		1.0	0.62	ug/L	1		6020B	Total Recoverable
Cadmium	0.41	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chromium	370		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	69		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	62		1.0	0.45	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: 2019-09-F-20230413-01 (Continued)

Lab Sample ID: 240-183705-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	450		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	320000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	54		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	40000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.7	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9200000		10000	3300	ug/L	10		6020B	Total Recoverable
Thallium	0.68	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	19000		500	64	mg/L	500		300.0	Total/NA

Client Sample ID: FB-001-F-20230413-01

Lab Sample ID: 240-183705-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	2400		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	3.1	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	3.1	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	0.15	J F2 F1	1.0	0.13	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: 2019-07-F-20230413-01

Lab Sample ID: 240-183705-1

Date Collected: 04/13/23 11:56

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	590		100	57	ug/L		04/19/23 14:00	04/20/23 08:25	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.2		2.0	0.57	ug/L		04/19/23 14:00	04/20/23 18:45	1
Arsenic	16		5.0	0.75	ug/L		04/19/23 14:00	04/20/23 18:45	1
Barium	1300		5.0	2.2	ug/L		04/19/23 14:00	04/20/23 18:45	1
Beryllium	2.4		1.0	0.62	ug/L		04/19/23 14:00	04/20/23 18:45	1
Cadmium	0.54	J	1.0	0.20	ug/L		04/19/23 14:00	04/20/23 18:45	1
Chromium	180		5.0	1.2	ug/L		04/19/23 14:00	04/20/23 18:45	1
Cobalt	19		1.0	0.19	ug/L		04/19/23 14:00	04/20/23 18:45	1
Lead	18		1.0	0.45	ug/L		04/19/23 14:00	04/20/23 18:45	1
Lithium	350		8.0	1.7	ug/L		04/19/23 14:00	04/20/23 18:45	1
Magnesium	260000		1000	61	ug/L		04/19/23 14:00	04/20/23 18:45	1
Molybdenum	17		5.0	1.1	ug/L		04/19/23 14:00	04/20/23 18:45	1
Potassium	26000		1000	220	ug/L		04/19/23 14:00	04/20/23 18:45	1
Selenium	1.6	J	5.0	0.89	ug/L		04/19/23 14:00	04/20/23 18:45	1
Sodium	9100000		5000	1600	ug/L		04/19/23 14:00	04/20/23 18:47	5
Thallium	0.82	J	1.0	0.20	ug/L		04/19/23 14:00	04/20/23 18:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 11:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	240		5.0	2.6	mg/L			04/24/23 19:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	240		5.0	2.6	mg/L			04/24/23 19:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:01	1
Chloride (EPA 300.0)	18000		500	64	mg/L			05/11/23 11:24	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			05/11/23 11:03	50
Sulfate (EPA 300.0)	410		50	17	mg/L			05/11/23 11:03	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.699	U G	0.806	0.808	1.00	1.32	pCi/L	04/26/23 10:34	05/18/23 12:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.2		30 - 110					04/26/23 10:34	05/18/23 12:25	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	1.58	U G	2.17	2.18	1.00	3.64	pCi/L	04/26/23 11:08	05/16/23 16:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.2		30 - 110					04/26/23 11:08	05/16/23 16:47	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: 2019-07-F-20230413-01

Lab Sample ID: 240-183705-1

Date Collected: 04/13/23 11:56

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	83.0		30 - 110	04/26/23 11:08	05/16/23 16:47	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	2.28	U	2.31	2.32	5.00	3.64	pCi/L		05/18/23 17:04	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: 2019-09-F-20230413-01

Lab Sample ID: 240-183705-2

Date Collected: 04/13/23 14:46

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	440		100	57	ug/L		04/19/23 14:00	04/20/23 22:41	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4	J	2.0	0.57	ug/L		04/19/23 14:00	04/20/23 19:08	1
Arsenic	33		5.0	0.75	ug/L		04/19/23 14:00	04/20/23 19:08	1
Barium	31000		50	22	ug/L		04/19/23 14:00	04/20/23 19:11	10
Beryllium	6.0		1.0	0.62	ug/L		04/19/23 14:00	04/20/23 19:08	1
Cadmium	0.41	J	1.0	0.20	ug/L		04/19/23 14:00	04/20/23 19:08	1
Chromium	370		5.0	1.2	ug/L		04/19/23 14:00	04/20/23 19:08	1
Cobalt	69		1.0	0.19	ug/L		04/19/23 14:00	04/20/23 19:08	1
Lead	62		1.0	0.45	ug/L		04/19/23 14:00	04/20/23 19:08	1
Lithium	450		8.0	1.7	ug/L		04/19/23 14:00	04/20/23 19:08	1
Magnesium	320000		1000	61	ug/L		04/19/23 14:00	04/20/23 19:08	1
Molybdenum	54		5.0	1.1	ug/L		04/19/23 14:00	04/20/23 19:08	1
Potassium	40000		1000	220	ug/L		04/19/23 14:00	04/20/23 19:08	1
Selenium	1.7	J	5.0	0.89	ug/L		04/19/23 14:00	04/20/23 19:08	1
Sodium	9200000		10000	3300	ug/L		04/19/23 14:00	04/20/23 19:11	10
Thallium	0.68	J	1.0	0.20	ug/L		04/19/23 14:00	04/20/23 19:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 11:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	190		5.0	2.6	mg/L			04/24/23 19:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	190		5.0	2.6	mg/L			04/24/23 19:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:06	1
Chloride (EPA 300.0)	19000		500	64	mg/L			05/11/23 12:04	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			05/11/23 11:44	50
Sulfate (EPA 300.0)	ND		50	17	mg/L			05/11/23 11:44	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	37.1		2.93	4.44	1.00	0.842	pCi/L	04/26/23 10:34	05/18/23 12:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		30 - 110					04/26/23 10:34	05/18/23 12:25	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	67.9	G	5.26	8.17	1.00	2.11	pCi/L	04/26/23 11:08	05/16/23 16:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		30 - 110					04/26/23 11:08	05/16/23 16:47	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: 2019-09-F-20230413-01

Lab Sample ID: 240-183705-2

Date Collected: 04/13/23 14:46

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	83.4		30 - 110	04/26/23 11:08	05/16/23 16:47	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	105		6.02	9.30	5.00	2.11	pCi/L		05/18/23 17:04	1



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: FB-001-F-20230413-01

Lab Sample ID: 240-183705-3

Date Collected: 04/13/23 15:30

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/19/23 14:00	04/20/23 22:36	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/19/23 14:00	04/20/23 18:50	1
Arsenic	ND		5.0	0.75	ug/L		04/19/23 14:00	04/20/23 18:50	1
Barium	ND		5.0	2.2	ug/L		04/19/23 14:00	04/20/23 18:50	1
Beryllium	ND		1.0	0.62	ug/L		04/19/23 14:00	04/20/23 18:50	1
Cadmium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/20/23 18:50	1
Chromium	ND		5.0	1.2	ug/L		04/19/23 14:00	04/20/23 18:50	1
Cobalt	ND		1.0	0.19	ug/L		04/19/23 14:00	04/20/23 18:50	1
Lead	ND		1.0	0.45	ug/L		04/19/23 14:00	04/20/23 18:50	1
Lithium	ND		8.0	1.7	ug/L		04/19/23 14:00	04/20/23 18:50	1
Magnesium	ND		1000	61	ug/L		04/19/23 14:00	04/20/23 18:50	1
Molybdenum	ND		5.0	1.1	ug/L		04/19/23 14:00	04/20/23 18:50	1
Potassium	ND		1000	220	ug/L		04/19/23 14:00	04/20/23 18:50	1
Selenium	ND		5.0	0.89	ug/L		04/19/23 14:00	04/20/23 18:50	1
Sodium	2400		1000	330	ug/L		04/19/23 14:00	04/20/23 18:50	1
Thallium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/20/23 18:50	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 11:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	3.1	J	5.0	2.6	mg/L			04/24/23 19:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	3.1	J	5.0	2.6	mg/L			04/24/23 19:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:10	1
Chloride (EPA 300.0)	0.15	J F2 F1	1.0	0.13	mg/L			05/11/23 09:23	1
Fluoride (EPA 300.0)	ND	F2 F1	0.050	0.024	mg/L			05/11/23 09:23	1
Sulfate (EPA 300.0)	ND	F2 F1	1.0	0.35	mg/L			05/11/23 09:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0203	U	0.0861	0.0861	1.00	0.176	pCi/L	04/26/23 10:34	05/18/23 12:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		30 - 110					04/26/23 10:34	05/18/23 12:22	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.142	U	0.294	0.294	1.00	0.513	pCi/L	04/26/23 11:08	05/16/23 16:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		30 - 110					04/26/23 11:08	05/16/23 16:47	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: FB-001-F-20230413-01

Lab Sample ID: 240-183705-3

Date Collected: 04/13/23 15:30

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	83.4		30 - 110	04/26/23 11:08	05/16/23 16:47	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.162	U	0.306	0.306	5.00	0.513	pCi/L		05/18/23 17:04	1



Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)							
240-183705-1	2019-07-F-20230413-01	61.2							
240-183705-2	2019-09-F-20230413-01	85.5							
240-183705-3	FB-001-F-20230413-01	96.3							
LCS 160-608874/2-A	Lab Control Sample	98.8							
MB 160-608874/1-A	Method Blank	96.8							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
240-183705-1	2019-07-F-20230413-01	61.2	83.0						
240-183705-2	2019-09-F-20230413-01	85.5	83.4						
240-183705-3	FB-001-F-20230413-01	96.3	83.4						
LCS 160-608918/2-A	Lab Control Sample	98.8	88.6						
MB 160-608918/1-A	Method Blank	96.8	80.7						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-569981/1-A
Matrix: Water
Analysis Batch: 570110

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/19/23 14:00	04/20/23 08:13	1

Lab Sample ID: LCS 240-569981/2-A
Matrix: Water
Analysis Batch: 570110

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	974		ug/L		97	80 - 120

Lab Sample ID: 240-183705-1 MS
Matrix: Water
Analysis Batch: 570110

Client Sample ID: 2019-07-F-20230413-01
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	590		1000	1560		ug/L		97	75 - 125

Lab Sample ID: 240-183705-1 MSD
Matrix: Water
Analysis Batch: 570110

Client Sample ID: 2019-07-F-20230413-01
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Boron	590		1000	1580		ug/L		99	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-569981/1-A
Matrix: Water
Analysis Batch: 570329

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/19/23 14:00	04/20/23 18:39	1
Arsenic	ND		5.0	0.75	ug/L		04/19/23 14:00	04/20/23 18:39	1
Barium	ND		5.0	2.2	ug/L		04/19/23 14:00	04/20/23 18:39	1
Beryllium	ND		1.0	0.62	ug/L		04/19/23 14:00	04/20/23 18:39	1
Cadmium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/20/23 18:39	1
Chromium	ND		5.0	1.2	ug/L		04/19/23 14:00	04/20/23 18:39	1
Cobalt	ND		1.0	0.19	ug/L		04/19/23 14:00	04/20/23 18:39	1
Lead	ND		1.0	0.45	ug/L		04/19/23 14:00	04/20/23 18:39	1
Lithium	ND		8.0	1.7	ug/L		04/19/23 14:00	04/20/23 18:39	1
Magnesium	ND		1000	61	ug/L		04/19/23 14:00	04/20/23 18:39	1
Molybdenum	ND		5.0	1.1	ug/L		04/19/23 14:00	04/20/23 18:39	1
Potassium	ND		1000	220	ug/L		04/19/23 14:00	04/20/23 18:39	1
Selenium	ND		5.0	0.89	ug/L		04/19/23 14:00	04/20/23 18:39	1
Sodium	ND		1000	330	ug/L		04/19/23 14:00	04/20/23 18:39	1
Thallium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/20/23 18:39	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-569981/3-A
Matrix: Water
Analysis Batch: 570329

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	103		ug/L		103	80 - 120
Arsenic	1000	977		ug/L		98	80 - 120
Barium	1000	963		ug/L		96	80 - 120
Beryllium	500	514		ug/L		103	80 - 120
Cadmium	500	484		ug/L		97	80 - 120
Chromium	500	499		ug/L		100	80 - 120
Cobalt	500	482		ug/L		96	80 - 120
Lead	500	498		ug/L		100	80 - 120
Lithium	500	498		ug/L		100	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	479		ug/L		96	80 - 120
Potassium	25000	24400		ug/L		98	80 - 120
Selenium	1000	935		ug/L		93	80 - 120
Sodium	25000	24300		ug/L		97	80 - 120
Thallium	1000	939		ug/L		94	80 - 120

Lab Sample ID: 240-183705-3 MS
Matrix: Water
Analysis Batch: 570329

Client Sample ID: FB-001-F-20230413-01
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	104		ug/L		104	80 - 120
Arsenic	ND		1000	1000		ug/L		100	80 - 120
Barium	ND		1000	985		ug/L		99	80 - 120
Beryllium	ND		500	503		ug/L		101	80 - 120
Cadmium	ND		500	487		ug/L		97	80 - 120
Chromium	ND		500	494		ug/L		99	80 - 120
Cobalt	ND		500	489		ug/L		98	80 - 120
Lead	ND		500	506		ug/L		101	80 - 120
Lithium	ND		500	494		ug/L		99	80 - 120
Magnesium	ND		25000	24200		ug/L		97	80 - 120
Molybdenum	ND		500	494		ug/L		99	80 - 120
Potassium	ND		25000	24300		ug/L		97	80 - 120
Selenium	ND		1000	944		ug/L		94	80 - 120
Sodium	2400		25000	24300		ug/L		87	80 - 120
Thallium	ND		1000	943		ug/L		94	80 - 120

Lab Sample ID: 240-183705-3 MSD
Matrix: Water
Analysis Batch: 570329

Client Sample ID: FB-001-F-20230413-01
Prep Type: Total Recoverable
Prep Batch: 569981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	ND		100	102		ug/L		102	80 - 120	2	20
Arsenic	ND		1000	968		ug/L		97	80 - 120	3	20
Barium	ND		1000	948		ug/L		95	80 - 120	4	20
Beryllium	ND		500	494		ug/L		99	80 - 120	2	20
Cadmium	ND		500	472		ug/L		94	80 - 120	3	20
Chromium	ND		500	482		ug/L		96	80 - 120	2	20
Cobalt	ND		500	481		ug/L		96	80 - 120	2	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-183705-3 MSD
 Matrix: Water
 Analysis Batch: 570329

Client Sample ID: FB-001-F-20230413-01
 Prep Type: Total Recoverable
 Prep Batch: 569981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND		500	485		ug/L		97	80 - 120	4	20
Lithium	ND		500	482		ug/L		96	80 - 120	3	20
Magnesium	ND		25000	23100		ug/L		93	80 - 120	5	20
Molybdenum	ND		500	480		ug/L		96	80 - 120	3	20
Potassium	ND		25000	23300		ug/L		93	80 - 120	4	20
Selenium	ND		1000	912		ug/L		91	80 - 120	3	20
Sodium	2400		25000	23300		ug/L		83	80 - 120	4	20
Thallium	ND		1000	902		ug/L		90	80 - 120	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-569982/1-A
 Matrix: Water
 Analysis Batch: 570234

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 569982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 11:10	1

Lab Sample ID: LCS 240-569982/2-A
 Matrix: Water
 Analysis Batch: 570234

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 569982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.10		ug/L		82	80 - 120

Lab Sample ID: 240-183705-3 MS
 Matrix: Water
 Analysis Batch: 570234

Client Sample ID: FB-001-F-20230413-01
 Prep Type: Total/NA
 Prep Batch: 569982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.05		ug/L		105	80 - 120

Lab Sample ID: 240-183705-3 MSD
 Matrix: Water
 Analysis Batch: 570234

Client Sample ID: FB-001-F-20230413-01
 Prep Type: Total/NA
 Prep Batch: 569982

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.856		ug/L		86	80 - 120	20	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-570651/109
 Matrix: Water
 Analysis Batch: 570651

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/24/23 18:47	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 18:47	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 18:47	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-570651/83
 Matrix: Water
 Analysis Batch: 570651

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/24/23 17:00	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 17:00	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 17:00	1

Lab Sample ID: LCS 240-570651/108
 Matrix: Water
 Analysis Batch: 570651

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	146	151		mg/L		103	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-572511/3
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			05/11/23 06:42	1
Fluoride	ND		0.050	0.024	mg/L			05/11/23 06:42	1
Sulfate	ND		1.0	0.35	mg/L			05/11/23 06:42	1

Lab Sample ID: LCS 240-572511/4
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Fluoride	2.50	2.61		mg/L		104	90 - 110
Sulfate	50.0	52.2		mg/L		104	90 - 110

Lab Sample ID: 240-183705-3 MS
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: FB-001-F-20230413-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.15	J F2 F1	50.0	41.3		mg/L		82	80 - 120
Fluoride	ND	F2 F1	2.50	2.16		mg/L		86	80 - 120
Sulfate	ND	F2 F1	50.0	43.0		mg/L		86	80 - 120

Lab Sample ID: 240-183705-3 MSD
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: FB-001-F-20230413-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	0.15	J F2 F1	50.0	30.8	F2 F1	mg/L		61	80 - 120	29	15
Fluoride	ND	F2 F1	2.50	1.59	F2 F1	mg/L		63	80 - 120	31	15
Sulfate	ND	F2 F1	50.0	31.3	F2 F1	mg/L		63	80 - 120	31	15

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-608874/1-A
Matrix: Water
Analysis Batch: 612133

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608874

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.09238	U	0.0612	0.0618	1.00	0.195	pCi/L	04/26/23 10:34	05/18/23 09:19	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	30 - 110					04/26/23 10:34	05/18/23 09:19	1
	96.8									

Lab Sample ID: LCS 160-608874/2-A
Matrix: Water
Analysis Batch: 612133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608874

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.819		1.15	1.00	0.186	pCi/L	87	75 - 113
Carrier	LCS		Limits						
Ba Carrier	%Yield	LCS Qualifier	30 - 110						
	98.8								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-608918/1-A
Matrix: Water
Analysis Batch: 611850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608918

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.05786	U	0.287	0.287	1.00	0.522	pCi/L	04/26/23 11:08	05/16/23 16:43	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	30 - 110					04/26/23 11:08	05/16/23 16:43	1
Y Carrier	80.7		30 - 110					04/26/23 11:08	05/16/23 16:43	1

Lab Sample ID: LCS 160-608918/2-A
Matrix: Water
Analysis Batch: 611850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608918

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	7.95	6.971		1.01	1.00	0.461	pCi/L	88	75 - 125
Carrier	LCS		Limits						
Ba Carrier	%Yield	LCS Qualifier	30 - 110						
Y Carrier	88.6		30 - 110						

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Metals

Prep Batch: 569981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total Recoverable	Water	3005A	
240-183705-2	2019-09-F-20230413-01	Total Recoverable	Water	3005A	
240-183705-3	FB-001-F-20230413-01	Total Recoverable	Water	3005A	
MB 240-569981/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-569981/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-569981/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-183705-1 MS	2019-07-F-20230413-01	Total Recoverable	Water	3005A	
240-183705-1 MSD	2019-07-F-20230413-01	Total Recoverable	Water	3005A	
240-183705-3 MS	FB-001-F-20230413-01	Total Recoverable	Water	3005A	
240-183705-3 MSD	FB-001-F-20230413-01	Total Recoverable	Water	3005A	

Prep Batch: 569982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total/NA	Water	7470A	
240-183705-2	2019-09-F-20230413-01	Total/NA	Water	7470A	
240-183705-3	FB-001-F-20230413-01	Total/NA	Water	7470A	
MB 240-569982/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-569982/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-183705-3 MS	FB-001-F-20230413-01	Total/NA	Water	7470A	
240-183705-3 MSD	FB-001-F-20230413-01	Total/NA	Water	7470A	

Analysis Batch: 570110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total Recoverable	Water	6010D	569981
MB 240-569981/1-A	Method Blank	Total Recoverable	Water	6010D	569981
LCS 240-569981/2-A	Lab Control Sample	Total Recoverable	Water	6010D	569981
240-183705-1 MS	2019-07-F-20230413-01	Total Recoverable	Water	6010D	569981
240-183705-1 MSD	2019-07-F-20230413-01	Total Recoverable	Water	6010D	569981

Analysis Batch: 570234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total/NA	Water	7470A	569982
240-183705-2	2019-09-F-20230413-01	Total/NA	Water	7470A	569982
240-183705-3	FB-001-F-20230413-01	Total/NA	Water	7470A	569982
MB 240-569982/1-A	Method Blank	Total/NA	Water	7470A	569982
LCS 240-569982/2-A	Lab Control Sample	Total/NA	Water	7470A	569982
240-183705-3 MS	FB-001-F-20230413-01	Total/NA	Water	7470A	569982
240-183705-3 MSD	FB-001-F-20230413-01	Total/NA	Water	7470A	569982

Analysis Batch: 570264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-2	2019-09-F-20230413-01	Total Recoverable	Water	6010D	569981
240-183705-3	FB-001-F-20230413-01	Total Recoverable	Water	6010D	569981

Analysis Batch: 570329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total Recoverable	Water	6020B	569981
240-183705-1	2019-07-F-20230413-01	Total Recoverable	Water	6020B	569981
240-183705-2	2019-09-F-20230413-01	Total Recoverable	Water	6020B	569981
240-183705-2	2019-09-F-20230413-01	Total Recoverable	Water	6020B	569981
240-183705-3	FB-001-F-20230413-01	Total Recoverable	Water	6020B	569981

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Metals (Continued)

Analysis Batch: 570329 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-569981/1-A	Method Blank	Total Recoverable	Water	6020B	569981
LCS 240-569981/3-A	Lab Control Sample	Total Recoverable	Water	6020B	569981
240-183705-3 MS	FB-001-F-20230413-01	Total Recoverable	Water	6020B	569981
240-183705-3 MSD	FB-001-F-20230413-01	Total Recoverable	Water	6020B	569981

General Chemistry

Analysis Batch: 570651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total/NA	Water	2320B-1997	
240-183705-2	2019-09-F-20230413-01	Total/NA	Water	2320B-1997	
240-183705-3	FB-001-F-20230413-01	Total/NA	Water	2320B-1997	
MB 240-570651/109	Method Blank	Total/NA	Water	2320B-1997	
MB 240-570651/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-570651/108	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 572511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total/NA	Water	300.0	
240-183705-1	2019-07-F-20230413-01	Total/NA	Water	300.0	
240-183705-2	2019-09-F-20230413-01	Total/NA	Water	300.0	
240-183705-2	2019-09-F-20230413-01	Total/NA	Water	300.0	
240-183705-3	FB-001-F-20230413-01	Total/NA	Water	300.0	
MB 240-572511/3	Method Blank	Total/NA	Water	300.0	
LCS 240-572511/4	Lab Control Sample	Total/NA	Water	300.0	
240-183705-3 MS	FB-001-F-20230413-01	Total/NA	Water	300.0	
240-183705-3 MSD	FB-001-F-20230413-01	Total/NA	Water	300.0	

Rad

Prep Batch: 608874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total/NA	Water	PrecSep-21	
240-183705-2	2019-09-F-20230413-01	Total/NA	Water	PrecSep-21	
240-183705-3	FB-001-F-20230413-01	Total/NA	Water	PrecSep-21	
MB 160-608874/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-608874/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 608918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183705-1	2019-07-F-20230413-01	Total/NA	Water	PrecSep_0	
240-183705-2	2019-09-F-20230413-01	Total/NA	Water	PrecSep_0	
240-183705-3	FB-001-F-20230413-01	Total/NA	Water	PrecSep_0	
MB 160-608918/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-608918/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: 2019-07-F-20230413-01

Lab Sample ID: 240-183705-1

Date Collected: 04/13/23 11:56

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6010D		1	570110	KLC	EET CLE	04/20/23 08:25
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/20/23 18:45
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		5	570329	DSH	EET CLE	04/20/23 18:47
Total/NA	Prep	7470A			569982	AJC	EET CLE	04/19/23 14:00
Total/NA	Analysis	7470A		1	570234	MRL	EET CLE	04/20/23 11:14
Total/NA	Analysis	2320B-1997		1	570651	JMR	EET CLE	04/24/23 19:01
Total/NA	Analysis	300.0		50	572511	JWW	EET CLE	05/11/23 11:03
Total/NA	Analysis	300.0		500	572511	JWW	EET CLE	05/11/23 11:24
Total/NA	Prep	PrecSep-21			608874	KAC	EET SL	04/26/23 10:34
Total/NA	Analysis	9315		1	612131	FLC	EET SL	05/18/23 12:25
Total/NA	Prep	PrecSep_0			608918	KAC	EET SL	04/26/23 11:08
Total/NA	Analysis	9320		1	611700	FLC	EET SL	05/16/23 16:47
Total/NA	Analysis	Ra226_Ra228		1	612261	EMH	EET SL	05/18/23 17:04

Client Sample ID: 2019-09-F-20230413-01

Lab Sample ID: 240-183705-2

Date Collected: 04/13/23 14:46

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6010D		1	570264	KLC	EET CLE	04/20/23 22:41
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/20/23 19:08
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		10	570329	DSH	EET CLE	04/20/23 19:11
Total/NA	Prep	7470A			569982	AJC	EET CLE	04/19/23 14:00
Total/NA	Analysis	7470A		1	570234	MRL	EET CLE	04/20/23 11:23
Total/NA	Analysis	2320B-1997		1	570651	JMR	EET CLE	04/24/23 19:06
Total/NA	Analysis	300.0		50	572511	JWW	EET CLE	05/11/23 11:44
Total/NA	Analysis	300.0		500	572511	JWW	EET CLE	05/11/23 12:04
Total/NA	Prep	PrecSep-21			608874	KAC	EET SL	04/26/23 10:34
Total/NA	Analysis	9315		1	612131	FLC	EET SL	05/18/23 12:25
Total/NA	Prep	PrecSep_0			608918	KAC	EET SL	04/26/23 11:08
Total/NA	Analysis	9320		1	611700	FLC	EET SL	05/16/23 16:47
Total/NA	Analysis	Ra226_Ra228		1	612261	EMH	EET SL	05/18/23 17:04

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Client Sample ID: FB-001-F-20230413-01

Lab Sample ID: 240-183705-3

Date Collected: 04/13/23 15:30

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6010D		1	570264	KLC	EET CLE	04/20/23 22:36
Total Recoverable	Prep	3005A			569981	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/20/23 18:50
Total/NA	Prep	7470A			569982	AJC	EET CLE	04/19/23 14:00
Total/NA	Analysis	7470A		1	570234	MRL	EET CLE	04/20/23 11:17
Total/NA	Analysis	2320B-1997		1	570651	JMR	EET CLE	04/24/23 19:10
Total/NA	Analysis	300.0		1	572511	JWW	EET CLE	05/11/23 09:23
Total/NA	Prep	PrecSep-21			608874	KAC	EET SL	04/26/23 10:34
Total/NA	Analysis	9315		1	612132	FLC	EET SL	05/18/23 12:22
Total/NA	Prep	PrecSep_0			608918	KAC	EET SL	04/26/23 11:08
Total/NA	Analysis	9320		1	611700	FLC	EET SL	05/16/23 16:47
Total/NA	Analysis	Ra226_Ra228		1	612261	EMH	EET SL	05/18/23 17:04

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III and App IV combined

Job ID: 240-183705-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Client Information Client Contact: Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: taylor.huffman@lightstonegen.com Project #: 24019633 Site: Gavin CCR - Appendix III and IV - Combined		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@et.eurofinsus.com PWSID: Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 29355505 WO #:		Camer Tracking Not(s) State of Origin: Analysis Requested		COC No: 240-97179-35520.1 Page: Page 1 of 1 Job #:			
Sample Identification 2019-07-F-20230413-01 2019-09-F-20230413-01 FB-001-F-20230413-01	Sample Date 4-13-23 4-13-23 4-13-23	Sample Time 1156 1446 1530	Sample Type (C=Comp, G=grab) G G G	Matrix (W=water, S=solid, O=organic, A=air) W W W	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/Note: * Limited Ra Volume * * Limited Ra Volume *	
Empty Kit Relinquished by: Relinquished by: Relinquished by:				Date: 4-11-23 4-12-23 4-12-23				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: 240-183705 Chain of Custody	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Cooler Temperature(s) °C and Other Remarks:				Received by: [Signature] Received by: [Signature] Received by: [Signature]	



Eurofins - Canton Sample Receipt Form/Narrative Login #: _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: Vandy Boyer
Cooler Received on 4-18-23 Opened on 4-18-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # ES Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt _____ See Multiple Cooler Form
IR GUN # 22 (CF 10.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	<u>Box</u>	Other	IR GUN #: <u>22</u>	<u>13.4</u>	<u>13.4</u>	Wet Ice	<u>Blue Ice</u>	Dry Ice
							Water	<u>None</u>	
EC	Client	Box	Other	IR GUN #: <u>22</u>	<u>3.2</u>	<u>3.2</u>	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: <u>22</u>	<u>2.8</u>	<u>2.8</u>	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: <u>22</u>	<u>2.6</u>	<u>2.6</u>	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	

See Temperature Excursion Form



Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2019-07-F-20230413-01	240-183705-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2019-07-F-20230413-01	240-183705-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2019-07-F-20230413-01	240-183705-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Eurofins Cleveland
 180 S. Van Buren Avenue
 Barberton, OH 44203
 Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)			Sampler: Lab PM: Cisneros, Roxanne			COC No: 240-166559.1		
Client Contact: Shipping/Receiving			Phone: E-Mail: roxanne.cisneros@et.eurofins.com			Page: 1 of 1		
Company: TestAmerica Laboratories, Inc.			Address: 18715 Rider Trail North, Earth City, MO, 63045			Job #: 240-183705-1		
Phone: 314-298-8566(Tel) 314-298-8757(Fax)			PO #: WO #:			Preservation Codes:		
Email:			Project #: 24019633			M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate		
Site: Federal CCR Wells - App III and App IV combined			SSOW#:			U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
Due Date Requested: 5/18/2023			TAT Requested (days):			Other:		
Sample Identification - Client ID (Lab ID)			Sample Date			Sample Time		
2019-07-F-20230413-01 (240-183705-1)			4/13/23			11:56 Eastern		
2019-09-F-20230413-01 (240-183705-2)			4/13/23			14:46 Eastern		
FB-001-F-20230413-01 (240-183705-3)			4/13/23			15:30 Eastern		
Matrix (Water, Seawater, Urine, etc.)			Sample Type (C=comp, G=grab)			Preservation Code:		
Radium-228			9320_Ra228/PreSep_0 Radium-228 (GFPC)			X		
9320_Ra228/PreSep_0 Radium-228 (GFPC)			X			X		
9315_Ra228/PreSep_21 Radium-226 (GFPC)			X			X		
Perform MS/MSD (Yes or No)			Field Filtered Sample (Yes or No)			Total Number of Containers		
X			X			2		
X			X			2		
X			X			2		
Special Instructions/Note:			Recount of TAR after 21 day ingrowth if > action limit; save planchet					
			Recount of TAR after 21 day ingrowth if > action limit; save planchet					
			Recount of TAR after 21 day ingrowth if > action limit; save planchet					

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Sachelle Howard* Date/Time: 4/18/23 12:30
 Relinquished by: *FED EX* Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Method of Shipment: _____
 Received by: *FED EX* Date/Time: _____ Company: _____
 Received by: *Carol Farrell* Date/Time: 4/19/2023 Company: *ETA STL*
 Received by: _____ Date/Time: _____ Company: _____
 Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-183705-1

Login Number: 183705

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 04/19/23 12:40 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?	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.	False	One of the containers was recieved half full
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 5/22/2023 11:49:56 AM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-183706-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
5/22/2023 11:49:56 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Job ID: 240-183706-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-183706-1

Receipt

The samples were received on 4/18/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.6°C, 2.8°C, 3.2°C and 18.4°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 300.0_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 240-572511 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter

Method 9315_Ra226: Radium-226 Prep Batch 160-609093The following samples were prepared at a reduced aliquot due to Matrix: 96152-F-20230414-01 (240-183706-1), DUP-002-96152-F-20230414-01 (240-183706-2) and MW-17-F-20230414-01 (240-183706-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 9315_Ra226: Radium-22 Prep Batch 160-609093Insufficient sample volume was available to perform a sample duplicate for the following samples: EB-001-F-20230414-01 (240-183706-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 9315_Ra226: Radium-226 batch 609093Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.96152-F-20230414-01 (240-183706-1), DUP-002-96152-F-20230414-01 (240-183706-2), MW-17-F-20230414-01 (240-183706-3), EB-001-F-20230414-01 (240-183706-4), (LCS 160-609093/2-A), (LCSD 160-609093/3-A) and (MB 160-609093/1-A)

Method 9320_Ra228: Radium-228 Prep Batch 160-609099The following samples were prepared at a reduced aliquot due to Matrix: 96152-F-20230414-01 (240-183706-1), DUP-002-96152-F-20230414-01 (240-183706-2) and MW-17-F-20230414-01 (240-183706-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 9320_Ra228: Radium-228 Prep Batch160-609099Insufficient sample volume was available to perform a sample duplicate for the following samples: EB-001-F-20230414-01 (240-183706-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 9320_Ra228: Radium-228 batch 609099The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: DUP-002-96152-F-20230414-01 (240-183706-2). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 609099Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.96152-F-20230414-01 (240-183706-1), DUP-002-96152-F-20230414-01 (240-183706-2), MW-17-F-20230414-01 (240-183706-3), EB-001-F-20230414-01 (240-183706-4), (LCS 160-609099/2-A), (LCSD 160-609099/3-A) and (MB 160-609099/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Job ID: 240-183706-1 (Continued)

Laboratory: Eurofins Cleveland (Continued)

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Method Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-183706-1	96152-F-20230414-01	Water	04/14/23 10:20	04/18/23 08:00
240-183706-2	DUP-002-96152-F-20230414-01	Water	04/14/23 10:20	04/18/23 08:00
240-183706-3	MW-17-F-20230414-01	Water	04/14/23 12:56	04/18/23 08:00
240-183706-4	EB-001-F-20230414-01	Water	04/14/23 15:00	04/18/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: 96152-F-20230414-01

Lab Sample ID: 240-183706-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.81	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	11		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	840		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	0.89	J	1.0	0.62	ug/L	1		6020B	Total Recoverable
Chromium	13		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	5.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	4.7		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	91		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2000000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.68	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.80		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: DUP-002-96152-F-20230414-01

Lab Sample ID: 240-183706-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.1	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	13		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	900		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	1.3		1.0	0.62	ug/L	1		6020B	Total Recoverable
Cadmium	0.20	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chromium	16		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	6.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	5.5		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	92		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	5.1		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9300		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: DUP-002-96152-F-20230414-01 (Continued)

Lab Sample ID: 240-183706-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Selenium	0.91	J	5.0	0.89	ug/L	1			6020B	Total Recoverable
Sodium	2000000		1000	330	ug/L	1			6020B	Total Recoverable
Thallium	0.79	J	1.0	0.20	ug/L	1			6020B	Total Recoverable
Total Alkalinity	540		5.0	2.6	mg/L	1			2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	540		5.0	2.6	mg/L	1			2320B-1997	Total/NA
Fluoride	0.80		0.25	0.12	mg/L	5			300.0-1993 R2.1	Total/NA

Client Sample ID: MW-17-F-20230414-01

Lab Sample ID: 240-183706-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	9.4		5.0	0.75	ug/L	1			6020B	Total Recoverable
Barium	2100		5.0	2.2	ug/L	1			6020B	Total Recoverable
Chromium	1.5	J	5.0	1.2	ug/L	1			6020B	Total Recoverable
Cobalt	0.25	J	1.0	0.19	ug/L	1			6020B	Total Recoverable
Lithium	76		8.0	1.7	ug/L	1			6020B	Total Recoverable
Magnesium	14000		1000	61	ug/L	1			6020B	Total Recoverable
Molybdenum	6.0		5.0	1.1	ug/L	1			6020B	Total Recoverable
Potassium	5100		1000	220	ug/L	1			6020B	Total Recoverable
Sodium	2300000		1000	330	ug/L	1			6020B	Total Recoverable
Total Alkalinity	250		5.0	2.6	mg/L	1			2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	250		5.0	2.6	mg/L	1			2320B-1997	Total/NA
Fluoride	1.7		0.25	0.12	mg/L	5			300.0-1993 R2.1	Total/NA

Client Sample ID: EB-001-F-20230414-01

Lab Sample ID: 240-183706-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lithium	1.8	J	8.0	1.7	ug/L	1			6020B	Total Recoverable
Sodium	1300		1000	330	ug/L	1			6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: 96152-F-20230414-01

Lab Sample ID: 240-183706-1

Date Collected: 04/14/23 10:20

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.81	J	2.0	0.57	ug/L		04/19/23 14:00	04/21/23 01:02	1
Arsenic	11		5.0	0.75	ug/L		04/19/23 14:00	04/21/23 01:02	1
Barium	840		5.0	2.2	ug/L		04/19/23 14:00	04/21/23 01:02	1
Beryllium	0.89	J	1.0	0.62	ug/L		04/19/23 14:00	04/21/23 01:02	1
Cadmium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:02	1
Chromium	13		5.0	1.2	ug/L		04/19/23 14:00	04/21/23 01:02	1
Cobalt	5.7		1.0	0.19	ug/L		04/19/23 14:00	04/21/23 01:02	1
Lead	4.7		1.0	0.45	ug/L		04/19/23 14:00	04/21/23 01:02	1
Lithium	91		8.0	1.7	ug/L		04/19/23 14:00	04/21/23 01:02	1
Magnesium	15000		1000	61	ug/L		04/19/23 14:00	04/21/23 01:02	1
Molybdenum	4.4	J	5.0	1.1	ug/L		04/19/23 14:00	04/21/23 01:02	1
Potassium	8700		1000	220	ug/L		04/19/23 14:00	04/21/23 01:02	1
Selenium	ND		5.0	0.89	ug/L		04/19/23 14:00	04/21/23 01:02	1
Sodium	2000000		1000	330	ug/L		04/19/23 14:00	04/21/23 01:02	1
Thallium	0.68	J	1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F2 F1	0.20	0.13	ug/L		04/19/23 14:00	04/20/23 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	520		5.0	2.6	mg/L			04/24/23 19:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	520		5.0	2.6	mg/L			04/24/23 19:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:15	1
Fluoride (EPA 300.0-1993 R2.1)	0.80		0.25	0.12	mg/L			05/12/23 01:50	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.42		0.381	0.401	1.00	0.287	pCi/L	04/27/23 13:34	05/19/23 19:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		30 - 110					04/27/23 13:34	05/19/23 19:43	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.84		0.721	0.740	1.00	0.888	pCi/L	04/27/23 14:08	05/16/23 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		30 - 110					04/27/23 14:08	05/16/23 11:21	1
Y Carrier	92.7		30 - 110					04/27/23 14:08	05/16/23 11:21	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: 96152-F-20230414-01

Lab Sample ID: 240-183706-1

Date Collected: 04/14/23 10:20

Matrix: Water

Date Received: 04/18/23 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.26		0.815	0.842	5.00	0.888	pCi/L		05/22/23 12:41	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: DUP-002-96152-F-20230414-01

Lab Sample ID: 240-183706-2

Date Collected: 04/14/23 10:20

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	J	2.0	0.57	ug/L		04/19/23 14:00	04/21/23 01:25	1
Arsenic	13		5.0	0.75	ug/L		04/19/23 14:00	04/21/23 01:25	1
Barium	900		5.0	2.2	ug/L		04/19/23 14:00	04/21/23 01:25	1
Beryllium	1.3		1.0	0.62	ug/L		04/19/23 14:00	04/21/23 01:25	1
Cadmium	0.20	J	1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:25	1
Chromium	16		5.0	1.2	ug/L		04/19/23 14:00	04/21/23 01:25	1
Cobalt	6.7		1.0	0.19	ug/L		04/19/23 14:00	04/21/23 01:25	1
Lead	5.5		1.0	0.45	ug/L		04/19/23 14:00	04/21/23 01:25	1
Lithium	92		8.0	1.7	ug/L		04/19/23 14:00	04/21/23 01:25	1
Magnesium	15000		1000	61	ug/L		04/19/23 14:00	04/21/23 01:25	1
Molybdenum	5.1		5.0	1.1	ug/L		04/19/23 14:00	04/21/23 01:25	1
Potassium	9300		1000	220	ug/L		04/19/23 14:00	04/21/23 01:25	1
Selenium	0.91	J	5.0	0.89	ug/L		04/19/23 14:00	04/21/23 01:25	1
Sodium	2000000		1000	330	ug/L		04/19/23 14:00	04/21/23 01:25	1
Thallium	0.79	J	1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 13:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	540		5.0	2.6	mg/L			04/24/23 19:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	540		5.0	2.6	mg/L			04/24/23 19:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:20	1
Fluoride (EPA 300.0-1993 R2.1)	0.80		0.25	0.12	mg/L			05/12/23 03:10	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.81		0.429	0.459	1.00	0.277	pCi/L	04/27/23 13:34	05/19/23 19:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					04/27/23 13:34	05/19/23 19:43	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.18	G	0.828	0.852	1.00	1.04	pCi/L	04/27/23 14:08	05/16/23 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					04/27/23 14:08	05/16/23 11:21	1
Y Carrier	89.7		30 - 110					04/27/23 14:08	05/16/23 11:21	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: DUP-002-96152-F-20230414-01

Lab Sample ID: 240-183706-2

Date Collected: 04/14/23 10:20

Matrix: Water

Date Received: 04/18/23 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.99		0.933	0.968	5.00	1.04	pCi/L		05/22/23 12:41	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: MW-17-F-20230414-01

Lab Sample ID: 240-183706-3

Date Collected: 04/14/23 12:56

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/19/23 14:00	04/21/23 01:28	1
Arsenic	9.4		5.0	0.75	ug/L		04/19/23 14:00	04/21/23 01:28	1
Barium	2100		5.0	2.2	ug/L		04/19/23 14:00	04/21/23 01:28	1
Beryllium	ND		1.0	0.62	ug/L		04/19/23 14:00	04/21/23 01:28	1
Cadmium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:28	1
Chromium	1.5	J	5.0	1.2	ug/L		04/19/23 14:00	04/21/23 01:28	1
Cobalt	0.25	J	1.0	0.19	ug/L		04/19/23 14:00	04/21/23 01:28	1
Lead	ND		1.0	0.45	ug/L		04/19/23 14:00	04/21/23 01:28	1
Lithium	76		8.0	1.7	ug/L		04/19/23 14:00	04/21/23 01:28	1
Magnesium	14000		1000	61	ug/L		04/19/23 14:00	04/21/23 01:28	1
Molybdenum	6.0		5.0	1.1	ug/L		04/19/23 14:00	04/21/23 01:28	1
Potassium	5100		1000	220	ug/L		04/19/23 14:00	04/21/23 01:28	1
Selenium	ND		5.0	0.89	ug/L		04/19/23 14:00	04/21/23 01:28	1
Sodium	2300000		1000	330	ug/L		04/19/23 14:00	04/21/23 01:28	1
Thallium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 13:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	250		5.0	2.6	mg/L			04/24/23 19:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	250		5.0	2.6	mg/L			04/24/23 19:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:25	1
Fluoride (EPA 300.0-1993 R2.1)	1.7		0.25	0.12	mg/L			05/12/23 03:51	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.49		0.387	0.447	1.00	0.206	pCi/L	04/27/23 13:34	05/19/23 19:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		30 - 110					04/27/23 13:34	05/19/23 19:48	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.66		0.652	0.697	1.00	0.657	pCi/L	04/27/23 14:08	05/16/23 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		30 - 110					04/27/23 14:08	05/16/23 11:21	1
Y Carrier	81.1		30 - 110					04/27/23 14:08	05/16/23 11:21	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: MW-17-F-20230414-01

Lab Sample ID: 240-183706-3

Date Collected: 04/14/23 12:56

Matrix: Water

Date Received: 04/18/23 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	5.15		0.758	0.828	5.00	0.657	pCi/L		05/22/23 12:41	1

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Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: EB-001-F-20230414-01

Lab Sample ID: 240-183706-4

Date Collected: 04/14/23 15:00

Matrix: Water

Date Received: 04/18/23 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/19/23 14:00	04/21/23 01:31	1
Arsenic	ND		5.0	0.75	ug/L		04/19/23 14:00	04/21/23 01:31	1
Barium	ND		5.0	2.2	ug/L		04/19/23 14:00	04/21/23 01:31	1
Beryllium	ND		1.0	0.62	ug/L		04/19/23 14:00	04/21/23 01:31	1
Cadmium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:31	1
Chromium	ND		5.0	1.2	ug/L		04/19/23 14:00	04/21/23 01:31	1
Cobalt	ND		1.0	0.19	ug/L		04/19/23 14:00	04/21/23 01:31	1
Lead	ND		1.0	0.45	ug/L		04/19/23 14:00	04/21/23 01:31	1
Lithium	1.8	J	8.0	1.7	ug/L		04/19/23 14:00	04/21/23 01:31	1
Magnesium	ND		1000	61	ug/L		04/19/23 14:00	04/21/23 01:31	1
Molybdenum	ND		5.0	1.1	ug/L		04/19/23 14:00	04/21/23 01:31	1
Potassium	ND		1000	220	ug/L		04/19/23 14:00	04/21/23 01:31	1
Selenium	ND		5.0	0.89	ug/L		04/19/23 14:00	04/21/23 01:31	1
Sodium	1300		1000	330	ug/L		04/19/23 14:00	04/21/23 01:31	1
Thallium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/21/23 01:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/23 19:29	1
Fluoride (EPA 300.0-1993 R2.1)	ND	F2 F1	0.050	0.024	mg/L			05/11/23 13:24	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-0.0266	U	0.0846	0.0846	1.00	0.184	pCi/L	04/27/23 13:34	05/19/23 19:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		30 - 110					04/27/23 13:34	05/19/23 19:48	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.126	U	0.255	0.255	1.00	0.446	pCi/L	04/27/23 14:08	05/16/23 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		30 - 110					04/27/23 14:08	05/16/23 11:22	1
Y Carrier	87.1		30 - 110					04/27/23 14:08	05/16/23 11:22	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: EB-001-F-20230414-01

Lab Sample ID: 240-183706-4

Date Collected: 04/14/23 15:00

Matrix: Water

Date Received: 04/18/23 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0996	U	0.269	0.269	5.00	0.446	pCi/L		05/22/23 12:41	1

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Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
240-183706-1	96152-F-20230414-01	88.2	
240-183706-2	DUP-002-96152-F-20230414-01	84.8	
240-183706-3	MW-17-F-20230414-01	96.6	
240-183706-4	EB-001-F-20230414-01	92.1	
LCS 160-609093/2-A	Lab Control Sample	94.3	
LCSD 160-609093/3-A	Lab Control Sample Dup	99.5	
MB 160-609093/1-A	Method Blank	92.9	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
240-183706-1	96152-F-20230414-01	88.2	92.7
240-183706-2	DUP-002-96152-F-20230414-01	84.8	89.7
240-183706-3	MW-17-F-20230414-01	96.6	81.1
240-183706-4	EB-001-F-20230414-01	92.1	87.1
LCS 160-609099/2-A	Lab Control Sample	94.3	86.4
LCSD 160-609099/3-A	Lab Control Sample Dup	99.5	84.9
MB 160-609099/1-A	Method Blank	92.9	86.7
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-569975/1-A
Matrix: Water
Analysis Batch: 570329

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 569975

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		2.0	0.57	ug/L		04/19/23 14:00	04/21/23 00:57	1
Arsenic	ND		5.0	0.75	ug/L		04/19/23 14:00	04/21/23 00:57	1
Barium	ND		5.0	2.2	ug/L		04/19/23 14:00	04/21/23 00:57	1
Beryllium	ND		1.0	0.62	ug/L		04/19/23 14:00	04/21/23 00:57	1
Cadmium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/21/23 00:57	1
Chromium	ND		5.0	1.2	ug/L		04/19/23 14:00	04/21/23 00:57	1
Cobalt	ND		1.0	0.19	ug/L		04/19/23 14:00	04/21/23 00:57	1
Lead	ND		1.0	0.45	ug/L		04/19/23 14:00	04/21/23 00:57	1
Lithium	ND		8.0	1.7	ug/L		04/19/23 14:00	04/21/23 00:57	1
Magnesium	ND		1000	61	ug/L		04/19/23 14:00	04/21/23 00:57	1
Molybdenum	ND		5.0	1.1	ug/L		04/19/23 14:00	04/21/23 00:57	1
Potassium	ND		1000	220	ug/L		04/19/23 14:00	04/21/23 00:57	1
Selenium	ND		5.0	0.89	ug/L		04/19/23 14:00	04/21/23 00:57	1
Sodium	ND		1000	330	ug/L		04/19/23 14:00	04/21/23 00:57	1
Thallium	ND		1.0	0.20	ug/L		04/19/23 14:00	04/21/23 00:57	1

Lab Sample ID: LCS 240-569975/2-A
Matrix: Water
Analysis Batch: 570329

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 569975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1000	919		ug/L		92	80 - 120
Barium	1000	961		ug/L		96	80 - 120
Beryllium	500	484		ug/L		97	80 - 120
Cadmium	500	473		ug/L		95	80 - 120
Chromium	500	481		ug/L		96	80 - 120
Cobalt	500	454		ug/L		91	80 - 120
Lead	500	483		ug/L		97	80 - 120
Lithium	500	476		ug/L		95	80 - 120
Magnesium	25000	22700		ug/L		91	80 - 120
Molybdenum	500	468		ug/L		94	80 - 120
Potassium	25000	23400		ug/L		94	80 - 120
Selenium	1000	904		ug/L		90	80 - 120
Sodium	25000	22800		ug/L		91	80 - 120
Thallium	1000	870		ug/L		87	80 - 120

Lab Sample ID: 240-183706-1 MS
Matrix: Water
Analysis Batch: 570329

Client Sample ID: 96152-F-20230414-01
Prep Type: Total Recoverable
Prep Batch: 569975

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Antimony	0.81	J	100	104		ug/L		103	80 - 120
Arsenic	11		1000	1030		ug/L		102	80 - 120
Barium	840		1000	1870		ug/L		103	80 - 120
Beryllium	0.89	J	500	508		ug/L		101	80 - 120
Cadmium	ND		500	465		ug/L		93	80 - 120
Chromium	13		500	484		ug/L		94	80 - 120
Cobalt	5.7		500	494		ug/L		98	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-183706-1 MS
Matrix: Water
Analysis Batch: 570329

Client Sample ID: 96152-F-20230414-01
Prep Type: Total Recoverable
Prep Batch: 569975

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Lead	4.7		500	506		ug/L		100	80 - 120	
Lithium	91		500	582		ug/L		98	80 - 120	
Magnesium	15000		25000	37400		ug/L		91	80 - 120	
Molybdenum	4.4	J	500	512		ug/L		101	80 - 120	
Potassium	8700		25000	32600		ug/L		96	80 - 120	
Selenium	ND		1000	911		ug/L		91	80 - 120	
Sodium	2000000		25000	1990000	4	ug/L		150	80 - 120	
Thallium	0.68	J	1000	847		ug/L		85	80 - 120	

Lab Sample ID: 240-183706-1 MSD
Matrix: Water
Analysis Batch: 570329

Client Sample ID: 96152-F-20230414-01
Prep Type: Total Recoverable
Prep Batch: 569975

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Antimony	0.81	J	100	104		ug/L		103	80 - 120	0	20	
Arsenic	11		1000	1040		ug/L		103	80 - 120	0	20	
Barium	840		1000	1870		ug/L		103	80 - 120	0	20	
Beryllium	0.89	J	500	512		ug/L		102	80 - 120	1	20	
Cadmium	ND		500	466		ug/L		93	80 - 120	0	20	
Chromium	13		500	492		ug/L		96	80 - 120	2	20	
Cobalt	5.7		500	501		ug/L		99	80 - 120	1	20	
Lead	4.7		500	503		ug/L		100	80 - 120	0	20	
Lithium	91		500	581		ug/L		98	80 - 120	0	20	
Magnesium	15000		25000	37500		ug/L		91	80 - 120	0	20	
Molybdenum	4.4	J	500	513		ug/L		102	80 - 120	0	20	
Potassium	8700		25000	32700		ug/L		96	80 - 120	0	20	
Selenium	ND		1000	929		ug/L		93	80 - 120	2	20	
Sodium	2000000		25000	2000000	4	ug/L		169	80 - 120	0	20	
Thallium	0.68	J	1000	839		ug/L		84	80 - 120	1	20	

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-569976/1-A
Matrix: Water
Analysis Batch: 570234

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 569976

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.13	ug/L		04/19/23 14:00	04/20/23 12:54	1

Lab Sample ID: LCS 240-569976/2-A
Matrix: Water
Analysis Batch: 570234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 569976

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	Limits
Mercury	5.00	4.49		ug/L		90	80 - 120	

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-183706-1 MS
 Matrix: Water
 Analysis Batch: 570234

Client Sample ID: 96152-F-20230414-01
 Prep Type: Total/NA
 Prep Batch: 569976

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Mercury	ND	F2 F1	1.00	1.24	F1	ug/L		124	80 - 120	

Lab Sample ID: 240-183706-1 MSD
 Matrix: Water
 Analysis Batch: 570234

Client Sample ID: 96152-F-20230414-01
 Prep Type: Total/NA
 Prep Batch: 569976

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Mercury	ND	F2 F1	1.00	0.977	F2	ug/L		98	80 - 120	23	20	

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-570651/109
 Matrix: Water
 Analysis Batch: 570651

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity	ND		5.0	2.6	mg/L			04/24/23 18:47	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 18:47	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 18:47	1

Lab Sample ID: MB 240-570651/83
 Matrix: Water
 Analysis Batch: 570651

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Alkalinity	ND		5.0	2.6	mg/L			04/24/23 17:00	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 17:00	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/23 17:00	1

Lab Sample ID: LCS 240-570651/108
 Matrix: Water
 Analysis Batch: 570651

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	
							Result	Qualifier
Total Alkalinity	146	151		mg/L		103	86 - 123	

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-572511/3
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	ND		0.050	0.024	mg/L			05/11/23 06:42	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-572511/4
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.61		mg/L		104	90 - 110

Lab Sample ID: 240-183706-4 MS
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: EB-001-F-20230414-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	ND	F2 F1	2.50	3.10	F1	mg/L		124	80 - 120

Lab Sample ID: 240-183706-4 MSD
 Matrix: Water
 Analysis Batch: 572511

Client Sample ID: EB-001-F-20230414-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND	F2 F1	2.50	2.63	F2	mg/L		105	80 - 120	16	15

Lab Sample ID: MB 240-573011/3
 Matrix: Water
 Analysis Batch: 573011

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			05/11/23 19:27	1

Lab Sample ID: LCS 240-573011/4
 Matrix: Water
 Analysis Batch: 573011

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.62		mg/L		105	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-609093/1-A
 Matrix: Water
 Analysis Batch: 612288

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 609093

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05188	U	0.0943	0.0944	1.00	0.166	pCi/L	04/27/23 13:34	05/19/23 19:37	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		30 - 110					04/27/23 13:34	05/19/23 19:37	1

Lab Sample ID: LCS 160-609093/2-A
 Matrix: Water
 Analysis Batch: 612288

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 609093

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	9.643		1.07	1.00	0.175	pCi/L	85	75 - 113

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Method: 9315 - Radium 226 by GFPC (Continued)

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.3		30 - 110

Lab Sample ID: LCSD 160-609093/3-A
 Matrix: Water
 Analysis Batch: 612288

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 609093

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	11.3	10.10		1.11	1.00	0.174	pCi/L	89	75 - 113	0.21	1

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.5		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-609099/1-A
 Matrix: Water
 Analysis Batch: 611850

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 609099

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.09285	U	0.270	0.271	1.00	0.481	pCi/L	04/27/23 14:08	05/16/23 11:14	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		30 - 110	04/27/23 14:08	05/16/23 11:14	1
Y Carrier	86.7		30 - 110	04/27/23 14:08	05/16/23 11:14	1

Lab Sample ID: LCS 160-609099/2-A
 Matrix: Water
 Analysis Batch: 611850

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 609099

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.95	8.033		1.12	1.00	0.469	pCi/L	101	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.3		30 - 110
Y Carrier	86.4		30 - 110

Lab Sample ID: LCSD 160-609099/3-A
 Matrix: Water
 Analysis Batch: 611850

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 609099

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	7.95	8.070		1.10	1.00	0.411	pCi/L	101	75 - 125	0.02	1

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.5		30 - 110
Y Carrier	84.9		30 - 110

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Metals

Prep Batch: 569975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total Recoverable	Water	3005A	
240-183706-2	DUP-002-96152-F-20230414-01	Total Recoverable	Water	3005A	
240-183706-3	MW-17-F-20230414-01	Total Recoverable	Water	3005A	
240-183706-4	EB-001-F-20230414-01	Total Recoverable	Water	3005A	
MB 240-569975/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-569975/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-183706-1 MS	96152-F-20230414-01	Total Recoverable	Water	3005A	
240-183706-1 MSD	96152-F-20230414-01	Total Recoverable	Water	3005A	

Prep Batch: 569976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total/NA	Water	7470A	
240-183706-2	DUP-002-96152-F-20230414-01	Total/NA	Water	7470A	
240-183706-3	MW-17-F-20230414-01	Total/NA	Water	7470A	
240-183706-4	EB-001-F-20230414-01	Total/NA	Water	7470A	
MB 240-569976/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-569976/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-183706-1 MS	96152-F-20230414-01	Total/NA	Water	7470A	
240-183706-1 MSD	96152-F-20230414-01	Total/NA	Water	7470A	

Analysis Batch: 570234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total/NA	Water	7470A	569976
240-183706-2	DUP-002-96152-F-20230414-01	Total/NA	Water	7470A	569976
240-183706-3	MW-17-F-20230414-01	Total/NA	Water	7470A	569976
240-183706-4	EB-001-F-20230414-01	Total/NA	Water	7470A	569976
MB 240-569976/1-A	Method Blank	Total/NA	Water	7470A	569976
LCS 240-569976/2-A	Lab Control Sample	Total/NA	Water	7470A	569976
240-183706-1 MS	96152-F-20230414-01	Total/NA	Water	7470A	569976
240-183706-1 MSD	96152-F-20230414-01	Total/NA	Water	7470A	569976

Analysis Batch: 570329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total Recoverable	Water	6020B	569975
240-183706-2	DUP-002-96152-F-20230414-01	Total Recoverable	Water	6020B	569975
240-183706-3	MW-17-F-20230414-01	Total Recoverable	Water	6020B	569975
240-183706-4	EB-001-F-20230414-01	Total Recoverable	Water	6020B	569975
MB 240-569975/1-A	Method Blank	Total Recoverable	Water	6020B	569975
LCS 240-569975/2-A	Lab Control Sample	Total Recoverable	Water	6020B	569975
240-183706-1 MS	96152-F-20230414-01	Total Recoverable	Water	6020B	569975
240-183706-1 MSD	96152-F-20230414-01	Total Recoverable	Water	6020B	569975

General Chemistry

Analysis Batch: 570651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total/NA	Water	2320B-1997	
240-183706-2	DUP-002-96152-F-20230414-01	Total/NA	Water	2320B-1997	
240-183706-3	MW-17-F-20230414-01	Total/NA	Water	2320B-1997	
240-183706-4	EB-001-F-20230414-01	Total/NA	Water	2320B-1997	
MB 240-570651/109	Method Blank	Total/NA	Water	2320B-1997	

Eurofins Cleveland

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

General Chemistry (Continued)

Analysis Batch: 570651 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-570651/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-570651/108	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 572511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-4	EB-001-F-20230414-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-572511/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-572511/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-183706-4 MS	EB-001-F-20230414-01	Total/NA	Water	300.0-1993 R2.1	
240-183706-4 MSD	EB-001-F-20230414-01	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 573011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total/NA	Water	300.0-1993 R2.1	
240-183706-2	DUP-002-96152-F-20230414-01	Total/NA	Water	300.0-1993 R2.1	
240-183706-3	MW-17-F-20230414-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-573011/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-573011/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 609093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total/NA	Water	PrecSep-21	
240-183706-2	DUP-002-96152-F-20230414-01	Total/NA	Water	PrecSep-21	
240-183706-3	MW-17-F-20230414-01	Total/NA	Water	PrecSep-21	
240-183706-4	EB-001-F-20230414-01	Total/NA	Water	PrecSep-21	
MB 160-609093/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-609093/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-609093/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 609099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-183706-1	96152-F-20230414-01	Total/NA	Water	PrecSep_0	
240-183706-2	DUP-002-96152-F-20230414-01	Total/NA	Water	PrecSep_0	
240-183706-3	MW-17-F-20230414-01	Total/NA	Water	PrecSep_0	
240-183706-4	EB-001-F-20230414-01	Total/NA	Water	PrecSep_0	
MB 160-609099/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-609099/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-609099/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: 96152-F-20230414-01

Lab Sample ID: 240-183706-1

Date Collected: 04/14/23 10:20

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569975	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/21/23 01:02
Total/NA	Prep	7470A			569976	AJC	EET CLE	04/19/23 14:00
Total/NA	Analysis	7470A		1	570234	MRL	EET CLE	04/20/23 12:58
Total/NA	Analysis	2320B-1997		1	570651	JMR	EET CLE	04/24/23 19:15
Total/NA	Analysis	300.0-1993 R2.1		5	573011	JWW	EET CLE	05/12/23 01:50
Total/NA	Prep	PrecSep-21			609093	KAC	EET SL	04/27/23 13:34
Total/NA	Analysis	9315		1	612289	FLC	EET SL	05/19/23 19:43
Total/NA	Prep	PrecSep_0			609099	KAC	EET SL	04/27/23 14:08
Total/NA	Analysis	9320		1	611700	FLC	EET SL	05/16/23 11:21
Total/NA	Analysis	Ra226_Ra228		1	612631	SCB	EET SL	05/22/23 12:41

Client Sample ID: DUP-002-96152-F-20230414-01

Lab Sample ID: 240-183706-2

Date Collected: 04/14/23 10:20

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569975	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/21/23 01:25
Total/NA	Prep	7470A			569976	AJC	EET CLE	04/19/23 14:00
Total/NA	Analysis	7470A		1	570234	MRL	EET CLE	04/20/23 13:05
Total/NA	Analysis	2320B-1997		1	570651	JMR	EET CLE	04/24/23 19:20
Total/NA	Analysis	300.0-1993 R2.1		5	573011	JWW	EET CLE	05/12/23 03:10
Total/NA	Prep	PrecSep-21			609093	KAC	EET SL	04/27/23 13:34
Total/NA	Analysis	9315		1	612289	FLC	EET SL	05/19/23 19:43
Total/NA	Prep	PrecSep_0			609099	KAC	EET SL	04/27/23 14:08
Total/NA	Analysis	9320		1	611700	FLC	EET SL	05/16/23 11:21
Total/NA	Analysis	Ra226_Ra228		1	612631	SCB	EET SL	05/22/23 12:41

Client Sample ID: MW-17-F-20230414-01

Lab Sample ID: 240-183706-3

Date Collected: 04/14/23 12:56

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569975	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/21/23 01:28
Total/NA	Prep	7470A			569976	AJC	EET CLE	04/19/23 14:00
Total/NA	Analysis	7470A		1	570234	MRL	EET CLE	04/20/23 13:07
Total/NA	Analysis	2320B-1997		1	570651	JMR	EET CLE	04/24/23 19:25
Total/NA	Analysis	300.0-1993 R2.1		5	573011	JWW	EET CLE	05/12/23 03:51
Total/NA	Prep	PrecSep-21			609093	KAC	EET SL	04/27/23 13:34
Total/NA	Analysis	9315		1	612290	FLC	EET SL	05/19/23 19:48
Total/NA	Prep	PrecSep_0			609099	KAC	EET SL	04/27/23 14:08
Total/NA	Analysis	9320		1	611700	FLC	EET SL	05/16/23 11:21

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Client Sample ID: MW-17-F-20230414-01

Lab Sample ID: 240-183706-3

Date Collected: 04/14/23 12:56

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Ra226_Ra228		1	612631	SCB	EET SL	05/22/23 12:41

Client Sample ID: EB-001-F-20230414-01

Lab Sample ID: 240-183706-4

Date Collected: 04/14/23 15:00

Matrix: Water

Date Received: 04/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			569975	AJC	EET CLE	04/19/23 14:00
Total Recoverable	Analysis	6020B		1	570329	DSH	EET CLE	04/21/23 01:31
Total/NA	Prep	7470A			569976	AJC	EET CLE	04/19/23 14:00
Total/NA	Analysis	7470A		1	570234	MRL	EET CLE	04/20/23 13:09
Total/NA	Analysis	2320B-1997		1	570651	JMR	EET CLE	04/24/23 19:29
Total/NA	Analysis	300.0-1993 R2.1		1	572511	JWW	EET CLE	05/11/23 13:24
Total/NA	Prep	PrecSep-21			609093	KAC	EET SL	04/27/23 13:34
Total/NA	Analysis	9315		1	612290	FLC	EET SL	05/19/23 19:48
Total/NA	Prep	PrecSep_0			609099	KAC	EET SL	04/27/23 14:08
Total/NA	Analysis	9320		1	611701	FLC	EET SL	05/16/23 11:22
Total/NA	Analysis	Ra226_Ra228		1	612631	SCB	EET SL	05/22/23 12:41

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-183706-1


Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Client Information		Lab PM: Cisneros, Roxanne		Carrier Tracking No(s): 240-93466-34578.1	
Client Contact: Taylor Huffman		E-Mail: roxanne.cisneros@eurofinset.com		Page: Page 1 of 1	
Company: Lightstone Generation Gavin Power LLC		PWSID:		Job #:	
Address: 7397 OH-7		City: Cheshire		State of Origin:	
State, Zip: OH, 45620		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes:	
Phone: 740-925-3171(Tel)		PO #: 2935505		A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Email: taylor.huffman@lightstonegen.com		Project #: 24019633		Other:	
Site: Federal CCR Wells - App IV		SSOW#:		Special Instructions/Note:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sediment, Other)	Field Filtered Sample (Yes or No)	Perform HAWSD (Yes or No)	300.0 28D - Fluoride	2320B - Alkalinity	9315 Ra226, 9320 Ra228, Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note
96652-F-20230414-01	4-14-23	1020	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
DUP-002-96652-F-20230414-01	4-14-23	1020	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
MW-17-F-20230414-01	4-14-23	1256	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
FB-001-F-20230414-01	4-14-23	1500	G	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					



240-183706 Chain of Custody

Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	
Deliverable Requested: <input type="checkbox"/> I, <input type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)	
Empty Kit Relinquished by:	Date:
Relinquished by:	Date/Time:
Relinquished by:	Date/Time:
Relinquished by:	Date/Time:
Custody Seal No.: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Cooler Temperature(s) °C and Other Remarks:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Special Instructions/QC Requirements:		
Method of Shipment:		
Received by:	Date/Time:	Company:
Received by:	Date/Time:	Company:
Received by:	Date/Time:	Company:



Eurofins - Canton Sample Receipt Form/Narrative Login # : _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: Vandy Boyer
Cooler Received on 4-18-23 Opened on 4-18-23
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # ES Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None _____

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF 10.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____


Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Client Information		Sampler: Lab PM: Cisneros, Roxanne		Carrier Tracking No(s): 240-93496-34578.1	
Company: Lightstone Generation Gavin Power LLC		E-Mail: roxanne.cisneros@Eurofins.com		State of Origin:	
Address: 7397 OH-7		PWSID:		Page 1 of 1	
City: Cheshire		Due Date Requested:		Job #:	
State, Zip: OH, 45620		TAT Requested (days):		Preservation Codes:	
Phone: 740-925-3171(Tel)		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		M - Hezane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Email: taylor.huffman@lightstonegen.com		PO #: 2935505		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:	
Project Name: Federal CCR Wells - App IV		WO #: 24019633		Total Number of Containers: <input checked="" type="checkbox"/>	
Site:		SSOW#:		Special Instructions/Note:	
Sample Identification		Field Filtered Sample (Yes or No)		Perform HPLSD (Yes or No)	
9652-F-20230414-c1		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Dup-002-9652-F-20230414-c1		Sample Date		300.0.2ED - Fluoride	
MW-17-F-20230414-c1		Sample Time		230B - Alkalinity	
EB-001-F-20230414-c1		Sample Type (C=Comp, G=Grab)		6020.7470A	
		Preservation Code:		9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc	
		Matrix (Water, Swab, Impaction, Other)			
		Water			
		Water			
		Water			
		Water			
		Water			



240-183706 Chain of Custody

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Received by: _____ Date: 4-17-23 8:45
 Received by: _____ Date: 4-17-23 17:00
 Received by: _____ Date: _____

Company: 579
 Company: EETWC
 Company: _____

Custody Seal No.: Yes No



Eurofins - Canton Sample Receipt Form/Narrative Login # : _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: [Signature]
Cooler Received on 4-18-23 Opened on 4-18-23
FedEx: 1" Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # ES ~~Foam Box~~ Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt _____ See Multiple Cooler Form
IR GUN # 22 (CF 10.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC203864
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
96152-F-20230414-01	240-183706-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
96152-F-20230414-01	240-183706-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
96152-F-20230414-01	240-183706-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-002-96152-F-20230414-01	240-183706-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
DUP-002-96152-F-20230414-01	240-183706-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
DUP-002-96152-F-20230414-01	240-183706-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230414-01	240-183706-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
MW-17-F-20230414-01	240-183706-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
MW-17-F-20230414-01	240-183706-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230414-01	240-183706-C-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-20230414-01	240-183706-D-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001-F-20230414-01	240-183706-E-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Chain of Custody Record



Client Information (Sub Contract Lab)			Sampler: Cisneros, Roxanne		Lab PM: Cisneros, Roxanne		COC No: 240-166559-1	
Client Contact: Shipping/Receiving			Phone: roxanne.cisneros@eurofins.com		E-Mail: roxanne.cisneros@eurofins.com		Page: Page 1 of 1	
TestAmerica Laboratories, Inc.			Address: 13715 Rider Trail North,		City: Earth City		State of Origin: Ohio	
Address: 13715 Rider Trail North,			City: Earth City		State of Origin: Ohio		Job #: 240-183706-1	
State, Zip: MO, 63045			Phone: 314-298-8566(Tel) 314-298-8757(Fax)		E-Mail:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Project Name: Federal CCR Wells - App IV			Project #: 24019633		SSOW#:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Site:			Due Date Requested: 5/18/2023		TAT Requested (days):		Analysis Requested	
Sample Identification - Client ID (Lab ID)			Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
96152-F-20230414-01 (240-183706-1)			4/14/23		10:20 Eastern		Water	
DJP-002-96152-F-20230414-01 (240-183706-2)			4/14/23		10:20 Eastern		Water	
MW-17-F-20230414-01 (240-183706-3)			4/14/23		12:56 Eastern		Water	
EB-001-F-20230414-01 (240-183706-4)			4/14/23		15:00 Eastern		Water	
Perform MS/MSD (Yes or No)			Field Filtered Sample (Yes or No)		Radium-228		Total Number of Containers	
9315_Ra228/PreSep_21 Radium-226 (GFPc)			X		9320_Ra228/PreSep_0 Radium-226 (GFPc)		2	
Radium-228 and			X		Radium-228		2	
9320_Ra228/PreSep_0 Radium-226 (GFPc)			X		Radium-228		2	
Special Instructions/Note:			Recount of TAR after 21 day ingrowth if > action limit, save planchet		Recount of TAR after 21 day ingrowth if > action limit, save planchet		Recount of TAR after 21 day ingrowth if > action limit, save planchet	
Recount of TAR after 21 day ingrowth if > action limit, save planchet			Recount of TAR after 21 day ingrowth if > action limit, save planchet		Recount of TAR after 21 day ingrowth if > action limit, save planchet		Recount of TAR after 21 day ingrowth if > action limit, save planchet	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tesis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Relinquished by: [Signature] Date: 4/18/23 / 2:30
 Relinquished by: [Signature] Date: 4/18/23 / 2:30
 Relinquished by: [Signature] Date: 4/18/23 / 2:30
 Relinquished by: [Signature] Date: 4/18/23 / 2:30
 Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks:





CONDITION UPON RECEIPT FORM (CUR)

Client: Chicago

Initiated by: SW Date: 4/19/23 Time: 0920 Shipper: FE Package Quantity: 1

Sample must be received at < 6°C for Mercury. If not, note temp below. Metal soil samples must be refrigerated upon receipt. If samples are from West Virginia, please fill out form ADMIN-0031.	Thermometer ID and CF (Circle One):	
	ID: IR-2 CF: -1.4°C	ID: 192688461 CF: -1.6°C

Shipping #(s)	Uncorrected Package Temp (°C)	Corrected Package Temp (°C)
1. <u>0180 7194 9420</u>	<u>15.1</u>	<u>13.7</u>
2.		
3.		
4.		
5.		
6.		
7.		

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

Inspected by: CF

1. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8. <input type="radio"/> Y <input checked="" type="radio"/> N	Are there custody seals present on bottles?
2. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was sample received with proper pH? (If not, make note below) pH strip lot #: <u>LRS-4807</u>
4. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Containers for Rn-222, C-14, Cl-36, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
6. <input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in Rn-222 samples? (>6mm) (If Yes, note sample ID's below)
7. <input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Soil containers for C-14, H-3, Tc-99 & I-129/131 marked with "Do Not Dry" label?

¹ For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT Rn-222 and soils.

Notes:

pH Adjustment (if needed)	Date/Time of Preservation:
Initial pH and pH strip lot#:	Preservative and lot#:
Final pH and pH strip lot#:	Amount of Preservative:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-183706-1

Login Number: 183706

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 04/19/23 12:40 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/18/2023 12:08:27 PM

JOB DESCRIPTION

Federal CCR Wells App III & IV combined

JOB NUMBER

240-187309-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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7/18/2023 12:08:27 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Job ID: 240-187309-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-187309-1

Receipt

The samples were received on 6/20/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

Metals

Method 6020B: The following sample was diluted due to the nature of the sample matrix: EB-001-F-A34C-20230616-01 (240-187309-2). 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.

General Chemistry

Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2019-09-F-A34C-20230616-01 (240-187309-1). 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.

Gas Flow Proportional Counter

Method 9315_Ra226: Radium 226/228 prep batch 160-617189/617190. The barium carrier recovery is outside upper control limit (110%) for the following sample: 2019-09-F-A34C-20230616-01 (240-187309-1). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 batch 617189. A native barium result was applied to the sample which brought the recovery below the 110% limit. 2019-09-F-A34C-20230616-01 (240-187309-1)

Method 9315_Ra226: Radium-226 batch 617189. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-09-F-A34C-20230616-01 (240-187309-1), EB-001-F-A34C-20230616-01 (240-187309-2), (LCS 160-617189/2-A), (MB 160-617189/1-A)

Method 9320_Ra228: Radium-228 batch 617190. The barium carrier recovery was outside the upper control limit (110%) for the following sample. A native barium result was applied to the sample which brought the recovery below the 110% limit. 2019-09-F-A34C-20230616-01 (240-187309-1)

Method 9320_Ra228: Radium-228 batch 617190. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-09-F-A34C-20230616-01 (240-187309-1), EB-001-F-A34C-20230616-01 (240-187309-2), (LCS 160-617190/2-A), (MB 160-617190/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
240-187309-1	2019-09-F-A34C-20230616-01	Water	06/16/23 11:15	06/20/23 08:00
240-187309-2	EB-001-F-A34C-20230616-01	Water	06/16/23 12:15	06/20/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Client Sample ID: 2019-09-F-A34C-20230616-01

Lab Sample ID: 240-187309-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	470		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.4	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	15		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	29000		50	22	ug/L	10		6020B	Total Recoverable
Beryllium	2.2		1.0	0.62	ug/L	1		6020B	Total Recoverable
Cadmium	0.22	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chromium	150		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	34		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	24		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	350		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	310000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	24		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	34000	F1	1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.2	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9300000		10000	3300	ug/L	10		6020B	Total Recoverable
Thallium	0.54	J F1	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	20000		100	13	mg/L	100		300.0	Total/NA
Sulfate	8.6	J	20	7.0	mg/L	20		300.0	Total/NA
Total Dissolved Solids	29000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-A34C-20230616-01

Lab Sample ID: 240-187309-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.4	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Barium	4.1	J	5.0	2.2	ug/L	1		6020B	Total Recoverable
Molybdenum	1.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Sodium	4200		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.39	J	1.0	0.20	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Client Sample ID: 2019-09-F-A34C-20230616-01

Lab Sample ID: 240-187309-1

Date Collected: 06/16/23 11:15

Matrix: Water

Date Received: 06/20/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	470		100	57	ug/L		06/21/23 14:00	06/23/23 06:34	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4	J	2.0	0.57	ug/L		06/21/23 14:00	06/22/23 17:52	1
Arsenic	15		5.0	0.75	ug/L		06/21/23 14:00	06/22/23 17:52	1
Barium	29000		50	22	ug/L		06/21/23 14:00	06/23/23 13:13	10
Beryllium	2.2		1.0	0.62	ug/L		06/21/23 14:00	06/22/23 17:52	1
Cadmium	0.22	J	1.0	0.20	ug/L		06/21/23 14:00	06/22/23 17:52	1
Chromium	150		5.0	1.2	ug/L		06/21/23 14:00	06/22/23 17:52	1
Cobalt	34		1.0	0.19	ug/L		06/21/23 14:00	06/22/23 17:52	1
Lead	24		1.0	0.45	ug/L		06/21/23 14:00	06/22/23 17:52	1
Lithium	350		8.0	1.7	ug/L		06/21/23 14:00	06/22/23 17:52	1
Magnesium	310000		1000	61	ug/L		06/21/23 14:00	06/22/23 17:52	1
Molybdenum	24		5.0	1.1	ug/L		06/21/23 14:00	06/22/23 17:52	1
Potassium	34000	F1	1000	220	ug/L		06/21/23 14:00	06/22/23 17:52	1
Selenium	1.2	J	5.0	0.89	ug/L		06/21/23 14:00	06/22/23 17:52	1
Sodium	9300000		10000	3300	ug/L		06/21/23 14:00	06/23/23 13:13	10
Thallium	0.54	J F1	1.0	0.20	ug/L		06/21/23 14:00	06/22/23 17:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		06/21/23 14:00	06/22/23 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	180		5.0	2.6	mg/L			06/30/23 18:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	180		5.0	2.6	mg/L			06/30/23 18:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			06/30/23 18:09	1
Chloride (EPA 300.0)	20000		100	13	mg/L			07/12/23 20:46	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			07/12/23 20:46	100
Sulfate (EPA 300.0)	8.6	J	20	7.0	mg/L			07/13/23 18:27	20
Total Dissolved Solids (SM 2540C)	29000		1000	780	mg/L			06/23/23 09:11	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	36.7		1.53	3.64	1.00	0.249	pCi/L	06/22/23 09:44	07/17/23 16:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		30 - 110					06/22/23 09:44	07/17/23 16:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	63.1		3.20	6.63	1.00	0.872	pCi/L	06/22/23 09:50	07/10/23 15:47	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Client Sample ID: 2019-09-F-A34C-20230616-01

Lab Sample ID: 240-187309-1

Date Collected: 06/16/23 11:15

Matrix: Water

Date Received: 06/20/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		30 - 110	06/22/23 09:50	07/10/23 15:47	1
Y Carrier	85.2		30 - 110	06/22/23 09:50	07/10/23 15:47	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	99.8		3.55	7.56	5.00	0.872	pCi/L		07/17/23 13:20	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Client Sample ID: EB-001-F-A34C-20230616-01

Lab Sample ID: 240-187309-2

Date Collected: 06/16/23 12:15

Matrix: Water

Date Received: 06/20/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/21/23 14:00	06/23/23 06:51	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4	J	2.0	0.57	ug/L		06/21/23 14:00	06/22/23 18:10	1
Arsenic	ND		5.0	0.75	ug/L		06/21/23 14:00	06/22/23 18:10	1
Barium	4.1	J	5.0	2.2	ug/L		06/21/23 14:00	06/22/23 18:10	1
Beryllium	ND		1.0	0.62	ug/L		06/21/23 14:00	06/22/23 18:10	1
Cadmium	ND		1.0	0.20	ug/L		06/21/23 14:00	06/22/23 18:10	1
Chromium	ND		5.0	1.2	ug/L		06/21/23 14:00	06/22/23 18:10	1
Cobalt	ND		1.0	0.19	ug/L		06/21/23 14:00	06/22/23 18:10	1
Lead	ND		1.0	0.45	ug/L		06/21/23 14:00	06/22/23 18:10	1
Lithium	ND		40	8.3	ug/L		06/21/23 14:00	06/23/23 13:31	5
Magnesium	ND		1000	61	ug/L		06/21/23 14:00	06/22/23 18:10	1
Molybdenum	1.4	J	5.0	1.1	ug/L		06/21/23 14:00	06/22/23 18:10	1
Potassium	ND		1000	220	ug/L		06/21/23 14:00	06/22/23 18:10	1
Selenium	ND		5.0	0.89	ug/L		06/21/23 14:00	06/22/23 18:10	1
Sodium	4200		1000	330	ug/L		06/21/23 14:00	06/22/23 18:10	1
Thallium	0.39	J	1.0	0.20	ug/L		06/21/23 14:00	06/22/23 18:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		06/21/23 14:00	06/22/23 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			06/30/23 18:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			06/30/23 18:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			06/30/23 18:13	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			07/12/23 22:07	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			07/12/23 22:07	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			07/12/23 22:07	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			06/23/23 09:11	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-0.0220	U	0.0580	0.0581	1.00	0.126	pCi/L	06/22/23 09:44	07/17/23 16:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		30 - 110					06/22/23 09:44	07/17/23 16:33	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.438	U	0.362	0.364	1.00	0.567	pCi/L	06/22/23 09:50	07/10/23 15:48	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Client Sample ID: EB-001-F-A34C-20230616-01

Lab Sample ID: 240-187309-2

Date Collected: 06/16/23 12:15

Matrix: Water

Date Received: 06/20/23 08:00

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Ba Carrier	95.2		30 - 110	06/22/23 09:50	07/10/23 15:48	1
Y Carrier	84.5		30 - 110	06/22/23 09:50	07/10/23 15:48	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count</u>	<u>Total</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
			<u>Uncert.</u>	<u>Uncert.</u>						
Combined Radium 226 + 228	0.416	U	(2σ+/-) 0.367	(2σ+/-) 0.369	5.00	0.567	pCi/L		07/17/23 13:20	1



Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)							
240-187309-1	2019-09-F-A34C-20230616-01	101							
240-187309-2	EB-001-F-A34C-20230616-01	95.2							
LCS 160-617189/2-A	Lab Control Sample	95.4							
MB 160-617189/1-A	Method Blank	92.6							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
240-187309-1	2019-09-F-A34C-20230616-01	101	85.2						
240-187309-2	EB-001-F-A34C-20230616-01	95.2	84.5						
LCS 160-617190/2-A	Lab Control Sample	95.4	82.2						
MB 160-617190/1-A	Method Blank	92.6	87.9						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-578002/1-A
Matrix: Water
Analysis Batch: 578256

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		06/21/23 14:00	06/23/23 06:25	1

Lab Sample ID: LCS 240-578002/2-A
Matrix: Water
Analysis Batch: 578256

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Lab Sample ID: 240-187309-1 MS
Matrix: Water
Analysis Batch: 578256

Client Sample ID: 2019-09-F-A34C-20230616-01
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	470		1000	1430		ug/L		96	75 - 125

Lab Sample ID: 240-187309-1 MSD
Matrix: Water
Analysis Batch: 578256

Client Sample ID: 2019-09-F-A34C-20230616-01
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Boron	470		1000	1380		ug/L		92	75 - 125	3	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-578002/1-A
Matrix: Water
Analysis Batch: 578285

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		06/21/23 14:00	06/22/23 17:46	1
Arsenic	ND		5.0	0.75	ug/L		06/21/23 14:00	06/22/23 17:46	1
Barium	ND		5.0	2.2	ug/L		06/21/23 14:00	06/22/23 17:46	1
Beryllium	ND		1.0	0.62	ug/L		06/21/23 14:00	06/22/23 17:46	1
Cadmium	ND		1.0	0.20	ug/L		06/21/23 14:00	06/22/23 17:46	1
Chromium	ND		5.0	1.2	ug/L		06/21/23 14:00	06/22/23 17:46	1
Cobalt	ND		1.0	0.19	ug/L		06/21/23 14:00	06/22/23 17:46	1
Lead	ND		1.0	0.45	ug/L		06/21/23 14:00	06/22/23 17:46	1
Lithium	ND		8.0	1.7	ug/L		06/21/23 14:00	06/22/23 17:46	1
Magnesium	ND		1000	61	ug/L		06/21/23 14:00	06/22/23 17:46	1
Molybdenum	ND		5.0	1.1	ug/L		06/21/23 14:00	06/22/23 17:46	1
Potassium	ND		1000	220	ug/L		06/21/23 14:00	06/22/23 17:46	1
Selenium	ND		5.0	0.89	ug/L		06/21/23 14:00	06/22/23 17:46	1
Sodium	ND		1000	330	ug/L		06/21/23 14:00	06/22/23 17:46	1
Thallium	ND		1.0	0.20	ug/L		06/21/23 14:00	06/22/23 17:46	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-578002/3-A
Matrix: Water
Analysis Batch: 578285

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	105		ug/L		105	80 - 120
Arsenic	1000	948		ug/L		95	80 - 120
Barium	1000	986		ug/L		99	80 - 120
Beryllium	500	497		ug/L		99	80 - 120
Cadmium	500	469		ug/L		94	80 - 120
Chromium	500	476		ug/L		95	80 - 120
Cobalt	500	474		ug/L		95	80 - 120
Lead	500	489		ug/L		98	80 - 120
Lithium	500	499		ug/L		100	80 - 120
Magnesium	25000	25200		ug/L		101	80 - 120
Molybdenum	500	466		ug/L		93	80 - 120
Potassium	25000	25300		ug/L		101	80 - 120
Selenium	1000	922		ug/L		92	80 - 120
Sodium	25000	25000		ug/L		100	80 - 120
Thallium	1000	906		ug/L		91	80 - 120

Lab Sample ID: 240-187309-1 MS
Matrix: Water
Analysis Batch: 578285

Client Sample ID: 2019-09-F-A34C-20230616-01
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.4	J	100	85.4		ug/L		84	80 - 120
Arsenic	15		1000	1210		ug/L		120	80 - 120
Beryllium	2.2		500	451		ug/L		90	80 - 120
Cadmium	0.22	J	500	414		ug/L		83	80 - 120
Chromium	150		500	558		ug/L		82	80 - 120
Cobalt	34		500	593		ug/L		112	80 - 120
Lead	24		500	496		ug/L		94	80 - 120
Lithium	350		500	833		ug/L		97	80 - 120
Magnesium	310000		25000	338000	4	ug/L		108	80 - 120
Molybdenum	24		500	532		ug/L		102	80 - 120
Potassium	34000	F1	25000	64400	F1	ug/L		121	80 - 120
Selenium	1.2	J	1000	1030		ug/L		103	80 - 120
Thallium	0.54	J F1	1000	736	F1	ug/L		74	80 - 120

Lab Sample ID: 240-187309-1 MS
Matrix: Water
Analysis Batch: 578501

Client Sample ID: 2019-09-F-A34C-20230616-01
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	29000		1000	30900	4	ug/L		179	80 - 120
Sodium	9300000		25000	9400000	4	ug/L		274	80 - 120

Lab Sample ID: 240-187309-1 MSD
Matrix: Water
Analysis Batch: 578285

Client Sample ID: 2019-09-F-A34C-20230616-01
Prep Type: Total Recoverable
Prep Batch: 578002

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	1.4	J	100	85.2		ug/L		84	80 - 120	0	20

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-187309-1 MSD
 Matrix: Water
 Analysis Batch: 578285

Client Sample ID: 2019-09-F-A34C-20230616-01
 Prep Type: Total Recoverable
 Prep Batch: 578002

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	15		1000	1210		ug/L		120	80 - 120	0	20
Beryllium	2.2		500	436		ug/L		87	80 - 120	3	20
Cadmium	0.22	J	500	403		ug/L		81	80 - 120	3	20
Chromium	150		500	553		ug/L		81	80 - 120	1	20
Cobalt	34		500	597		ug/L		113	80 - 120	1	20
Lead	24		500	488		ug/L		93	80 - 120	2	20
Lithium	350		500	793		ug/L		89	80 - 120	5	20
Magnesium	310000		25000	343000	4	ug/L		125	80 - 120	1	20
Molybdenum	24		500	531		ug/L		102	80 - 120	0	20
Potassium	34000	F1	25000	64300	F1	ug/L		121	80 - 120	0	20
Selenium	1.2	J	1000	1040		ug/L		104	80 - 120	1	20
Thallium	0.54	J F1	1000	720	F1	ug/L		72	80 - 120	2	20

Lab Sample ID: 240-187309-1 MSD
 Matrix: Water
 Analysis Batch: 578501

Client Sample ID: 2019-09-F-A34C-20230616-01
 Prep Type: Total Recoverable
 Prep Batch: 578002

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	29000		1000	31700	4	ug/L		256	80 - 120	2	20
Sodium	9300000		25000	9530000	4	ug/L		791	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-578003/1-A
 Matrix: Water
 Analysis Batch: 578220

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 578003

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		06/21/23 14:00	06/22/23 10:25	1

Lab Sample ID: LCS 240-578003/2-A
 Matrix: Water
 Analysis Batch: 578220

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 578003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.13		ug/L		103	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-579665/4
 Matrix: Water
 Analysis Batch: 579665

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			06/30/23 17:58	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			06/30/23 17:58	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			06/30/23 17:58	1

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-579665/3
 Matrix: Water
 Analysis Batch: 579665

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	84.6		mg/L		105	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-580390/3
 Matrix: Water
 Analysis Batch: 580390

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/12/23 14:03	1
Fluoride	ND		0.050	0.024	mg/L			07/12/23 14:03	1
Sulfate	ND		1.0	0.35	mg/L			07/12/23 14:03	1

Lab Sample ID: LCS 240-580390/4
 Matrix: Water
 Analysis Batch: 580390

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.1		mg/L		100	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	50.5		mg/L		101	90 - 110

Lab Sample ID: MB 240-580549/3
 Matrix: Water
 Analysis Batch: 580549

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/13/23 14:54	1
Fluoride	ND		0.050	0.024	mg/L			07/13/23 14:54	1
Sulfate	ND		1.0	0.35	mg/L			07/13/23 14:54	1

Lab Sample ID: LCS 240-580549/4
 Matrix: Water
 Analysis Batch: 580549

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	50.2		mg/L		100	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-578290/1
 Matrix: Water
 Analysis Batch: 578290

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	ND		10	7.8	mg/L			06/23/23 09:11	1

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-578290/2
 Matrix: Water
 Analysis Batch: 578290

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	518	500		mg/L		97	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-617189/1-A
 Matrix: Water
 Analysis Batch: 620396

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 617189

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02217	U	0.0872	0.0872	1.00	0.162	pCi/L	06/22/23 09:44	07/17/23 16:33	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		30 - 110					06/22/23 09:44	07/17/23 16:33	1

Lab Sample ID: LCS 160-617189/2-A
 Matrix: Water
 Analysis Batch: 620399

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 617189

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.12		1.07	1.00	0.105	pCi/L	89	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.4		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-617190/1-A
 Matrix: Water
 Analysis Batch: 619655

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 617190

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.02912	U	0.262	0.262	1.00	0.501	pCi/L	06/22/23 09:50	07/10/23 15:47	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		30 - 110					06/22/23 09:50	07/10/23 15:47	1
Y Carrier	87.9		30 - 110					06/22/23 09:50	07/10/23 15:47	1

Lab Sample ID: LCS 160-617190/2-A
 Matrix: Water
 Analysis Batch: 619655

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 617190

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.05	7.885		1.13	1.00	0.495	pCi/L	98	75 - 125

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-617190/2-A
Matrix: Water
Analysis Batch: 619655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617190

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	95.4		30 - 110
Y Carrier	82.2		30 - 110

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QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Metals

Prep Batch: 578002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total Recoverable	Water	3005A	
240-187309-2	EB-001-F-A34C-20230616-01	Total Recoverable	Water	3005A	
MB 240-578002/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-578002/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-578002/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-187309-1 MS	2019-09-F-A34C-20230616-01	Total Recoverable	Water	3005A	
240-187309-1 MS	2019-09-F-A34C-20230616-01	Total Recoverable	Water	3005A	
240-187309-1 MSD	2019-09-F-A34C-20230616-01	Total Recoverable	Water	3005A	
240-187309-1 MSD	2019-09-F-A34C-20230616-01	Total Recoverable	Water	3005A	

Prep Batch: 578003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	7470A	
240-187309-2	EB-001-F-A34C-20230616-01	Total/NA	Water	7470A	
MB 240-578003/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-578003/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 578220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	7470A	578003
240-187309-2	EB-001-F-A34C-20230616-01	Total/NA	Water	7470A	578003
MB 240-578003/1-A	Method Blank	Total/NA	Water	7470A	578003
LCS 240-578003/2-A	Lab Control Sample	Total/NA	Water	7470A	578003

Analysis Batch: 578256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6010D	578002
240-187309-2	EB-001-F-A34C-20230616-01	Total Recoverable	Water	6010D	578002
MB 240-578002/1-A	Method Blank	Total Recoverable	Water	6010D	578002
LCS 240-578002/2-A	Lab Control Sample	Total Recoverable	Water	6010D	578002
240-187309-1 MS	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6010D	578002
240-187309-1 MSD	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6010D	578002

Analysis Batch: 578285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002
240-187309-2	EB-001-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002
MB 240-578002/1-A	Method Blank	Total Recoverable	Water	6020B	578002
LCS 240-578002/3-A	Lab Control Sample	Total Recoverable	Water	6020B	578002
240-187309-1 MS	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002
240-187309-1 MSD	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002

Analysis Batch: 578501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002
240-187309-2	EB-001-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002
240-187309-1 MS	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002
240-187309-1 MSD	2019-09-F-A34C-20230616-01	Total Recoverable	Water	6020B	578002

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

General Chemistry

Analysis Batch: 578290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	SM 2540C	
240-187309-2	EB-001-F-A34C-20230616-01	Total/NA	Water	SM 2540C	
MB 240-578290/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-578290/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 579665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	2320B-1997	
240-187309-2	EB-001-F-A34C-20230616-01	Total/NA	Water	2320B-1997	
MB 240-579665/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-579665/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 580390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	300.0	
240-187309-2	EB-001-F-A34C-20230616-01	Total/NA	Water	300.0	
MB 240-580390/3	Method Blank	Total/NA	Water	300.0	
LCS 240-580390/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 580549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	300.0	
MB 240-580549/3	Method Blank	Total/NA	Water	300.0	
LCS 240-580549/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 617189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	PrecSep-21	
240-187309-2	EB-001-F-A34C-20230616-01	Total/NA	Water	PrecSep-21	
MB 160-617189/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-617189/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 617190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-187309-1	2019-09-F-A34C-20230616-01	Total/NA	Water	PrecSep_0	
240-187309-2	EB-001-F-A34C-20230616-01	Total/NA	Water	PrecSep_0	
MB 160-617190/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-617190/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Client Sample ID: 2019-09-F-A34C-20230616-01

Lab Sample ID: 240-187309-1

Date Collected: 06/16/23 11:15

Matrix: Water

Date Received: 06/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			578002	BN	EET CLE	06/21/23 14:00
Total Recoverable	Analysis	6010D		1	578256	RKT	EET CLE	06/23/23 06:34
Total Recoverable	Prep	3005A			578002	BN	EET CLE	06/21/23 14:00
Total Recoverable	Analysis	6020B		1	578285	DSH	EET CLE	06/22/23 17:52
Total Recoverable	Prep	3005A			578002	BN	EET CLE	06/21/23 14:00
Total Recoverable	Analysis	6020B		10	578501	DSH	EET CLE	06/23/23 13:13
Total/NA	Prep	7470A			578003	BN	EET CLE	06/21/23 14:00
Total/NA	Analysis	7470A		1	578220	AJC	EET CLE	06/22/23 10:30
Total/NA	Analysis	2320B-1997		1	579665	JWW	EET CLE	06/30/23 18:09
Total/NA	Analysis	300.0		100	580390	ALT	EET CLE	07/12/23 20:46
Total/NA	Analysis	300.0		20	580549	ALT	EET CLE	07/13/23 18:27
Total/NA	Analysis	SM 2540C		1	578290	MS	EET CLE	06/23/23 09:11
Total/NA	Prep	PrecSep-21			617189	KAC	EET SL	06/22/23 09:44
Total/NA	Analysis	9315		1	620399	SCB	EET SL	07/17/23 16:33
Total/NA	Prep	PrecSep_0			617190	KAC	EET SL	06/22/23 09:50
Total/NA	Analysis	9320		1	619655	FLC	EET SL	07/10/23 15:47
Total/NA	Analysis	Ra226_Ra228		1	620374	SCB	EET SL	07/17/23 13:20

Client Sample ID: EB-001-F-A34C-20230616-01

Lab Sample ID: 240-187309-2

Date Collected: 06/16/23 12:15

Matrix: Water

Date Received: 06/20/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			578002	BN	EET CLE	06/21/23 14:00
Total Recoverable	Analysis	6010D		1	578256	RKT	EET CLE	06/23/23 06:51
Total Recoverable	Prep	3005A			578002	BN	EET CLE	06/21/23 14:00
Total Recoverable	Analysis	6020B		1	578285	DSH	EET CLE	06/22/23 18:10
Total Recoverable	Prep	3005A			578002	BN	EET CLE	06/21/23 14:00
Total Recoverable	Analysis	6020B		5	578501	DSH	EET CLE	06/23/23 13:31
Total/NA	Prep	7470A			578003	BN	EET CLE	06/21/23 14:00
Total/NA	Analysis	7470A		1	578220	AJC	EET CLE	06/22/23 10:32
Total/NA	Analysis	2320B-1997		1	579665	JWW	EET CLE	06/30/23 18:13
Total/NA	Analysis	300.0		1	580390	ALT	EET CLE	07/12/23 22:07
Total/NA	Analysis	SM 2540C		1	578290	MS	EET CLE	06/23/23 09:11
Total/NA	Prep	PrecSep-21			617189	KAC	EET SL	06/22/23 09:44
Total/NA	Analysis	9315		1	620399	SCB	EET SL	07/17/23 16:33
Total/NA	Prep	PrecSep_0			617190	KAC	EET SL	06/22/23 09:50
Total/NA	Analysis	9320		1	619655	FLC	EET SL	07/10/23 15:48
Total/NA	Analysis	Ra226_Ra228		1	620374	SCB	EET SL	07/17/23 13:20

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells App III & IV combined

Job ID: 240-187309-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-23 *
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23 *
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III & IV combined

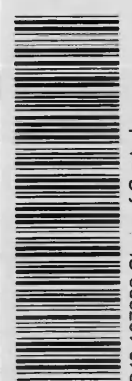
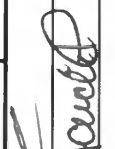
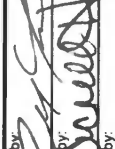
Job ID: 240-187309-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	06-30-23 *
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client Information		Lab PM: Cisneros, Roxanne		COC No: 240-97179-35520.1	
Client Contact: Taylor Huffman		E-Mail: roxanne.cisneros@et.eurofins.com		Page: Page 1 of 1	
Company: Lightstone Generation Gavin Power LLC		Address: 7397 OH-7		Job #:	
City: Cheshire		State: OH, 45620		Preservation Codes:	
Phone: 740-925-3171(Tel)		PO #: 2935505		A - HCL	
Email: taylor.huffman@lightstonegen.com		WO #:		B - NaOH	
Project Name: Gavin CCR - Appendix III and IV - Combined		Project #: 24019633		C - Zn Acetate	
Site:		SSOW#:		D - Nitric Acid	
Due Date Requested:		TAT Requested (days):		E - NaHSO4	
Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Sample Date		F - MeOH	
Sample Identification		Sample Time		G - Amchlor	
2019-09-F-A346-20230616-01		6-16-23 1115		H - Ascorbic Acid	
EB-001-F-A346-20230616-01		6-16-23 1215		I - Ice	
				J - DI Water	
				K - EDTA	
				L - EDA	
				M - Hexane	
				N - None	
				O - AsNaO2	
				P - Na2O4S	
				Q - Na2SO3	
				R - Na2S2O3	
				S - H2SO4	
				T - TSP Dodecahydrate	
				U - Acetone	
				V - MCAA	
				W - pH 4-5	
				Y - Trizma	
				Z - other (specify)	
				Other:	
				Total Number of Containers	
				Special Instructions/Note:	
				 240-187309 Chain of Custody	
				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
				<input type="checkbox"/> Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)	
				<input type="checkbox"/> Empty Kit Relinquished by: _____ Date: _____ <input type="checkbox"/> Relinquished by: _____ Date/Time: 6-19-23 10:30 <input type="checkbox"/> Relinquished by: _____ Date/Time: 6-19-23 12:00	
				Received by:  Date/Time: 6-19-23 10:30 Received by:  Date/Time: 6-20-23 8:00 Received by: _____ Date/Time: _____	
				Company: KEMRON Company: ETC Company: STINC	
				Cooler Temperature(s) °C and Other Remarks:	

Eurofins - Canton Sample Receipt Form/Narrative

Login # : _____

Barberton Facility

Client LightStone

Site Name _____

Cooler unpacked by:

Cooler Received on 6-20-23

Opened on 6-20-23

Rachelle Haidet

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____

Storage Location _____

Eurofins Cooler # EC Foam Box _____ Client Cooler _____ Box _____ Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 22 (CF +0.0°C) Observed Cooler Temp. 0.9 °C Corrected Cooler Temp. 0.9 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No

9. For each sample, does the COC specify preservatives (Y/N), # of containers (X/N), and sample type of grab/comp (Y/N)?

10. Were correct bottle(s) used for the test(s) indicated? Yes No

11. Sufficient quantity received to perform indicated analyses? Yes No

12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# 10BDH4321

14. Were VOAs on the COC? Yes No NA

15. Were air bubbles >6 mm in any VOA vials? Yes No NA  Larger than this.

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2019-09-F-A34C-20230616-01	240-187309-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2019-09-F-A34C-20230616-01	240-187309-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2019-09-F-A34C-20230616-01	240-187309-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001--F-A34C-20230616-01	240-187309-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
EB-001--F-A34C-20230616-01	240-187309-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
EB-001--F-A34C-20230616-01	240-187309-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-187309-1

Login Number: 187309

List Number: 2

Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis

List Creation: 06/21/23 11:28 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 9/18/2023 3:42:42 PM

JOB DESCRIPTION

Federal GWM Wells - AppIII & AppIV combined

JOB NUMBER

240-190364-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
9/18/2023 3:42:42 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Job ID: 240-190364-1

Laboratory: Eurofins Cleveland

Narrative

**Job Narrative
240-190364-1**

Comments

No additional comments.

Receipt

The samples were received on 8/18/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.1° C, 0.2° C, 2.4° C, 2.5° C, 4.5° C and 22.1° C.

RAD

Method 9315: Radium-226 batch 625151: The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 2019-09-F-A34C-20230815-01 (240-190364-1)

Methods 9315: Radium-226 batch 625151: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date 2019-09-F-A34C-20230815-01 (240-190364-1), (LCS 160-625151/2-A), (MB 160-625151/1-A)

Methods 9320: Radium-228 prep batch 160-625153: The following sample(s) did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interference. During preparation the analyst visually noted matrix effects. The data have been reported with this narrative. 2019-09-F-A34C-20230815-01 (240-190364-1)

Method 9320: Radium-228 prep batch 160-625153: The following sample has a barium carrier recovery above the 110% QC limit: 2019-09-F-A34C-20230815-01 (240-190364-1). Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

Methods 9320: Radium-228 prep batch 160-625153: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 2019-09-F-A34C-20230815-01 (240-190364-1), (LCS 160-625153/2-A), (MB 160-625153/1-A)

Method PrecSep_0: Radium 228 prep batch 160-625153: The barium carrier recovery is outside the upper control limit (110%) for the following sample: 2019-09-F-A34C-20230815-01 (240-190364-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method PrecSep-21: Radium 226 prep batch 160-625151: The barium carrier recovery is outside the upper control limit (110%) for the following sample: 2019-09-F-A34C-20230815-01 (240-190364-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Job ID: 240-190364-1 (Continued)

Laboratory: Eurofins Cleveland (Continued)

General Chemistry

Method 300.0: The following sample was diluted due to the nature of the sample matrix: 2019-09-F-A34C-20230815-01 (240-190364-1). 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.

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Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
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.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
240-190364-1	2019-09-F-A34C-20230815-01	Water	08/15/23 11:12	08/18/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Client Sample ID: 2019-09-F-A34C-20230815-01

Lab Sample ID: 240-190364-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.9	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	7.4		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	31000		100	45	ug/L	20		6020B	Total Recoverable
Beryllium	1.0		1.0	0.62	ug/L	1		6020B	Total Recoverable
Cadmium	0.23	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	860000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	65		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	12		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	7.6	F1	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	320		160	33	ug/L	20		6020B	Total Recoverable
Magnesium	290000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	43		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	28000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.6	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9800000		50000	16000	ug/L	50		6020B	Total Recoverable
Thallium	0.62	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	18000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	28000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Client Sample ID: 2019-09-F-A34C-20230815-01

Lab Sample ID: 240-190364-1

Date Collected: 08/15/23 11:12

Matrix: Water

Date Received: 08/18/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		08/21/23 14:00	08/23/23 23:11	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.9	J	2.0	0.57	ug/L		08/21/23 14:00	08/22/23 17:04	1
Arsenic	7.4		5.0	0.75	ug/L		08/21/23 14:00	08/22/23 17:04	1
Barium	31000		100	45	ug/L		08/21/23 14:00	08/25/23 22:18	20
Beryllium	1.0		1.0	0.62	ug/L		08/21/23 14:00	08/22/23 17:04	1
Cadmium	0.23	J	1.0	0.20	ug/L		08/21/23 14:00	08/22/23 17:04	1
Calcium	860000		1000	250	ug/L		08/21/23 14:00	08/22/23 17:04	1
Chromium	65		5.0	1.2	ug/L		08/21/23 14:00	08/22/23 17:04	1
Cobalt	12		1.0	0.19	ug/L		08/21/23 14:00	08/22/23 17:04	1
Lead	7.6	F1	1.0	0.45	ug/L		08/21/23 14:00	08/22/23 17:04	1
Lithium	320		160	33	ug/L		08/21/23 14:00	08/25/23 22:18	20
Magnesium	290000		1000	61	ug/L		08/21/23 14:00	08/22/23 17:04	1
Molybdenum	43		5.0	1.1	ug/L		08/21/23 14:00	08/22/23 17:04	1
Potassium	28000		1000	220	ug/L		08/21/23 14:00	08/22/23 17:04	1
Selenium	1.6	J	5.0	0.89	ug/L		08/21/23 14:00	08/22/23 17:04	1
Sodium	9800000		50000	16000	ug/L		08/21/23 14:00	08/29/23 14:34	50
Thallium	0.62	J	1.0	0.20	ug/L		08/21/23 14:00	08/22/23 17:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		08/21/23 14:00	08/22/23 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	190		5.0	2.6	mg/L			08/22/23 20:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	190		5.0	2.6	mg/L			08/22/23 20:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			08/22/23 20:32	1
Chloride (EPA 300.0)	18000		1000	130	mg/L			09/12/23 01:17	1000
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			09/12/23 00:55	50
Sulfate (EPA 300.0)	ND		50	17	mg/L			09/12/23 00:55	50
Total Dissolved Solids (SM 2540C)	28000		1000	780	mg/L			08/22/23 10:33	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	34.8		1.84	3.63	1.00	0.293	pCi/L	08/23/23 10:03	09/14/23 07:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	115	X	30 - 110					08/23/23 10:03	09/14/23 07:36	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	69.0	G	3.50	7.25	1.00	1.16	pCi/L	08/23/23 10:07	09/11/23 11:55	1

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Client Sample ID: 2019-09-F-A34C-20230815-01

Lab Sample ID: 240-190364-1

Date Collected: 08/15/23 11:12

Matrix: Water

Date Received: 08/18/23 08:00

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	115	X	30 - 110	08/23/23 10:07	09/11/23 11:55	1
Y Carrier	83.7		30 - 110	08/23/23 10:07	09/11/23 11:55	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Combined Radium 226 + 228	104		(2σ+/-) 3.95	(2σ+/-) 8.11	5.00	1.16	pCi/L		09/18/23 13:02	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)							
240-190364-1	2019-09-F-A34C-20230815-01	115 X							
LCS 160-625151/2-A	Lab Control Sample	96.7							
MB 160-625151/1-A	Method Blank	91.7							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)						
240-190364-1	2019-09-F-A34C-20230815-01	115 X	83.7						
LCS 160-625153/2-A	Lab Control Sample	96.7	87.9						
MB 160-625153/1-A	Method Blank	91.7	85.6						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-584586/1-A
 Matrix: Water
 Analysis Batch: 584923

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 584586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		08/21/23 14:00	08/23/23 22:54	1

Lab Sample ID: LCS 240-584586/2-A
 Matrix: Water
 Analysis Batch: 584923

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 584586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	973		ug/L		97	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-584586/1-A
 Matrix: Water
 Analysis Batch: 584849

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 584586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		08/21/23 14:00	08/22/23 16:53	1
Arsenic	ND		5.0	0.75	ug/L		08/21/23 14:00	08/22/23 16:53	1
Barium	ND		5.0	2.2	ug/L		08/21/23 14:00	08/22/23 16:53	1
Beryllium	ND		1.0	0.62	ug/L		08/21/23 14:00	08/22/23 16:53	1
Cadmium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 16:53	1
Calcium	ND		1000	250	ug/L		08/21/23 14:00	08/22/23 16:53	1
Chromium	ND		5.0	1.2	ug/L		08/21/23 14:00	08/22/23 16:53	1
Cobalt	ND		1.0	0.19	ug/L		08/21/23 14:00	08/22/23 16:53	1
Lead	ND		1.0	0.45	ug/L		08/21/23 14:00	08/22/23 16:53	1
Magnesium	ND		1000	61	ug/L		08/21/23 14:00	08/22/23 16:53	1
Molybdenum	ND		5.0	1.1	ug/L		08/21/23 14:00	08/22/23 16:53	1
Potassium	ND		1000	220	ug/L		08/21/23 14:00	08/22/23 16:53	1
Selenium	ND		5.0	0.89	ug/L		08/21/23 14:00	08/22/23 16:53	1
Thallium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 16:53	1

Lab Sample ID: MB 240-584586/1-A
 Matrix: Water
 Analysis Batch: 585284

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 584586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		8.0	1.7	ug/L		08/21/23 14:00	08/25/23 22:13	1
Sodium	ND		1000	330	ug/L		08/21/23 14:00	08/25/23 22:13	1

Lab Sample ID: LCS 240-584586/3-A
 Matrix: Water
 Analysis Batch: 584849

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 584586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	108		ug/L		108	80 - 120
Arsenic	1000	932		ug/L		93	80 - 120
Barium	1000	964		ug/L		96	80 - 120
Beryllium	500	463		ug/L		93	80 - 120
Cadmium	500	499		ug/L		100	80 - 120
Calcium	25000	23800		ug/L		95	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-584586/3-A
Matrix: Water
Analysis Batch: 584849

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	500	485		ug/L		97	80 - 120
Cobalt	500	489		ug/L		98	80 - 120
Lead	500	449		ug/L		90	80 - 120
Magnesium	25000	24200		ug/L		97	80 - 120
Molybdenum	500	471		ug/L		94	80 - 120
Potassium	25000	24100		ug/L		96	80 - 120
Selenium	1000	965		ug/L		97	80 - 120
Thallium	1000	953		ug/L		95	80 - 120

Lab Sample ID: 240-190364-1 MS
Matrix: Water
Analysis Batch: 584849

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.9	J	100	99.5		ug/L		98	80 - 120
Arsenic	7.4		1000	1080		ug/L		107	80 - 120
Beryllium	1.0		500	422		ug/L		84	80 - 120
Cadmium	0.23	J	500	441		ug/L		88	80 - 120
Calcium	860000		25000	837000	4	ug/L		-103	80 - 120
Chromium	65		500	475		ug/L		82	80 - 120
Cobalt	12		500	527		ug/L		103	80 - 120
Lead	7.6	F1	500	389	F1	ug/L		76	80 - 120
Magnesium	290000		25000	290000	4	ug/L		-11	80 - 120
Molybdenum	43		500	538		ug/L		99	80 - 120
Potassium	28000		25000	50500		ug/L		91	80 - 120
Selenium	1.6	J	1000	1010		ug/L		101	80 - 120
Thallium	0.62	J	1000	829		ug/L		83	80 - 120

Lab Sample ID: 240-190364-1 MS
Matrix: Water
Analysis Batch: 585284

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	31000		1000	30400	4	ug/L		-81	80 - 120
Lithium	320		500	751		ug/L		87	80 - 120

Lab Sample ID: 240-190364-1 MS
Matrix: Water
Analysis Batch: 585593

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	9800000		25000	9140000	4	ug/L		-2796	80 - 120

Lab Sample ID: 240-190364-1 MSD
Matrix: Water
Analysis Batch: 584849

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	1.9	J	100	98.8		ug/L		97	80 - 120	1	20
Arsenic	7.4		1000	1090		ug/L		108	80 - 120	0	20

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-190364-1 MSD
Matrix: Water
Analysis Batch: 584849

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	1.0		500	446		ug/L		89	80 - 120	5	20
Cadmium	0.23	J	500	435		ug/L		87	80 - 120	1	20
Calcium	860000		25000	843000	4	ug/L		-76	80 - 120	1	20
Chromium	65		500	468		ug/L		81	80 - 120	1	20
Cobalt	12		500	531		ug/L		104	80 - 120	1	20
Lead	7.6	F1	500	387	F1	ug/L		76	80 - 120	0	20
Magnesium	290000		25000	293000	4	ug/L		-0.3	80 - 120	1	20
Molybdenum	43		500	541		ug/L		100	80 - 120	1	20
Potassium	28000		25000	50900		ug/L		93	80 - 120	1	20
Selenium	1.6	J	1000	1010		ug/L		100	80 - 120	1	20
Thallium	0.62	J	1000	831		ug/L		83	80 - 120	0	20

Lab Sample ID: 240-190364-1 MSD
Matrix: Water
Analysis Batch: 585284

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	31000		1000	30300	4	ug/L		-91	80 - 120	0	20
Lithium	320		500	774		ug/L		92	80 - 120	3	20

Lab Sample ID: 240-190364-1 MSD
Matrix: Water
Analysis Batch: 585593

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	9800000		25000	9100000	4	ug/L		-2949	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-584587/1-A
Matrix: Water
Analysis Batch: 584819

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		08/21/23 14:00	08/22/23 13:43	1

Lab Sample ID: LCS 240-584587/2-A
Matrix: Water
Analysis Batch: 584819

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.17		ug/L		103	80 - 120

Lab Sample ID: 240-190364-1 MS
Matrix: Water
Analysis Batch: 584819

Client Sample ID: 2019-09-F-A34C-20230815-01
Prep Type: Total/NA
Prep Batch: 584587

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.16		ug/L		116	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-190364-1 MSD
 Matrix: Water
 Analysis Batch: 584819

Client Sample ID: 2019-09-F-A34C-20230815-01
 Prep Type: Total/NA
 Prep Batch: 584587

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	1.13		ug/L		113	80 - 120	3	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-584875/3
 Matrix: Water
 Analysis Batch: 584875

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			08/22/23 18:44	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			08/22/23 18:44	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			08/22/23 18:44	1

Lab Sample ID: LCS 240-584875/2
 Matrix: Water
 Analysis Batch: 584875

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	77.8		mg/L		96	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-586790/3
 Matrix: Water
 Analysis Batch: 586790

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/11/23 19:30	1
Fluoride	ND		0.050	0.024	mg/L			09/11/23 19:30	1
Sulfate	ND		1.0	0.35	mg/L			09/11/23 19:30	1

Lab Sample ID: LCS 240-586790/4
 Matrix: Water
 Analysis Batch: 586790

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.5		mg/L		101	90 - 110
Fluoride	2.50	2.69		mg/L		108	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-584730/1
 Matrix: Water
 Analysis Batch: 584730

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	ND		10	7.8	mg/L			08/22/23 10:33	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-584730/2
 Matrix: Water
 Analysis Batch: 584730

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	242	220		mg/L		91	80 - 120

Lab Sample ID: 240-190364-1 DU
 Matrix: Water
 Analysis Batch: 584730

Client Sample ID: 2019-09-F-A34C-20230815-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	28000		26600		mg/L		7	20

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-625151/1-A
 Matrix: Water
 Analysis Batch: 628146

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 625151

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01475	U	0.0678	0.0678	1.00	0.153	pCi/L	08/23/23 10:03	09/14/23 07:34	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		30 - 110					08/23/23 10:03	09/14/23 07:34	1

Lab Sample ID: LCS 160-625151/2-A
 Matrix: Water
 Analysis Batch: 628146

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 625151

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.62		1.17	1.00	0.163	pCi/L	94	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.7		30 - 110						

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-625153/1-A
 Matrix: Water
 Analysis Batch: 627474

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 625153

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5370		0.352	0.356	1.00	0.520	pCi/L	08/23/23 10:07	09/11/23 11:55	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		30 - 110					08/23/23 10:07	09/11/23 11:55	1
Y Carrier	85.6		30 - 110					08/23/23 10:07	09/11/23 11:55	1

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-625153/2-A
 Matrix: Water
 Analysis Batch: 627474

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 625153

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.88	9.382		1.26	1.00	0.504	pCi/L	119	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.7		30 - 110
Y Carrier	87.9		30 - 110

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Metals

Prep Batch: 584586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total Recoverable	Water	3005A	
MB 240-584586/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-584586/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-584586/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-190364-1 MS	2019-09-F-A34C-20230815-01	Total Recoverable	Water	3005A	
240-190364-1 MSD	2019-09-F-A34C-20230815-01	Total Recoverable	Water	3005A	

Prep Batch: 584587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	7470A	
MB 240-584587/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-584587/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-190364-1 MS	2019-09-F-A34C-20230815-01	Total/NA	Water	7470A	
240-190364-1 MSD	2019-09-F-A34C-20230815-01	Total/NA	Water	7470A	

Analysis Batch: 584819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	7470A	584587
MB 240-584587/1-A	Method Blank	Total/NA	Water	7470A	584587
LCS 240-584587/2-A	Lab Control Sample	Total/NA	Water	7470A	584587
240-190364-1 MS	2019-09-F-A34C-20230815-01	Total/NA	Water	7470A	584587
240-190364-1 MSD	2019-09-F-A34C-20230815-01	Total/NA	Water	7470A	584587

Analysis Batch: 584849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586
MB 240-584586/1-A	Method Blank	Total Recoverable	Water	6020B	584586
LCS 240-584586/3-A	Lab Control Sample	Total Recoverable	Water	6020B	584586
240-190364-1 MS	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586
240-190364-1 MSD	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586

Analysis Batch: 584923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6010D	584586
MB 240-584586/1-A	Method Blank	Total Recoverable	Water	6010D	584586
LCS 240-584586/2-A	Lab Control Sample	Total Recoverable	Water	6010D	584586

Analysis Batch: 585284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586
MB 240-584586/1-A	Method Blank	Total Recoverable	Water	6020B	584586
240-190364-1 MS	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586
240-190364-1 MSD	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586

Analysis Batch: 585593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586
240-190364-1 MS	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586
240-190364-1 MSD	2019-09-F-A34C-20230815-01	Total Recoverable	Water	6020B	584586

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

General Chemistry

Analysis Batch: 584730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	SM 2540C	
MB 240-584730/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-584730/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-190364-1 DU	2019-09-F-A34C-20230815-01	Total/NA	Water	SM 2540C	

Analysis Batch: 584875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	2320B-1997	
MB 240-584875/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-584875/2	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 586790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	300.0	
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	300.0	
MB 240-586790/3	Method Blank	Total/NA	Water	300.0	
LCS 240-586790/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 625151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	PrecSep-21	
MB 160-625151/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-625151/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 625153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190364-1	2019-09-F-A34C-20230815-01	Total/NA	Water	PrecSep_0	
MB 160-625153/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-625153/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Client Sample ID: 2019-09-F-A34C-20230815-01

Lab Sample ID: 240-190364-1

Date Collected: 08/15/23 11:12

Matrix: Water

Date Received: 08/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			584586	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6010D		1	584923	AJC	EET CLE	08/23/23 23:11
Total Recoverable	Prep	3005A			584586	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6020B		1	584849	RKT	EET CLE	08/22/23 17:04
Total Recoverable	Prep	3005A			584586	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6020B		20	585284	AJC	EET CLE	08/25/23 22:18
Total Recoverable	Prep	3005A			584586	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6020B		50	585593	RKT	EET CLE	08/29/23 14:34
Total/NA	Prep	7470A			584587	BN	EET CLE	08/21/23 14:00
Total/NA	Analysis	7470A		1	584819	DSH	EET CLE	08/22/23 13:47
Total/NA	Analysis	2320B-1997		1	584875	JMR	EET CLE	08/22/23 20:32
Total/NA	Analysis	300.0		50	586790	JWW	EET CLE	09/12/23 00:55
Total/NA	Analysis	300.0		1000	586790	JWW	EET CLE	09/12/23 01:17
Total/NA	Analysis	SM 2540C		1	584730	MS	EET CLE	08/22/23 10:33
Total/NA	Prep	PrecSep-21			625151	KAC	EET SL	08/23/23 10:03
Total/NA	Analysis	9315		1	628146	SCB	EET SL	09/14/23 07:36
Total/NA	Prep	PrecSep_0			625153	KAC	EET SL	08/23/23 10:07
Total/NA	Analysis	9320		1	627474	SCB	EET SL	09/11/23 11:55
Total/NA	Analysis	Ra226_Ra228		1	628622	SCB	EET SL	09/18/23 13:02

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - AppIII & AppIV combined

Job ID: 240-190364-1

Laboratory: Eurofins St. Louis (Continued)

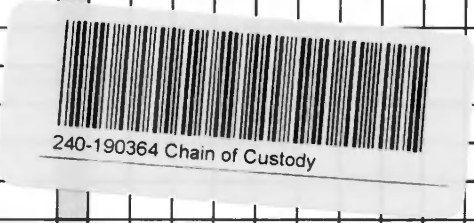
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
West Virginia DEP	State	381	10-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record

Client Information		Sample: Bobby Castle		Lab PM: Cisneros, Roxanne		COC No: 240-97179-35520.1	
Client Contact: Taylor Huffman		Phone: 740-373-4308		E-Mail: roxanne.cisneros@et.eurofins.com		Page: Page 1 of 1	
Company: Lightstone Generation Gavin Power LLC		Address: 7397 OH-7		City: Cheshire		State of Origin: OH, 45620	
Compliance Project: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		PO #: 2935505		WO #: 24019633		Job #: 	
Project Name: GavIn CCR - Appendix III and IV - Combined		Project #: 24019633		SSOW#: 		Analysis Requested: 	
Site: GavIn Plant		Due Date Requested: 		TAT Requested (days): 		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - Trizma Z - other (specify) Other: 	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
2019-09-F-A34C-20230815-c1		8-15-23		1112		G W	
Matrix (Wetwater, Solid, Other)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)	
W		X		X		X	
Preservation Code: W		6010B, 6020, 7470A		300_0_28D - Fluoride (AppV)/Cl, F, SO4 (AppV)		2320B - Alkalinity	
Special Instructions/Note:		9315_Ra226, 9320_Ra228		9315_Ra226, 9320_Ra228		Total Number of containers	
(Limited Volume for Ra, only 1100ml total)							
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant	
Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Poison B		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological	
Empty Kit Relinquished by:		Date:		Method of Shipment:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Relinquished by: Asmely Deal		8-17-23 / 0900		Company: ESV		<input type="checkbox"/> Return To Client	
Relinquished by: Asmely Deal		8-17-23 1100		Company: ESV		<input type="checkbox"/> Disposal By Lab	
Relinquished by: Asmely Deal		8-17-23 1144		Company: ETA		<input type="checkbox"/> Archive For _____ Months	
Custody Seals Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Special Instructions/QC Requirements:	



Ver: 01/16/2019
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Barberton Facility

Client Lightstone

Site Name _____

Cooler unpacked by: Nancy Rye

Cooler Received on 8-18-23

Opened on 8-18-23

FedEx: 1st Grd Exp Waypoint

Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____

Storage Location _____

Eurofins Cooler # EC ~~Foam Box~~ Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No

9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No

10. Were correct bottle(s) used for the test(s) indicated? Yes No

11. Sufficient quantity received to perform indicated analyses? Yes No

12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312502

14. Were VOAs on the COC? Yes No

15. Were air bubbles >6 mm in any VOA vials? Yes No NA  Larger than this.

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2019-09-F-A34C-20230815-01	240-190364-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2019-09-F-A34C-20230815-01	240-190364-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2019-09-F-A34C-20230815-01	240-190364-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
IC	Client	Box	Other	IR GUN #: 22	22.2	22.1	Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: 22	2.6	2.5	Water	None	
IC	Client	Box	Other	IR GUN #: 22	0.3	0.2	Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: 22	0.2	0.1	Water	None	
IC	Client	Box	Other	IR GUN #: 22	2.5	2.4	Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: 22	4.6	4.5	Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
IC	Client	Box	Other	IR GUN #: _____			Water	None	

See Temperature Excursion Form

Chain of Custody Record

Client Information Client Contact: Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171(Tel) Email: Taylor.huffman@lightstonegen.com Project Name: Gavin CCR - Appendix III and IV - Combined Site: Gavin Plant		Lab PM: Cisneros, Roxanne E-Mail: roxanne.cisneros@et.eurofinsus.com Carrier Tracking No(s): 240-97179-35520.1 State of Origin: Page 1 of 1 Job #: Page 1 of 1	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #:		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> 300.0_28D - Fluoride (AppV/Cl, F, SO4 (AppV)) D N D 2320B - Alkalinity D N D 9315_Ra226, 9320_Ra228 D N D	
Sample Identification 2019-09-F-A34C-20230815-c1 Sample Date: 8-15-23 Sample Time: 1112 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air): W Preservation Code: W		Special Instructions/Note: (Limited volume for Ra, only 1100ml total)	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months	
Empty Kit Relinquished by: Relinquished by: Asmley Deal Date/Time: 8-17-23 / 0900 Company: ES&A		Method of Shipment: Received by: Asmley Deal Date/Time: 8-17-23 11:44 Company: ES&A	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Relinquished by: Relinquished by: Asmley Deal Date/Time: 8-17-23 1700 Company: ES&A	
Cooler Temperature(s) °C and Other Remarks:		Special Instructions/QC Requirements:	



Eurofins - Cleveland Sample Receipt Form/Narrative Login #: 190364
 Barberton Facility
 Client Lightstone Site Name _____
 Cooler Received on 8-18-23 Opened on 8-18-23 Cooler unpacked by: Nancy Peyer
 FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312502
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
 Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
 Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____

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Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client <u>Box</u> Other	IR GUN #: 22	22.2	22.1	Wet Ice Blue Ice Dry Ice Water <u>None</u>
<u>EC</u> Client Box Other	IR GUN #: 22	2.6	2.5	Wet Ice Blue Ice Dry Ice Water <u>None</u>
<u>EC</u> Client Box Other	IR GUN #: 22	0.3	0.2	Wet Ice Blue Ice Dry Ice Water <u>None</u>
<u>EC</u> Client Box Other	IR GUN #: 22	0.2	0.1	Wet Ice Blue Ice Dry Ice Water <u>None</u>
<u>EC</u> Client Box Other	IR GUN #: 22	2.5	2.4	Wet Ice Blue Ice Dry Ice Water <u>None</u>
<u>EC</u> Client Box Other	IR GUN #: 22	4.6	4.5	Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water <u>None</u>

See Temperature Excursion Form

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2019-09-F-A34C-20230815-01	240-190364-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
2019-09-F-A34C-20230815-01	240-190364-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____
2019-09-F-A34C-20230815-01	240-190364-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____

Eurofins Cleveland
 180 S. Van Buren Avenue
 Barberton, OH 44203
 Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	
Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc.		Cisneros, Roxanne E-Mail: roxanne.cisneros@et.eurofins.com	9315 Ra226/PreSep, 21 Radium-226 (GFP)	240-172620-1	
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		Phone: Fax:	State of Origin: Ohio	Page: Page 1 of 1 Job #: 240-190364-1	
Project Name: Federal GWM Wells - AppIII & AppIV combined Site:		Due Date Requested: 9/19/2023 TAT Requested (days):	Analysis Requested		
Sample Identification - Client ID (Lab ID) 2019-09-F-A34C-20230815-01 (240-190364-1)	Sample Date: 8/15/23	Sample Time: 11:12 Eastern	Matrix (Sewer, Spoiled, On-site, Other): Water	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
	Sample Type (C=Comp, G=grab) Preservation Code:	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>	Total Number of containers: 2 Special Instructions/Note: 2 - Recount of TAR after 21 day ingrowth if > action limit, save blank	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the sample must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.</p>					
<p>Possible Hazard Identification</p> <p>Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:</p>					
<p>Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____</p> <p>Relinquished by: <i>M. Local</i> FEDEX Date/Time: <i>8-23 4pm</i> Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: _____ (Custody Seal No.: _____) Δ Yes Δ No</p>					



Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-190364-1

Login Number: 190364

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 08/21/23 01:10 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 8/27/2023 9:08:22 PM

JOB DESCRIPTION

Federal GWM Wells - App III & App IV combined

JOB NUMBER

240-190371-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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8/27/2023 9:08:22 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Job ID: 240-190371-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-190371-1

Receipt

The sample was received on 8/18/2023 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.1°C, 0.2°C, 2.4°C, 2.5°C, 4.5°C and 22.1°C

Metals

Method 6020B: The following sample was diluted due to the nature of the sample matrix: 9910-F-A34C-20230816-01 (240-190371-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-190371-1	9910-F-A34C-20230816-01	Water	08/16/23 11:48	08/18/23 08:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Client Sample ID: 9910-F-A34C-20230816-01

Lab Sample ID: 240-190371-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	510		100	57	ug/L	1		6010D	Total
									Recoverable
Arsenic	3.0	J	5.0	0.75	ug/L	1		6020B	Total
									Recoverable
Barium	250		5.0	2.2	ug/L	1		6020B	Total
									Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total
									Recoverable
Chromium	9.0		5.0	1.2	ug/L	1		6020B	Total
									Recoverable
Cobalt	0.58	J	1.0	0.19	ug/L	1		6020B	Total
									Recoverable
Lead	0.67	J	1.0	0.45	ug/L	1		6020B	Total
									Recoverable
Lithium	37	J B	40	8.3	ug/L	5		6020B	Total
									Recoverable
Magnesium	4200		1000	61	ug/L	1		6020B	Total
									Recoverable
Molybdenum	15		5.0	1.1	ug/L	1		6020B	Total
									Recoverable
Potassium	2900		1000	220	ug/L	1		6020B	Total
									Recoverable
Selenium	15		5.0	0.89	ug/L	1		6020B	Total
									Recoverable
Sodium	1200000		5000	1600	ug/L	5		6020B	Total
									Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Client Sample ID: 9910-F-A34C-20230816-01

Lab Sample ID: 240-190371-1

Date Collected: 08/16/23 11:48

Matrix: Water

Date Received: 08/18/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100	57	ug/L		08/21/23 14:00	08/23/23 05:35	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		08/21/23 14:00	08/22/23 16:51	1
Arsenic	3.0	J	5.0	0.75	ug/L		08/21/23 14:00	08/22/23 16:51	1
Barium	250		5.0	2.2	ug/L		08/21/23 14:00	08/22/23 16:51	1
Beryllium	ND		1.0	0.62	ug/L		08/21/23 14:00	08/22/23 16:51	1
Cadmium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 16:51	1
Calcium	13000		1000	250	ug/L		08/21/23 14:00	08/22/23 16:51	1
Chromium	9.0		5.0	1.2	ug/L		08/21/23 14:00	08/22/23 16:51	1
Cobalt	0.58	J	1.0	0.19	ug/L		08/21/23 14:00	08/22/23 16:51	1
Lead	0.67	J	1.0	0.45	ug/L		08/21/23 14:00	08/22/23 16:51	1
Lithium	37	J B	40	8.3	ug/L		08/21/23 14:00	08/24/23 14:56	5
Magnesium	4200		1000	61	ug/L		08/21/23 14:00	08/22/23 16:51	1
Molybdenum	15		5.0	1.1	ug/L		08/21/23 14:00	08/22/23 16:51	1
Potassium	2900		1000	220	ug/L		08/21/23 14:00	08/22/23 16:51	1
Selenium	15		5.0	0.89	ug/L		08/21/23 14:00	08/22/23 16:51	1
Sodium	1200000		5000	1600	ug/L		08/21/23 14:00	08/24/23 14:56	5
Thallium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 16:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		08/21/23 14:00	08/22/23 12:30	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-584571/1-A
 Matrix: Water
 Analysis Batch: 584753

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 584571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		08/21/23 14:00	08/23/23 03:38	1

Lab Sample ID: LCS 240-584571/2-A
 Matrix: Water
 Analysis Batch: 584753

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 584571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-584571/1-A
 Matrix: Water
 Analysis Batch: 584849

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 584571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		08/21/23 14:00	08/22/23 15:48	1
Arsenic	ND		5.0	0.75	ug/L		08/21/23 14:00	08/22/23 15:48	1
Barium	ND		5.0	2.2	ug/L		08/21/23 14:00	08/22/23 15:48	1
Cadmium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 15:48	1
Calcium	ND		1000	250	ug/L		08/21/23 14:00	08/22/23 15:48	1
Chromium	ND		5.0	1.2	ug/L		08/21/23 14:00	08/22/23 15:48	1
Cobalt	ND		1.0	0.19	ug/L		08/21/23 14:00	08/22/23 15:48	1
Lead	ND		1.0	0.45	ug/L		08/21/23 14:00	08/22/23 15:48	1
Lithium	2.18	J	8.0	1.7	ug/L		08/21/23 14:00	08/22/23 15:48	1
Magnesium	ND		1000	61	ug/L		08/21/23 14:00	08/22/23 15:48	1
Molybdenum	ND		5.0	1.1	ug/L		08/21/23 14:00	08/22/23 15:48	1
Potassium	ND		1000	220	ug/L		08/21/23 14:00	08/22/23 15:48	1
Selenium	ND		5.0	0.89	ug/L		08/21/23 14:00	08/22/23 15:48	1
Sodium	ND		1000	330	ug/L		08/21/23 14:00	08/22/23 15:48	1
Thallium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 15:48	1

Lab Sample ID: MB 240-584571/1-A
 Matrix: Water
 Analysis Batch: 585084

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 584571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		1.0	0.62	ug/L		08/21/23 14:00	08/24/23 14:09	1

Lab Sample ID: LCS 240-584571/3-A
 Matrix: Water
 Analysis Batch: 584849

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 584571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	108		ug/L		108	80 - 120
Arsenic	1000	940		ug/L		94	80 - 120
Barium	1000	961		ug/L		96	80 - 120
Cadmium	500	499		ug/L		100	80 - 120
Calcium	25000	23000		ug/L		92	80 - 120
Chromium	500	467		ug/L		93	80 - 120

Eurofins Cleveland

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-584571/3-A
 Matrix: Water
 Analysis Batch: 584849

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 584571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	500	495		ug/L		99	80 - 120
Lead	500	458		ug/L		92	80 - 120
Lithium	500	526		ug/L		105	80 - 120
Magnesium	25000	23300		ug/L		93	80 - 120
Molybdenum	500	477		ug/L		95	80 - 120
Potassium	25000	23400		ug/L		93	80 - 120
Selenium	1000	961		ug/L		96	80 - 120
Sodium	25000	23600		ug/L		95	80 - 120
Thallium	1000	955		ug/L		95	80 - 120

Lab Sample ID: LCS 240-584571/3-A
 Matrix: Water
 Analysis Batch: 585084

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 584571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	500	476		ug/L		95	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-584576/1-A
 Matrix: Water
 Analysis Batch: 584819

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 584576

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		08/21/23 14:00	08/22/23 11:39	1

Lab Sample ID: LCS 240-584576/2-A
 Matrix: Water
 Analysis Batch: 584819

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 584576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.28		ug/L		106	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Metals

Prep Batch: 584571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190371-1	9910-F-A34C-20230816-01	Total Recoverable	Water	3005A	
MB 240-584571/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-584571/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-584571/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 584576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190371-1	9910-F-A34C-20230816-01	Total/NA	Water	7470A	
MB 240-584576/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-584576/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 584753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190371-1	9910-F-A34C-20230816-01	Total Recoverable	Water	6010D	584571
MB 240-584571/1-A	Method Blank	Total Recoverable	Water	6010D	584571
LCS 240-584571/2-A	Lab Control Sample	Total Recoverable	Water	6010D	584571

Analysis Batch: 584819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190371-1	9910-F-A34C-20230816-01	Total/NA	Water	7470A	584576
MB 240-584576/1-A	Method Blank	Total/NA	Water	7470A	584576
LCS 240-584576/2-A	Lab Control Sample	Total/NA	Water	7470A	584576

Analysis Batch: 584849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190371-1	9910-F-A34C-20230816-01	Total Recoverable	Water	6020B	584571
MB 240-584571/1-A	Method Blank	Total Recoverable	Water	6020B	584571
LCS 240-584571/3-A	Lab Control Sample	Total Recoverable	Water	6020B	584571

Analysis Batch: 585084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190371-1	9910-F-A34C-20230816-01	Total Recoverable	Water	6020B	584571
MB 240-584571/1-A	Method Blank	Total Recoverable	Water	6020B	584571
LCS 240-584571/3-A	Lab Control Sample	Total Recoverable	Water	6020B	584571

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Client Sample ID: 9910-F-A34C-20230816-01

Lab Sample ID: 240-190371-1

Date Collected: 08/16/23 11:48

Matrix: Water

Date Received: 08/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			584571	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6010D		1	584753	AJC	EET CLE	08/23/23 05:35
Total Recoverable	Prep	3005A			584571	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6020B		5	585084	RKT	EET CLE	08/24/23 14:56
Total Recoverable	Prep	3005A			584571	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6020B		1	584849	RKT	EET CLE	08/22/23 16:51
Total/NA	Prep	7470A			584576	BN	EET CLE	08/21/23 14:00
Total/NA	Analysis	7470A		1	584819	DSH	EET CLE	08/22/23 12:30

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App III & App IV combined

Job ID: 240-190371-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland

Client Information Client Contact: <i>Bobby Cate</i> Phone: <i>740-373-4308</i> Taylor Huffman E-Mail: <i>roxanne.cisneros@et.eurofinsus.com</i>		Lab PM: <i>Cisneros, Roxanne</i> Camer Tracking No(s): <i>240-97179-35520.1</i> State of Origin:	
Company: <i>Lightstone Generation Gavin Power LLC</i> Address: <i>7397 OH-7</i> City: <i>Cheshire</i> State, Zip: <i>OH, 45620</i> Phone: <i>740-925-3171(Tel)</i> PO #: <i>2935505</i> IWO #:		PWSID: Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Project #: <i>24019633</i> SOW #:	
Project Name: <i>Gavin CCR - Appendix III and IV - Combined</i> Site: <i>Opinion Plant</i>		Matrix (Water, Soil, Sewage, Other): Sample Type (C=Comp, G=Grab): <i>G</i> Preservation Code: <i>W</i>	
Sample Identification <i>9910-F-ABHC-20230816-C1</i>		Sample Date: <i>8-16-23</i> Sample Time: <i>1148</i>	
Analysis Requested Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> 6010B, 6020, 7470A 300_28D - Fluoride (APV)/Cl, F, SO4 (APV) 2320B - Alkalinity 9315_Ra226, 9320_Ra228		Total Number of Containers: <input checked="" type="checkbox"/> Special Instructions/Note: <i>*Low Volume</i> <i>250ml BeHk*</i>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: <i>Bobby Cate</i>		Method of Shipment:	
Relinquished by: <i>Ashley Deal</i>		Received by: <i>Ashley Deal</i>	
Relinquished by: <i>Ashley Deal</i>		Received by: <i>Young Page</i>	
Relinquished by:		Received by:	
Date/Time: <i>8-17-23 1700</i>		Date/Time: <i>8-17-23 11:44</i>	
Date/Time: <i>8-17-23 1700</i>		Date/Time: <i>8-18-23 800</i>	
Company: <i>ERA</i>		Company: <i>ETA</i>	
Company:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	
Custody Seal No.:			

Eurofins - Cleveland Sample Receipt Form/Narrative

Login #: 190371

Barberton Facility

Client Lightstone

Site Name

Cooler unpacked by:

Cooler Received on 8-18-23

Opened on 8-18-23

Nancy Peyer

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

Eurofins Cooler # EC ~~Foam Box~~ Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA

-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No

9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No NA

10. Were correct bottle(s) used for the test(s) indicated? Yes No

11. Sufficient quantity received to perform indicated analyses? Yes No

12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312502

14. Were VOAs on the COC? Yes No

15. Were air bubbles >6 mm in any VOA vials? Yes No NA  Larger than this.

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Yes No

17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by:

Blank lines for Chain of Custody and Sample Discrepancies.

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
9910-F-A34C-20230816-01	240-190371-A-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

Chain of Custody Record

Client Information Client Contact: <u>Taylor Huffman</u> Phone: <u>740-373-4308</u> Company: <u>Lightstone Generation Gavin Power LLC</u> Address: <u>7397 OH-7</u> City: <u>Cheshire</u> State, Zip: <u>OH, 45620</u> Phone: <u>740-925-3171(Tel)</u> Email: <u>taylor.huffman@lightstonegen.com</u> Project Name: <u>Gavin CCR - Appendix III and IV - Combined</u> Site: <u>Gavin Plant</u>		Lab PM: <u>Cisneros, Roxanne</u> E-Mail: <u>roxanne.cisneros@et.eurofinsus.com</u> Carrier Tracking No(s): <u>240-97179-35520.1</u> State of Origin: _____ Page: <u>Page 1 of 1</u> Job #: _____	
Due Date Requested: _____ TAT Requested (days): _____ Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: <u>2935505</u> W/O #: _____		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> <input type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> <input type="checkbox"/> 300.0_28D - Fluoride (AppV)/Cl, F, SO4 (AppV) <input type="checkbox"/> <input type="checkbox"/> 2320B - Alkalinity <input type="checkbox"/> <input type="checkbox"/> 9315_Ra226, 9320_Ra228 <input type="checkbox"/> <input type="checkbox"/>	
Sample Identification <u>9910-F-A3HC-20230816-C1</u> Sample Date: <u>8-16-23</u> Sample Time: <u>1148</u> Sample Type (C=Comp, G=grab) <u>G</u> Matrix (W=water, S=solid, O=waste/oil, BT=BIOTISSUE, AS=Air) <u>W</u> Preservation Code: <u>W</u>		Total Number of Containers: _____ Special Instructions/Note: <u>*Low Volume</u> <u>250ml bottles</u>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) _____		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____	
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: <u>Bobby Caste</u> Relinquished by: <u>Ashley Deal</u> Relinquished by: _____		Method of Shipment: _____ Received by: <u>Ashley Deal</u> Date/Time: <u>8-17-23 11:44</u> Company: <u>ETA</u> Received by: <u>Young Page</u> Date/Time: <u>8-18-23 800</u> Company: <u>ETA NC</u> Received by: _____ Date/Time: _____ Company: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks: _____		Custody Seal No.: _____	



Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login #: 190371

Client LightStone

Site Name _____

Cooler unpacked by:

Cooler Received on 8-18-23

Opened on 8-18-23

Nancy Payer

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC ~~Foam Box~~ Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No

9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No

10. Were correct bottle(s) used for the test(s) indicated? Yes No

11. Sufficient quantity received to perform indicated analyses? Yes No

12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312502

14. Were VOAs on the COC? Yes No

15. Were air bubbles >6 mm in any VOA vials? Yes Larger than this. Yes No NA

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
9910-F-A34C-20230816-01	240-190371-A-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 8/30/2023 9:43:32 PM

JOB DESCRIPTION

Federal GWM Wells - App IV

JOB NUMBER

240-190372-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros Generated
8/30/2023 9:43:32 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761



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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

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: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Job ID: 240-190372-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-190372-1

Receipt

The sample was received on 8/18/2023 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.1°C, 0.2°C, 2.4°C, 2.5°C, 4.5°C and 22.1°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-190372-1	2018-03-F-A4-20230816-01	Water	08/16/23 10:05	08/18/23 08:00

1

2

3

4

5

6

7

8

9

10

11

12

13

Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Client Sample ID: 2018-03-F-A4-20230816-01

Lab Sample ID: 240-190372-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	10		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	310		5.0	2.2	ug/L	1		6020B	Total Recoverable
Chromium	5.5		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.0		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	32		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	6300		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	5.7		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1300000		5000	1600	ug/L	5		6020B	Total Recoverable
Fluoride	1.1		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland



Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Client Sample ID: 2018-03-F-A4-20230816-01

Lab Sample ID: 240-190372-1

Date Collected: 08/16/23 10:05

Matrix: Water

Date Received: 08/18/23 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		08/21/23 14:00	08/22/23 18:18	1
Arsenic	10		5.0	0.75	ug/L		08/21/23 14:00	08/22/23 18:18	1
Barium	310		5.0	2.2	ug/L		08/21/23 14:00	08/22/23 18:18	1
Beryllium	ND		1.0	0.62	ug/L		08/21/23 14:00	08/22/23 18:18	1
Cadmium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 18:18	1
Chromium	5.5		5.0	1.2	ug/L		08/21/23 14:00	08/22/23 18:18	1
Cobalt	4.1		1.0	0.19	ug/L		08/21/23 14:00	08/22/23 18:18	1
Lead	1.0		1.0	0.45	ug/L		08/21/23 14:00	08/22/23 18:18	1
Lithium	32		8.0	1.7	ug/L		08/21/23 14:00	08/22/23 18:18	1
Magnesium	6300		1000	61	ug/L		08/21/23 14:00	08/22/23 18:18	1
Molybdenum	5.7		5.0	1.1	ug/L		08/21/23 14:00	08/22/23 18:18	1
Potassium	2500		1000	220	ug/L		08/21/23 14:00	08/22/23 18:18	1
Selenium	ND		5.0	0.89	ug/L		08/21/23 14:00	08/22/23 18:18	1
Sodium	1300000		5000	1600	ug/L		08/21/23 14:00	08/25/23 22:36	5
Thallium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 18:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		08/21/23 14:00	08/22/23 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (EPA 300.0-1993 R2.1)	1.1		0.25	0.12	mg/L			08/29/23 22:54	5

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-584586/1-A
Matrix: Water
Analysis Batch: 584849

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		2.0	0.57	ug/L		08/21/23 14:00	08/22/23 16:53	1
Arsenic	ND		5.0	0.75	ug/L		08/21/23 14:00	08/22/23 16:53	1
Barium	ND		5.0	2.2	ug/L		08/21/23 14:00	08/22/23 16:53	1
Beryllium	ND		1.0	0.62	ug/L		08/21/23 14:00	08/22/23 16:53	1
Cadmium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 16:53	1
Chromium	ND		5.0	1.2	ug/L		08/21/23 14:00	08/22/23 16:53	1
Cobalt	ND		1.0	0.19	ug/L		08/21/23 14:00	08/22/23 16:53	1
Lead	ND		1.0	0.45	ug/L		08/21/23 14:00	08/22/23 16:53	1
Magnesium	ND		1000	61	ug/L		08/21/23 14:00	08/22/23 16:53	1
Molybdenum	ND		5.0	1.1	ug/L		08/21/23 14:00	08/22/23 16:53	1
Potassium	ND		1000	220	ug/L		08/21/23 14:00	08/22/23 16:53	1
Selenium	ND		5.0	0.89	ug/L		08/21/23 14:00	08/22/23 16:53	1
Thallium	ND		1.0	0.20	ug/L		08/21/23 14:00	08/22/23 16:53	1

Lab Sample ID: MB 240-584586/1-A
Matrix: Water
Analysis Batch: 585284

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Sodium	ND		1000	330	ug/L		08/21/23 14:00	08/25/23 22:13	1

Lab Sample ID: LCS 240-584586/3-A
Matrix: Water
Analysis Batch: 584849

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1000	932		ug/L		93	80 - 120
Barium	1000	964		ug/L		96	80 - 120
Beryllium	500	463		ug/L		93	80 - 120
Cadmium	500	499		ug/L		100	80 - 120
Chromium	500	485		ug/L		97	80 - 120
Cobalt	500	489		ug/L		98	80 - 120
Lead	500	449		ug/L		90	80 - 120
Magnesium	25000	24200		ug/L		97	80 - 120
Molybdenum	500	471		ug/L		94	80 - 120
Potassium	25000	24100		ug/L		96	80 - 120
Selenium	1000	965		ug/L		97	80 - 120
Thallium	1000	953		ug/L		95	80 - 120

Lab Sample ID: LCS 240-584586/3-A
Matrix: Water
Analysis Batch: 585284

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-584587/1-A
 Matrix: Water
 Analysis Batch: 584819

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 584587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		08/21/23 14:00	08/22/23 13:43	1

Lab Sample ID: LCS 240-584587/2-A
 Matrix: Water
 Analysis Batch: 584819

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 584587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.17		ug/L		103	80 - 120

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-585387/3
 Matrix: Water
 Analysis Batch: 585387

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			08/29/23 22:10	1

Lab Sample ID: LCS 240-585387/4
 Matrix: Water
 Analysis Batch: 585387

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.69		mg/L		108	90 - 110

Lab Sample ID: 240-190372-1 MS
 Matrix: Water
 Analysis Batch: 585387

Client Sample ID: 2018-03-F-A4-20230816-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.1		12.5	15.2		mg/L		113	80 - 120

Lab Sample ID: 240-190372-1 MSD
 Matrix: Water
 Analysis Batch: 585387

Client Sample ID: 2018-03-F-A4-20230816-01
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.1		12.5	15.2		mg/L		113	80 - 120	0	15

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Metals

Prep Batch: 584586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190372-1	2018-03-F-A4-20230816-01	Total Recoverable	Water	3005A	
MB 240-584586/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-584586/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 584587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190372-1	2018-03-F-A4-20230816-01	Total/NA	Water	7470A	
MB 240-584587/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-584587/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 584819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190372-1	2018-03-F-A4-20230816-01	Total/NA	Water	7470A	584587
MB 240-584587/1-A	Method Blank	Total/NA	Water	7470A	584587
LCS 240-584587/2-A	Lab Control Sample	Total/NA	Water	7470A	584587

Analysis Batch: 584849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190372-1	2018-03-F-A4-20230816-01	Total Recoverable	Water	6020B	584586
MB 240-584586/1-A	Method Blank	Total Recoverable	Water	6020B	584586
LCS 240-584586/3-A	Lab Control Sample	Total Recoverable	Water	6020B	584586

Analysis Batch: 585284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190372-1	2018-03-F-A4-20230816-01	Total Recoverable	Water	6020B	584586
MB 240-584586/1-A	Method Blank	Total Recoverable	Water	6020B	584586
LCS 240-584586/3-A	Lab Control Sample	Total Recoverable	Water	6020B	584586

General Chemistry

Analysis Batch: 585387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-190372-1	2018-03-F-A4-20230816-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-585387/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-585387/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-190372-1 MS	2018-03-F-A4-20230816-01	Total/NA	Water	300.0-1993 R2.1	
240-190372-1 MSD	2018-03-F-A4-20230816-01	Total/NA	Water	300.0-1993 R2.1	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Client Sample ID: 2018-03-F-A4-20230816-01

Lab Sample ID: 240-190372-1

Date Collected: 08/16/23 10:05

Matrix: Water

Date Received: 08/18/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			584586	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6020B		1	584849	RKT	EET CLE	08/22/23 18:18
Total Recoverable	Prep	3005A			584586	BN	EET CLE	08/21/23 14:00
Total Recoverable	Analysis	6020B		5	585284	AJC	EET CLE	08/25/23 22:36
Total/NA	Prep	7470A			584587	BN	EET CLE	08/21/23 14:00
Total/NA	Analysis	7470A		1	584819	DSH	EET CLE	08/22/23 14:41
Total/NA	Analysis	300.0-1993 R2.1		5	585387	ALT	EET CLE	08/29/23 22:54

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal GWM Wells - App IV

Job ID: 240-190372-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.


Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login #: 190372

Client Lightstone Site Name _____ Cooler unpacked by: Nancy Page
Cooler Received on 8-18-23 Opened on 8-18-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC ~~Foam Box~~ Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None
1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
 If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312502
14. Were VOAs on the COC? Yes No NA
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
1	240-190370-A-1	Amber Plastic 125 mL - NaOH	>12	_____	_____	_____
2	240-190370-A-2	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
2	240-190370-B-2	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
3	240-190370-A-3	Voa Vial 40ml - with Sulfuric Acid	_____	_____	_____	_____
3	240-190370-B-3	Voa Vial 40ml - with Sulfuric Acid	_____	_____	_____	_____
4 SAMPLE SINK	240-190370-A-4	Plastic 250ml - unpreserved	_____	_____	_____	_____
5	240-190370-A-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
6	240-190370-A-6	Plastic 250ml - with Sulfuric Acid	<2	_____	_____	_____
7	240-190370-A-7	Plastic 1 liter - unpreserved	_____	_____	_____	_____
8	240-190370-A-8	Plastic 1 liter - unpreserved	_____	_____	_____	_____
9	240-190370-A-9	Amber Glass 250ml - unpreserved	_____	_____	_____	_____
9	240-190370-B-9	Amber Glass 250ml - unpreserved	_____	_____	_____	_____
10	240-190370-A-10	Amber Glass 1 liter - unpreserved	_____	_____	_____	_____
10	240-190370-B-10	Amber Glass 1 liter - unpreserved	_____	_____	_____	_____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-F-A4-20230816-01	240-190372-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
IC	Client	<u>Box</u>	Other	IR GUN #: <u>22</u>	<u>22.2</u>	<u>22.1</u>	Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>2.6</u>	<u>2.5</u>	Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>0.3</u>	<u>0.2</u>	Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>0.2</u>	<u>0.1</u>	Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>2.5</u>	<u>2.4</u>	Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
<u>IC</u>	Client	Box	Other	IR GUN #: <u>22</u>	<u>4.6</u>	<u>4.5</u>	Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	
IC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							<u>Water</u>	<u>None</u>	

See Temperature Excursion Form

Client Information		Lab PM: Cisneros, Roxanne																										
Client Contact: Bobby Castro		Carrier Tracking No(s): 240-93466-34578.1																										
Phone: 740-323-4308		Page: Page 1 of 1																										
Taylor Huffman		Job #:																										
Company: Lightstone Generation Gavin Power LLC		State of Origin:																										
Address: 7397 OH-7		Analysis Requested:																										
City: Cheshire		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2OHS E - NaHSO4 G - MeOH F - MeOH R - Na2SO3 S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:																										
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Total Number of Containers: <input checked="" type="checkbox"/>																										
PO #: 2935505		Special Instructions/Note: *Extra Sample included in air unreserved 250ml bottle for analysis*																										
WOC #:																												
Project #: 24019633																												
Federal CCR Wells - App IV																												
Site: Gavin																												
Due Date Requested:																												
TAT Requested (days):																												
Sample Identification: 2018-03-F-AH-20230816-01		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> 6020, 7470A																										
Sample Date: 8-16-23	Sample Time: 1005	Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=wash/oil, BT=Issue, A=Air)</th> <th>Preservation Code:</th> </tr> </thead> <tbody> <tr> <td>8-16-23</td> <td>1005</td> <td>G</td> <td>Water</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Water</td> <td></td> </tr> </tbody> </table>	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wash/oil, BT=Issue, A=Air)	Preservation Code:	8-16-23	1005	G	Water					Water					Water					Water	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wash/oil, BT=Issue, A=Air)	Preservation Code:																							
8-16-23	1005	G		Water																								
				Water																								
				Water																								
			Water																									
Sample Date:		Field Filtered Sample (Yes or No):																										
Sample Time:		Field Filtered Sample (Yes or No):																										
Sample Type (C=Comp, G=grab):		Field Filtered Sample (Yes or No):																										
Matrix (W=water, S=solid, O=wash/oil, BT=Issue, A=Air):		Field Filtered Sample (Yes or No):																										
Preservation Code:		Field Filtered Sample (Yes or No):																										
Date/Time: 8-17-23 / 0900		Date/Time: 8-17-23 11:44																										
Date/Time: 8-17-23 1700		Date/Time: 8-18-23 800																										
Date/Time:		Date/Time:																										
Relinquished by: Bobby Castro		Relinquished by: ASHLEY DEAL																										
Relinquished by: ASHLEY DEAL		Relinquished by: ASHLEY DEAL																										
Relinquished by:		Relinquished by:																										
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:																										
Custody Seal No.:																												
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																										
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																										
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:																										
Empty Kit Relinquished by:		Method of Shipment:																										
Date:		Time:																										
Relinquished by: Bobby Castro		Received by: ASHLEY DEAL																										
Relinquished by: ASHLEY DEAL		Relinquished by: ASHLEY DEAL																										
Relinquished by:		Relinquished by:																										
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:																										
Custody Seal No.:																												



Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login #: 190372

Client Lightstone

Site Name _____

Cooler unpacked by:

Cooler Received on 8-18-23

Opened on 8-18-23

Nancy Peyer

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____

Storage Location _____

Eurofins Cooler # EC ~~Foam Box~~ Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No

-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

-Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No

9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?

10. Were correct bottle(s) used for the test(s) indicated? Yes No

11. Sufficient quantity received to perform indicated analyses? Yes No

12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC312502

14. Were VOAs on the COC? Yes No

15. Were air bubbles >6 mm in any VOA vials? Yes Larger than this. Yes No NA

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: _____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

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Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
EC	Client	Box	Other	IR GUN #: 22	22.2	22.1	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	2.6	2.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	0.3	0.2	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	0.2	0.1	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	2.5	2.4	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: 22	4.6	4.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	
EC	Client	Box	Other	IR GUN #: _____			Wet Ice	Blue Ice	Dry Ice
							Water	None	

See Temperature Excursion Form

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
1	240-190370-A-1	Amber Plastic 125 mL - NaOH	>12	_____	_____	_____
2	240-190370-A-2	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
2	240-190370-B-2	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____	_____
3	240-190370-A-3	Voa Vial 40ml - with Sulfuric Acid	_____	_____	_____	_____
3	240-190370-B-3	Voa Vial 40ml - with Sulfuric Acid	_____	_____	_____	_____
4 SAMPLE SINK	240-190370-A-4	Plastic 250ml - unpreserved	_____	_____	_____	_____
5	240-190370-A-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____
6	240-190370-A-6	Plastic 250ml - with Sulfuric Acid	<2	_____	_____	_____
7	240-190370-A-7	Plastic 1 liter - unpreserved	_____	_____	_____	_____
8	240-190370-A-8	Plastic 1 liter - unpreserved	_____	_____	_____	_____
9	240-190370-A-9	Amber Glass 250ml - unpreserved	_____	_____	_____	_____
9	240-190370-B-9	Amber Glass 250ml - unpreserved	_____	_____	_____	_____
10	240-190370-A-10	Amber Glass 1 liter - unpreserved	_____	_____	_____	_____
10	240-190370-B-10	Amber Glass 1 liter - unpreserved	_____	_____	_____	_____



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Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-F-A4-20230816-01	240-190372-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____



ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 11/7/2023 10:18:21 AM

JOB DESCRIPTION

Federal CCR Wells Snap Sampler - App 3 & 4

JOB NUMBER

240-194015-1

Eurofins Cleveland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/7/2023 10:18:21 AM

Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Job ID: 240-194015-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-194015-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 10/21/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.5°C, 0.7°C, 1.3°C and 4.2°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-194015-1	2018-03-F-A34C-20231017-01	Water	10/17/23 11:50	10/21/23 08:00
240-194015-2	FIELD BLANK-001-F-A34C-20231017-01	Water	10/17/23 12:40	10/21/23 08:00
240-194015-3	EB-001-F-A34C-20231017-01	Water	10/17/23 13:15	10/21/23 08:00

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Detection Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Client Sample ID: 2018-03-F-A34C-20231017-01

Lab Sample ID: 240-194015-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.1	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	11		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	310		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	52000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	11		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.2		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	3.7		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	41	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	14000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	6.7		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2900		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	0.99	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1100000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.70	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	920		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	0.96		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	950		20	7.0	mg/L	20		300.0	Total/NA
Total Dissolved Solids	3200		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELD BLANK-001-F-A34C-20231017-01

Lab Sample ID: 240-194015-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	2.9	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	0.23	J	1.0	0.20	ug/L	1		6020B	Total Recoverable

Client Sample ID: EB-001-F-A34C-20231017-01

Lab Sample ID: 240-194015-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	3.2	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Client Sample ID: 2018-03-F-A34C-20231017-01

Lab Sample ID: 240-194015-1

Date Collected: 10/17/23 11:50

Matrix: Water

Date Received: 10/21/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		10/24/23 14:00	10/26/23 00:17	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	J	2.0	0.57	ug/L		10/24/23 14:00	10/25/23 15:35	1
Arsenic	11		5.0	0.75	ug/L		10/24/23 14:00	10/25/23 15:35	1
Barium	310		5.0	2.2	ug/L		10/24/23 14:00	10/25/23 15:35	1
Beryllium	ND		1.0	0.62	ug/L		10/24/23 14:00	10/25/23 15:35	1
Cadmium	ND		1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:35	1
Calcium	52000		1000	250	ug/L		10/24/23 14:00	10/25/23 15:35	1
Chromium	11		5.0	1.2	ug/L		10/24/23 14:00	10/25/23 15:35	1
Cobalt	4.2		1.0	0.19	ug/L		10/24/23 14:00	10/25/23 15:35	1
Lead	3.7		1.0	0.45	ug/L		10/24/23 14:00	10/25/23 15:35	1
Lithium	41	B	8.0	1.7	ug/L		10/24/23 14:00	10/25/23 15:35	1
Magnesium	14000		1000	61	ug/L		10/24/23 14:00	10/25/23 15:35	1
Molybdenum	6.7		5.0	1.1	ug/L		10/24/23 14:00	10/25/23 15:35	1
Potassium	2900		1000	220	ug/L		10/24/23 14:00	10/25/23 15:35	1
Selenium	0.99	J	5.0	0.89	ug/L		10/24/23 14:00	10/25/23 15:35	1
Sodium	1100000		1000	330	ug/L		10/24/23 14:00	10/25/23 15:35	1
Thallium	0.70	J	1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	920		20	2.6	mg/L			10/29/23 10:49	20
Fluoride (EPA 300.0)	0.96		0.10	0.048	mg/L			10/29/23 10:28	2
Sulfate (EPA 300.0)	950		20	7.0	mg/L			10/29/23 10:49	20
Total Dissolved Solids (SM 2540C)	3200		50	39	mg/L			10/24/23 15:46	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Client Sample ID: FIELD BLANK-001-F-A34C-20231017-01

Lab Sample ID: 240-194015-2

Date Collected: 10/17/23 12:40

Matrix: Water

Date Received: 10/21/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/24/23 14:00	10/26/23 00:21	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/24/23 14:00	10/25/23 15:37	1
Arsenic	ND		5.0	0.75	ug/L		10/24/23 14:00	10/25/23 15:37	1
Barium	ND		5.0	2.2	ug/L		10/24/23 14:00	10/25/23 15:37	1
Beryllium	ND		1.0	0.62	ug/L		10/24/23 14:00	10/25/23 15:37	1
Cadmium	ND		1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:37	1
Calcium	ND		1000	250	ug/L		10/24/23 14:00	10/25/23 15:37	1
Chromium	ND		5.0	1.2	ug/L		10/24/23 14:00	10/25/23 15:37	1
Cobalt	ND		1.0	0.19	ug/L		10/24/23 14:00	10/25/23 15:37	1
Lead	ND		1.0	0.45	ug/L		10/24/23 14:00	10/25/23 15:37	1
Lithium	2.9	J B	8.0	1.7	ug/L		10/24/23 14:00	10/25/23 15:37	1
Magnesium	ND		1000	61	ug/L		10/24/23 14:00	10/25/23 15:37	1
Molybdenum	ND		5.0	1.1	ug/L		10/24/23 14:00	10/25/23 15:37	1
Potassium	ND		1000	220	ug/L		10/24/23 14:00	10/25/23 15:37	1
Selenium	ND		5.0	0.89	ug/L		10/24/23 14:00	10/25/23 15:37	1
Sodium	ND		1000	330	ug/L		10/24/23 14:00	10/25/23 15:37	1
Thallium	0.23	J	1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/28/23 22:30	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/28/23 22:30	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/28/23 22:30	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			10/24/23 09:58	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Client Sample ID: EB-001-F-A34C-20231017-01

Lab Sample ID: 240-194015-3

Date Collected: 10/17/23 13:15

Matrix: Water

Date Received: 10/21/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/24/23 14:00	10/26/23 00:26	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/24/23 14:00	10/25/23 15:40	1
Arsenic	ND		5.0	0.75	ug/L		10/24/23 14:00	10/25/23 15:40	1
Barium	ND		5.0	2.2	ug/L		10/24/23 14:00	10/25/23 15:40	1
Beryllium	ND		1.0	0.62	ug/L		10/24/23 14:00	10/25/23 15:40	1
Cadmium	ND		1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:40	1
Calcium	ND		1000	250	ug/L		10/24/23 14:00	10/25/23 15:40	1
Chromium	ND		5.0	1.2	ug/L		10/24/23 14:00	10/25/23 15:40	1
Cobalt	ND		1.0	0.19	ug/L		10/24/23 14:00	10/25/23 15:40	1
Lead	ND		1.0	0.45	ug/L		10/24/23 14:00	10/25/23 15:40	1
Lithium	3.2	J B	8.0	1.7	ug/L		10/24/23 14:00	10/25/23 15:40	1
Magnesium	ND		1000	61	ug/L		10/24/23 14:00	10/25/23 15:40	1
Molybdenum	ND		5.0	1.1	ug/L		10/24/23 14:00	10/25/23 15:40	1
Potassium	ND		1000	220	ug/L		10/24/23 14:00	10/25/23 15:40	1
Selenium	ND		5.0	0.89	ug/L		10/24/23 14:00	10/25/23 15:40	1
Sodium	ND		1000	330	ug/L		10/24/23 14:00	10/25/23 15:40	1
Thallium	ND		1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/28/23 23:35	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/28/23 23:35	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/28/23 23:35	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			10/24/23 09:58	1

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-592042/1-A
Matrix: Water
Analysis Batch: 592207

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 592042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/24/23 14:00	10/25/23 23:47	1

Lab Sample ID: LCS 240-592042/2-A
Matrix: Water
Analysis Batch: 592207

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 592042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	995		ug/L		100	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-592042/1-A
Matrix: Water
Analysis Batch: 592250

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 592042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/24/23 14:00	10/25/23 15:18	1
Arsenic	ND		5.0	0.75	ug/L		10/24/23 14:00	10/25/23 15:18	1
Barium	ND		5.0	2.2	ug/L		10/24/23 14:00	10/25/23 15:18	1
Beryllium	ND		1.0	0.62	ug/L		10/24/23 14:00	10/25/23 15:18	1
Cadmium	ND		1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:18	1
Calcium	ND		1000	250	ug/L		10/24/23 14:00	10/25/23 15:18	1
Chromium	ND		5.0	1.2	ug/L		10/24/23 14:00	10/25/23 15:18	1
Cobalt	ND		1.0	0.19	ug/L		10/24/23 14:00	10/25/23 15:18	1
Lead	ND		1.0	0.45	ug/L		10/24/23 14:00	10/25/23 15:18	1
Lithium	2.64	J	8.0	1.7	ug/L		10/24/23 14:00	10/25/23 15:18	1
Magnesium	ND		1000	61	ug/L		10/24/23 14:00	10/25/23 15:18	1
Molybdenum	ND		5.0	1.1	ug/L		10/24/23 14:00	10/25/23 15:18	1
Potassium	ND		1000	220	ug/L		10/24/23 14:00	10/25/23 15:18	1
Selenium	ND		5.0	0.89	ug/L		10/24/23 14:00	10/25/23 15:18	1
Sodium	ND		1000	330	ug/L		10/24/23 14:00	10/25/23 15:18	1
Thallium	ND		1.0	0.20	ug/L		10/24/23 14:00	10/25/23 15:18	1

Lab Sample ID: LCS 240-592042/3-A
Matrix: Water
Analysis Batch: 592250

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 592042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	105		ug/L		105	80 - 120
Arsenic	1000	1090		ug/L		109	80 - 120
Barium	1000	1090		ug/L		109	80 - 120
Beryllium	500	540		ug/L		108	80 - 120
Cadmium	500	562		ug/L		112	80 - 120
Calcium	25000	23600		ug/L		95	80 - 120
Chromium	500	521		ug/L		104	80 - 120
Cobalt	500	543		ug/L		109	80 - 120
Lead	500	575		ug/L		115	80 - 120
Lithium	500	546		ug/L		109	80 - 120
Magnesium	25000	23800		ug/L		95	80 - 120

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QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-592042/3-A
Matrix: Water
Analysis Batch: 592250

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 592042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	547		ug/L		109	80 - 120
Potassium	25000	23900		ug/L		96	80 - 120
Selenium	1000	1100		ug/L		110	80 - 120
Sodium	25000	23900		ug/L		95	80 - 120
Thallium	1000	1130		ug/L		113	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-592554/3
Matrix: Water
Analysis Batch: 592554

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/28/23 21:46	1
Fluoride	ND		0.050	0.024	mg/L			10/28/23 21:46	1
Sulfate	ND		1.0	0.35	mg/L			10/28/23 21:46	1

Lab Sample ID: LCS 240-592554/4
Matrix: Water
Analysis Batch: 592554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.0		mg/L		98	90 - 110
Fluoride	2.50	2.59		mg/L		104	90 - 110
Sulfate	50.0	50.4		mg/L		101	90 - 110

Lab Sample ID: 240-194015-2 MS
Matrix: Water
Analysis Batch: 592554

Client Sample ID: FIELD BLANK-001-F-A34C-20231017-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		50.0	47.2		mg/L		94	80 - 120
Fluoride	ND		2.50	2.50		mg/L		100	80 - 120
Sulfate	ND		50.0	47.9		mg/L		96	80 - 120

Lab Sample ID: 240-194015-2 MSD
Matrix: Water
Analysis Batch: 592554

Client Sample ID: FIELD BLANK-001-F-A34C-20231017-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	48.1		mg/L		96	80 - 120	2	15
Fluoride	ND		2.50	2.55		mg/L		102	80 - 120	2	15
Sulfate	ND		50.0	48.9		mg/L		98	80 - 120	2	15

QC Sample Results

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-592018/1
Matrix: Water
Analysis Batch: 592018

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/24/23 09:58	1
Total Dissolved Solids	ND		10	7.8	mg/L			10/24/23 09:58	1

Lab Sample ID: LCS 240-592018/2
Matrix: Water
Analysis Batch: 592018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	312		mg/L		93	80 - 120
Total Dissolved Solids	336	312		mg/L		93	80 - 120

Lab Sample ID: MB 240-592104/1
Matrix: Water
Analysis Batch: 592104

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/24/23 15:46	1
Total Dissolved Solids	ND		10	7.8	mg/L			10/24/23 15:46	1

Lab Sample ID: LCS 240-592104/2
Matrix: Water
Analysis Batch: 592104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	310		mg/L		92	80 - 120
Total Dissolved Solids	336	310		mg/L		92	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
 Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Metals

Prep Batch: 592042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194015-1	2018-03-F-A34C-20231017-01	Total Recoverable	Water	3005A	
240-194015-2	FIELD BLANK-001-F-A34C-20231017-01	Total Recoverable	Water	3005A	
240-194015-3	EB-001-F-A34C-20231017-01	Total Recoverable	Water	3005A	
MB 240-592042/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-592042/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-592042/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 592207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194015-1	2018-03-F-A34C-20231017-01	Total Recoverable	Water	6010D	592042
240-194015-2	FIELD BLANK-001-F-A34C-20231017-01	Total Recoverable	Water	6010D	592042
240-194015-3	EB-001-F-A34C-20231017-01	Total Recoverable	Water	6010D	592042
MB 240-592042/1-A	Method Blank	Total Recoverable	Water	6010D	592042
LCS 240-592042/2-A	Lab Control Sample	Total Recoverable	Water	6010D	592042

Analysis Batch: 592250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194015-1	2018-03-F-A34C-20231017-01	Total Recoverable	Water	6020B	592042
240-194015-2	FIELD BLANK-001-F-A34C-20231017-01	Total Recoverable	Water	6020B	592042
240-194015-3	EB-001-F-A34C-20231017-01	Total Recoverable	Water	6020B	592042
MB 240-592042/1-A	Method Blank	Total Recoverable	Water	6020B	592042
LCS 240-592042/3-A	Lab Control Sample	Total Recoverable	Water	6020B	592042

General Chemistry

Analysis Batch: 592018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194015-2	FIELD BLANK-001-F-A34C-20231017-01	Total/NA	Water	SM 2540C	
240-194015-3	EB-001-F-A34C-20231017-01	Total/NA	Water	SM 2540C	
MB 240-592018/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592018/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194015-1	2018-03-F-A34C-20231017-01	Total/NA	Water	SM 2540C	
MB 240-592104/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592104/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194015-1	2018-03-F-A34C-20231017-01	Total/NA	Water	300.0	
240-194015-1	2018-03-F-A34C-20231017-01	Total/NA	Water	300.0	
240-194015-2	FIELD BLANK-001-F-A34C-20231017-01	Total/NA	Water	300.0	
240-194015-3	EB-001-F-A34C-20231017-01	Total/NA	Water	300.0	
MB 240-592554/3	Method Blank	Total/NA	Water	300.0	
LCS 240-592554/4	Lab Control Sample	Total/NA	Water	300.0	
240-194015-2 MS	FIELD BLANK-001-F-A34C-20231017-01	Total/NA	Water	300.0	
240-194015-2 MSD	FIELD BLANK-001-F-A34C-20231017-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Client Sample ID: 2018-03-F-A34C-20231017-01

Lab Sample ID: 240-194015-1

Date Collected: 10/17/23 11:50

Matrix: Water

Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592042	S4FJ	EET CLE	10/24/23 14:00
Total Recoverable	Analysis	6010D		1	592207	KLC	EET CLE	10/26/23 00:17
Total Recoverable	Prep	3005A			592042	S4FJ	EET CLE	10/24/23 14:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 15:35
Total/NA	Analysis	300.0		2	592554	JWW	EET CLE	10/29/23 10:28
Total/NA	Analysis	300.0		20	592554	JWW	EET CLE	10/29/23 10:49
Total/NA	Analysis	SM 2540C		1	592104	QUY8	EET CLE	10/24/23 15:46

Client Sample ID: FIELD BLANK-001-F-A34C-20231017-01

Lab Sample ID: 240-194015-2

Date Collected: 10/17/23 12:40

Matrix: Water

Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592042	S4FJ	EET CLE	10/24/23 14:00
Total Recoverable	Analysis	6010D		1	592207	KLC	EET CLE	10/26/23 00:21
Total Recoverable	Prep	3005A			592042	S4FJ	EET CLE	10/24/23 14:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 15:37
Total/NA	Analysis	300.0		1	592554	JWW	EET CLE	10/28/23 22:30
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Client Sample ID: EB-001-F-A34C-20231017-01

Lab Sample ID: 240-194015-3

Date Collected: 10/17/23 13:15

Matrix: Water

Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592042	S4FJ	EET CLE	10/24/23 14:00
Total Recoverable	Analysis	6010D		1	592207	KLC	EET CLE	10/26/23 00:26
Total Recoverable	Prep	3005A			592042	S4FJ	EET CLE	10/24/23 14:00
Total Recoverable	Analysis	6020B		1	592250	RKT	EET CLE	10/25/23 15:40
Total/NA	Analysis	300.0		1	592554	JWW	EET CLE	10/28/23 23:35
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler - App 3 & 4

Job ID: 240-194015-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-27-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

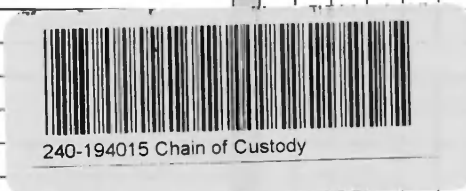
* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Canton
 4101 Shuffel Street NW
 North Canton, OH 44720
 Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record



Client Information Client Contact: Bobby Cisto Phone: 740-373-4308 Taylor Huffman Company: Lightstone Generation Gavin Power LLC Address: 7397 OH-7 City: Cheshire State, Zip: OH, 45620 Phone: 740-925-3171 (Tel) Email: taylor.huffman@lightstonegen.com Project Name: Federal - CCR Wells Snap Sampler-App 3 and App 4 Site: Ohio		Lab PM Cisneros, Roxanne E Mail: roxanne.cisneros@Eurofinsnet.com State of Origin:		COC No: 240-93018-34502 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 2935505 WO #:		Analysis Requested Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)			
Sample Identification 2408-03-F-A34C-20231017-01 Field Blank-well-F-A34C-20231017-01 EB-well-F-A34C-20231017-01		Sample Date 10-17-23 10-17-23 10-17-23		Sample Time 1150 1240 1315	
Sample Type (C=Comp, G=grab) G G G		Matrix (W=Water, E=Soil, O=Organic, A=Air) W W W		Preservation Code: N D D	
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Total Number of Containers 6020a, 6020b 300.0, SM2540C	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					
Empty Kit Relinquished by: Relinquished by: <i>Bobby Cisto</i> Relinquished By: <i>ASHLEY DEAL</i> Relinquished by:		Date: Date/Time: 10-20-23/0930 Date/Time: 10/20/23 1760 Date/Time:		Method of Shipment: Received by: <i>ASHLEY DEAL</i> Received by: <i>ASHLEY DEAL</i> Received by:	
Company: <i>ETA</i> Company: <i>ETA</i> Company:		Date/Time: 10/20/23 Date/Time: 10-20-23 800 Date/Time:		Company: <i>ETA</i> Company: <i>ETA</i> Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Eurofins - Cleveland Sample Receipt Form/Narrative Login #: 194015
Barberton Facility

Client Light Stone Site Name _____ Cooler unpacked by: [Signature]
Cooler Received on 10-21-23 Opened on 10-21-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____
Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None _____

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each
- Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
- Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC316719
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-F-A34C-20231017-01	240-194015-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
FIELD BLANK-F-A34C-20231017-01	240-194015-C-2	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-A34C-20231017-01	240-194015-C-3	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

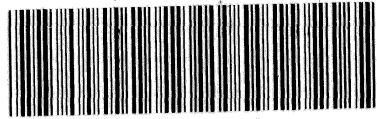
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Eurofins TestAmerica, Canton
 4101 Shuffel Street NW
 North Canton, OH 44720
 Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record



Environmental Testing
 America 3

Client Information		Lab PM		Carrier Tracking No(s)		COC No	
Client Contact		Cisneros, Roxanne		240-93018-34502		240-93018-34502	
Taylor, Huffman		E-Mail		State of Origin		Page	
Lightstone Generation Gavin Power, LLC		roxanne.cisneros@Eurofinset.com		Job #		Page 1 of 1	
Address		7397 OH-7		Analysis Requested			
City		Cheshire		Preservation Codes:			
State, Zip		OH, 45620		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:			
Phone		740-925-3171 (Tel)		M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)			
Email		taylor.huffman@lightstonegen.com		Limited Volume App III and IV (Unpreserved with focus on TDS, Cl-, SO4 and F) Nitric Acid with focus on Ca and B)			
Project Name		Federal - CCR Wells Snap Sampler-App 3 and App 4		Total Number of containers			
Site		Ohio		 240-194015 Chain of Custody			
Due Date Requested:		TAT Requested (days):		Perform M/MSD (Yes or No)			
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #		Field Filtered Sample (Yes or No)			
2935505		WO #		N			
Project #		24019633		D			
SSOW#				ID			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
2018-03-F-A34C-20231017-01		10-17-23		1150		G W	
Field Blank-w/1-F-A34C-20231017-01		10-17-23		1240		G W	
EB-w/1-F-A34C-20231017-01		10-17-23		1315		G W	
Possible Hazard Identification		Poison B		Unknown		Radiological	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Empty Kit Relinquished by:		Date:		Disposal By Lab		Archive For	
Relinquished by: <i>Bobby Caste</i>		10-20-23/0930		Return To Client		Months	
Relinquished by: <i>ASILEY BEA</i>		10-20-23/0930		Received by: <i>ASILEY BEA</i>		Date/Time: 10/20/23	
Relinquished by: <i>DEAL</i>		10-20-23/1700		Received by: <i>ASILEY BEA</i>		Date/Time: 10-21-23 800	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:		Received by: <i>ASILEY BEA</i>		Date/Time: 10-21-23 800	
Cooler Temperature(s) °C and Other Remarks:				Received by: <i>ASILEY BEA</i>		Date/Time: 10-21-23 800	



Eurofins - Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login #: 194015

Client Light Stone Site Name _____ Cooler unpacked by: [Signature]
Cooler Received on 10-21-23 Opened on 10-21-23
FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity leach Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA
 3. Shippers' packing slip attached to the cooler(s)? Yes No
 4. Did custody papers accompany the sample(s)? Yes No
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
 10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Sufficient quantity received to perform indicated analyses? Yes No
 12. Are these work share samples and all listed on the COC? Yes No
- If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC316719
 14. Were VOAs on the COC? Yes No
 15. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
 17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>		<u>Preservative</u>	
			<u>pH</u>	<u>Temp</u>	<u>Added (mls)</u>	<u>Lot #</u>
2018-03-F-A34C-20231017-01	240-194015-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
FIELD BLANK-F-A34C-20231017-01	240-194015-C-2	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____
EB-001-F-A34C-20231017-01	240-194015-C-3	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____



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