



**Bullock, Bennett & Associates, LLC**

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**COAL COMBUSTION RESIDUAL RULE  
2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE  
ACTION REPORT**

*FGD PONDS*  
**OAK GROVE STEAM ELECTRIC STATION**  
**ROBERTSON COUNTY, TEXAS**

January 31, 2025

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## **ACRONYMS AND ABBREVIATIONS**

BBA	Bullock, Bennett & Associates, LLC
CCR	Coal Combustion Residuals
C.F.R.	Code of Federal Regulations
GWPS	Groundwater Protection Standard
MCL	Maximum Concentration Level
mg/L	Milligrams per Liter
NA	Not Applicable
OGSES	Oak Grove Steam Electric Station
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
T.A.C.	Texas Administrative Code
USEPA	United States Environmental Protection Agency

## **EXECUTIVE SUMMARY**

Bullock, Bennett & Associates, LLC (BBA) has prepared this report on behalf of Oak Grove Management Company LLC (Luminant) to satisfy the 2024 annual groundwater monitoring and corrective action reporting requirements of 40 C.F.R. Part 257 and 30 T.A.C. Chapter 352 for the FGD Ponds at the Oak Grove Steam Electric Station (OGSES) in Robertson County, Texas. The CCR units and CCR monitoring well network are shown on Figure 1.

At the beginning and end of the 2024 reporting period, the CCR units were operating under an Assessment Monitoring Program as described in § 257.95. The Assessment Monitoring Program was established on July 16, 2018. Concentrations of Appendix IV constituents at statistically significant levels (SSLs) above groundwater protection standards (GWPSs) were initially identified in January 2019 for cobalt and lithium. Notification of these SSLs was placed in the operating record on February 6, 2019, and subsequently placed on the public website in accordance with § 257.107(d). An Assessment of Corrective Measures (ACM) was initiated on April 8, 2019, pursuant to § 257.95(g) and was completed on September 5, 2019. A public meeting was held on October 29, 2019, at the Pridgeon Center in Franklin, Texas to discuss the results of the ACM in accordance with § 257.96(e). The ACM evaluated various source control and groundwater response technologies to address the cobalt and lithium SSLs.

An Alternate Source Demonstration (ASD) was completed in accordance with § 257.95(g)(3)(ii) in October 2020 (Golder, 2020), which indicated that a source other than the FGD Ponds caused the SSLs for lithium. The ACM was updated in May 2021 (Golder, 2021a) to remove lithium from the list of constituents evaluated in the ACM. In addition, updated statistical analyses for cobalt that incorporated assessment monitoring data collected from 2019 to 2021 indicated that cobalt was no longer present at SSLs above the GWPS; however, for the purposes of the ACM and remedy selection, Luminant continued to evaluate potential groundwater remedies for cobalt based on the 2018 SSL to address potential cobalt SSLs that may occur in the future. A Remedy Selection Report (Golder, 2022a) was completed in January 2022 in accordance with the requirements of § 257.97. Monitored natural attenuation (MNA) with source control measures was selected as the remedy to address the Appendix IV constituents at SSLs. A site-specific feasibility study to evaluate MNA as a potential groundwater remedy for the Appendix IV constituents observed at SSLs was performed in accordance with guidance and best practices promulgated by the United States Environmental Protection Agency (USEPA, 2007a and 2007b) and Interstate Technology and Regulatory Council (ITRC, 2010).

Summary reports documenting the MNA feasibility study were included as attachments to the Remedy Selection Report.

Two additional ACMs were initiated at the site, in 2023 and 2024, in accordance with § 257.96(a) to address potential environmental impacts due to detected releases of impounded water from FGD-A Pond in January 2023 and May 2024. ACM Reports (WSP, 2023 and BBA, 2024), which detail the nature of the releases and the measures that were implemented to capture the water that was released, mitigate further release of impounded water, and assess potential groundwater impacts, were completed for each event and placed on the public website in accordance with § 257.107(d). SSLs above GWPSSs were not identified for any of the Appendix IV constituents in monitoring wells downgradient of the FGD-A Pond release areas during the ACMs or during the regular semi-annual CCR groundwater monitoring assessments conducted in 2023 and 2024. As such, there is no indication that groundwater at the site has been affected by the releases from FGD-A Pond. The wells downgradient of the FGD-A Pond release areas will continue to be monitored as part of the Assessment Monitoring Program to evaluate potential effects from the releases.

Appendix IV parameters were not detected at SSLs above applicable GWPSSs in the FGD Pond CCR monitoring wells in 2024.

## **1.0 INTRODUCTION**

The CCR Rule (40 C.F.R. 257 Subpart D - *Standards for the Receipt of Coal Combustion Residuals in Landfills and Surface Impoundments*) was promulgated by the USEPA to regulate the management and disposal of CCRs as solid waste under Resource Conservation and Recovery Act (RCRA) Subtitle D. TCEQ has adopted portions of the federal CCR rule at 30 T.A.C. Chapter 352 (Texas CCR Rule), and USEPA published its final approval of the Texas CCR rule on June 28, 2021. See 86 Fed. Reg. 33,892 (June 28, 2021). The Texas CCR Rule became effective on July 28, 2021, and it adopts and incorporates by reference the requirements for the annual groundwater monitoring report located at 40 C.F.R. § 257.90. See 30 T.A.C. § 352.901. It further adopts and incorporates by reference the Federal CCR Program requirements for detection and assessment monitoring in 30 T.A.C. § 352.941 and 30 T.A.C. § 352.951, respectively. Pursuant to 30 T.A.C. § 352.902, this report will be submitted to TCEQ for review no later than 30 days after the report has been placed in the facility's operating record. For existing CCR landfills and surface impoundments, the CCR Rule requires that the owner or operator prepare an annual groundwater monitoring and corrective action report to document the status of the groundwater monitoring and corrective action program for the CCR unit for the previous calendar year. Per § 257.90(e) of the CCR Rule, the report should contain the following information, to the extent available:

- (1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;
- (2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;
- (3) In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;
- (4) A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and
- (5) Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.
- (6) A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:
  - (i) At the start of the current annual reporting period, whether the CCR unit was operating

- under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;
- (ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;
  - (iii) If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e):
    - (A) Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase; and
    - (B) Provide the date when the assessment monitoring program was initiated for the CCR unit.
  - (iv) If it was determined that there was a SSL above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following:
    - (A) Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase;
    - (B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;
    - (C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and
    - (D) Provide the date when the assessment of corrective measures was completed for the CCR unit.
  - (v) Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and
  - (vi) Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

## **2.0 MONITORING AND CORRECTIVE ACTION PROGRAM STATUS**

The initial Detection Monitoring Program groundwater samples were collected from the FGD Ponds CCR monitoring well network in October 2017. The evaluation of those data was completed in 2018 using procedures described in the Statistical Analysis Plan (Golder, 2022b) and Background Groundwater Monitoring and Statistical Analysis Summary Report (BBA, 2023) to identify statistically significant increases (SSIs) of Appendix III parameters over background concentrations. The Detection Monitoring Program sampling dates and parameters are summarized in the following table:

**Detection Monitoring Program Summary**

<b>Sampling Dates</b>	<b>Parameters</b>	<b>SSIs</b>	<b>Assessment Monitoring Program Established</b>
October 3, 2017	Appendix III	Yes	July 16, 2018

Alternate source evaluations were inconclusive for one or more of the SSIs. Consequently, an Assessment Monitoring Program was initiated and established for the FGD Pond CCR units in 2018 in accordance with § 257.94(e)(2). The initial Assessment Monitoring Program groundwater samples were collected in June 2018. Subsequent Assessment Monitoring Program sampling events have been conducted on a semi-annual basis, as required by the CCR Rule.

As documented in the Background Groundwater Monitoring and Statistical Analysis Summary Report (BBA, 2023), statistical background upper prediction limits (UPLs) and GWPSs were developed using statistical procedures that conform with the groundwater sampling and analysis requirements of § 257.93 and the EPA's *Unified Guidance: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* (EPA, 2009). The statistical background prediction limits used to assess Appendix III data and the GWPSs used to assess Appendix IV data are summarized in Tables 1 and 2, respectively.

In accordance with the assessment monitoring program requirements in § 257.95, Appendix IV constituent concentrations are used to evaluate whether an SSL above GWPSs has occurred at the site. The 95% lower confidence limit of the mean (LCL) is calculated for each detected Appendix IV constituent in a downgradient well using the current and previous sampling event concentrations in accordance with procedures described in the Statistical Analysis Plan for the site (Golder 2022) and the *Unified Guidance* (EPA, 2009). A statistically significant increase over the GWPS has occurred at a

CCR unit when the LCL for at least one assessment monitoring constituent at a downgradient well is greater than the applicable GWPS.

SSLs above GWPSs were initially identified at the site in January 2019 for cobalt and lithium based on assessment monitoring data collected in 2018. Notification of these SSLs was placed in the operating record on February 6, 2019, and was subsequently placed on the public website in accordance with § 257.107(d). An ACM was initiated on April 8, 2019, pursuant to § 257.95(g). A justification letter for a 60-day extension due to site-specific circumstances that delayed work on the ACM was certified on July 3, 2019, in accordance with § 257.96(a). A copy of the extension justification letter was provided in the 2019 Annual Groundwater Monitoring and Corrective Action Report. The ACM was completed in September 2019 (Golder, 2019) for the parameters detected at SSLs above GWPSs during the 2018 assessment monitoring period (cobalt and lithium), pursuant to § 257.96. A Remedy Selection Report (Golder, 2022a) was completed in January 2022 in accordance with the requirements of § 257.97. Monitored natural attenuation (MNA) with source control measures was selected as the remedy to address the Appendix IV constituents at SSLs. A site-specific feasibility study to evaluate MNA as a potential groundwater remedy for the Appendix IV constituents observed at SSLs was performed in accordance with guidance and best practices promulgated by the United States Environmental Protection Agency (USEPA, 2007a and 2007b) and Interstate Technology and Regulatory Council (ITRC, 2010). Summary reports documenting the MNA feasibility study were included as attachments to the Remedy Selection Report.

None of the Appendix IV parameters were identified at SSLs above GWPSs during the 2019 assessment monitoring period, after the initial ACM was completed; however, an SSL for lithium was identified at one well (FGD-5) during the 2020 to 2022 reporting periods. An ASD for lithium was completed in October 2020, which indicated that a source other than the CCR units caused the lithium SSLs at FGD-5. SSLs for lithium and cobalt have not been observed since 2022 and 2018, respectively.

Two additional ACMs were initiated at the site, in 2023 and 2024, in accordance with § 257.96(a) to address potential environmental impacts due to detected releases of impounded water from FGD-A Pond in January 2023 and May 2024. ACM Reports (WSP, 2023 and BBA, 2024), which detail the nature of the releases and the measures that were implemented to capture the water that was released, mitigate further release of impounded water, and assess potential groundwater impacts, were completed for each event and placed on the public website in accordance with § 257.107(d). SSLs

above GWPSSs were not identified for any of the Appendix IV constituents in monitoring wells downgradient of the FGD-A Pond release areas during the ACMs or during the regular semi-annual CCR groundwater monitoring assessments conducted in 2023 and 2024. As such, there is no indication that groundwater at the site has been affected by the releases from FGD-A Pond. The wells downgradient of the FGD-A Pond release areas will continue to be monitored as part of the Assessment Monitoring Program to evaluate potential effects from the releases.

Appendix IV parameters were not detected at SSLs above applicable GWPSSs in the FGD Pond CCR monitoring wells in 2024. Appendix III and Appendix IV groundwater sample data are summarized in Tables 3 and 4, respectively, and the laboratory analytical reports for the groundwater samples collected in 2024 are provided in Appendix A. The statistical data analysis for the 2024 reporting period is summarized in Appendix B.

The following table provides a summary of the Assessment Monitoring Program:

**Assessment Monitoring Program Summary**

Sampling Dates	Analytical Data Receipt Date	Parameters	Appendix IV SSL(s)	Appendix IV SSL(s) Determination Date	Alternate Source Demonstration	Corrective Measures Assessment Initiated
June 2018	July 11, 2018	Appendix III Appendix IV	NA	NA	NA	NA
September 2018	October 11, 2018	Appendix III Appendix IV	Co and Li	January 7, 2019	No	April 8, 2019
May 2019	June 5, 2019	Appendix III Appendix IV	None	NA	NA	NA
August 2019	September 25, 2019	Appendix III Appendix IV	None	NA	NA	NA
May 2020	June 12, 2020	Appendix III Appendix IV	Li	July 22, 2020	October 20, 2020	NA
September 2020	October 12, 2020	Appendix III Appendix IV	Li	December 7, 2020	Previous ASD applies	NA
June 2021	July 22, 2021	Appendix III Appendix IV	Li	July 22, 2021	Previous ASD applies	NA
October 2021	November 19, 2021	Appendix III Appendix IV	Li	January 10, 2022	Previous ASD applies	NA

<b>Sampling Dates</b>	<b>Analytical Data Receipt Date</b>	<b>Parameters</b>	<b>Appendix IV SSL(s)</b>	<b>Appendix IV SSL(s) Determination Date</b>	<b>Alternate Source Demonstration</b>	<b>Corrective Measures Assessment Initiated</b>
May 2022	June 28, 2022	Appendix III Appendix IV	Li	August 1, 2022	Previous ASD applies	NA
September 2022	November 14, 2022	Appendix III Appendix IV	Li	December 24, 2022	Previous ASD applies	NA
May 2023	June 30, 2023	Appendix III Appendix IV	None	NA	NA	NA
August 2023	October 6, 2023	Appendix III Appendix IV	None	NA	NA	NA
May 2024	June 27, 2024	Appendix III Appendix IV	None	NA	NA	NA
August 2024	September 17, 2024	Appendix III Appendix IV	None	NA	NA	NA

Notes:

NA: Not Applicable

### **3.0 KEY ACTIONS COMPLETED IN 2024**

Two semi-annual Assessment Monitoring Program groundwater monitoring events were performed in 2024. The number of groundwater samples that were collected for analysis from each background and downgradient well, the dates the samples were collected, and the analytical results for the groundwater samples are summarized in Table 3 (Appendix III parameters) and Table 4 (Appendix IV parameters).

Water elevations measured in the CCR wells during the semi-annual groundwater monitoring events are summarized in Table 5 and the 2024 groundwater potentiometric surface maps are presented in Appendix C. The inferred direction and magnitude of groundwater flow during the semi-annual monitoring events was generally to the east-northeast at about 2 feet per year, which is similar to previously observed conditions at the site.

No CCR wells were installed or decommissioned in 2024.

An ACM was initiated in the FGD Pond area on May 31, 2024, due to the detection of a release of impounded water from FGD-A Pond. Approximately 4 inches of rain was measured onsite overnight on May 30 to May 31, 2024. Site personnel observed FGD-A Pond overflowing on the morning of May 31, 2024, across an approximately 70-foot long section of the south dike of FGD-A Pond for a duration of approximately 2 hours. A temporary berm was constructed in the ditch downslope of FGD-A Pond to contain the released water. The captured water was then pumped back into FGD-A Pond on the same day as the release.

The ACM was completed in accordance with 40 C.F.R. § 257.96 to assess corrective measures to address potential environmental impacts due to the release of water from FGD-A Pond. The ACM Report (BBA, 2024) included a summary of the ACM field investigation conducted in June and July 2024, after the release occurred. The objectives of the field investigation were to:

- Select constituents subject to the ACM based on CCR Appendix IV constituent concentrations in water samples from FGD-A Pond that exceeded GWPSSs; and
- Evaluate the nature and extent of Appendix IV constituents that exceed GWPSSs in CCR groundwater monitoring program wells located hydraulically downgradient of FGD-A Pond and the release area.

Based on the analytical results of FGD-A Pond samples collected during the 2024 ACM investigation, the target Appendix IV constituents for the ACM included cobalt, fluoride, lithium, and selenium. SSLs above GWPSSs were not identified for any of the Appendix IV constituents in monitoring wells downgradient of the FGD-A Pond release area during the ACM investigation or during the regular semi-annual CCR groundwater monitoring assessments conducted in 2024. As such, there is no indication that groundwater at the site has been affected by the release from FGD-A Pond and corrective measures are not currently required. Appendix IV constituent concentrations in groundwater will continue to be monitored on a semiannual basis as part of the Assessment Monitoring Program to confirm that concentrations remain below GWPSSs in the future.

#### **4.0 PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS**

No problems were encountered with the CCR groundwater monitoring program in 2024.

## **5.0 KEY ACTIVITIES PLANNED FOR 2025**

The following key activities are planned for 2025:

- Continue the Assessment Monitoring Program in accordance with applicable provisions of 40 C.F.R. § 257.95 and 30 T.A.C. § 352.951.

## **6.0 REFERENCES**

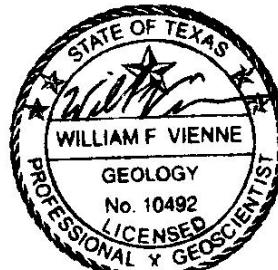
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## SIGNATURE PAGE

Bullock, Bennett & Associates, LLC

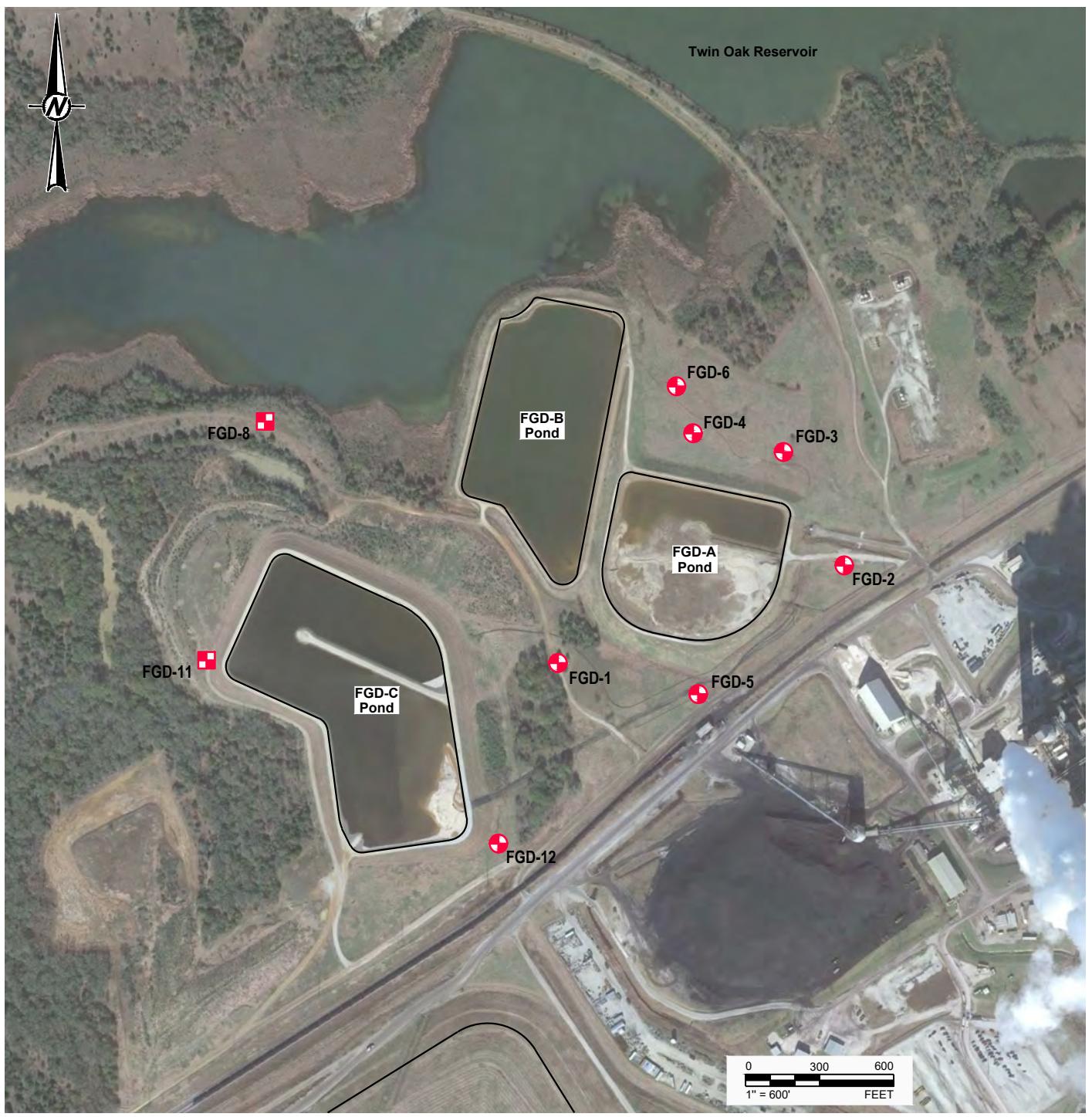


William Vienne, P.G.  
Senior Hydrogeologist



01/31/2025

## **FIGURES**



#### LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- BACKGROUND CCR MONITORING WELL

FGD PONDS  
OAK GROVE STEAM ELECTRIC STATION  
ROBERTSON COUNTY, TEXAS

#### FIGURE 1

#### SITE PLAN

PROJECT: 23643.01 BY: SLB DATE: 8/16/2023 CHECKED: WV

Bullock, Bennett & Associates, LLC

Engineering and Geoscience

Texas Registrations: Engineering F-8542, Geoscience 50127

#### REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED 12/9/18.

## **TABLES**

**Table 1**  
**Statistical Background Values**  
**OGSES FGD Ponds**

<b>Parameter</b>	<b>Statistical Background Value</b>
Boron (mg/L)	0.14
Calcium (mg/L)	470
Chloride (mg/L)	6,300
Fluoride (mg/L)	0.78
field pH (s.u.)	6.1 7.2
Sulfate (mg/L)	410
Total Dissolved Solids (mg/L)	13,000

**Table 2**  
**Groundwater Protection Standards**  
**OGSES FGD Ponds**

Parameter	Groundwater Protection Standard
Antimony (mg/L)	0.0060
Arsenic (mg/L)	0.015
Barium (mg/L)	2.0
Beryllium (mg/L)	0.0040
Cadmium (mg/L)	0.0050
Chromium (mg/L)	0.1
Cobalt (mg/L)	0.016
Fluoride (mg/L)	4.0
Lead (mg/L)	0.015
Lithium (mg/L)	0.150
Mercury (mg/L)	0.0020
Molybdenum (mg/L)	0.10
Selenium (mg/L)	0.050
Thallium (mg/L)	0.0020
Radium 226+228 (pCi/L)	11

**TABLE 3**  
**APPENDIX III ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO <sub>4</sub> (mg/L)	TDS (mg/L)
<b>Background Wells</b>								
FGD-8	11/04/15	0.0843	69.2	271	0.173 J	6.92	24.4	803
	12/17/15	0.0791	65.2	248	0.361 J	6.67	50.1	721
	02/09/16	0.0721	296	1,910	0.331 J	6.14	110	5100
	04/14/16	0.0805	323	1,920	0.218	6.39	68	6210
	06/14/16	0.0869	336	2,070	<0.100	6.57	476	6130
	08/24/16	0.119	21.1	107	0.186 J	6.92	41.6	400
	10/05/16	0.0794	394	1,890	0.413	6.68	184	4470
	12/23/16	0.069	340	1,990	<0.100	6.83	144	4330
	10/03/17	0.1	378	1,140	<0.100	6.83	9.72	2550
	06/05/18	0.0826	409	2,180	<0.100	6.12	538	4450
	09/06/18	0.635	395	2,330	0.362 J	5.93	670	4910
	05/16/19	0.0687	314	2,040	<0.100	6.67	173	3970
	08/19/19	0.0756	427	2,260	<0.100	6.89	452	4600
	05/11/20	0.129	381	2,240	<0.100	6.69	188	4090
	09/09/20	0.101	329	2,220	<0.100	6.87	58.9	3890
	06/17/21	0.0816	353	2,230	<0.100	6.82	310	4870
	10/11/21	0.0779	362	2,040	<0.100	6.49	63.9	3790
	05/10/22	0.0983	377	1,880	0.112	6.87	65	3790
	09/27/22	0.104	393	2170	<0.100	6.83	195	4440
	05/26/23	0.0894	373	2150	0.36	6.53	154	4350
	08/22/23	0.0938	388	2240	<0.100	6.65	206	4300
	05/20/24	0.0999	401	2360	0.182 J	6.63	282	4870
	08/14/24	0.079	393	2340	<0.100	6.59	388	4530
FGD-11	11/04/15	0.048	9.57	15	<0.100	6.58	9.96	145
	12/17/15	0.0544	10.7	9.85	0.13 J	6.74	11	115
	02/09/16	0.0912	71.5	438	0.548	6.9	37.5	1160
	04/14/16	0.0963	72.5	393	0.671	6.34	32.9	1120
	06/15/16	0.0979	55.1	356	0.331 J	6.57	32.4	900
	08/25/16	0.103	154	759	0.128 J	6.76	68.8	1960
	10/04/16	0.127	181	894	0.579	6.78	71.8	2130
	12/22/16	0.125	201	1,150	0.127 J	6.85	89.5	2870
	10/03/17	0.155	254	1,830	<0.100	6.85	142	4010
	06/05/18	0.162	170	954	0.836	6.28	82.2	2240
	09/06/18	0.149	194	1,140	1.09	6.43	93.9	2770
	05/16/19	0.108	85	566	0.38 J	6.83	50.9	1350
	08/19/19	0.12	92.5	535	0.63	6.71	44.7	1430
	05/11/20	0.166	103	560	0.365 J	6.74	43.3	1300
	09/09/20	0.242	101	573	0.575	6.79	44.0	1320
	06/17/21	0.116	90.4	440	0.471	6.72	33.8	1160
	10/11/21	0.124	81.8	376	0.453	6.73	35.2	1040
	05/11/22	0.121	73.7	323	0.491	6.63	30.5	890
	09/27/22	0.14	78.2	472	0.433	6.57	41.6	1190
	05/26/23	0.0948	54.2	244	0.634	6.55	24.9	679
	08/21/23	0.14	105	577	0.371	6.64	45.5	1390
	05/20/24	0.0734	32.1	98.3	0.158 J	6.72	13.9	309
	08/14/24	0.0899	57	294	0.321 J	6.72	24.5	706

**TABLE 3**  
**APPENDIX III ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO <sub>4</sub> (mg/L)	TDS (mg/L)
<b>Downgradient Wells</b>								
FGD-1	11/03/15	0.065	11	36.4	0.363 J	6.31	32	245
	12/17/15	0.0706	10.6	37.7	0.384 J	6.33	33.3	224
	02/09/16	0.0539	11.4	38.9	0.383 J	6.81	36.3	235
	04/14/16	0.0867	12.2	38.6	0.229	6.24	35.7	77
	06/15/16	0.066	12	39	0.302 J	6.75	41.2	258
	08/24/16	0.0601	13.5	42.1	0.225 J	6.58	46.6	193
	10/05/16	0.0629	14.2	38.7	0.483	6.78	44.2	266
	12/22/16	0.058	13.7	42.6	0.326 J	5.79	49.3	271
	10/03/17	0.0973	18.5	40	0.276 J	6.91	64.7	239
	06/05/18	0.0686	18.3	44.7	0.206 J	5.58	68.6	277
	09/06/18	0.0738	19.9	52.5	0.228 J	5.78	80.8	281
	05/15/19	0.0803	19.5	62.4	0.362 J	6.63	78.7	320
	08/19/19	0.0864	26.1	69.3	0.486	6.49	80.9	328
	05/11/20	0.121	37.8	146	0.231 J	6.95	79.5	448
	09/09/20	0.0871	36	320	0.215 J	6.73	158	875
	06/17/21	0.0843	35.7	299	0.356 J	6.89	140	935
	6/17/21 DUP	0.0808	35.7	304	0.352 J	6.79	143	960
	10/12/21	0.103	31.9	244	0.295 J	6.72	133	897
	05/11/22	0.116	22.2	201	0.348 J	6.75	100	747
	05/11/22 DUP	0.113	22	203	0.319	6.75	101	756
	09/27/22	0.101	23.2	146	0.217 J	6.72	74.6	514
	9/27/22 DUP	0.0944	22.5	134	0.234 J	6.72	73.4	509
	05/26/23	0.0881	15.6	73.9	0.405	6.64	72.4	415
	5/18/23 DUP	0.0818	2.82	6.66	<0.100	6.64	1.33 J	111
	08/22/23	0.0776	24.8	72.4	0.264	6.69	84.5	367
	8/22/23 DUP	0.0763	24.9	72.5	0.258	6.69	84.5	376
	05/20/24	0.0929	21.6	41.9	0.390 J	6.75	59.7	311
	5/20/2024 DUP	0.09	20.1	43.6	0.402	6.75	58.1	314
	08/13/24	0.0788	14.7	39.1	0.364 J	6.73	46.3	273
	8/13/2024 DUP	0.0805	14.9	39.3	0.365 J	6.73	46.1	269

**TABLE 3**  
**APPENDIX III ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO <sub>4</sub> (mg/L)	TDS (mg/L)
FGD-2	11/03/15	0.1	77.1	460	0.224	6.47	147	1370
	12/17/15	0.0636	24.8	133	0.347 J	6.77	53.2	515
	02/09/16	0.0885	44.6	250	0.315 J	7.06	98.9	750
	04/14/16	0.136	53.8	285	0.192	6.54	103	924
	06/14/16	0.0729	26.8	138	0.122 J	6.73	62.2	564
	08/24/16	0.219	79.9	421	<0.100	6.75	158	1060
	10/05/16	0.182	58.3	310	0.243 J	6.76	114	910
	12/22/16	0.251	95.3	570	<0.100	6.70	174	1450
	10/03/17	0.362	151	813	<0.100	6.81	222	1920
	06/05/18	0.352	91.6	465	0.185 J	6.1	148	1190
	09/06/18	0.35	154	902	0.32 J	6.11	196	1860
	05/16/19	0.105	38.9	260	0.383 J	6.86	70.7	729
	08/19/19	0.192	167	863	0.413	6.88	218	1890
	05/11/20	0.605	217	1,150	<0.100	6.61	286	2300
	09/09/20	0.567	193	1,030	<0.100	6.57	301	2150
	06/17/21	0.195	76.4	422	<0.100	6.84	133	1030
	10/12/21	0.473	245	950	<0.100	6.57	467	2630
	10/21/21 DUP	0.492	249	921	<0.100	6.57	477	2460
	05/10/22	0.605	254	1010	<0.100	6.74	533	2580
	09/27/22	0.612	239	1100	<0.100	6.84	516	2700
	05/26/23	0.599	176	851	<0.100	6.72	409	2080
	08/21/23	0.609	210	1010	<0.100	6.78	505	2360
	05/20/24	0.187	64.4	343	0.153 J	6.72	125	975
	08/13/24	1.6	174	686	<0.100	6.78	560	2120
FGD-3	11/03/15	0.343	108	439	0.505	6.51	479	1950
	12/17/15	0.255	109	399	<0.100	6.64	478	1640
	02/09/16	0.214	91.4	326	0.74	6.76	474	1610
	04/14/16	0.231	98.1	314	0.69	6.59	396	1980
	06/14/16	0.207	80.1	267	0.173 J	6.59	338	1440
	08/24/16	0.112	90.4	279	0.463	6.89	357	1490
	10/05/16	0.212	88.1	264	0.723	6.85	324	1370
	12/22/16	0.196	82.6	290	1.32	6.1	392	1490
	10/03/17	0.244	97	245	0.457	6.75	317	1190
	06/05/18	0.199	82.7	234	1.06	5.99	319	1260
	09/05/18	0.0379	73.9	227	1.03	6.21	306	1260
	05/16/19	0.117	60.1	117	0.776	6.73	182	1100
	08/19/19	0.134	51.1	84.9	0.874	6.72	150	882
	05/06/20	0.152	42.3	70.2	0.8	6.62	129	777
	09/09/20	0.130	36.8	58.5	0.772	6.82	122	709
	06/16/21	0.121	39	64.1	1.2	6.87	130	741
	10/11/21	0.0956	35.3	42.5	1.08	6.69	105	671
	05/10/22	0.101	27.1	28	1.05	6.82	86.6	597
	09/27/22	0.118	28	36.5	0.959	6.69	93.8	615
	05/26/23	0.112	32.5	55.5	0.981	6.72	119	708
	08/21/23	0.0956	26.3	33.4	1.06	6.92	86.8	618
	05/20/24	0.123	39	58.1	0.936	6.82	129	756
	08/13/24	0.0932	31.3	43.6	0.97	6.83	113	659

**TABLE 3**  
**APPENDIX III ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO <sub>4</sub> (mg/L)	TDS (mg/L)
FGD-4	11/03/15	0.0694	46.1	200	0.294 J	6.71	37.8	679
	12/17/15	0.0777	47.8	211	0.295 J	6.44	38.2	647
	02/09/16	0.0581	45.3	195	0.32 J	6.85	45	653
	04/14/16	0.0726	50.3	182	0.323	6.59	55.4	726
	06/14/16	0.0728	47.5	210	<0.100	6.68	37.9	689
	08/24/16	0.343	52.5	208	0.148 J	6.74	53.3	704
	10/05/16	0.0672	48.1	182	0.376 J	6.85	56	672
	12/22/16	0.0628	44.5	181	0.251 J	6.29	65.4	676
	10/03/17	0.225	54.9	182	0.219 J	6.82	69.8	659
	06/05/18	0.0839	49.4	200	0.297 J	6.15	46.6	648
	09/05/18	0.108	40.9	193	0.353 J	6.29	55.8	672
	05/16/19	0.0733	41.7	205	0.327 J	6.57	41.7	651
	08/19/19	0.085	42.5	188	0.67	6.69	5.4	681
	05/11/20	0.145	40.6	198	0.3 J	6.62	52.9	702
	09/15/20	0.109	33.6	197	<0.100	6.87	50.1	674
	06/16/21	0.0932	36.6	198	0.517	6.92	45.9	654
	10/11/21	0.0801	32.9	185	0.398	6.69	47.6	670
	05/10/22	0.0751	30.2	183	0.433	6.73	44.5	637
	09/27/22	0.0993	24.2	177	0.383 J	6.71	43.8	617
	05/26/23	0.0871	30.9	180	0.543	6.55	43.6	619
	08/21/23	0.0848	26.2	178	0.43	6.77	43	622
	05/20/24	0.0923	30.3	187	0.48	6.73	54.2	689
	08/13/24	0.0797	29	189	0.377 J	6.68	51.1	662
FGD-5	11/04/15	0.0719	30.2	230	0.334	6.92	54.7	1040
	12/17/15	0.0798	32.5	254	0.333 J	6.74	56.1	845
	02/09/16	0.0926	89.5	356	0.495	6.6	62.8	942
	04/14/16	0.107	101	359	0.491	6.71	50.8	1510
	06/15/16	0.11	88.9	368	0.284 J	6.73	55.1	735
	08/24/16	0.0394	102	372	0.168 J	6.89	58.8	770
	10/05/16	0.0995	99.9	344	0.38 J	6.92	57.3	1260
	12/22/16	0.0982	90.6	301	0.291 J	6.1	65.5	893
	10/03/17	0.211	100	309	0.211 J	6.76	60.2	826
	06/05/18	0.11	100	303	0.511	6.13	61.2	795
	09/06/18	0.215	93.1	317	0.548	6.17	64.8	840
	05/16/19	0.108	77.7	287	0.579	6.46	67.2	801
	08/19/19	0.114	90.7	283	0.863	6.76	70.7	816
	05/11/20	0.165	100	307	0.413	6.82	83.8	836
	09/10/20	0.154	96.6	310	0.617	6.84	95.9	845
	06/17/21	0.116	103	308	0.593	6.84	107	795
	10/11/21	0.0957	114	290	0.459	6.53	107	898
	05/10/22	0.103	115	320	0.474	6.86	114	900
	09/27/22	0.122	114	337	0.446	6.59	131	1010
	05/26/23	0.112	111	333	0.495	6.62	140	945
	08/21/23	0.123	115	338	0.501	6.87	135	990
	05/20/24	0.116	123	345	0.486	6.96	149	1070
	08/13/24	0.0983	119	353	0.451	6.84	152	1010

**TABLE 3**  
**APPENDIX III ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO <sub>4</sub> (mg/L)	TDS (mg/L)
FGD-6	11/03/15	0.0968	79.3	355	0.227	6.92	33.8	1070
	12/17/15	0.103	89.9	342	0.469	6.52	65.9	940
	02/09/16	0.0791	31.8	252	0.354 J	7.12	59.5	940
	04/14/16	0.0936	36.4	259	0.442	6.71	57.9	1140
	06/14/16	0.0955	33.9	237	<0.100	6.48	49.8	813
	08/24/16	0.0355	35.6	285	0.147 J	6.95	64.7	750
	10/05/16	0.102	35.3	275	0.364 J	6.94	60.2	1010
	12/22/16	0.0847	35.6	286	0.204 J	6.34	64.4	905
	10/03/17	0.139	40.4	255	0.143 J	6.64	58.4	855
	06/05/18	0.0948	36.3	246	0.361 J	6.35	51.7	895
	09/05/18	0.0824	30.4	230	0.405	6.4	51.4	833
	05/16/19	0.116	20.3	170	0.669	6.85	51.3	710
	08/19/19	0.102	23.6	158	0.741	6.72	60.3	754
	05/06/20	0.109	27.4	189	0.292	6.75	70.7	746
	09/15/20	0.112	20.2	144	0.354 J	6.77	89.6	688
	06/16/21	0.0854	29	222	0.452	6.80	76.3	799
	10/11/21	0.105	19.1	130	0.616	6.57	73.2	656
	05/10/22	0.0914	27	236	0.391 J	6.64	80.2	791
	09/27/22	0.106	21.2	185	0.484	6.73	79.8	734
	05/26/23	0.0849	29.6	295	0.344	6.55	61	915
	08/21/23	0.0953	24.3	234	0.468	6.88	56.8	817
	05/20/24	0.135	20	213	0.707	6.86	45.2	706
	08/13/24	0.0818	22.1	259	0.429	6.85	58.5	817
FGD-12	11/04/15	0.0651	16.6	19.4	<0.100	6.68	20	217
	12/17/15	0.0671	13.2	15.5	0.159 J	6.47	16.6	161
	02/09/16	0.065	11.1	13.5	0.157 J	6.99	14.1	179
	04/14/16	0.0753	14.7	25.4	0.109	6.47	15.8	163
	06/15/16	0.0711	11.2	19.5	0.101 J	6.52	13.4	253
	08/25/16	0.0858	52.8	296	<0.100	6.86	33.8	817
	10/04/16	0.0682	12.5	17.8	0.129 J	6.74	10.5	142
	12/23/16	0.0512	260	1,250	0.112 J	6.95	174	3270
	10/03/17	0.0731	10.4	10	0.154 J	6.76	10.8	134
	06/05/18	0.0812	8.74	12	0.137 J	6.37	13.7	196
	09/06/18	0.0698	6.78	14	<0.100	5.60	13.1	134
	05/16/19	0.0723	6.79	16	<0.100	6.52	15	140
	08/19/19	0.0794	10.5	16	0.145 J	6.71	17.1	209
	05/11/20	0.149	15.6	19.3	<0.100	6.59	19.9	198
	09/09/20	0.120	9.34	13.0	<0.100	6.82	14.1	166
	06/17/21	0.102	12.3	16.1	<0.100	6.97	18.3	202
	10/12/21	0.0759	8.69	12.5	0.101 J	6.53	18.1	195
	05/11/22	0.0659	8.44	11.3	<0.100	6.82	16.4	185
	09/27/22	0.0831	8.86	11.8	<0.100	6.79	15.7	185
	05/26/23	0.0723	8.79	13.9	<0.100	6.68	17.4	172
	08/21/23	0.077	8.96	11.8	<0.100	6.78	14.7	199
	05/21/24	0.0872	9.46	16.2	<0.100	6.76	23.6	146
	08/14/24	0.0753	8.52	15.1	<0.100	6.78	22.1	156

Notes:

- Abbreviations: mg/L - milligrams per liter; TDS - total dissolved solids; s.u. - standard units.
- J - Concentration is below method quantitation limit; result is an estimate.

**TABLE 4**  
**APPENDIX IV ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Combined^ (pCi/L)
<b>Background Wells</b>																		
FGD-8	11/04/15	<0.0008	<0.002	0.119	<0.0003	<0.0003	0.00542	<0.003	0.173 J	<0.0003	0.149	<0.00008	0.0261	<0.002	<0.0005	0.671	1.38	2.05
	12/17/15	<0.0008	<0.002	0.179	<0.0003	<0.0003	0.00373 J	0.00646	0.361 J	<0.0003	0.116	<0.00008	0.00404 J	<0.002	<0.0005	<0.609	1.32	1.93
	02/09/16	<0.0008	0.0115	0.892	<0.0003	<0.0003	0.00234 J	0.00609	0.331 J	0.000406 J	0.0104	<0.00008	<0.002	0.00231 J	<0.0005	1.77	3.55	5.32
	04/14/16	<0.0008	0.0146	0.965	<0.0003	<0.0003	0.00202 J	0.00876	0.218 J	0.0016	0.016	<0.00008	<0.002	0.00211 J	<0.0005	0.973	8.34	9.31
	06/14/16	<0.0008	0.00639	0.792	<0.0003	<0.0003	<0.002	0.0158	<0.100	0.00137	0.015	<0.00008	<0.002	<0.002	<0.0005	1.93	2.30	4.23
	08/24/16	<0.0008	<0.002	0.102	0.000417 J	<0.0003	0.0107	0.015	0.186 J	0.00381	0.0265	<0.00008	<0.002	<0.002	<0.0005	0.778	<0.491	1.27
	10/05/16	<0.0008	0.00661	0.753	<0.0003	<0.0003	0.00672	0.00899	0.413	0.000908 J	0.0224	<0.00008	<0.002	<0.002	<0.0005	1.35	5.96	7.31
	12/23/16	<0.0008	0.0119	0.894	<0.0003	<0.0003	0.00259 J	0.00745	<0.100	0.00228	0.0185	<0.00008	<0.002	0.00217 J	<0.0005	2.17	3.70	5.87
	06/05/18	<0.0008	0.00839	0.834	<0.0003	<0.0003	<0.002	0.0193	<0.100	0.00039 J	0.0128	<0.00008	<0.002	<0.002	<0.0005	1.5	5.13	6.63
	09/06/18	NA	0.0137	0.635	<0.0003	<0.0003	<0.002	0.0243	0.362 J	<0.0003	0.009 J	NA	<0.002	0.0025 J	<0.0005	0.349	1.4	1.75
	05/16/19	<0.0008	0.0126	0.864	<0.0003	<0.0003	0.003 J	0.0146	<0.100	<0.00194	0.009 J	<0.00008	<0.002	0.0027 J	<0.0005	3.14	5.27	8.41
	08/19/19	<0.0008	0.00645	0.608	<0.0003	<0.0003	<0.002	0.0135	<0.100	0.00134	0.0144	<0.00008	<0.002	0.00252	<0.0005	1.79	6.82	8.61
	05/11/20	<0.000800	0.00663	0.732	<0.000300	<0.000300	<0.00200	0.0084	<0.100	0.000415 J	0.0152	<0.00008	<0.00200	0.0021 J	<0.000500	2.07	6.58	8.65
	09/15/20	NA	0.00796	0.777	<0.000300	NA	0.00287 J	0.00379 J	<0.100	0.00107	0.00864 J	NA	<0.00200	<0.00200	<0.000500	2.5	6.2	8.7
	06/17/21	<0.0008	0.00749	1.1	<0.0003	<0.0003	<0.002	0.0067	<0.100	0.000766 J	0.0125	<0.00008	<0.002	<0.002	<0.0005	2.69	5.14	7.83
	10/11/21	<0.000800	0.00786	0.994	<0.000300	<0.0003	<0.00200	0.00312 J	<0.100	0.00119	0.00851 J	<0.00008	<0.00200	0.00265 J	<0.000500	1.2	6.78	7.98
	05/10/22	<0.000800	0.0073	1.22	<0.000300	<0.0003	0.00280 J	0.00453 J	0.112 J	0.00117	0.0249	<0.00008	<0.00200	0.00244	<0.000500	2.67	4.69	7.35
	09/27/22	<0.000800	0.00788	1.22	<0.000300	<0.0003	0.00403 J	0.00804	<0.100	0.00134	0.0209	<0.00008	<0.00200	<0.00200	<0.000500	3.73	6.28	10.0
	05/26/23	<0.000800	0.00497 J	1.15	<0.000300	<0.0003	0.00374 J	0.00862	0.360	0.00103	0.0278	<0.00008	<0.00200	<0.00200	<0.000500	2.33	5.91	8.24
	08/22/23	<0.000800	0.00857	1.14	<0.000300	<0.0003	0.00604	0.0118	<0.100	0.00368	0.0223	<0.00008	<0.00200	<0.00200	<0.000500	10.9	7.5	18.4
	05/21/24	<0.000800	0.00607	1.1	<0.000300	<0.0003	0.00228 J	0.0105	0.182 J	0.00103	0.0265	<0.00008	<0.00200	<0.00200	<0.000500	3.25	8.4	11.7
	08/14/24	<0.000800	0.00513	0.952	<0.000300	<0.0003	0.00246 J	0.00246 J	0.0215	0.00104	0.024	<0.00008	<0.00200	<0.00200	<0.000500	3.09	4.39	7.97
FGD-11	11/04/15	<0.0008	<0.002	0.0527	<0.0003	<0.0003	<0.002	<0.003	<0.1	0.000727 J	0.0144	<0.00008	<0.002	<0.002	<0.0005	0.928	<1.41	2.34
	12/17/15	<0.0008	<0.002	0.0676	0.000303 J	<0.0003	<0.002	<0.003	0.13 J	0.000987 J	0.016	<0.00008	<0.002	<0.002	<0.0005	0.786	<1.63	2.42
	02/09/16	<0.0008	<0.002	0.271	<0.0003	<0.0003	<0.002	<0.003	0.548	<0.0003	0.011	<0.00008	<0.002	<0.002	<0.0005	1.39	2.64	4.03
	04/14/16	<0.0008	<0.002	0.26	<0.0003	<0.0003	<0.0022 J	<0.003	0.671	0.0012	0.011	<0.00008	<0.002	<0.002	<0.0005	1.69	2.43	4.12
	06/15/16	<0.0008	<0.002	0.216	<0.0003	<0.0003	<0.002	<0.003	0.331 J	0.000407 J	0.0126	<0.00008	0.00238 J	<0.002	<0.0005	2.34	2.06	4.40
	08/25/16	<0.0008	<0.002	0.439	<0.0003	<0.0003	0.00465 J	<0.003	0.128 J	0.00179	0.011	<0.00008	<0.002	<0.002	<0.0005	4.23	3.58	7.81
	10/04/16	<0.0008	<0.002	0.55	<0.0003	<0.0003	<0.002	<0.003	0.579	0.000618 J	0.0124	<0.00008	<0.002	<0.002	<0.0005	1.73	2.53	4.26
	12/22/16	<0.0008	<0.002	0.734	<0.0003	<0.0003	0.00258 J	<0.003	0.127 J	0.000635 J	0.0124	<0.00008	<0.002	<0.002	<0.0005	3.94	5.09	9.03
	06/05/18	<0.0008	<0.002	0.520	<0.0003	<0.0003	0.0372	0.007	0.836	0.00891 J	0.0102	<0.00008	0.00266 J	<0				

**TABLE 4**  
**APPENDIX IV ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Combined^ (pCi/L)
<b>Downgradient Wells</b>																		
FGD-1	11/03/15	<0.0008	<0.002	0.0311	<0.0003	<0.0003	<0.002	<0.003	0.363 J	<0.0003	0.034	<0.00008	<0.002	<0.002	<0.0005	0.718	<1.40	2.12
	12/17/15	<0.0008	<0.002	0.0263	<0.0003	<0.0003	<0.002	<0.003	0.384 J	<0.0003	0.0306	<0.00008	<0.002	<0.002	<0.0005	0.919	<1.43	2.35
	02/09/16	<0.0008	<0.002	0.0315	<0.0003	<0.0003	0.00437 J	0.0033 J	0.383 J	0.000379 J	0.0314	<0.00008	<0.002	<0.002	<0.0005	<0.318	1.42	1.74
	04/14/16	<0.0008	<0.002	0.0296	<0.0003	<0.0003	<0.002	<0.003	0.229 J	<0.0003	0.0338	<0.00008	<0.002	<0.002	<0.0005	<0.439	<1.28	<1.719
	06/15/16	<0.0008	<0.002	0.0276	<0.0003	<0.0003	<0.002	<0.003	0.302 J	<0.0003	0.0321	<0.00008	<0.002	<0.002	<0.0005	<0.258	1.66	1.92
	08/24/16	<0.0008	<0.002	0.0294	<0.0003	<0.0003	<0.002	<0.003	0.225 J	<0.0003	0.033	<0.00008	<0.002	<0.002	<0.0005	0.188	2.24	2.43
	10/05/16	<0.0008	<0.002	0.0319	<0.0003	<0.0003	<0.002	0.00447 J	0.483	<0.0003	0.0331	<0.00008	<0.002	<0.002	<0.0005	0.430	0.507	0.94
	12/22/16	<0.0008	<0.002	0.0418	<0.0003	<0.0003	<0.002	<0.003	0.326 J	<0.0003	0.0385	<0.00008	<0.002	<0.002	<0.0005	<0.273	<0.645	<0.918
	06/05/18	<0.0008	<0.002	0.0422	<0.0003	<0.0003	<0.002	<0.003	0.206 J	<0.0003	0.0426	<0.00008	<0.002	<0.002	<0.0005	0.194	<0.768	0.962
	09/06/18	NA	<0.002	0.0417	<0.0003	<0.0003	<0.002	0.0033 J	0.228 J	<0.0003	0.0436	NA	<0.002	<0.002	0.0005	0.209	<0.53	0.739
	05/16/19	<0.0008	<0.002	0.0485	<0.0003	<0.0003	<0.002	<0.003	0.362 J	<0.0003	0.0442	<0.00008	<0.002	<0.002	<0.0005	0.33	<0.593	0.923
	08/19/19	<0.0008	<0.002	0.0538	<0.0003	<0.0003	<0.002	<0.003	0.486	<0.0003	0.0441	<0.00008	<0.002	<0.002	<0.0005	0.489	1.09	1.57
	05/11/20	<0.000800	<0.00200	0.131	<0.000300	<0.0003	<0.00200	0.0495	0.231 J	<0.000300	0.0548	<0.00008	<0.00200	<0.00200	<0.000500	1.08	0.808	1.89
	09/15/20	NA	<0.00200	0.162	<0.000300	NA	<0.00200	<0.00300	0.215 J	0.000342 J	0.0233	NA	<0.00200	<0.00200	<0.000500	0.664	1.66	2.32
	06/17/21	<0.0008	<0.002	0.174	<0.0003	<0.0003	<0.002	0.00441 J	0.356 J	<0.0003	0.0225	<0.00008	<0.002	<0.002	<0.0005	0.712	1.64	2.36
	6/17/21 DUP	<0.0008	<0.002	0.168	<0.0003	<0.0003	<0.002	0.00423 J	0.352 J	<0.0003	0.0221	<0.00008	<0.002	<0.002	<0.0005	0.609	1.90	2.51
	10/12/21	<0.000800	<0.00200	0.132	<0.000300	<0.0003	<0.00200	<0.00300	0.295 J	<0.000300	0.0182	<0.00008	<0.00200	<0.00200	<0.000500	0.362	1.85	2.21
	10/12/21 DUP	<0.000800	<0.00200	0.0814	<0.000300	0.492	<0.00200	<0.003	<0.100	0.0003	0.0263	0.00008	<0.002	0.0194	<0.0005	0.324	1.5	1.82
	05/11/22	<0.000800	<0.00200	0.101	<0.000300	<0.0003	<0.00200	<0.00300	0.348 J	<0.000300	0.015	<0.00008	<0.00200	<0.00200	<0.000500	0.298	0.723	1.02
	05/11/22 DUP	<0.000800	<0.00200	0.0969	<0.000300	<0.0003	<0.00200	<0.00300	0.319 J	<0.000300	0.013	<0.00008	<0.00200	<0.00200	<0.000500	0.243	0.524	0.77
	09/27/22	<0.000800	<0.00200	0.108	<0.000300	<0.0003	<0.00200	0.00696	0.217 J	<0.000300	0.0373	<0.00008	<0.00200	<0.00200	<0.000500	0.391	1.51	1.90
	9/27/22 DUP	<0.000800	<0.00200	0.103	<0.000300	<0.0003	<0.00200	0.00679	0.234 J	<0.000300	0.0361	<0.00008	<0.00200	<0.00200	<0.000500	0.278	0.947	1.23
	05/26/23	<0.000800	<0.00200	0.0687	<0.000300	<0.0003	<0.00200	0.00371 J	0.405	<0.000300	0.0245	<0.00008	<0.00200	<0.00200	<0.000500	0.336	0.241 J	0.58
	5/26/23 DUP	<0.000800	<0.00200	0.0587	<0.000300	<0.0003	<0.00200	<0.00300	0.406	<0.000300	0.0238	<0.00008	<0.00200	<0.00200	<0.000500	0.207 J	0.975	1.18
	08/22/23	<0.000800	<0.00200	0.0697	<0.000300	<0.0003	<0.00200	0.0053	0.264 J	<0.000300	0.0357	<0.00008	<0.00200	<0.00200	<0.000500	2.5	0.547	3.04
	8/22/23 DUP	<0.000800	<0.00200	0.0685	<0.000300	<0.0003	<0.00200	0.00516	0.258 J	<0.000300	0.0346	<0.00008	<0.00200	<0.00200	<0.000500	2.5	1.03	3.53
	05/20/24	<0.000800	<0.00200	0.0677	<0.000300	0.000324 J	<0.00200	0.00944	0.390 J	0.000353 J	0.0302	<0.00008	<0.00200	<0.00200	<0.000500	0.282	2.27	2.55
	5/20/24 DUP	<0.000800	<0.00200	0.0583	<0.000300	0.000317 J	<0.00200	0.00637	0.402	<0.000300	0.0283	<0.00008	<0.00200	<0.00200	<0.000500	0.385	0.528 J	0.913
	08/13/24	<0.000800	<0.00200	0.0408	<0.000300	<0.0003	<0.00200	<0.00200	<0.00300	<0.000300	0.0290	<0.00008	<0.00200	<0.00200	<0.000500	0.59	0.442 J	1.03
	8/13/24 DUP	<0.000800	<0.00200	0.0408	<0.000300	<0.0003	<0.00200	<0.00200	<0.00300	<0.000300	0.0295	<0.00008						

**TABLE 4**  
**APPENDIX IV ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Combined^ (pCi/L)
FGD-3	11/03/15	<0.0008	0.00226 J	0.0417	<0.0003	0.00492	<0.002	0.0436	0.505	<0.0003	0.176	<0.00008	<0.002	0.0881	0.0017	0.930	3.18	4.11
	12/17/15	<0.0008	0.00215 J	0.0371	0.000475 J	0.00372	<0.002	0.0399	<0.1	<0.0003	0.14	<0.00008	<0.002	0.0798	0.0016	1.70	2.66	4.36
	02/09/16	<0.0008	0.00206 J	0.0407	<0.0003	0.00343	<0.002	0.0417	0.74	0.000438 J	0.13	<0.00008	<0.002	0.0907	0.0015 J	1.04	3.37	4.41
	04/14/16	<0.0008	0.00218 J	0.0371	<0.0003	0.00212	<0.002	0.0326	0.69	<0.0003	0.119	<0.00008	<0.002	0.064	0.00137 J	<0.276	<1.35	<1.626
	06/14/16	<0.0008	0.00205 J	0.0392	<0.0003	0.00156	<0.002	0.0261	0.173 J	<0.0003	0.107	<0.00008	<0.002	0.0447	0.00126 J	0.754	1.56	2.31
	08/24/16	<0.0008	0.00221 J	0.0387	<0.0003	0.00146	<0.002	0.0232	0.463	<0.0003	0.0974	<0.00008	<0.002	0.0272	0.00123 J	0.416	2.60	3.02
	10/05/16	<0.0008	0.00225 J	0.039	<0.0003	0.00152	<0.002	0.0226	0.723	<0.0003	0.113	<0.00008	<0.002	0.0276	0.00114 J	0.455	2.44	2.90
	12/22/16	<0.0008	0.00226 J	0.0437	<0.0003	0.00173	<0.002	0.0266	1.32	<0.0003	0.11	<0.00008	<0.002	0.0245	0.00124 J	<0.352	2.46	2.81
	06/05/18	<0.0008	0.00236 J	0.0391	<0.0003	0.00152	<0.002	0.0207	1.06	<0.0003	0.0975	<0.00008	0.00212 J	0.0192	0.000985 J	0.528	2.19	2.72
	09/05/18	NA	0.00208 J	0.0379	<0.0003	0.00146	<0.002	0.0192	1.03	<0.0003	0.0955	NA	0.0021 J	0.0213	0.000925 J	<0.323	0.704	1.03
	05/16/19	<0.0008	0.0023 J	0.051	<0.0003	<0.0003	<0.002	0.0052	0.776	<0.0003	0.057	<0.00008	0.0031 J	0.0423	0.0006 J	<0.403	<0.638	<1.041
	08/19/19	<0.0008	0.00248 J	0.0365	<0.0003	<0.0003	<0.002	0.00364 J	0.874	<0.0003	0.0546	<0.00008	0.00231 J	0.0245	0.000588 J	0.523	0.858	1.38
	05/06/20	<0.000800	0.00209 J	0.0353	<0.000300	<0.0003	0.0117	0.00332 J	0.8	<0.000300	0.0498	<0.00008	0.00284 J	0.00993	0.000556 J	0.394	0.463	0.857
	09/15/20	NA	0.00225 J	0.0326	<0.000300	NA	<0.00200	<0.00300	0.772	<0.000300	0.0416	NA	0.00245 J	0.00646	0.000534 J	0.257	0.484	0.711
	06/16/21	<0.0008	0.00217	0.0343 J	<0.0003	<0.0003	<0.002	0.00624	1.2	0.000491 J	0.0426	0.000094 J	0.00336 J	0.00752	0.000528 J	0.246	0.808	1.05
	10/11/21	<0.000800	<0.00200	0.0322	<0.000300	<0.0003	<0.00200	<0.00300	1.08	0.000494 J	0.0296	<0.00008	0.00370 J	0.00748	<0.000500	0.223 J	1.02	1.25
	05/10/22	<0.000800	0.00219 J	0.0358	<0.000300	<0.0003	<0.00200	<0.00300	1.05	0.00152	0.0349	<0.00008	0.00351 J	0.00418 J	<0.000500	0.411	1.79	2.2
	09/27/22	<0.000800	0.00236 J	0.0375	<0.000300	<0.0003	<0.00200	<0.00300	0.959	0.00166	0.0403	<0.00008	0.00323 J	0.00344 J	<0.000500	0.28	1.01	1.28
	03/14/23	<0.000800	<0.00200	0.0381	<0.000300	<0.0003	<0.00200	<0.00300	1.11	0.00152	0.0307	<0.00008	0.00358	0.00516	<0.000500	0.4	0.617 J	1.02
	05/25/23	<0.000800	0.00242 J	0.0315	<0.000300	0.000311 J	<0.00200	0.00564	0.981	0.000403 J	0.0486	0.000170 J	0.00279 J	0.00308 J	0.000569 J	0.841	0.955	1.8
	08/21/23	<0.000800	0.00225 J	0.0363	<0.000300	<0.0003	<0.00200	<0.00300	1.06	0.0014	0.0342	0.0000853	0.00340 J	0.00328 J	0.000507 J	0.799	<0.432	0.799
	05/20/24	<0.000800	0.00450 J	0.0748	0.000319 J	0.000612 J	0.00638	0.00773	0.936	0.00717	0.0443	0.000136 J	0.00369 J	0.0124	0.000627 J	0.567	5.67	6.24
	6/18/24*	<0.000800	0.00215	0.0321	<0.000300	<0.000300	<0.00200	0.00406	0.97	0.000367	0.0342	<0.00008	0.00335	0.0052	<0.000500	0.765	0.343 J	1.11
	08/13/24	<0.000800	0.00204 J	0.0340	<0.000300	<0.0003	<0.00200	<0.00200	<0.00300	0.000313 J	0.0336	<0.00008	0.00322 J	0.00351 J	<0.000500	0.367	<0.640	0.367 J
FGD-4	11/03/15	<0.0008	<0.002	0.126	<0.0003	<0.0003	<0.002	<0.003	0.294 J	<0.0003	0.0433	<0.00008	<0.002	<0.002	<0.0005	1.01	<1.39	2.40
	12/17/15	<0.0008	<0.002	0.105	<0.0003	<0.0003	<0.002	<0.003	0.295 J	<0.0003	0.0436	0.000229	0.00211 J	0.00214 J	<0.0005	<0.361	<1.73	<2.091
	02/09/16	<0.0008	<0.002	0.113	<0.0003	<0.0003	<0.002	<0.003	0.32 J	<0.0003	0.0419	0.000288	<0.002	<0.002	<0.0005	<0.332	<1.11	<1.442
	04/14/16	<0.0008	<0.002	0.12	<0.0003	<0.0003	0.00208 J	<0.003	0.323 J	0.0271	0.0357	0.000232	<0.002	<0.002	<0.0005	0.560	<1.21	1.77
	06/14/16	<0.0008	<0.002	0.128	<0.0003	0.000561 J	<0.002	<0.003	<0.1	<0.0003	0.0477	<0.00008	<0.002	<0.002	<0.0005	0.437	<0.975	1.41
	08/24/16	<0.0008	<0.002	0.111	<0.0003	<0.0003	<0.002	<0.003	0.148 J	0.000578 J	0.0383	<0.00008	<0.002	<0.002	<0.0005	<0.199	0.625	0.82
	10/05/16	<0.0008	<0.002	0.106	<0.0003	<0.0003	<0.002	<0.003	0.376 J	0.000489 J	0.0353	<0.00008	<0.002	<0.002	<0.0005	0.308	1.30	1.61
	12/22/16	<0.0008																

**TABLE 4**  
**APPENDIX IV ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Combined^ (pCi/L)
FGD-5	11/04/15	<0.0008	<0.002	0.13	<0.0003	0.000557 J	0.0121	<0.003	0.334 J	<0.0003	0.17	<0.00008	0.0445	<0.002	<0.0005	0.449	1.52	1.97
	12/17/15	<0.0008	<0.002	0.237	<0.0003	0.000593 J	0.0391	0.0164	0.333 J	0.000369 J	0.156	<0.00008	0.0203	<0.002	<0.0005	1.23	3.63	4.86
	02/09/16	<0.0008	<0.002	0.261	<0.0003	<0.0003	<0.002	0.00441 J	0.495	<0.0003	0.158	<0.00008	<0.002	<0.002	<0.0005	1.99	1.50	3.49
	04/14/16	<0.0008	<0.002	0.224	<0.0003	0.000392 J	0.00477 J	<0.003	0.491	<0.0003	0.164	<0.00008	0.0183	<0.002	<0.0005	0.951	<1.24	2.19
	06/15/16	<0.0008	<0.002	0.174	<0.0003	<0.0003	0.00599	<0.003	0.284 J	<0.0003	0.162	<0.00008	0.0144	<0.002	<0.0005	0.429	1.25	1.68
	08/24/16	<0.0008	<0.002	0.173	<0.0003	<0.0003	0.0189	<0.003	0.168 J	0.00045 J	0.145	<0.00008	0.00814	<0.002	<0.0005	0.398	<0.643	1.04
	10/05/16	<0.0008	<0.002	0.229	<0.0003	<0.0003	0.00304 J	<0.003	0.38 J	<0.0003	0.153	<0.00008	0.00355 J	<0.002	<0.0005	0.877	1.16	2.04
	12/22/16	<0.0008	<0.002	0.261	<0.0003	<0.0003	<0.002	0.00471 J	0.291 J	<0.0003	0.152	<0.00008	<0.002	<0.002	<0.0005	0.579	<0.76	1.34
	06/05/18	<0.0008	<0.002	0.136	<0.0003	<0.0003	0.00935	<0.003	0.511	<0.0003	0.154	<0.00008	<0.002	<0.002	<0.0005	0.705	<0.765	1.47
	09/06/18	NA	<0.002	0.215	<0.0003	<0.0003	<0.002	<0.003	0.548	<0.0003	0.155	NA	<0.002	<0.002	<0.0005	0.535	1.31	1.845
	05/16/19	<0.0008	<0.002	0.0926	<0.0003	<0.0003	0.024	<0.003	0.579	<0.0003	0.145	<0.00008	0.003 J	<0.002	<0.0005	0.342	<0.506	0.848
	08/19/19	<0.0008	<0.002	0.106	<0.0003	<0.0003	0.0103	<0.003	0.863	<0.0003	0.152	<0.00008	<0.002	<0.002	<0.0005	0.551	0.659	1.21
	05/11/20	<0.000800	<0.00200	0.0959	<0.000300	<0.0003	0.0374	<0.00300	0.413	<0.000300	0.156	<0.00008	0.00561	<0.00200	<0.000500	0.0983	5.18	5.28
	09/10/20	NA	<0.00200	0.0929	<0.000300	NA	0.0307	<0.00300	0.617	<0.000300	0.150	NA	0.00362 J	<0.00200	<0.000500	0.132	<1.11	0.132
	06/17/21	<0.0008	<0.002	0.111	<0.0003	<0.0003	0.0376	<0.00300	0.593	<0.0003	0.147	<0.00008	0.00504	<0.002	<0.0005	0.173 J	0.546	0.719 J
	10/11/21	<0.000800	<0.00200	0.0995	<0.000300	<0.0003	0.0549	<0.00300	0.459	<0.000300	0.139	<0.00008	0.00669	<0.00200	<0.000500	<0.243	<0.243	<0.889
	05/10/22	<0.000800	<0.00200	0.123	<0.000300	<0.0003	0.0396	<0.00300	0.474	<0.000300	0.165	<0.00008	0.00427 J	<0.00200	<0.000500	<0.217	0.241 J	0.273 J
	09/27/22	<0.000800	<0.00200	0.15	<0.000300	<0.0003	0.0305	<0.00300	0.446	<0.000300	0.182	<0.00008	0.00217 J	<0.00200	<0.000500	0.159 J	<0.35	<0.438
	05/26/23	<0.000800	<0.00200	0.108	<0.000300	<0.0003	0.0738	<0.00300	0.495	<0.000300	0.173	<0.00008	0.00985	<0.00200	<0.000500	0.571	0.773	1.34
	08/21/23	<0.000800	<0.00200	0.125	<0.000300	<0.0003	0.0808	<0.00300	0.501	<0.000300	0.159	<0.00008	0.00872	<0.00200	<0.000500	0.147 J	<0.371	<0.147
	05/20/24	<0.000800	<0.00200	0.129	<0.000300	<0.0003	0.0669	<0.00300	0.486	<0.000300	0.181	<0.00008	0.00841	<0.00200	<0.000500	0.215 J	2.7	2.92
	08/13/24	<0.000800	<0.00200	0.120	<0.000300	<0.0003	0.0484	0.0484	<0.00300	<0.000300	0.173	<0.00008	0.00547	<0.00200	<0.000500	0.22	<0.576	<0.602
FGD-6	11/03/15	<0.0008	<0.002	0.124	<0.0003	<0.0003	0.00253 J	<0.003	0.227 J	<0.0003	0.0112	<0.00008	<0.002	<0.002	<0.0005	0.470	<1.70	2.17
	12/17/15	<0.0008	<0.002	0.135	<0.0003	<0.0003	<0.002	<0.003	0.469	<0.0003	0.00964 J	<0.00008	<0.002	<0.002	<0.0005	1.03	<2.13	3.16
	02/09/16	<0.0008	<0.002	0.132	<0.0003	<0.0003	<0.002	<0.003	0.354 J	<0.0003	0.0105	<0.00008	<0.002	<0.002	<0.0005	0.801	<1.71	2.51
	04/14/16	<0.0008	<0.002	0.122	<0.0003	<0.0003	0.0568	<0.003	0.442	<0.0003	0.011	<0.00008	<0.002	<0.002	<0.0005	0.484	2.08	2.56
	06/14/16	<0.0008	<0.002	0.16	0.000309 J	0.000404 J	<0.002	0.00657	<0.1	0.00132	0.0092 J	<0.00008	<0.002	<0.002	<0.0005	1.31	2.16	3.47
	08/24/16	<0.0008	0.00725	0.127	<0.0003	<0.0003	0.00334 J	0.00399 J	0.147 J	0.000656 J	0.00885 J	<0.00008	0.00244 J	<0.002	<0.0005	0.465	0.896	1.36
	10/05/16	<0.0008	0.00536	0.117	<0.0003	<0.0003	0.00427 J	0.00414 J	0.364 J	<0.0003	0.00985 J	<0.00008	<0.002	<0.002	<0.0005	0.489	1.69	2.18
	12/22/16	<0.0008	0.00458 J	0.129	<0.0003	<0.0003	<0.002	0.00352 J	0.204 J	<0.0003	0.0102	<0.00008	<0.002	<0.002	<0.0005	0.349	0.917	1.27
	06/04/18	<0.0008	0.0021 J	0.0854	<0.0003	<0.0003	<0.002	<0.003	0.361 J	<0.0003	0.0098 J	<0.00008	<0.002	<0.002	<0.0005	<0.277	<0.964	<1.241

**TABLE 4**  
**APPENDIX IV ANALYTICAL DATA**  
**OGSES FGD PONDS**

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Combined <sup>^</sup> (pCi/L)
FGD-12	11/04/15	<0.0008	<0.002	0.0884	<0.0003	<0.0003	0.0124	<0.003	<0.1	0.000678 J	0.0234	<0.00008	0.00221 J	<0.002	<0.0005	1.07	<1.55	2.62
	12/17/15	<0.0008	<0.002	0.0781	<0.0003	<0.0003	<0.002	<0.003	0.159 J	0.000775 J	0.022	<0.00008	<0.002	<0.002	<0.0005	1.32	<2.57	3.89
	2/9/2016	<0.0008	<0.002	0.0664	<0.0003	<0.0003	<0.002	<0.003	0.157 J	0.000339 J	0.0211	<0.00008	<0.002	<0.002	<0.0005	0.771	<1.53	2.30
	04/14/16	<0.0008	<0.002	0.104	<0.0003	<0.0003	0.00425 J	<0.003	0.109 J	0.00371	0.0255	<0.00008	<0.002	<0.002	<0.0005	0.560	1.46	2.02
	06/15/16	<0.0008	<0.002	0.107	0.00039 J	<0.0003	0.00269 J	0.00323 J	0.101 J	0.00513	0.0192	0.00013 J	<0.002	<0.002	<0.0005	2.01	2.06	4.07
	08/25/16	<0.0008	0.00451 J	0.262	0.000629 J	<0.0003	0.0135	0.00412 J	<0.1	0.00842	0.0204	<0.00008	<0.002	<0.002	<0.0005	1.59	1.84	3.43
	10/04/16	<0.0008	0.00402 J	0.122	0.00062 J	<0.0003	0.0133	0.00395 J	0.129 J	0.0084	0.0259	<0.00008	<0.002	0.00292 J	<0.0005	1.41	<0.76	2.17
	12/23/16	<0.0008	0.00938	0.557	<0.0003	<0.0003	0.00435 J	0.00609	0.112 J	0.00216	0.0755	<0.00008	<0.002	0.00786	<0.0005	1.89	3.54	5.43
	06/05/18	<0.0008	<0.002	0.0777	0.00031	<0.0003	0.00578	<0.003	0.137 J	0.0029	0.0213	<0.00008	<0.002	<0.002	<0.0005	1.68	<0.526	2.206
	09/06/18	NA	<0.002	0.0517	<0.0003	<0.0003	0.0024 J	<0.003	<0.10	0.0005 J	0.0188	NA	<0.002	<0.002	<0.0005	<0.304	<0.5450	<0.849
	05/16/19	0.0008	<0.002	0.0474	<0.0003	<0.0003	0.0030 J	<0.003	<0.10	0.0003 J	0.0221	<0.00008	<0.002	<0.002	<0.0005	0.385	1.43	1.82
	08/19/19	<0.0008	<0.002	0.0631	<0.0003	<0.0003	0.00218 J	<0.003	0.145 J	0.00139	0.0251	<0.00008	<0.002	<0.002	<0.0005	1.12	3.52	4.64
	05/11/20	<0.000800	0.0116	0.23	0.00166	<0.000300	0.037	0.00883	<0.100	0.0249	0.0371	<0.0000800	<0.00200	0.00678	0.000651	5.96	10.7	16.6
	09/10/20	NA	0.00252 J	0.0922	0.000375 J	NA	0.00723	<0.00300	<0.100	0.00402	0.0235	NA	<0.00200	0.00254 J	<0.000500	2.59	6.72	9.31
	06/17/21	<0.0008	<0.002	0.0817	0.000504 J	<0.0003	0.00273 J	<0.00300	<0.100	0.00317	0.0239	<0.00008	<0.002	<0.002	<0.0005	0.861	4.67	5.53
	10/12/21	<0.000800	<0.00200	0.0613	<0.000300	<0.0003	0.00387 J	<0.00300	0.101 J	0.00255	0.0222	<0.00008	<0.00200	0.00255 J	<0.000500	1.84	1.94	3.78
	05/11/22	<0.000800	<0.00200	0.0674	<0.000300	<0.0003	0.00874	<0.00300	<0.100	0.00244	0.0204	<0.00008	<0.00200	<0.00200	<0.000500	1.31	0.221 J	1.53
	09/27/22	<0.000800	0.00245 J	0.0986	0.000349 J	<0.0003	0.0082	<0.00300	<0.100	0.00422	0.0213	<0.00008	<0.00200	<0.00200	<0.000500	2.06	5.61	7.67
	05/26/23	<0.000800	0.00444 J	0.135	0.000644 J	<0.0003	0.016	0.00343 J	<0.100	0.00841	0.0264	<0.00008	<0.00200	<0.00200	<0.000500	2.43	3.4	5.83
	08/21/23	<0.000800	0.00285 J	0.115	0.000417 J	<0.0003	0.00931	<0.00300	<0.100	0.00503	0.0175	<0.00008	<0.00200	<0.00200	<0.000500	1.53	5.89	7.42
	05/21/24	<0.000800	<0.00200	0.0799	<0.000300	<0.0003	0.00738	<0.00300	<0.100	0.0025	0.0251	<0.00008	<0.00200	<0.00200	<0.000500	1.15	9.17	10.3
	08/14/24	<0.000800	<0.00200	0.0654	<0.000300	<0.0003	0.00623	0.00623	<0.00300	0.00162	0.0249	<0.00008	<0.00200	<0.00200	<0.000500	0.975	1.74	2.71

Notes:

1. Abbreviations: mg/l - milligrams per liter; pCi/L - picocuries per liter.
2. ^ - Sum of Ra 226 and Ra 228 concentrations.
3. J - Concentration is below method quantitation limit; result is an estimate.
4. NA - not analyzed. Groundwater sample analyses for the second semi-annual sampling events were in some instances limited to Appendix IV parameters detected during the preceding first semi-annual sampling event in accordance with 40 CFR § 257.95(d)(1).
5. \* - Sample collection date for all Appendix IV constituents other than fluoride. Fluoride samples were collected on July 10, 2024.

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
<b>FGD Pond Area</b>				
FGD-1	424.44	11/03/15	14.27	410.17
		12/17/15	14.22	410.22
		02/09/16	13.89	410.55
		04/14/16	13.79	410.65
		06/14/16	13.54	410.90
		08/24/16	13.37	411.07
		10/04/16	13.28	411.16
		12/19/16	13.25	411.19
		10/03/17	13.64	410.80
		06/04/18	12.96	411.48
		12/17/18	12.57	411.87
		12/26/19	11.82	412.62
		05/06/20	11.59	412.85
		09/09/20	12.12	412.32
		06/16/21	10.11	414.33
		10/11/21	10.82	413.62
		05/10/22	11.13	413.31
		09/26/22	11.63	412.81
		05/25/23	11.28	413.16
FGD-2	439.36	08/21/23	11.91	412.53
		05/20/24	10.31	414.13
		08/14/24	10.03	414.41
		11/03/15	29.31	410.05
		12/17/15	29.39	409.97
		02/09/16	29.03	410.33
		04/14/16	28.89	410.47
		06/14/16	28.21	411.15
		08/24/16	28.22	411.14
		10/04/16	28.06	411.30
		12/19/16	28.50	410.86
		10/03/17	28.56	410.80
		06/04/18	28.58	410.78
		12/17/18	28.02	411.34
		12/26/19	27.41	411.95
		05/06/20	26.98	412.38
		09/09/20	27.49	411.87
		06/16/21	25.58	413.78
		10/11/21	25.72	413.64
		05/10/22	26.76	412.60
		09/26/22	27.12	412.24
		05/25/23	27.17	412.19
		08/21/23	27.73	411.63
		05/20/24	26.09	413.27
		08/14/24	25.53	413.83

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
FGD-3	434.90	11/03/15	24.76	410.14
		12/17/15	24.33	410.57
		02/09/16	24.08	410.82
		04/14/16	24.11	410.79
		06/14/16	23.21	411.69
		08/24/16	23.74	411.16
		10/04/16	23.39	411.51
		12/19/16	23.69	411.21
		10/03/17	23.97	410.93
		06/04/18	23.89	411.01
		12/17/18	23.21	411.69
		12/26/19	22.87	412.03
		05/06/20	22.64	412.26
		09/09/20	22.83	412.07
		06/16/21	20.86	414.04
		10/11/21	21.72	413.18
		05/10/22	22.51	412.39
		09/26/22	23.11	411.79
		05/25/23	26.58	408.32
		08/21/23	23.33	411.57
		05/20/24	21.41	413.49
		08/14/24	18.91	415.99
FGD-4	432.03	11/03/15	21.84	410.19
		12/17/15	21.89	410.14
		02/09/16	21.31	410.72
		04/14/16	21.21	410.82
		06/14/16	20.47	411.56
		08/24/16	20.99	411.04
		10/04/16	20.79	411.24
		12/19/16	21.02	411.01
		10/03/17	21.09	410.94
		06/04/18	20.91	411.12
		12/17/18	20.52	411.51
		12/26/19	19.82	412.21
		05/06/20	19.78	412.25
		09/09/20	20.04	411.99
		06/16/21	17.87	414.16
		10/11/21	19.06	412.97
		05/10/22	19.62	412.41
		09/26/22	20.08	411.95
		05/25/23	19.62	412.41
		08/21/23	20.31	411.72
		05/20/24	18.24	413.79
		08/14/24	18.56	413.47

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
FGD-5	433.01	11/03/15	22.81	410.20
		12/17/15	22.58	410.43
		02/09/16	22.73	410.28
		04/14/16	22.27	410.74
		06/14/16	21.81	411.20
		08/24/16	21.68	411.33
		10/04/16	21.68	411.33
		12/19/16	21.69	411.32
		10/03/17	21.54	411.47
		06/04/18	21.33	411.68
		12/17/18	21.09	411.92
		12/26/19	20.34	412.67
		05/06/20	20.09	412.92
		09/09/20	20.48	412.53
		06/16/21	18.76	414.25
		10/11/21	18.91	414.10
		05/10/22	19.39	413.62
		09/26/22	20.02	412.99
		05/25/23	19.59	413.42
		08/21/23	21.77	411.24
		05/20/24	18.54	414.47
		08/14/24	18.41	414.60
FGD-6	428.62	11/03/15	18.44	410.18
		12/17/15	18.04	410.58
		02/09/16	17.96	410.66
		04/14/16	17.89	410.73
		06/14/16	17.22	411.40
		08/24/16	17.51	411.11
		10/04/16	17.37	411.25
		12/19/16	17.72	410.90
		10/03/17	17.88	410.74
		06/04/18	17.65	410.97
		12/17/18	17.38	411.24
		12/26/19	16.29	412.33
		05/06/20	16.84	411.78
		09/09/20	16.91	411.71
		06/16/21	15.07	413.55
		10/11/21	16.04	412.58
		05/10/22	16.57	412.05
		09/26/22	16.92	411.70
		05/25/23	16.74	411.88
		08/21/23	17.18	411.44
		05/20/24	15.17	413.45
		08/14/24	15.59	413.03
FGD-7*	425.87	06/04/18	14.58	411.29
		12/17/18	14.17	411.70
		12/26/19	13.67	412.20
		05/06/20	13.08	412.79
		09/09/02	13.51	412.36
		06/16/21	11.64	414.23
		10/11/21	12.47	413.40
		05/10/22	13.09	412.78
		09/26/22	13.57	412.30
		05/25/23	12.93	412.94
		08/21/23	13.77	412.10
		05/20/24	11.24	414.63
		08/14/24	12.02	413.85

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
FGD-8	440.15	11/03/15	16.39	423.76
		12/17/15	16.26	423.89
		02/09/16	29.64	410.51
		04/14/16	29.54	410.61
		06/14/16	29.37	410.78
		08/24/16	29.16	410.99
		10/04/16	28.81	411.34
		12/19/16	29.21	410.94
		01/03/17	29.31	410.84
		06/04/18	29.15	411.00
		12/17/18	29.25	410.90
		12/26/19	28.92	411.23
		05/06/20	28.99	411.16
		09/09/20	29.06	411.09
		06/16/21	25.78	414.37
		10/11/21	28.41	411.74
		05/10/22	29.33	410.82
		09/26/22	29.17	410.98
		05/25/23	28.79	411.36
		08/21/23	29.77	410.38
		05/20/24	29.18	410.97
		08/14/24	28.46	411.69
FGD-9*	435.51	06/04/18	24.56	410.95
		12/17/18	24.59	410.92
		12/26/19	24.06	411.45
		05/06/20	23.97	411.54
		09/09/20	24.17	411.34
		06/16/21	23.21	412.30
		10/11/21	23.62	411.89
		05/10/22	24.38	411.13
		09/26/22	24.39	411.12
		05/25/23	23.64	411.87
		08/21/23	24.21	411.30
		05/20/24	23.31	412.20
		08/14/24	23.39	412.12
FGD-10*	424.19	06/04/18	13.44	410.75
		12/17/18	13.49	410.70
		12/26/19	12.82	411.37
		05/06/20	11.83	412.36
		09/09/20	14.26	409.93
		06/16/21	10.47	413.72
		10/11/21	11.82	412.37
		05/10/22	11.22	412.97
		09/26/22	13.11	411.08
		05/25/23	12.09	412.10
		08/21/23	13.49	410.70
		05/20/24	11.16	413.03
		08/14/24	11.24	412.95

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
FGD-11	452.22	11/03/15	20.67	431.55
		12/17/15	20.61	431.61
		02/09/16	41.62	410.60
		04/14/16	40.04	412.18
		06/14/16	39.81	412.41
		08/24/16	39.59	412.63
		10/04/16	41.59	410.63
		12/19/16	42.01	410.21
		10/03/17	40.97	411.25
		06/04/18	40.4	411.82
		12/17/18	40.12	412.10
		12/26/19	39.38	412.84
		05/06/20	38.91	413.31
		09/09/20	39.97	412.25
		06/16/21	38.09	414.13
		10/11/21	38.52	413.70
		05/10/22	38.22	414.00
		09/26/22	39.82	412.4
		05/25/23	40.79	411.43
		08/21/23	40.18	412.04
		05/20/24	39.54	412.68
		08/14/24	37.93	414.29
FGD-12	443.16	11/03/15	33.82	409.34
		12/17/15	33.69	409.47
		02/09/16	32.42	410.74
		04/14/16	32.04	411.12
		06/14/16	32.02	411.14
		08/24/16	31.89	411.27
		10/04/16	31.77	411.39
		12/19/16	31.96	411.20
		10/03/17	31.31	411.85
		06/04/18	31.19	411.97
		12/17/18	30.67	412.49
		12/26/19	30.04	413.12
		05/06/20	29.97	413.19
		09/09/20	30.31	412.85
		06/16/21	29.12	414.04
		10/11/21	28.91	414.25
		05/10/22	29.06	414.10
		09/26/22	29.59	413.57
		05/25/23	29.61	413.55
		08/21/23	29.72	413.44
		05/20/24	28.55	414.61
		08/14/24	28.17	414.99

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
<i>Ash Landfill 1 Area</i>				
AL-10	460.81	11/03/15	43.19	417.62
		12/17/15	43.09	417.72
		02/10/16	42.51	418.30
		04/15/16	42.14	418.67
		06/14/16	41.61	419.20
		08/24/16	41.89	418.92
		10/04/16	41.92	418.89
		12/19/16	43.68	417.13
		10/02/17	42.37	418.44
		06/04/18	42.32	418.49
		09/15/18	43.01	417.8
		05/17/19	41.04	419.77
		05/06/20	40.80	420.01
		09/09/20	41.46	419.35
		06/16/21	40.61	420.20
		10/11/21	39.02	421.79
		05/11/22	40.32	420.49
		09/26/22	41.37	419.44
		05/25/23	41.17	419.64
		08/17/23	41.63	419.18
		05/21/24	40.66	420.15
		08/14/24	40.29	420.52
MW-01*	454.30	06/05/18	34.86	419.44
		12/17/18	34.47	419.83
		12/26/19	33.57	420.73
		05/07/20	33.14	421.16
		09/09/20	34.19	420.11
		06/16/21	32.31	421.99
		10/12/21	32.51	421.79
		05/11/22	32.83	421.47
		09/26/22	34.09	420.21
		05/25/23	33.78	420.52
		08/17/23	34.37	419.93
		05/21/24	32.46	421.84
		08/14/24	32.34	421.96
MW-02	463.65	11/03/15	47.61	416.04
		12/17/15	47.49	416.16
		02/10/16	45.93	417.72
		04/15/16	46.69	416.96
		06/14/16	44.84	418.81
		08/24/16	44.61	419.04
		10/04/16	45.24	418.41
		12/19/16	46.96	416.69
		10/02/17	45.54	418.11
		06/05/18	45.48	418.17
		12/17/18	45.91	417.74
		12/26/19	44.27	419.38
		05/06/20	42.29	421.36
		09/09/20	44.57	419.08
		06/16/21	43.58	420.07
		10/12/21	43.08	420.57
		05/11/22	43.54	420.11
		09/26/22	44.54	419.11
		05/25/23	44.27	419.38
		08/17/23	44.64	419.01
		05/21/24	43.58	420.07
		08/14/24	43.11	420.54

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
MW-03*	440.48	06/05/18	26.11	414.37
		12/17/18	26.21	414.27
		12/26/19	24.81	415.67
		05/07/20	24.33	416.15
		09/09/20	23.31	417.17
		06/16/21	23.41	417.07
		10/12/21	23.63	416.85
		05/11/22	23.14	417.34
		09/26/22	25.12	415.36
		05/25/23	24.83	415.65
		08/17/23	25.12	415.36
		05/21/24	23.36	417.12
		08/14/24	23.23	417.25
MW-04*	436.63	06/05/18	25.73	410.9
		12/17/18	25.77	410.86
		12/26/19	24.68	411.95
		05/07/20	24.96	411.67
		09/09/20	25.69	410.94
		06/16/21	23.72	412.91
		10/12/21	23.81	412.82
		05/11/22	23.63	413.00
		09/26/22	24.77	411.86
		05/25/23	24.19	412.44
		08/17/23	24.72	411.91
		05/21/24	22.97	413.66
		08/14/24	23.19	413.44
MW-05	436.98	11/03/15	29.94	407.04
		12/17/15	29.71	407.27
		02/10/16	28.93	408.05
		04/15/16	28.02	408.96
		06/14/16	27.57	409.41
		08/24/16	28.38	408.60
		10/04/16	27.94	409.04
		12/19/16	30.02	406.96
		10/02/17	29.06	407.92
		06/05/18	28.17	408.81
		12/17/18	28.74	408.24
		12/26/19	27.17	409.81
		05/06/20	26.68	410.30
		09/09/20	27.09	409.89
		06/16/21	26.21	410.77
		10/12/21	26.46	410.52
		05/11/22	26.09	410.89
		09/26/22	27.47	409.51
		05/25/23	26.51	410.47
		08/17/23	27.59	409.39
		05/21/24	26.22	410.76
		08/14/24	25.82	411.16
MW-06*	432.97	06/05/18	25.79	407.18
		12/17/18	25.52	407.45
		12/26/19	24.81	408.16
		05/07/20	NM	NM
		09/09/20	25.13	407.84
		06/16/21	22.46	410.51
		10/12/21	NM	NM
		05/11/22	NM	NM
		09/26/22	29.12	403.85
		05/25/23	28.22	404.75
		08/17/23	29.03	403.94
		05/21/24	27.36	405.61
		08/14/24	27.13	405.84

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
MW-07	438.84	11/03/15	28.54	410.30
		12/17/15	28.07	410.77
		02/09/16	27.71	411.13
		04/15/16	27.43	411.41
		06/14/16	27.11	411.73
		08/24/16	27.11	411.73
		10/04/16	27.62	411.22
		12/19/16	26.79	412.05
		10/02/17	26.21	412.63
		06/05/18	26.71	412.13
		12/17/18	26.11	412.73
		12/26/19	26.04	412.80
		05/07/20	25.82	413.02
		09/09/20	25.78	413.06
		06/16/21	25.79	413.05
		10/12/21	27.86	410.98
		05/11/22	25.09	413.75
		09/26/22	25.58	413.26
		05/25/23	25.08	413.76
		08/17/23	25.27	413.57
		05/21/24	24.02	414.82
		08/14/24	23.92	414.92
MW-08	443.38	11/03/15	32.77	410.61
		12/17/15	32.63	410.75
		02/09/16	32.47	410.91
		04/15/16	32.12	411.26
		06/14/16	29.96	413.42
		Well Damaged		
MW-08R	443.84	12/19/16	33.97	409.87
		03/21/17	31.89	411.95
		04/20/17	31.80	412.04
		10/02/17	31.66	412.18
		06/05/18	31.74	412.10
		12/17/18	46.26	397.58
		12/26/19	41.02	402.82
		05/07/20	33.62	410.22
		09/09/20	30.68	413.16
		06/16/21	29.61	414.23
		10/12/21	29.41	414.43
		05/11/22	42.26	401.58
		09/26/22	30.08	413.76
		05/25/23	29.77	414.07
		08/17/23	30.06	413.78
		05/21/24	28.92	414.92
		08/14/24	28.54	415.30

**TABLE 5**  
**GROUNDWATER ELEVATION DATA**  
**OGSES FGD PONDS AND ASH LANDFILL 1**

Well ID	TOC Elevation (feet amsl)	Date Measured	Depth to Water (feet btoc)	Water Level Elevation (feet amsl)
MW-09	461.46	11/03/15	48.43	413.03
		12/17/15	48.71	412.75
		02/09/16	48.20	413.26
		04/15/16	47.69	413.77
		06/14/16	47.31	414.15
		08/24/16	47.56	413.90
		10/04/16	47.22	414.24
		12/19/16	50.38	411.08
		10/02/17	47.11	414.35
		06/05/18	47.21	414.25
		12/17/18	47.51	413.95
		12/26/19	46.09	415.37
		05/06/20	38.62	422.84
		09/09/20	46.07	415.39
		06/16/21	45.71	415.75
		10/12/21	44.89	416.57
		05/11/22	45.21	416.25
		09/26/22	45.76	415.70
		05/25/23	45.77	415.69
		08/17/23	45.82	415.64
		05/21/24	43.16	418.30
		08/14/24	44.67	416.79

Notes:

Abbreviations: TOC - top of casing; btoc - below top of casing; amsl - above mean sea level.

\* - non-CCR groundwater monitoring program well used only to evaluate groundwater elevations

**APPENDIX A**  
**2024 LABORATORY ANALYTICAL REPORTS**



June 27, 2024

Will Vienne  
BBA Engineering  
165 N. Lampasas St.  
Bertram, TX 78605  
TEL: (512) 355-9198

FAX: Order No.: 2405273  
RE: OGSES-FGD PONDS CCR

Dear Will Vienne:

DHL Analytical, Inc. received 10 sample(s) on 5/22/2024 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in red ink that appears to read "John DuPont".

John DuPont  
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211 - TX-C24-00120



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2300 Double Creek Dr. Round Rock, TX 78664

Phone 512.388.8222

Web: [www.dhlanalytical.com](http://www.dhlanalytical.com)

Email: [login@dhlanalytical.com](mailto:login@dhlanalytical.com)

# CHAIN-OF-CUSTODY

PAGE 1 OF 1

CLIENT: <u>BBA</u>				DATE: <u>5-22-24</u>				LAB USE ONLY		
ADDRESS: <u>165 N. CAMPASIS ST. BETRAM, TX</u>				PO#: <u>23643 V-20</u>				DHL WORKORDER #: <u>2405273</u>		
PHONE: <u>512-355-9198</u> EMAIL:				PROJECT LOCATION OR NAME: <u>OGSES - FGD PONDS CCR</u>						
DATA REPORTED TO: <u>WILL VIENNE</u>				CLIENT PROJECT # <u>23643 V-20</u>				COLLECTOR: <u>JOHN BRAYTON</u>		
ADDITIONAL REPORT COPIES TO:										
Authorize 5% surcharge for TRRP report? <input type="checkbox"/> Yes <input type="checkbox"/> No	Lab Use Only	W=WATER		SE=SEDIMENT		P=PAINT		# of Containers	PRESERVATION	
		L=LIQUID	S=SOIL	SL=SLUDGE	H <sub>3</sub> PO <sub>4</sub> <input type="checkbox"/>	NaOH <input type="checkbox"/>	Zn Acetate <input type="checkbox"/>			ICE <input checked="" type="checkbox"/> UNPRESERVED <input type="checkbox"/>
Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type				ANALYSES	
									BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> [METHOD 8260]	
									TPH 1005 <input type="checkbox"/> TPH 1006 <input type="checkbox"/> HOLD 1006 <input type="checkbox"/>	
									GRO 8015 <input type="checkbox"/> DRO 8015 <input type="checkbox"/>	
									VOC 8260 <input type="checkbox"/> VOC 624.1 <input type="checkbox"/>	
									SVOC 8270 <input type="checkbox"/> SVOC 625.1 <input type="checkbox"/>	
									PAH 8270 <input type="checkbox"/> HOLD PAH <input type="checkbox"/>	
									PEST 8270 <input type="checkbox"/> 625.1 <input type="checkbox"/> OP PEST 8270 <input type="checkbox"/>	
									PCB 8082 <input type="checkbox"/> 608.3 <input type="checkbox"/> PCB 8270 <input type="checkbox"/> 625.1	
									pH <sup>+</sup> HEX CHROM <sup>2+</sup> ALKALINITY <sup>-</sup> COD <input type="checkbox"/>	
									HERB 83321 <input type="checkbox"/> T PHOS <input type="checkbox"/> AMMONIA <input type="checkbox"/>	
									ANIONS 300 <input type="checkbox"/> 9056 <input type="checkbox"/>	
									METALS 6020 <input type="checkbox"/> 200.8 <input type="checkbox"/> DISS. METALS <input type="checkbox"/>	
									RCRA 8 <input type="checkbox"/> TX11 <input type="checkbox"/>	
									TCLP-METALS <input type="checkbox"/> RCRA 8 <input type="checkbox"/> TX-11 <input type="checkbox"/> Pb <input type="checkbox"/>	
									RCI <input type="checkbox"/> IGN <input type="checkbox"/> DGAS <input type="checkbox"/> OIL&GREASE <input type="checkbox"/>	
									TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOIST <input type="checkbox"/> CYANIDE <input type="checkbox"/>	
									APPENDIX <u>1</u> <input checked="" type="checkbox"/> APPENDIX <u>2</u> <input type="checkbox"/>	
FIELD NOTES										
FGD-6	01	5-20-24	1010	W	P	4	X	X		
FGD-4	02		1100	W	P	4	X	X		
FGD-3	03		1150	W	P	4	X	X		
FGD-2	04		1235	W	P	4	X	X		
FGD-5	05		1335	W	P	4	X	X		
FGD-1	06		1435	W	P	4	X	X		
DUP-1	07		1435	W	P	4	X	X		
FGD-8	08	5-21-24	0815	W	P	4	X	X		
FGD-11	09		1015	W	P	4	X	X		
FGD-12	10		1115	W	P	4	X	X		
Relinquished By: (Sign)	DATE/TIME			Received by:			TURN AROUND TIME (CALL FIRST FOR RUSH)		LAB USE ONLY	THERMO #:
	<u>5-22-24 13:30</u>			<u>Melissa</u>			RUSH-1 DAY <input type="checkbox"/> RUSH-2 DAY <input type="checkbox"/>		RECEIVING TEMP (°C):	0.1°C, 0.9°C <u>78</u>
Relinquished By: (Sign)	DATE/TIME			Received by:			RUSH-3 DAY <input type="checkbox"/>		IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO	
Relinquished By: (Sign)	DATE/TIME			Received by:			NORMAL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		CUSTODY SEALS ON ICE CHEST: <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input checked="" type="checkbox"/> NOT USED	
							DUE DATE <input type="checkbox"/>		CARRIER: <input type="checkbox"/> LSO <input type="checkbox"/> FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> COURIER <input checked="" type="checkbox"/> HAND DELIVERED	

DHL DISPOSAL @ \$10.00 each

## **Eric Lau**

---

**From:** John DuPont  
**Sent:** Tuesday, May 28, 2019 11:35 AM  
**To:** Eric Lau  
**Subject:** FW: CCR Analysis

**Appendix III Parameters:**

Metals (Ca and B)  
Anions (Cl, F, and SO<sub>4</sub>)  
TDS

**Appendix IV Parameters:**

Metals (As, Ba, Be, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, and Tl)  
Ra-226  
Ra-228

# DHL Analytical, Inc.

## Sample Receipt Checklist

Client Name: BBA Engineering

Date Received: 5/22/2024

Work Order Number: 2405273

Received by: KAO

Checklist completed by:		5/22/2024	Reviewed by:		5/22/2024
	Signature	Date		Initials	Date

Carrier name: Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Water - pH<2 acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> LOT # 13171
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Adjusted? <u>No</u>	Checked by <u>EL</u>	
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> LOT #
	Adjusted?	Checked by	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Cooler #	1	2
Temp °C	0.1	0.9
Seal Intact	NP	NP

Any No response must be detailed in the comments section below.

Client contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

<b>Laboratory Name: DHL Analytical, Inc.</b>							
<b>Laboratory Review Checklist: Reportable Data</b>							
Project Name: OGSES-FGD PONDS CCR		LRC Date: 6/27/24					
Reviewer Name: Carlos Castro		Laboratory Work Order: 2405273					
Prep Batch Number(s): See Prep Dates Report		Run Batch: See Analytical Dates Report					
# <sup>1</sup>	A <sup>2</sup>	Description				Yes	No
		<b>Chain-of-Custody (C-O-C)</b>					
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?				X	
		2) Were all departures from standard conditions described in an exception report?					X
R2	OI	<b>Sample and Quality Control (QC) Identification</b>					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?				X	
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?				X	
R3	OI	<b>Test Reports</b>					
		1) Were all samples prepared and analyzed within holding times?				X	
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?				X	
		3) Were calculations checked by a peer or supervisor?				X	
		4) Were all analyte identifications checked by a peer or supervisor?				X	
		5) Were sample detection limits reported for all analytes not detected?				X	
		6) Were all results for soil and sediment samples reported on a dry weight basis?					X
		7) Were % moisture (or solids) reported for all soil and sediment samples?					X
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035?					X
		9) If required for the project, TICs reported?					X
R4	O	<b>Surrogate Recovery Data</b>					
		1) Were surrogates added prior to extraction?					X
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?					X
R5	OI	<b>Test Reports/Summary Forms for Blank Samples</b>					
		1) Were appropriate type(s) of blanks analyzed?				X	
		2) Were blanks analyzed at the appropriate frequency?				X	
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?				X	
		4) Were blank concentrations < MDL?				X	
		5) For analyte(s) detected in a blank sample, was the concentration, unadjusted for sample specific factors, in all associated field samples, greater than 10 times the concentration in the blank sample?					X
R6	OI	<b>Laboratory Control Samples (LCS):</b>					
		1) Were all COCs included in the LCS?				X	
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?				X	
		3) Were LCSs analyzed at the required frequency?				X	
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?				X	
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?				X	
		6) Was the LCSD RPD within QC limits (if applicable)?				X	
R7	OI	<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data</b>					
		1) Were the project/method specified analytes included in the MS and MSD?				X	
		2) Were MS/MSD analyzed at the appropriate frequency?				X	
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?				X	
		4) Were MS/MSD RPDs within laboratory QC limits?				X	
R8	OI	<b>Analytical Duplicate Data</b>					
		1) Were appropriate analytical duplicates analyzed for each matrix?				X	
		2) Were analytical duplicates analyzed at the appropriate frequency?				X	
		3) Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	<b>Method Quantitation Limits (MQLs):</b>					
		1) Are the MQLs for each method analyte included in the laboratory data package?				X	
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?				X	
		3) Are unadjusted MQLs and DCSSs included in the laboratory data package?				X	
R10	OI	<b>Other Problems/Anomalies</b>					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?				X	
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?				X	
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?				X	

**Laboratory Name: DHL Analytical, Inc.**
**Laboratory Review Checklist (continued): Supporting Data**

<b>Project Name:</b> OGSES-FGD PONDS CCR	<b>LRC Date:</b> 6/27/24				
<b>Reviewer Name:</b> Carlos Castro	<b>Laboratory Work Order:</b> 2405273				
<b>Prep Batch Number(s):</b> See Prep Dates Report	<b>Run Batch:</b> See Analytical Dates Report				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>
S1	OI	<b>Initial Calibration (ICAL)</b>			NR <sup>4</sup>
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X		
		2) Were percent RSDs or correlation coefficient criteria met?	X		
		3) Was the number of standards recommended in the method used for all analytes?	X		
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X		
		5) Are ICAL data available for all instruments used?	X		
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X		
S2	OI	<b>Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):</b>			
		1) Was the CCV analyzed at the method-required frequency?	X		
		2) Were percent differences for each analyte within the method-required QC limits?	X		
		3) Was the ICAL curve verified for each analyte?	X		
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X		
S3	O	<b>Mass Spectral Tuning:</b>			
		1) Was the appropriate compound for the method used for tuning?	X		
		2) Were ion abundance data within the method-required QC limits?	X		
S4	O	<b>Internal Standards (IS):</b>			
		1) Were IS area counts and retention times within the method-required QC limits?	X		
S5	OI	<b>Raw Data (NELAC Section 5.5.10):</b>			
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X		
		2) Were data associated with manual integrations flagged on the raw data?	X		
S6	O	<b>Dual Column Confirmation</b>			
		1) Did dual column confirmation results meet the method-required QC?		X	
S7	O	<b>Tentatively Identified Compounds (TICs):</b>			
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?		X	
S8	I	<b>Interference Check Sample (ICS) Results:</b>			
		1) Were percent recoveries within method QC limits?	X		
S9	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>			
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X	S9-01
S10	OI	<b>Method Detection Limit (MDL) Studies</b>			
		1) Was a MDL study performed for each reported analyte?	X		
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X		
S11	OI	<b>Proficiency Test Reports:</b>			
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X		
S12	OI	<b>Standards Documentation</b>			
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X		
S13	OI	<b>Compound/Analyte Identification Procedures</b>			
		1) Are the procedures for compound/analyte identification documented?	X		
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>			
		1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C?	X		
		2) Is documentation of the analyst's competency up-to-date and on file?	X		
S15	OI	<b>Verification/Validation Documentation for Methods (NELAC Chapter 5)</b>			
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X		
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs):</b>			
		1) Are laboratory SOPs current and on file for each method performed?	X		

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC Chapter 5,
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for each “No” or “Not Reviewed (NR)” item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory is not accredited under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on May 30 - June 2, 2023. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name: John DuPont  
Official Title: General Manager

  
Signature

06/27/24  
Date

Name: Dr. Derhsing Luu  
Official Title: Technical Director

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Lab Order:** 2405273

**CASE NARRATIVE**

Samples were analyzed using the methods outlined in the following references:

Method SW6020B - Metals Analysis  
Method SW7470A - Mercury Analysis  
Method E300 - Anions Analysis  
Method M2540C - TDS Analysis  
Sub-contract - Radium-228 and Radium-226 analyses by methods E904/9320 and SM7500 Ra B M.  
Analyzed at Pace Analytical.

Exception Report R1-01

The samples were received and log-in performed on 5/22/24. A total of 10 samples were received. The samples arrived in good condition and were properly packaged.

Exception Report S9-01

For Metals analysis performed on 5/29/24 the RPD for the serial dilution was above control limits for Boron. This is flagged accordingly in the QC summary report. The PDS was within control limits for this analyte. No further corrective actions were taken.

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Lab Order:** 2405273

**Work Order Sample Summary**

<b>Lab Smp ID</b>	<b>Client Sample ID</b>	<b>Tag Number</b>	<b>Date Collected</b>	<b>Date Recved</b>
2405273-01	FGD-6		05/20/24 10:10 AM	05/22/2024
2405273-02	FGD-4		05/20/24 11:00 AM	05/22/2024
2405273-03	FGD-3		05/20/24 11:50 AM	05/22/2024
2405273-04	FGD-2		05/20/24 12:35 PM	05/22/2024
2405273-05	FGD-5		05/20/24 01:35 PM	05/22/2024
2405273-06	FGD-1		05/20/24 02:35 PM	05/22/2024
2405273-07	DUP-1		05/20/24 02:35 PM	05/22/2024
2405273-08	FGD-8		05/21/24 08:15 AM	05/22/2024
2405273-09	FGD-11		05/21/24 10:15 AM	05/22/2024
2405273-10	FGD-12		05/21/24 11:15 AM	05/22/2024

**Lab Order:** 2405273  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR

## PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2405273-01A	FGD-6	05/20/24 10:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-6	05/20/24 10:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-6	05/20/24 10:10 AM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-01B	FGD-6	05/20/24 10:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-6	05/20/24 10:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-6	05/20/24 10:10 AM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-02A	FGD-4	05/20/24 11:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-4	05/20/24 11:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-4	05/20/24 11:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-4	05/20/24 11:00 AM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-02B	FGD-4	05/20/24 11:00 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-4	05/20/24 11:00 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-4	05/20/24 11:00 AM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-03A	FGD-3	05/20/24 11:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-3	05/20/24 11:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-3	05/20/24 11:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-3	05/20/24 11:50 AM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-03B	FGD-3	05/20/24 11:50 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-3	05/20/24 11:50 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-3	05/20/24 11:50 AM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-04A	FGD-2	05/20/24 12:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-2	05/20/24 12:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-2	05/20/24 12:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-2	05/20/24 12:35 PM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-04B	FGD-2	05/20/24 12:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-2	05/20/24 12:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-2	05/20/24 12:35 PM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-05A	FGD-5	05/20/24 01:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539

**Lab Order:** 2405273  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR

## PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2405273-05A	FGD-5	05/20/24 01:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-5	05/20/24 01:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-5	05/20/24 01:35 PM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-05B	FGD-5	05/20/24 01:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-5	05/20/24 01:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-5	05/20/24 01:35 PM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-06A	FGD-1	05/20/24 02:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-1	05/20/24 02:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-1	05/20/24 02:35 PM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-06B	FGD-1	05/20/24 02:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-1	05/20/24 02:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-1	05/20/24 02:35 PM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-07A	DUP-1	05/20/24 02:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	DUP-1	05/20/24 02:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	DUP-1	05/20/24 02:35 PM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-07B	DUP-1	05/20/24 02:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	DUP-1	05/20/24 02:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	DUP-1	05/20/24 02:35 PM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-08A	FGD-8	05/21/24 08:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-8	05/21/24 08:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-8	05/21/24 08:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-8	05/21/24 08:15 AM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-08B	FGD-8	05/21/24 08:15 AM	Aqueous	E300	Anion Preparation	05/31/24 09:00 AM	115618
	FGD-8	05/21/24 08:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-8	05/21/24 08:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-8	05/21/24 08:15 AM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-09A	FGD-11	05/21/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-11	05/21/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539

**Lab Order:** 2405273  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR

**PREP DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2405273-09A	FGD-11	05/21/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-11	05/21/24 10:15 AM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-09B	FGD-11	05/21/24 10:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-11	05/21/24 10:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-11	05/21/24 10:15 AM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534
2405273-10A	FGD-12	05/21/24 11:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-12	05/21/24 11:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	FGD-12	05/21/24 11:15 AM	Aqueous	SW7470A	Mercury Aq Prep	05/28/24 08:10 AM	115551
2405273-10B	FGD-12	05/21/24 11:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-12	05/21/24 11:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	FGD-12	05/21/24 11:15 AM	Aqueous	M2540C	TDS Preparation	05/23/24 01:19 PM	115534

**Lab Order:** 2405273  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2405273-01A	FGD-6	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:32 AM	CETAC2_HG_240529A
	FGD-6	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:32 AM	ICP-MS4_240529A
	FGD-6	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:09 AM	ICP-MS5_240528A
2405273-01B	FGD-6	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 07:14 PM	IC4_240529A
	FGD-6	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 04:44 AM	IC4_240529A
	FGD-6	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-02A	FGD-4	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:34 AM	CETAC2_HG_240529A
	FGD-4	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:34 AM	ICP-MS4_240529A
	FGD-4	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:28 AM	ICP-MS5_240528A
	FGD-4	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	5	05/28/24 12:11 PM	ICP-MS5_240528A
2405273-02B	FGD-4	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 07:33 PM	IC4_240529A
	FGD-4	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 05:03 AM	IC4_240529A
	FGD-4	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-03A	FGD-3	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:36 AM	CETAC2_HG_240529A
	FGD-3	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	5	05/28/24 12:14 PM	ICP-MS5_240528A
	FGD-3	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:31 AM	ICP-MS5_240528A
	FGD-3	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:36 AM	ICP-MS4_240529A
2405273-03B	FGD-3	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 05:22 AM	IC4_240529A
	FGD-3	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 08:30 PM	IC4_240529A
	FGD-3	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-04A	FGD-2	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:39 AM	CETAC2_HG_240529A
	FGD-2	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	10	05/28/24 12:17 PM	ICP-MS5_240528A
	FGD-2	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:53 AM	ICP-MS4_240529A
	FGD-2	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:33 AM	ICP-MS5_240528A
2405273-04B	FGD-2	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 10:05 PM	IC4_240529A
	FGD-2	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 06:57 AM	IC4_240529A

**Lab Order:** 2405273  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2405273-04B	FGD-2	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-05A	FGD-5	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:41 AM	CETAC2_HG_240529A
	FGD-5	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:55 AM	ICP-MS4_240529A
	FGD-5	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:36 AM	ICP-MS5_240528A
	FGD-5	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	10	05/28/24 12:19 PM	ICP-MS5_240528A
2405273-05B	FGD-5	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 07:16 AM	IC4_240529A
	FGD-5	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 10:24 PM	IC4_240529A
	FGD-5	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-06A	FGD-1	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:43 AM	CETAC2_HG_240529A
	FGD-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:57 AM	ICP-MS4_240529A
	FGD-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:39 AM	ICP-MS5_240528A
2405273-06B	FGD-1	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 10:43 PM	IC4_240529A
	FGD-1	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 07:35 AM	IC4_240529A
	FGD-1	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-07A	DUP-1	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:45 AM	CETAC2_HG_240529A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:59 AM	ICP-MS4_240529A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:41 AM	ICP-MS5_240528A
2405273-07B	DUP-1	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 07:54 AM	IC4_240529A
	DUP-1	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 11:02 PM	IC4_240529A
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-08A	FGD-8	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:48 AM	CETAC2_HG_240529A
	FGD-8	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	50	05/28/24 12:22 PM	ICP-MS5_240528A
	FGD-8	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 12:01 PM	ICP-MS4_240529A
	FGD-8	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:44 AM	ICP-MS5_240528A
2405273-08B	FGD-8	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 08:13 AM	IC4_240529A
	FGD-8	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 11:21 PM	IC4_240529A

**Lab Order:** 2405273  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2405273-08B	FGD-8	Aqueous	E300	Anions by IC method - Water	115618	100	05/31/24 10:47 PM	IC2_240531B
	FGD-8	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-09A	FGD-11	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:50 AM	CETAC2_HG_240529A
	FGD-11	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 12:03 PM	ICP-MS4_240529A
	FGD-11	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:46 AM	ICP-MS5_240528A
2405273-09B	FGD-11	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 11:40 PM	IC4_240529A
	FGD-11	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 08:32 AM	IC4_240529A
	FGD-11	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B
2405273-10A	FGD-12	Aqueous	SW7470A	Mercury Total: Aqueous	115551	1	05/29/24 09:57 AM	CETAC2_HG_240529A
	FGD-12	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 12:05 PM	ICP-MS4_240529A
	FGD-12	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:49 AM	ICP-MS5_240528A
2405273-10B	FGD-12	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 11:59 PM	IC4_240529A
	FGD-12	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 08:51 AM	IC4_240529A
	FGD-12	Aqueous	M2540C	Total Dissolved Solids	115534	1	05/23/24 05:20 PM	WC_240523B

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering **Client Sample ID:** FGD-6  
**Project:** OGSES-FGD PONDS CCR **Lab ID:** 2405273-01  
**Project No:** 23643V-20 **Collection Date:** 05/20/24 10:10 AM  
**Lab Order:** 2405273 **Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:09 AM
Arsenic	0.00994	0.00200	0.00500		mg/L	1	05/28/24 11:09 AM
Barium	0.0523	0.00300	0.0100		mg/L	1	05/28/24 11:09 AM
Beryllium	0.000380	0.000300	0.00100	J	mg/L	1	05/28/24 11:09 AM
Boron	0.135	0.0100	0.0300		mg/L	1	05/29/24 11:32 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:09 AM
Calcium	20.0	0.100	0.300		mg/L	1	05/28/24 11:09 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:09 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/28/24 11:09 AM
Lead	0.000451	0.000300	0.00100	J	mg/L	1	05/28/24 11:09 AM
Lithium	0.00676	0.00500	0.0100	J	mg/L	1	05/28/24 11:09 AM
Molybdenum	0.00893	0.00200	0.00500		mg/L	1	05/28/24 11:09 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:09 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:09 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:32 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	213	3.00	10.0		mg/L	10	05/29/24 07:14 PM
Fluoride	0.707	0.100	0.400		mg/L	1	05/30/24 04:44 AM
Sulfate	45.2	1.00	3.00		mg/L	1	05/30/24 04:44 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	706	10.0	10.0		mg/L	1	05/23/24 05:20 PM

**Qualifiers:** ND - Not Detected at the SDL

S - Spike Recovery outside control limits

J - Analyte detected between SDL and RL

C - Sample Result or QC discussed in Case Narrative

B - Analyte detected in the associated Method Blank

RL - Reporting Limit (MQL adjusted for moisture and sample size)

DF - Dilution Factor

SDL - Sample Detection Limit

N - Parameter not NELAP certified

E - TPH pattern not Gas or Diesel Range Pattern

See Final Page of Report for MQLs and MDLs

# DHL Analytical, Inc.

Date: 27-Jun-24

<b>CLIENT:</b>	BBA Engineering	<b>Client Sample ID:</b>	FGD-4
<b>Project:</b>	OGSES-FGD PONDS CCR	<b>Lab ID:</b>	2405273-02
<b>Project No:</b>	23643V-20	<b>Collection Date:</b>	05/20/24 11:00 AM
<b>Lab Order:</b>	2405273	<b>Matrix:</b>	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:28 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:28 AM
Barium	0.0989	0.00300	0.0100		mg/L	1	05/28/24 11:28 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:28 AM
Boron	0.0923	0.0100	0.0300		mg/L	1	05/29/24 11:34 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:28 AM
Calcium	30.3	0.500	1.50		mg/L	5	05/28/24 12:11 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:28 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/28/24 11:28 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:28 AM
Lithium	0.0123	0.00500	0.0100		mg/L	1	05/28/24 11:28 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:28 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:28 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:28 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:34 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	187	3.00	10.0		mg/L	10	05/29/24 07:33 PM
Fluoride	0.480	0.100	0.400		mg/L	1	05/30/24 05:03 AM
Sulfate	54.2	1.00	3.00		mg/L	1	05/30/24 05:03 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	689	10.0	10.0		mg/L	1	05/23/24 05:20 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Project No:** 23643V-20  
**Lab Order:** 2405273

**Client Sample ID:** FGD-3  
**Lab ID:** 2405273-03  
**Collection Date:** 05/20/24 11:50 AM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:31 AM
Arsenic	0.00450	0.00200	0.00500	J	mg/L	1	05/28/24 11:31 AM
Barium	0.0748	0.00300	0.0100		mg/L	1	05/28/24 11:31 AM
Beryllium	0.000319	0.000300	0.00100	J	mg/L	1	05/28/24 11:31 AM
Boron	0.123	0.0100	0.0300		mg/L	1	05/29/24 11:36 AM
Cadmium	0.000612	0.000300	0.00100	J	mg/L	1	05/28/24 11:31 AM
Calcium	39.0	0.500	1.50		mg/L	5	05/28/24 12:14 PM
Chromium	0.00638	0.00200	0.00500		mg/L	1	05/28/24 11:31 AM
Cobalt	0.00773	0.00300	0.00500		mg/L	1	05/28/24 11:31 AM
Lead	0.00717	0.000300	0.00100		mg/L	1	05/28/24 11:31 AM
Lithium	0.0443	0.00500	0.0100		mg/L	1	05/28/24 11:31 AM
Molybdenum	0.00369	0.00200	0.00500	J	mg/L	1	05/28/24 11:31 AM
Selenium	0.0124	0.00200	0.00500		mg/L	1	05/28/24 11:31 AM
Thallium	0.000627	0.000500	0.00150	J	mg/L	1	05/28/24 11:31 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	0.000136	0.0000800	0.000200	J	mg/L	1	05/29/24 09:36 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	58.1	3.00	10.0		mg/L	10	05/29/24 08:30 PM
Fluoride	0.936	0.100	0.400		mg/L	1	05/30/24 05:22 AM
Sulfate	129	1.00	3.00		mg/L	1	05/30/24 05:22 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	756	10.0	10.0		mg/L	1	05/23/24 05:20 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Project No:** 23643V-20  
**Lab Order:** 2405273

**Client Sample ID:** FGD-2  
**Lab ID:** 2405273-04  
**Collection Date:** 05/20/24 12:35 PM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:33 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:33 AM
Barium	0.0763	0.00300	0.0100		mg/L	1	05/28/24 11:33 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:33 AM
Boron	0.187	0.0100	0.0300		mg/L	1	05/29/24 11:53 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:33 AM
Calcium	64.4	1.00	3.00		mg/L	10	05/28/24 12:17 PM
Chromium	0.00548	0.00200	0.00500		mg/L	1	05/28/24 11:33 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/28/24 11:33 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:33 AM
Lithium	0.0251	0.00500	0.0100		mg/L	1	05/28/24 11:33 AM
Molybdenum	0.00510	0.00200	0.00500		mg/L	1	05/28/24 11:33 AM
Selenium	0.0286	0.00200	0.00500		mg/L	1	05/28/24 11:33 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:33 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:39 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	343	3.00	10.0		mg/L	10	05/29/24 10:05 PM
Fluoride	0.153	0.100	0.400	J	mg/L	1	05/30/24 06:57 AM
Sulfate	125	1.00	3.00		mg/L	1	05/30/24 06:57 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	975	50.0	50.0		mg/L	1	05/23/24 05:20 PM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Project No:** 23643V-20  
**Lab Order:** 2405273

**Client Sample ID:** FGD-5  
**Lab ID:** 2405273-05  
**Collection Date:** 05/20/24 01:35 PM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:36 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:36 AM
Barium	0.129	0.00300	0.0100		mg/L	1	05/28/24 11:36 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:36 AM
Boron	0.116	0.0100	0.0300		mg/L	1	05/29/24 11:55 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:36 AM
Calcium	123	1.00	3.00		mg/L	10	05/28/24 12:19 PM
Chromium	0.0669	0.00200	0.00500		mg/L	1	05/28/24 11:36 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/28/24 11:36 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:36 AM
Lithium	0.181	0.00500	0.0100		mg/L	1	05/28/24 11:36 AM
Molybdenum	0.00841	0.00200	0.00500		mg/L	1	05/28/24 11:36 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:36 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:36 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:41 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	345	3.00	10.0		mg/L	10	05/29/24 10:24 PM
Fluoride	0.486	0.100	0.400		mg/L	1	05/30/24 07:16 AM
Sulfate	149	1.00	3.00		mg/L	1	05/30/24 07:16 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	1070	50.0	50.0		mg/L	1	05/23/24 05:20 PM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Project No:** 23643V-20  
**Lab Order:** 2405273

**Client Sample ID:** FGD-1  
**Lab ID:** 2405273-06  
**Collection Date:** 05/20/24 02:35 PM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:39 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:39 AM
Barium	0.0677	0.00300	0.0100		mg/L	1	05/28/24 11:39 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:39 AM
Boron	0.0929	0.0100	0.0300		mg/L	1	05/29/24 11:57 AM
Cadmium	0.000324	0.000300	0.00100	J	mg/L	1	05/28/24 11:39 AM
Calcium	21.6	0.100	0.300		mg/L	1	05/28/24 11:39 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:39 AM
Cobalt	0.00944	0.00300	0.00500		mg/L	1	05/28/24 11:39 AM
Lead	0.000353	0.000300	0.00100	J	mg/L	1	05/28/24 11:39 AM
Lithium	0.0302	0.00500	0.0100		mg/L	1	05/28/24 11:39 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:39 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:39 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:39 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:43 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	41.9	0.300	1.00		mg/L	1	05/30/24 07:35 AM
Fluoride	0.390	0.100	0.400	J	mg/L	1	05/30/24 07:35 AM
Sulfate	59.7	1.00	3.00		mg/L	1	05/30/24 07:35 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	311	10.0	10.0		mg/L	1	05/23/24 05:20 PM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Project No:** 23643V-20  
**Lab Order:** 2405273

**Client Sample ID:** DUP-1  
**Lab ID:** 2405273-07  
**Collection Date:** 05/20/24 02:35 PM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:41 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:41 AM
Barium	0.0583	0.00300	0.0100		mg/L	1	05/28/24 11:41 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:41 AM
Boron	0.0900	0.0100	0.0300		mg/L	1	05/29/24 11:59 AM
Cadmium	0.000317	0.000300	0.00100	J	mg/L	1	05/28/24 11:41 AM
Calcium	20.1	0.100	0.300		mg/L	1	05/28/24 11:41 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:41 AM
Cobalt	0.00637	0.00300	0.00500		mg/L	1	05/28/24 11:41 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:41 AM
Lithium	0.0283	0.00500	0.0100		mg/L	1	05/28/24 11:41 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:41 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:41 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:41 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:45 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	43.6	0.300	1.00		mg/L	1	05/30/24 07:54 AM
Fluoride	0.402	0.100	0.400		mg/L	1	05/30/24 07:54 AM
Sulfate	58.1	1.00	3.00		mg/L	1	05/30/24 07:54 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	314	10.0	10.0		mg/L	1	05/23/24 05:20 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
	See Final Page of Report for MQLs and MDLs	

# DHL Analytical, Inc.

Date: 27-Jun-24

<b>CLIENT:</b>	BBA Engineering	<b>Client Sample ID:</b>	FGD-8
<b>Project:</b>	OGSES-FGD PONDS CCR	<b>Lab ID:</b>	2405273-08
<b>Project No:</b>	23643V-20	<b>Collection Date:</b>	05/21/24 08:15 AM
<b>Lab Order:</b>	2405273	<b>Matrix:</b>	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:44 AM
Arsenic	0.00607	0.00200	0.00500		mg/L	1	05/28/24 11:44 AM
Barium	1.10	0.00300	0.0100		mg/L	1	05/28/24 11:44 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:44 AM
Boron	0.0999	0.0100	0.0300		mg/L	1	05/29/24 12:01 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:44 AM
Calcium	401	5.00	15.0		mg/L	50	05/28/24 12:22 PM
Chromium	0.00228	0.00200	0.00500	J	mg/L	1	05/28/24 11:44 AM
Cobalt	0.0105	0.00300	0.00500		mg/L	1	05/28/24 11:44 AM
Lead	0.00103	0.000300	0.00100		mg/L	1	05/28/24 11:44 AM
Lithium	0.0265	0.00500	0.0100		mg/L	1	05/28/24 11:44 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:44 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:44 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:44 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:48 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	2360	30.0	100		mg/L	100	05/31/24 10:47 PM
Fluoride	0.182	0.100	0.400	J	mg/L	1	05/30/24 08:13 AM
Sulfate	282	10.0	30.0		mg/L	10	05/29/24 11:21 PM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	4870	50.0	50.0		mg/L	1	05/23/24 05:20 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Project No:** 23643V-20  
**Lab Order:** 2405273

**Client Sample ID:** FGD-11  
**Lab ID:** 2405273-09  
**Collection Date:** 05/21/24 10:15 AM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:46 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:46 AM
Barium	0.0976	0.00300	0.0100		mg/L	1	05/28/24 11:46 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:46 AM
Boron	0.0734	0.0100	0.0300		mg/L	1	05/29/24 12:03 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:46 AM
Calcium	32.1	0.500	1.50		mg/L	5	05/28/24 12:24 PM
Chromium	0.00374	0.00200	0.00500	J	mg/L	1	05/28/24 11:46 AM
Cobalt	0.00440	0.00300	0.00500	J	mg/L	1	05/28/24 11:46 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:46 AM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/28/24 11:46 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:46 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:46 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:46 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:50 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	98.3	3.00	10.0		mg/L	10	05/29/24 11:40 PM
Fluoride	0.158	0.100	0.400	J	mg/L	1	05/30/24 08:32 AM
Sulfate	13.9	1.00	3.00		mg/L	1	05/30/24 08:32 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	309	10.0	10.0		mg/L	1	05/23/24 05:20 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

# DHL Analytical, Inc.

Date: 27-Jun-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS CCR  
**Project No:** 23643V-20  
**Lab Order:** 2405273

**Client Sample ID:** FGD-12  
**Lab ID:** 2405273-10  
**Collection Date:** 05/21/24 11:15 AM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/28/24 11:49 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:49 AM
Barium	0.0799	0.00300	0.0100		mg/L	1	05/28/24 11:49 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:49 AM
Boron	0.0872	0.0100	0.0300		mg/L	1	05/29/24 12:05 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/28/24 11:49 AM
Calcium	9.46	0.100	0.300		mg/L	1	05/28/24 11:49 AM
Chromium	0.00738	0.00200	0.00500		mg/L	1	05/28/24 11:49 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/28/24 11:49 AM
Lead	0.00250	0.000300	0.00100		mg/L	1	05/28/24 11:49 AM
Lithium	0.0251	0.00500	0.0100		mg/L	1	05/28/24 11:49 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:49 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/28/24 11:49 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/28/24 11:49 AM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/29/24 09:57 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	16.2	0.300	1.00		mg/L	1	05/30/24 08:51 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	05/30/24 08:51 AM
Sulfate	23.6	1.00	3.00		mg/L	1	05/30/24 08:51 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	146	10.0	10.0		mg/L	1	05/23/24 05:20 PM

**Qualifiers:**  
ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

**ANALYTICAL QC SUMMARY REPORT****RunID:** CETAC2\_HG\_240416A

Sample ID: DCS-114968	Batch ID: 114968	TestNo: SW7470A	Units: mg/L						
SampType: DCS	Run ID: CETAC2_HG_240416A	Analysis Date: 4/16/2024 10:05:58 AM	Prep Date: 4/15/2024						
<b>Analyte</b>									
Mercury	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Mercury	0.000189	0.000200	0.000200	0	94.5	82	119	0	0

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** CETAC2\_HG\_240529A

The QC data in batch 115551 applies to the following samples: 2405273-01A, 2405273-02A, 2405273-03A, 2405273-04A, 2405273-05A, 2405273-06A, 2405273-07A, 2405273-08A, 2405273-09A, 2405273-10A

Sample ID: <b>MB-115551</b>	Batch ID: <b>115551</b>	TestNo: <b>SW7470A</b>	Units: <b>mg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>CETAC2_HG_240529A</b>	Analysis Date: <b>5/29/2024 9:11:53 AM</b>	Prep Date: <b>5/28/2024</b>
<b>Analyte</b>			
Mercury		Result	RL
<0.0000800		SPK value	Ref Val
0.000200		%REC	LowLimit
0.000200		HighLimit	%RPD
0.000200		RPDLimit	Qual
<b>Sample ID: LCS-115551</b>			
SampType: <b>LCS</b>	Batch ID: <b>115551</b>	TestNo: <b>SW7470A</b>	Units: <b>mg/L</b>
Run ID: <b>CETAC2_HG_240529A</b>	Analysis Date: <b>5/29/2024 9:16:24 AM</b>	Prep Date: <b>5/28/2024</b>	
<b>Analyte</b>			
Mercury		Result	RL
0.00180		SPK value	Ref Val
0.000200		%REC	LowLimit
0.000200		HighLimit	%RPD
0.000200		RPDLimit	Qual
<b>Sample ID: LCSD-115551</b>			
SampType: <b>LCSD</b>	Batch ID: <b>115551</b>	TestNo: <b>SW7470A</b>	Units: <b>mg/L</b>
Run ID: <b>CETAC2_HG_240529A</b>	Analysis Date: <b>5/29/2024 9:18:41 AM</b>	Prep Date: <b>5/28/2024</b>	
<b>Analyte</b>			
Mercury		Result	RL
0.00194		SPK value	Ref Val
0.000200		%REC	LowLimit
0.000200		HighLimit	%RPD
0.000200		RPDLimit	Qual
<b>Sample ID: 2405243-01AMS</b>			
SampType: <b>MS</b>	Batch ID: <b>115551</b>	TestNo: <b>SW7470A</b>	Units: <b>mg/L</b>
Run ID: <b>CETAC2_HG_240529A</b>	Analysis Date: <b>5/29/2024 9:23:12 AM</b>	Prep Date: <b>5/28/2024</b>	
<b>Analyte</b>			
Mercury		Result	RL
0.00960		SPK value	Ref Val
0.00100		%REC	LowLimit
0.00100		HighLimit	%RPD
0.00100		RPDLimit	Qual
<b>Sample ID: 2405243-01AMSD</b>			
SampType: <b>MSD</b>	Batch ID: <b>115551</b>	TestNo: <b>SW7470A</b>	Units: <b>mg/L</b>
Run ID: <b>CETAC2_HG_240529A</b>	Analysis Date: <b>5/29/2024 9:25:28 AM</b>	Prep Date: <b>5/28/2024</b>	
<b>Analyte</b>			
Mercury		Result	RL
0.00960		SPK value	Ref Val
0.00100		%REC	LowLimit
0.00100		HighLimit	%RPD
0.00100		RPDLimit	Qual
<b>Sample ID: 2405243-01ASD</b>			
SampType: <b>SD</b>	Batch ID: <b>115551</b>	TestNo: <b>SW7470A</b>	Units: <b>mg/L</b>
Run ID: <b>CETAC2_HG_240529A</b>	Analysis Date: <b>5/29/2024 9:27:44 AM</b>	Prep Date: <b>5/28/2024</b>	
<b>Analyte</b>			
Mercury		Result	RL
<0.00200		SPK value	Ref Val
0.00500		%REC	LowLimit
0.00500		HighLimit	%RPD
0.00500		RPDLimit	Qual
<b>Sample ID: 2405243-01APDS</b>			
SampType: <b>PDS</b>	Batch ID: <b>115551</b>	TestNo: <b>SW7470A</b>	Units: <b>mg/L</b>
Run ID: <b>CETAC2_HG_240529A</b>	Analysis Date: <b>5/29/2024 9:30:00 AM</b>	Prep Date: <b>5/28/2024</b>	
<b>Analyte</b>			
Mercury		Result	RL
0.0126		SPK value	Ref Val
0.00100		%REC	LowLimit
0.00100		HighLimit	%RPD
0.00100		RPDLimit	Qual
<b>Mercury</b>			
0.0126		DF	Dilution Factor
0.00100		MDL	Method Detection Limit
0.00100		R	RPD outside accepted control limits
0.00100		S	Spike Recovery outside control limits
0.00100		N	Parameter not NELAP certified

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** CETAC2\_HG\_240529A

Sample ID: ICV-240529	Batch ID: R133265	TestNo:	SW7470A	Units:	mg/L					
SampType: ICV	Run ID: CETAC2_HG_240529A	Analysis Date: 5/29/2024 9:06:44 AM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00398	0.000200	0.00400	0	99.5	90	110			
Sample ID: CCV1-240529	Batch ID: R133265	TestNo:	SW7470A	Units:	mg/L					
SampType: CCV	Run ID: CETAC2_HG_240529A	Analysis Date: 5/29/2024 9:52:41 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00211	0.000200	0.00200	0	106	90	110			
Sample ID: CCV2-240529	Batch ID: R133265	TestNo:	SW7470A	Units:	mg/L					
SampType: CCV	Run ID: CETAC2_HG_240529A	Analysis Date: 5/29/2024 10:01:50 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00214	0.000200	0.00200	0	107	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4\_240304A

Sample ID: DCS4-114267	Batch ID: 114267	TestNo: SW6020B	Units: mg/L
SampType: DCS4	Run ID: ICP-MS4_240304A	Analysis Date: 3/4/2024 11:57:00 AM	Prep Date: 3/1/2024
<b>Analyte</b>			
Boron	Result	RL	SPK value
Boron	0.0299	0.0300	0.0300
		0	99.8
		70	130
		0	0

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4\_240529A

The QC data in batch 115539 applies to the following samples: 2405273-01A, 2405273-02A, 2405273-03A, 2405273-04A, 2405273-05A, 2405273-06A, 2405273-07A, 2405273-08A, 2405273-09A, 2405273-10A

Sample ID:	MB-115539	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	MBLK	Run ID:	ICP-MS4_240529A	Analysis Date:	5/29/2024 11:05:00 AM	Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		<0.0100	0.0300								
Sample ID:	LCS-115539	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCS	Run ID:	ICP-MS4_240529A	Analysis Date:	5/29/2024 11:07:00 AM	Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.202	0.0300	0.200	0	101	80	120			
Sample ID:	LCSD-115539	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCSD	Run ID:	ICP-MS4_240529A	Analysis Date:	5/29/2024 11:09:00 AM	Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.206	0.0300	0.200	0	103	80	120	1.86	15	
Sample ID:	2405272-02A SD	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	SD	Run ID:	ICP-MS4_240529A	Analysis Date:	5/29/2024 11:18:00 AM	Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.107	0.150	0	0.0784				30.8	20	R
Sample ID:	2405272-02A PDS	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	PDS	Run ID:	ICP-MS4_240529A	Analysis Date:	5/29/2024 11:39:00 AM	Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.264	0.0300	0.200	0.0784	92.6	75	125			
Sample ID:	2405272-02A MS	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	MS	Run ID:	ICP-MS4_240529A	Analysis Date:	5/29/2024 11:41:00 AM	Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.291	0.0300	0.200	0.0784	106	75	125			
Sample ID:	2405272-02A MSD	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	MSD	Run ID:	ICP-MS4_240529A	Analysis Date:	5/29/2024 11:43:00 AM	Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.292	0.0300	0.200	0.0784	107	75	125	0.544	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4\_240529A

Sample ID: <b>ICV-240529</b>	Batch ID: <b>R133272</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>
SampType: <b>ICV</b>	Run ID: <b>ICP-MS4_240529A</b>	Analysis Date: <b>5/29/2024 9:25:00 AM</b>	Prep Date:
Analyte			
Boron	Result 0.101	RL 0.0300	SPK value 0.100
Ref Val 0 %REC 101 LowLimit 90 HighLimit 110 %RPD RPDLimit Qual			
Sample ID: <b>LCVL-240529</b>	Batch ID: <b>R133272</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>
SampType: <b>LCVL</b>	Run ID: <b>ICP-MS4_240529A</b>	Analysis Date: <b>5/29/2024 9:42:00 AM</b>	Prep Date:
Analyte			
Boron	Result 0.0240	RL 0.0300	SPK value 0.0200
Ref Val 0 %REC 120 LowLimit 80 HighLimit 120 %RPD RPDLimit Qual			
Sample ID: <b>CCV2-240529</b>	Batch ID: <b>R133272</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>ICP-MS4_240529A</b>	Analysis Date: <b>5/29/2024 11:00:00 AM</b>	Prep Date:
Analyte			
Boron	Result 0.198	RL 0.0300	SPK value 0.200
Ref Val 0 %REC 98.9 LowLimit 90 HighLimit 110 %RPD RPDLimit Qual			
Sample ID: <b>CCV3-240529</b>	Batch ID: <b>R133272</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>ICP-MS4_240529A</b>	Analysis Date: <b>5/29/2024 11:47:00 AM</b>	Prep Date:
Analyte			
Boron	Result 0.207	RL 0.0300	SPK value 0.200
Ref Val 0 %REC 104 LowLimit 90 HighLimit 110 %RPD RPDLimit Qual			
Sample ID: <b>CCV4-240529</b>	Batch ID: <b>R133272</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>ICP-MS4_240529A</b>	Analysis Date: <b>5/29/2024 12:10:00 PM</b>	Prep Date:
Analyte			
Boron	Result 0.211	RL 0.0300	SPK value 0.200
Ref Val 0 %REC 105 LowLimit 90 HighLimit 110 %RPD RPDLimit Qual			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240304A

Sample ID: DCS1-114267	Batch ID: 114267	TestNo: SW6020B	Units: mg/L
SampType: DCS	Run ID: ICP-MS5_240304A	Analysis Date: 3/4/2024 10:02:00 AM	Prep Date: 3/1/2024
<b>Analyte</b>			
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual			
Antimony 0.000999 0.00250 0.00100 0 99.9 70 130 0 0			
Beryllium 0.000524 0.00100 0.000500 0 105 70 130 0 0			
Cadmium 0.000534 0.00100 0.000500 0 107 70 130 0 0			
Lead 0.000504 0.00100 0.000500 0 101 70 130 0 0			
Thallium 0.000481 0.00150 0.000500 0 96.2 70 130 0 0			
<b>Sample ID: DCS2-114267</b> Batch ID: 114267 TestNo: SW6020B Units: mg/L			
SampType: DCS2 Run ID: ICP-MS5_240304A Analysis Date: 3/4/2024 10:05:00 AM Prep Date: 3/1/2024			
<b>Analyte</b>			
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual			
Calcium 0.266 0.300 0.300 0 88.8 70 130 0 0			
<b>Sample ID: DCS3-114267</b> Batch ID: 114267 TestNo: SW6020B Units: mg/L			
SampType: DCS3 Run ID: ICP-MS5_240304A Analysis Date: 3/4/2024 10:08:00 AM Prep Date: 3/1/2024			
<b>Analyte</b>			
Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual			
Arsenic 0.00497 0.00500 0.00500 0 99.4 70 130 0 0			
Barium 0.00481 0.0100 0.00500 0 96.1 70 130 0 0			
Chromium 0.00499 0.00500 0.00500 0 99.8 70 130 0 0			
Cobalt 0.00512 0.00500 0.00500 0 102 70 130 0 0			
Lithium 0.00511 0.0100 0.00500 0 102 70 130 0 0			
Molybdenum 0.00478 0.00500 0.00500 0 95.7 70 130 0 0			
Selenium 0.00494 0.00500 0.00500 0 98.8 70 130 0 0			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240528A

The QC data in batch 115539 applies to the following samples: 2405273-01A, 2405273-02A, 2405273-03A, 2405273-04A, 2405273-05A, 2405273-06A, 2405273-07A, 2405273-08A, 2405273-09A, 2405273-10A

Sample ID:	MB-115539	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	MBLK	Run ID:	ICP-MS5_240528A	Analysis Date: 5/28/2024 10:31:00 AM		Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony		<0.000800	0.00250								
Arsenic		<0.00200	0.00500								
Barium		<0.00300	0.0100								
Beryllium		<0.000300	0.00100								
Cadmium		<0.000300	0.00100								
Calcium		<0.100	0.300								
Chromium		<0.00200	0.00500								
Cobalt		<0.00300	0.00500								
Lead		<0.000300	0.00100								
Lithium		<0.00500	0.0100								
Molybdenum		<0.00200	0.00500								
Selenium		<0.00200	0.00500								
Thallium		<0.000500	0.00150								

Sample ID:	LCS-115539	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCS	Run ID:	ICP-MS5_240528A	Analysis Date: 5/28/2024 10:35:00 AM		Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony		0.200	0.00250	0.200	0	99.9	80	120			
Arsenic		0.204	0.00500	0.200	0	102	80	120			
Barium		0.202	0.0100	0.200	0	101	80	120			
Beryllium		0.197	0.00100	0.200	0	98.5	80	120			
Cadmium		0.201	0.00100	0.200	0	100	80	120			
Calcium		4.82	0.300	5.00	0	96.5	80	120			
Chromium		0.198	0.00500	0.200	0	99.2	80	120			
Cobalt		0.205	0.00500	0.200	0	102	80	120			
Lead		0.198	0.00100	0.200	0	98.9	80	120			
Lithium		0.198	0.0100	0.200	0	99.2	80	120			
Molybdenum		0.202	0.00500	0.200	0	101	80	120			
Selenium		0.206	0.00500	0.200	0	103	80	120			
Thallium		0.196	0.00150	0.200	0	98.1	80	120			

Sample ID:	LCSD-115539	Batch ID:	115539	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCSD	Run ID:	ICP-MS5_240528A	Analysis Date: 5/28/2024 10:39:00 AM		Prep Date:	5/24/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony		0.200	0.00250	0.200	0	99.9	80	120	0.003	15	
Arsenic		0.205	0.00500	0.200	0	103	80	120	0.643	15	
Barium		0.202	0.0100	0.200	0	101	80	120	0.143	15	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240528A

Sample ID: <b>LCSD-115539</b>	Batch ID: <b>115539</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>
SampType: <b>LCSD</b>	Run ID: <b>ICP-MS5_240528A</b>	Analysis Date: <b>5/28/2024 10:39:00 AM</b>	Prep Date: <b>5/24/2024</b>
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>			

Beryllium	0.196	0.00100	0.200	0	98.2	80	120	0.226	15
Cadmium	0.201	0.00100	0.200	0	101	80	120	0.131	15
Calcium	4.92	0.300	5.00	0	98.4	80	120	1.94	15
Chromium	0.198	0.00500	0.200	0	99.2	80	120	0.071	15
Cobalt	0.205	0.00500	0.200	0	103	80	120	0.403	15
Lead	0.200	0.00100	0.200	0	100	80	120	1.22	15
Lithium	0.199	0.0100	0.200	0	99.6	80	120	0.335	15
Molybdenum	0.200	0.00500	0.200	0	99.9	80	120	0.883	15
Selenium	0.206	0.00500	0.200	0	103	80	120	0.050	15
Thallium	0.200	0.00150	0.200	0	99.8	80	120	1.64	15

Sample ID: <b>2405272-02A SD</b>	Batch ID: <b>115539</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>						
SampType: <b>SD</b>	Run ID: <b>ICP-MS5_240528A</b>	Analysis Date: <b>5/28/2024 10:46:00 AM</b>	Prep Date: <b>5/24/2024</b>						
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>									
Antimony	<0.00400	0.0125	0	0				0	20
Arsenic	<0.0100	0.0250	0	0				0	20
Barium	0.0182	0.0500	0	0.0175				3.75	20
Beryllium	<0.00150	0.00500	0	0				0	20
Cadmium	<0.00150	0.00500	0	0				0	20
Calcium	11.5	1.50	0	11.9				3.54	20
Chromium	<0.0100	0.0250	0	0				0	20
Cobalt	<0.0150	0.0250	0	0				0	20
Lead	<0.00150	0.00500	0	0				0	20
Lithium	<0.0250	0.0500	0	0.00530				0	20
Molybdenum	<0.0100	0.0250	0	0				0	20
Selenium	<0.0100	0.0250	0	0				0	20
Thallium	<0.00250	0.00750	0	0				0	20

Sample ID: <b>2405272-02A PDS</b>	Batch ID: <b>115539</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>						
SampType: <b>PDS</b>	Run ID: <b>ICP-MS5_240528A</b>	Analysis Date: <b>5/28/2024 11:12:00 AM</b>	Prep Date: <b>5/24/2024</b>						
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>									
Antimony	0.171	0.00250	0.200	0	85.3	75	125		
Arsenic	0.188	0.00500	0.200	0	94.1	75	125		
Barium	0.212	0.0100	0.200	0.0175	97.1	75	125		
Beryllium	0.193	0.00100	0.200	0	96.4	75	125		
Cadmium	0.197	0.00100	0.200	0	98.4	75	125		
Calcium	15.9	0.300	5.00	11.9	81.2	75	125		
Chromium	0.196	0.00500	0.200	0	97.8	75	125		
Cobalt	0.196	0.00500	0.200	0	98.1	75	125		

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240528A

Sample ID: 2405272-02A PDS		Batch ID: 115539		TestNo: SW6020B		Units: mg/L				
SampType: PDS	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 11:12:00 AM				Prep Date: 5/24/2024				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.192	0.00100	0.200	0	95.9	75	125			
Lithium	0.209	0.0100	0.200	0.00530	102	75	125			
Molybdenum	0.193	0.00500	0.200	0	96.4	75	125			
Selenium	0.192	0.00500	0.200	0	95.8	75	125			
Thallium	0.194	0.00150	0.200	0	97.1	75	125			

Sample ID: 2405272-02A MS		Batch ID: 115539		TestNo: SW6020B		Units: mg/L				
SampType: MS	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 11:15:00 AM				Prep Date: 5/24/2024				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.202	0.00250	0.200	0	101	75	125			
Arsenic	0.197	0.00500	0.200	0	98.7	75	125			
Barium	0.218	0.0100	0.200	0.0175	100	75	125			
Beryllium	0.199	0.00100	0.200	0	99.5	75	125			
Cadmium	0.201	0.00100	0.200	0	101	75	125			
Calcium	16.6	0.300	5.00	11.9	94.9	75	125			
Chromium	0.201	0.00500	0.200	0	101	75	125			
Cobalt	0.204	0.00500	0.200	0	102	75	125			
Lead	0.201	0.00100	0.200	0	101	75	125			
Lithium	0.214	0.0100	0.200	0.00530	104	75	125			
Molybdenum	0.204	0.00500	0.200	0	102	75	125			
Selenium	0.194	0.00500	0.200	0	96.9	75	125			
Thallium	0.201	0.00150	0.200	0	100	75	125			

Sample ID: 2405272-02A MSD		Batch ID: 115539		TestNo: SW6020B		Units: mg/L				
SampType: MSD	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 11:17:00 AM				Prep Date: 5/24/2024				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	99.8	75	125	1.35	15	
Arsenic	0.197	0.00500	0.200	0	98.6	75	125	0.112	15	
Barium	0.218	0.0100	0.200	0.0175	100	75	125	0.254	15	
Beryllium	0.198	0.00100	0.200	0	98.9	75	125	0.640	15	
Cadmium	0.200	0.00100	0.200	0	99.9	75	125	0.686	15	
Calcium	16.5	0.300	5.00	11.9	93.0	75	125	0.563	15	
Chromium	0.201	0.00500	0.200	0	100	75	125	0.237	15	
Cobalt	0.204	0.00500	0.200	0	102	75	125	0.223	15	
Lead	0.199	0.00100	0.200	0	99.5	75	125	1.04	15	
Lithium	0.209	0.0100	0.200	0.00530	102	75	125	2.34	15	
Molybdenum	0.204	0.00500	0.200	0	102	75	125	0.118	15	
Selenium	0.197	0.00500	0.200	0	98.6	75	125	1.69	15	
Thallium	0.200	0.00150	0.200	0	100	75	125	0.437	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240528A

Sample ID: ICV-240528	Batch ID: R133250	TestNo: SW6020B		Units: mg/L
SampType: ICV	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 10:02:00 AM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Antimony	0.0990	0.00250	0.100	0 99.0 90 110
Arsenic	0.100	0.00500	0.100	0 101 90 110
Barium	0.0993	0.0100	0.100	0 99.3 90 110
Beryllium	0.0977	0.00100	0.100	0 97.7 90 110
Cadmium	0.101	0.00100	0.100	0 101 90 110
Calcium	2.56	0.300	2.50	0 102 90 110
Chromium	0.101	0.00500	0.100	0 101 90 110
Cobalt	0.101	0.00500	0.100	0 101 90 110
Lead	0.0974	0.00100	0.100	0 97.4 90 110
Lithium	0.0996	0.0100	0.100	0 99.6 90 110
Molybdenum	0.0978	0.00500	0.100	0 97.8 90 110
Selenium	0.105	0.00500	0.100	0 105 90 110
Thallium	0.0961	0.00150	0.100	0 96.1 90 110

Sample ID: LCVL-240528	Batch ID: R133250	TestNo: SW6020B		Units: mg/L
SampType: LCVL	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 10:08:00 AM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Antimony	0.00199	0.00250	0.00200	0 99.4 80 120
Arsenic	0.00488	0.00500	0.00500	0 97.6 80 120
Barium	0.00525	0.0100	0.00500	0 105 80 120
Beryllium	0.00101	0.00100	0.00100	0 101 80 120
Cadmium	0.00110	0.00100	0.00100	0 110 80 120
Calcium	0.0909	0.300	0.100	0 90.9 80 120
Chromium	0.00501	0.00500	0.00500	0 100 80 120
Cobalt	0.00508	0.00500	0.00500	0 102 80 120
Lead	0.000971	0.00100	0.00100	0 97.1 80 120
Lithium	0.0101	0.0100	0.0100	0 101 80 120
Molybdenum	0.00528	0.00500	0.00500	0 106 80 120
Selenium	0.00537	0.00500	0.00500	0 107 80 120
Thallium	0.000980	0.00150	0.00100	0 98.0 80 120

Sample ID: CCV1-240528	Batch ID: R133250	TestNo: SW6020B		Units: mg/L
SampType: CCV	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 10:25:00 AM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Antimony	0.200	0.00250	0.200	0 100 90 110
Arsenic	0.203	0.00500	0.200	0 102 90 110
Barium	0.199	0.0100	0.200	0 99.7 90 110
Beryllium	0.195	0.00100	0.200	0 97.3 90 110
Cadmium	0.201	0.00100	0.200	0 100 90 110

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240528A

Sample ID: CCV1-240528	Batch ID: R133250	TestNo: SW6020B		Units:	mg/L					
SampType: CCV	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 10:25:00 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.07	0.300	5.00	0	101	90	110			
Chromium	0.198	0.00500	0.200	0	99.1	90	110			
Cobalt	0.202	0.00500	0.200	0	101	90	110			
Lead	0.198	0.00100	0.200	0	99.2	90	110			
Lithium	0.197	0.0100	0.200	0	98.4	90	110			
Molybdenum	0.201	0.00500	0.200	0	100	90	110			
Selenium	0.208	0.00500	0.200	0	104	90	110			
Thallium	0.199	0.00150	0.200	0	99.5	90	110			

Sample ID: CCV2-240528	Batch ID: R133250	TestNo: SW6020B		Units:	mg/L					
SampType: CCV	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 11:22:00 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.4	90	110			
Arsenic	0.198	0.00500	0.200	0	98.9	90	110			
Barium	0.200	0.0100	0.200	0	99.9	90	110			
Beryllium	0.195	0.00100	0.200	0	97.5	90	110			
Cadmium	0.201	0.00100	0.200	0	100	90	110			
Calcium	5.00	0.300	5.00	0	100	90	110			
Chromium	0.199	0.00500	0.200	0	99.5	90	110			
Cobalt	0.202	0.00500	0.200	0	101	90	110			
Lead	0.198	0.00100	0.200	0	99.1	90	110			
Lithium	0.200	0.0100	0.200	0	100	90	110			
Molybdenum	0.202	0.00500	0.200	0	101	90	110			
Selenium	0.206	0.00500	0.200	0	103	90	110			
Thallium	0.199	0.00150	0.200	0	99.6	90	110			

Sample ID: CCV3-240528	Batch ID: R133250	TestNo: SW6020B		Units:	mg/L					
SampType: CCV	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 11:55:00 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.4	90	110			
Arsenic	0.197	0.00500	0.200	0	98.7	90	110			
Barium	0.200	0.0100	0.200	0	99.9	90	110			
Beryllium	0.198	0.00100	0.200	0	98.8	90	110			
Cadmium	0.200	0.00100	0.200	0	100	90	110			
Calcium	4.95	0.300	5.00	0	98.9	90	110			
Chromium	0.201	0.00500	0.200	0	100	90	110			
Cobalt	0.203	0.00500	0.200	0	101	90	110			
Lead	0.198	0.00100	0.200	0	99.0	90	110			
Lithium	0.205	0.0100	0.200	0	103	90	110			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240528A

Sample ID: CCV3-240528	Batch ID: R133250	TestNo:	SW6020B	Units:	mg/L					
SampType: CCV	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 11:55:00 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Molybdenum	0.201	0.00500	0.200	0	100	90	110			
Selenium	0.207	0.00500	0.200	0	104	90	110			
Thallium	0.199	0.00150	0.200	0	99.4	90	110			

Sample ID: CCV4-240528	Batch ID: R133250	TestNo:	SW6020B	Units:	mg/L					
SampType: CCV	Run ID: ICP-MS5_240528A	Analysis Date: 5/28/2024 12:29:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.00	0.300	5.00	0	99.9	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240529A

Sample ID: DCS3-115580	Batch ID: 115580	TestNo: E300	Units: mg/L							
SampType: DCS3	Run ID: IC2_240529A	Analysis Date: 5/29/2024 5:42:00 PM	Prep Date: 5/29/2024							
<hr/>										
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.986	1.00	1.000	0	98.6	70	130	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240531B

The QC data in batch 115618 applies to the following samples: 2405273-08B

Sample ID:	Batch ID:	TestNo:	Units:							
SampType:	Run ID:	Analysis Date:		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.6	1.00	10.00	0	106	90	110			
<b>Sample ID: LCSD-115618</b>		<b>Batch ID: 115618</b>		<b>TestNo: E300</b>		<b>Units: mg/L</b>				
SampType: LCSD		Run ID: IC2_240531B		Analysis Date: 5/31/2024 11:52:05 AM		Prep Date: 5/31/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Chloride		10.4	1.00	10.00	0	104	90	110	2.02	20
<b>Sample ID: 2405343-01DMS</b>		<b>Batch ID: 115618</b>		<b>TestNo: E300</b>		<b>Units: mg/L</b>				
SampType: MS		Run ID: IC2_240531B		Analysis Date: 5/31/2024 7:29:23 PM		Prep Date: 5/31/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Chloride		364	10.0	200.0	174.2	94.7	90	110		
<b>Sample ID: 2405343-01DMSD</b>		<b>Batch ID: 115618</b>		<b>TestNo: E300</b>		<b>Units: mg/L</b>				
SampType: MSD		Run ID: IC2_240531B		Analysis Date: 5/31/2024 7:47:23 PM		Prep Date: 5/31/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Chloride		359	10.0	200.0	174.2	92.2	90	110	1.40	20
<b>Sample ID: 2405344-01DMS</b>		<b>Batch ID: 115618</b>		<b>TestNo: E300</b>		<b>Units: mg/L</b>				
SampType: MS		Run ID: IC2_240531B		Analysis Date: 5/31/2024 8:41:23 PM		Prep Date: 5/31/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Chloride		237	10.0	200.0	35.09	101	90	110		
<b>Sample ID: 2405344-01DMSD</b>		<b>Batch ID: 115618</b>		<b>TestNo: E300</b>		<b>Units: mg/L</b>				
SampType: MSD		Run ID: IC2_240531B		Analysis Date: 5/31/2024 8:59:23 PM		Prep Date: 5/31/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Chloride		235	10.0	200.0	35.09	100	90	110	0.788	20
<b>Sample ID: MB-115618</b>		<b>Batch ID: 115618</b>		<b>TestNo: E300</b>		<b>Units: mg/L</b>				
SampType: MBLK		Run ID: IC2_240531B		Analysis Date: 5/31/2024 5:41:23 PM		Prep Date: 5/31/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Chloride		<0.300	1.00							

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240531B

Sample ID: <b>ICV-240531</b>	Batch ID: <b>R133318</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>
SampType: <b>ICV</b>	Run ID: <b>IC2_240531B</b>	Analysis Date: <b>5/31/2024 10:58:05 AM</b>	Prep Date:
<b>Analyte</b>			
Chloride	Result 26.6	RL 1.00	SPK value 25.00
Ref Val 0 %REC 106 LowLimit 90 HighLimit 110 %RPD RPDLimit Qual			
Sample ID: <b>CCV1-240531</b>	Batch ID: <b>R133318</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>IC2_240531B</b>	Analysis Date: <b>5/31/2024 6:17:23 PM</b>	Prep Date:
<b>Analyte</b>			
Chloride	Result 10.5	RL 1.00	SPK value 10.00
Ref Val 0 %REC 105 LowLimit 90 HighLimit 110 %RPD RPDLimit Qual			
Sample ID: <b>CCV2-240531</b>	Batch ID: <b>R133318</b>	TestNo: <b>E300</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>IC2_240531B</b>	Analysis Date: <b>5/31/2024 11:23:23 PM</b>	Prep Date:
<b>Analyte</b>			
Chloride	Result 10.5	RL 1.00	SPK value 10.00
Ref Val 0 %REC 105 LowLimit 90 HighLimit 110 %RPD RPDLimit Qual			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4\_240515A

Sample ID: DCS3-115413	Batch ID: 115413	TestNo: E300			Units:	mg/L				
SampType: DCS3	Run ID: IC4_240515A	Analysis Date: 5/15/2024 2:03:34 PM			Prep Date:	5/15/2024				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.967	1.00	1.000	0	96.7	70	130	0	0	0
Fluoride	0.380	0.400	0.4000	0	95.0	70	130	0	0	0
Sulfate	2.35	3.00	3.000	0	78.3	70	130	0	0	0

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4\_240529A

The QC data in batch 115561 applies to the following samples: 2405273-01B, 2405273-02B, 2405273-03B, 2405273-04B, 2405273-05B, 2405273-06B, 2405273-07B, 2405273-08B, 2405273-09B, 2405273-10B

Sample ID:	MB-115561	Batch ID:	115561	TestNo:	E300	Units:	mg/L				
SampType:	MBLK	Run ID:	IC4_240529A	Analysis Date: 5/29/2024 12:46:53 PM		Prep Date:	5/28/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		<0.300	1.00								
Fluoride		<0.100	0.400								
Sulfate		<1.00	3.00								
Sample ID:	LCS-115561	Batch ID:	115561	TestNo:	E300	Units:	mg/L				
SampType:	LCS	Run ID:	IC4_240529A	Analysis Date: 5/29/2024 1:05:53 PM		Prep Date:	5/28/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		10.5	1.00	10.00	0	105	90	110			
Fluoride		4.01	0.400	4.000	0	100	90	110			
Sulfate		30.5	3.00	30.00	0	102	90	110			
Sample ID:	LCSD-115561	Batch ID:	115561	TestNo:	E300	Units:	mg/L				
SampType:	LCSD	Run ID:	IC4_240529A	Analysis Date: 5/29/2024 1:24:53 PM		Prep Date:	5/28/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		10.5	1.00	10.00	0	105	90	110	0.133	20	
Fluoride		4.01	0.400	4.000	0	100	90	110	0.161	20	
Sulfate		30.6	3.00	30.00	0	102	90	110	0.285	20	
Sample ID:	2405272-02BMS	Batch ID:	115561	TestNo:	E300	Units:	mg/L				
SampType:	MS	Run ID:	IC4_240529A	Analysis Date: 5/29/2024 5:01:42 PM		Prep Date:	5/28/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		236	10.0	200.0	15.83	110	90	110			
Fluoride		207	4.00	200.0	0	103	90	110			
Sulfate		217	30.0	200.0	0	109	90	110			
Sample ID:	2405272-02BMSD	Batch ID:	115561	TestNo:	E300	Units:	mg/L				
SampType:	MSD	Run ID:	IC4_240529A	Analysis Date: 5/29/2024 5:20:42 PM		Prep Date:	5/28/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		236	10.0	200.0	15.83	110	90	110	0.040	20	
Fluoride		207	4.00	200.0	0	103	90	110	0.029	20	
Sulfate		217	30.0	200.0	0	109	90	110	0.069	20	

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4\_240529A

Sample ID: <b>2405273-02BMS</b>	Batch ID: <b>115561</b>	TestNo:	<b>E300</b>		Units:	<b>mg/L</b>	
SampType: <b>MS</b>	Run ID: <b>IC4_240529A</b>	Analysis Date:	<b>5/29/2024 7:52:42 PM</b>		Prep Date:	<b>5/28/2024</b>	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	375	10.0	200.0	187.3	93.8	90	110			
Fluoride	202	4.00	200.0	0	101	90	110			
Sulfate	248	30.0	200.0	40.14	104	90	110			

Sample ID: <b>2405273-02BMSD</b>	Batch ID: <b>115561</b>	TestNo:	<b>E300</b>		Units:	<b>mg/L</b>	
SampType: <b>MSD</b>	Run ID: <b>IC4_240529A</b>	Analysis Date:	<b>5/29/2024 8:11:42 PM</b>		Prep Date:	<b>5/28/2024</b>	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	375	10.0	200.0	187.3	93.8	90	110	0.040	20	
Fluoride	202	4.00	200.0	0	101	90	110	0.310	20	
Sulfate	248	30.0	200.0	40.14	104	90	110	0.136	20	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4\_240529A

Sample ID: ICV-240529	Batch ID: R133275	TestNo: E300			Units: mg/L					
SampType: ICV	Run ID: IC4_240529A	Analysis Date: 5/29/2024 11:49:53 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	26.3	1.00	25.00	0	105	90	110			
Fluoride	10.2	0.400	10.00	0	102	90	110			
Sulfate	77.8	3.00	75.00	0	104	90	110			
Sample ID: CCV1-240528	Batch ID: R133275	TestNo: E300			Units: mg/L					
SampType: CCV	Run ID: IC4_240529A	Analysis Date: 5/29/2024 9:27:42 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.5	1.00	10.00	0	105	90	110			
Fluoride	4.04	0.400	4.000	0	101	90	110			
Sulfate	30.7	3.00	30.00	0	102	90	110			
Sample ID: CCV2-240528	Batch ID: R133275	TestNo: E300			Units: mg/L					
SampType: CCV	Run ID: IC4_240529A	Analysis Date: 5/30/2024 1:53:42 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.6	1.00	10.00	0	106	90	110			
Fluoride	4.04	0.400	4.000	0	101	90	110			
Sulfate	30.8	3.00	30.00	0	103	90	110			
Sample ID: CCV3-240528	Batch ID: R133275	TestNo: E300			Units: mg/L					
SampType: CCV	Run ID: IC4_240529A	Analysis Date: 5/30/2024 6:19:42 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.6	1.00	10.00	0	106	90	110			
Fluoride	4.08	0.400	4.000	0	102	90	110			
Sulfate	30.8	3.00	30.00	0	103	90	110			
Sample ID: CCV4-240528	Batch ID: R133275	TestNo: E300			Units: mg/L					
SampType: CCV	Run ID: IC4_240529A	Analysis Date: 5/30/2024 10:45:41 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.6	1.00	10.00	0	106	90	110			
Fluoride	4.06	0.400	4.000	0	101	90	110			
Sulfate	30.6	3.00	30.00	0	102	90	110			

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240523B

The QC data in batch 115534 applies to the following samples: 2405273-01B, 2405273-02B, 2405273-03B, 2405273-04B, 2405273-05B, 2405273-06B, 2405273-07B, 2405273-08B, 2405273-09B, 2405273-10B

Sample ID: <b>MB-115534</b>	Batch ID: <b>115534</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>								
SampType: <b>MBLK</b>	Run ID: <b>WC_240523B</b>	Analysis Date: <b>5/23/2024 5:20:00 PM</b>	Prep Date: <b>5/23/2024</b>								
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Total Dissolved Solids (Residue, Filtera)	<10.0	10.0									
Sample ID: <b>LCS-115534</b>	Batch ID: <b>115534</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>								
SampType: <b>LCS</b>	Run ID: <b>WC_240523B</b>	Analysis Date: <b>5/23/2024 5:20:00 PM</b>	Prep Date: <b>5/23/2024</b>								
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Total Dissolved Solids (Residue, Filtera)	758	10.0	745.6	0	102	90	113				
Sample ID: <b>2405273-04B-DUP</b>	Batch ID: <b>115534</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>								
SampType: <b>DUP</b>	Run ID: <b>WC_240523B</b>	Analysis Date: <b>5/23/2024 5:20:00 PM</b>	Prep Date: <b>5/23/2024</b>								
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Total Dissolved Solids (Residue, Filtera)	955	50.0	0	975.0				2.07	5		
Sample ID: <b>2405273-05B-DUP</b>	Batch ID: <b>115534</b>	TestNo: <b>M2540C</b>	Units: <b>mg/L</b>								
SampType: <b>DUP</b>	Run ID: <b>WC_240523B</b>	Analysis Date: <b>5/23/2024 5:20:00 PM</b>	Prep Date: <b>5/23/2024</b>								
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Total Dissolved Solids (Residue, Filtera)	1110	50.0	0	1065				3.69	5		

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2405273  
**Project:** OGSES-FGD PONDS CCR

**MQL SUMMARY REPORT**

<b>TestNo:</b> E300	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Chloride	0.300	1.00
Fluoride	0.100	0.400
Sulfate	1.00	3.00

<b>TestNo:</b> SW6020B	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Antimony	0.000800	0.00250
Arsenic	0.00200	0.00500
Barium	0.00300	0.0100
Beryllium	0.000300	0.00100
Boron	0.0100	0.0300
Cadmium	0.000300	0.00100
Calcium	0.100	0.300
Chromium	0.00200	0.00500
Cobalt	0.00300	0.00500
Lead	0.000300	0.00100
Lithium	0.00500	0.0100
Molybdenum	0.00200	0.00500
Selenium	0.00200	0.00500
Thallium	0.000500	0.00150

<b>TestNo:</b> SW7470A	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Mercury	0.0000800	0.000200

<b>TestNo:</b> M2540C	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Total Dissolved Solids (Residue, Filt)	10.0	10.0

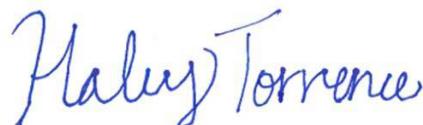
June 26, 2024

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc**DHL Analytical, Inc.**

Sample Delivery Group: L1740437  
Samples Received: 05/24/2024  
Project Number: 2405273  
Description:

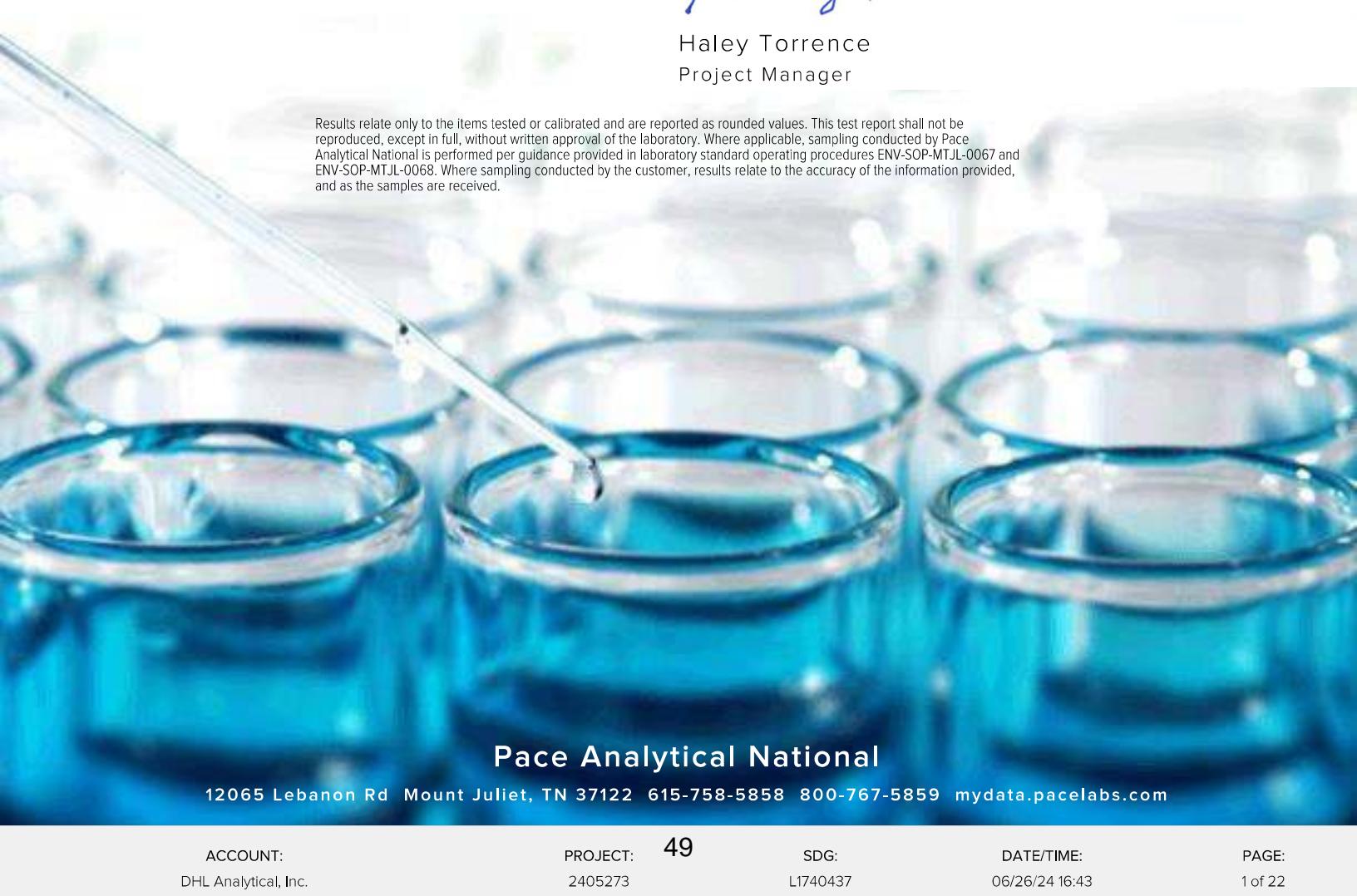
Report To: John DuPont  
2300 Double Creek Drive  
Round Rock, TX 78664

Entire Report Reviewed By:



Haley Torrence  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

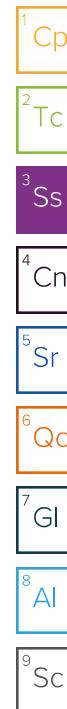
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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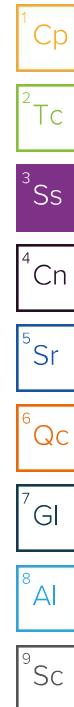
# SAMPLE SUMMARY

		Collected by	Collected date/time	Received date/time		
			05/20/24 10:10	05/24/24 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			05/20/24 11:00	05/24/24 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			05/20/24 11:50	05/24/24 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			05/20/24 12:35	05/24/24 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/18/24 22:32	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/18/24 22:32	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			05/20/24 13:35	05/24/24 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			05/20/24 14:35	05/24/24 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN



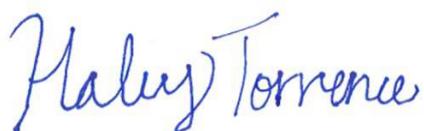
# SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time	
				05/20/24 14:35	05/24/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/18/24 22:32	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/18/24 22:32	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
				Collected by	Collected date/time	Received date/time
				05/21/24 08:15	05/24/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
				Collected by	Collected date/time	Received date/time
				05/21/24 10:15	05/24/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2299318	1	06/06/24 11:55	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2299318	1	06/06/24 11:55	06/07/24 20:22	ZRG	Mt. Juliet, TN
				Collected by	Collected date/time	Received date/time
				05/21/24 11:15	05/24/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2298332	1	06/04/24 15:15	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2300766	1	06/10/24 09:46	06/13/24 21:54	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2300766	1	06/10/24 09:46	06/11/24 17:04	ZRG	Mt. Juliet, TN



# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.329	TPU 0.445	MDA 0.497	Lc 0.262	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2298332</a>
RADIUM-228	1.91							
(T) Barium	76.0					30.0-143	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	100					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 0.495	MDA 0.648	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2299318</a>
Combined Radium	2.42					

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.370	TPU 0.148	MDA 0.416	Lc 0.277	Analysis Date date / time 06/07/2024 20:22	<u>Batch</u> <a href="#">WG2299318</a>
RADIUM-226	0.516							
(T) Barium-133	83.2					30.0-143	06/07/2024 20:22	<a href="#">WG2299318</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-228	1.29		0.397	0.530	0.633	0.334	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Barium	61.7					30.0-143	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	117					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>
Combined Radium	1.63		0.482	0.698	06/13/2024 21:54	<a href="#">WG2299318</a>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-226	0.339		0.274	0.110	0.293	0.218	06/07/2024 20:22	<a href="#">WG2299318</a>
(T) Barium-133	81.2					30.0-143	06/07/2024 20:22	<a href="#">WG2299318</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 1.25	TPU 1.39	MDA pCi/l	Lc pCi/l	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2298332</a>
RADIUM-228	5.67							
(T) Barium	57.4				30.0-143		06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	97.6					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 1.29	MDA pCi/l	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2299318</a>
Combined Radium	6.24			1.99		

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.338	TPU 0.138	MDA pCi/l	Lc pCi/l	Analysis Date date / time 06/07/2024 20:22	<u>Batch</u> <a href="#">WG2299318</a>
RADIUM-226	0.567					0.224		
(T) Barium-133	82.6				30.0-143		06/07/2024 20:22	<a href="#">WG2299318</a>

## Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.400	<u>U</u>	0.368	0.490	0.719	0.375	06/18/2024 22:32	<u>WG2298332</u>
(T) Barium	70.8					30.0-143	06/18/2024 22:32	<u>WG2298332</u>
(T) Yttrium	96.7					30.0-136	06/18/2024 22:32	<u>WG2298332</u>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.328	<u>U</u>	0.482	0.817	06/18/2024 22:32	<u>WG2299318</u>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.328	<u>J</u>	0.311	0.109	0.387	0.271	06/07/2024 20:22	<u>WG2299318</u>
(T) Barium-133	73.3					30.0-143	06/07/2024 20:22	<u>WG2299318</u>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-228	2.70		0.456	0.582	0.697	0.365	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Barium	71.8					30.0-143	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	87.2					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>
Combined Radium	2.92		0.521	0.779	06/13/2024 21:54	<a href="#">WG2299318</a>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-226	0.215	J	0.253	0.0888	0.349	0.239	06/07/2024 20:22	<a href="#">WG2299318</a>
(T) Barium-133	75.6					30.0-143	06/07/2024 20:22	<a href="#">WG2299318</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.377	TPU 0.489	MDA 0.576	Lc pCi/l	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2298332</a>
RADIUM-228	2.27					0.301	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Barium	82.8					30.0-143	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	95.2					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 0.439	MDA 0.630	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2299318</a>
Combined Radium	2.55					

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.224	TPU 0.0950	MDA 0.254	Lc pCi/l	Analysis Date date / time 06/07/2024 20:22	<u>Batch</u> <a href="#">WG2299318</a>
RADIUM-226	0.282					0.178	06/07/2024 20:22	<a href="#">WG2299318</a>
(T) Barium-133	87.5					30.0-143	06/07/2024 20:22	<a href="#">WG2299318</a>

## Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
RADIUM-228	0.528	<u>J</u>	0.389	0.492	0.734	0.382	06/18/2024 22:32	<u>WG2298332</u>
(T) Barium	114					30.0-143	06/18/2024 22:32	<u>WG2298332</u>
(T) Yttrium	94.0					30.0-136	06/18/2024 22:32	<u>WG2298332</u>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	<u>Batch</u>
Combined Radium	pCi/l	+ / -	pCi/l	date / time		
Combined Radium	0.913		0.490	0.811	06/18/2024 22:32	<u>WG2299318</u>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	<u>Batch</u>
RADIUM-226	pCi/l	+ / -	pCi/l	date / time				
RADIUM-226	0.385		0.298	0.116	0.344	0.232	06/07/2024 20:22	<u>WG2299318</u>
(T) Barium-133	81.4					30.0-143	06/07/2024 20:22	<u>WG2299318</u>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 1.07	TPU 1.18	MDA pCi/l	Lc pCi/l	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2298332</a>
RADIUM-228	8.40							
(T) Barium	80.1					30.0-143	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	106					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 1.32	MDA pCi/l	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2299318</a>
Combined Radium	11.7			1.66		

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.765	TPU 0.373	MDA pCi/l	Lc pCi/l	Analysis Date date / time 06/07/2024 20:22	<u>Batch</u> <a href="#">WG2299318</a>
RADIUM-226	3.25							
(T) Barium-133	90.4					30.0-143	06/07/2024 20:22	<a href="#">WG2299318</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.483	TPU 0.609	MDA 0.733	Lc 0.382	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2298332</a>
RADIUM-228	3.27							
(T) Barium	67.6					30.0-143	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	98.9					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 0.720	MDA 0.818	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2299318</a>
Combined Radium	4.79					

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.534	TPU 0.240	MDA 0.363	Lc 0.247	Analysis Date date / time 06/07/2024 20:22	<u>Batch</u> <a href="#">WG2299318</a>
RADIUM-226	1.51							
(T) Barium-133	87.4					30.0-143	06/07/2024 20:22	<a href="#">WG2299318</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.782	TPU 0.884	MDA 1.08	Lc pCi/l	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2298332</a>
RADIUM-228	9.17					0.564	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Barium	111					30.0-143	06/13/2024 21:54	<a href="#">WG2298332</a>
(T) Yttrium	94.3					30.0-136	06/13/2024 21:54	<a href="#">WG2298332</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 0.918	MDA pCi/l	Analysis Date date / time 06/13/2024 21:54	<u>Batch</u> <a href="#">WG2300766</a>
Combined Radium	10.3			1.16		

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.480	TPU 0.202	MDA pCi/l	Lc pCi/l	Analysis Date date / time 06/11/2024 17:04	<u>Batch</u> <a href="#">WG2300766</a>
RADIUM-226	1.15					0.272	06/11/2024 17:04	<a href="#">WG2300766</a>
(T) Barium-133	84.7					30.0-143	06/11/2024 17:04	<a href="#">WG2300766</a>

## QUALITY CONTROL SUMMARY

[L1740437-01,02,03,04,05,06,07,08,09,10](#)

## Method Blank (MB)

(MB) R4082988-1 06/13/24 21:54

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.662		0.373	0.612	0.319
(T) Barium	58.3		58.3		
(T) Yttrium	104		104		

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L1740498-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1740498-03 06/13/24 21:54 • (DUP) R4082988-5 06/13/24 21:54

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER 1.13	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit 3
Radium-228	3.28	0.846	1.34	0.700	4.49	0.672	0.985	0.524	31.3			20	
(T) Barium	34.5				79.5	79.5							
(T) Yttrium	102				108	108							

## Laboratory Control Sample (LCS)

(LCS) R4082988-2 06/13/24 21:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	5.73	115	80.0-120	
(T) Barium			88.2		
(T) Yttrium			88.2		

## L1740434-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1740434-03 06/13/24 21:54 • (MS) R4082988-3 06/13/24 21:54 • (MSD) R4082988-4 06/13/24 21:54

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER %	RPD Limits %
Radium-228	16.7	1.53	22.1	18.4	123	101	1	70.0-130			18.2		20
(T) Barium		104		91.8		71.0							
(T) Yttrium		104		94.2		98.1							

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## QUALITY CONTROL SUMMARY

[L1740437-01,02,03,04,05,06,07,08,09](#)

## Method Blank (MB)

(MB) R4079616-1 06/07/24 20:22

Analyte	MB Result pCi/l	<u>MB Qualifier</u> + / -	MB 2 sigma CE pCi/l	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0100	<u>U</u>	0.0254	0.0531	0.0326
(T) Barium-133	86.8		86.8		

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L1740437-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1740437-02 06/07/24 20:22 • (DUP) R4079616-5 06/07/24 20:22

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-226	0.339	0.274	0.293	0.218	0.192	0.170	0.181	0.142	55.3	0.456	20	3
(T) Barium-133	81.2				87.6	87.6						

## Laboratory Control Sample (LCS)

(LCS) R4079616-2 06/07/24 20:22

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-226	5.00	5.16	103	80.0-120	
(T) Barium-133			88.5		

## L1740437-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1740437-05 06/07/24 20:22 • (MS) R4079616-3 06/07/24 20:22 • (MSD) R4079616-4 06/07/24 20:22

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.215	18.9	21.1	93.3	104	1	75.0-125			11.1		20
(T) Barium-133		75.6		72.2	72.2	75.9							

## Method Blank (MB)

(MB) R4081869-1 06/11/24 17:04

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE +/-	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.00725	<u>U</u>	0.0508	0.106	0.0714
(T) Barium-133	71.9		71.9		

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L1740628-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1740628-01 06/11/24 17:04 • (DUP) R4081869-5 06/11/24 17:04

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-226	2.69	0.647	0.231	0.175	2.54	0.639	0.218	0.171	5.43	0.156	20	3
(T) Barium-133	82.1			72.9	72.9							

## Laboratory Control Sample (LCS)

(LCS) R4081869-2 06/11/24 17:04

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-226	5.00	5.47	109	75.0-125	
(T) Barium-133		83.1			

## L1741036-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1741036-06 06/11/24 17:04 • (MS) R4081869-3 06/11/24 17:04 • (MSD) R4081869-4 06/11/24 17:04

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.164	18.6	18.3	92.3	90.5	1	75.0-125			1.90		20
(T) Barium-133		72.3		62.8	73.2								

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 AI
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

### Qualifier      Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

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# CHAIN-OF-CUSTODY RECORD

Page 1 of 2

H205

U740437

Amb

Sample Receipt Checklist

COT Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	If Applicable
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	VOA Zero Headspace:
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Pres. Correct/Check:
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
RA Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

22-May-24

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests		
					Ra-228	Ra-226	
					E904.0	M7500 Ra B M	
FGD-6	Aqueous	01C	05/20/24 10:10 AM	1LHDPEHNO3		1	
FGD-6	Aqueous	01D	05/20/24 10:10 AM	1LHDPEHNO3	1		
FGD-4	Aqueous	02C	05/20/24 11:00 AM	1LHDPEHNO3		1	
FGD-4	Aqueous	02D	05/20/24 11:00 AM	1LHDPEHNO3	1		
FGD-3	Aqueous	03C	05/20/24 11:50 AM	1LHDPEHNO3		1	
FGD-3	Aqueous	03D	05/20/24 11:50 AM	1LHDPEHNO3	1		
FGD-2	Aqueous	04C	05/20/24 12:35 PM	1LHDPEHNO3		1	
FGD-2	Aqueous	04D	05/20/24 12:35 PM	1LHDPEHNO3	1		
FGD-5	Aqueous	05C	05/20/24 01:35 PM	1LHDPEHNO3		1	
FGD-5	Aqueous	05D	05/20/24 01:35 PM	1LHDPEHNO3	1		
FGD-1	Aqueous	06C	05/20/24 02:35 PM	1LHDPEHNO3		1	
FGD-1	Aqueous	06D	05/20/24 02:35 PM	1LHDPEHNO3	1		
DUP-1	Aqueous	07C	05/20/24 02:35 PM	1LHDPEHNO3		1	
DUP-1	Aqueous	07D	05/20/24 02:35 PM	1LHDPEHNO3	1		
FGD-8	Aqueous	08C	05/21/24 08:15 AM	1LHDPEHNO3		1	
FGD-8	Aqueous	08D	05/21/24 08:15 AM	1LHDPEHNO3	1		
FGD-11	Aqueous	09C	05/21/24 10:15 AM	1LHDPEHNO3		1	

General Comments:

Please analyze these samples with Normal Turnaround Time.  
Report Ra-226, Ra-228 & Combined per Specs.  
Quality Control Package Needed: Standard - NELAC Rad Test compliant  
Email to caci@dhlanalytical.com & dupont@dhlanalytical.com

Relinquished by:

Date/Time

5/22/24 1700

Received by:

Eastern 0900

Date/Time

5/24/24 0900

Relinquished by:

DHL Analytical, Inc.  
2300 Double Creek Drive  
Round Rock, TX 78664  
TEL: (512) 388-8222 FAX:  
Work Order: 2405273

# CHAIN-OF-CUSTODY RECORD

Page 2 of 2

U7404B7  
22-May-24

**Subcontractor:**

Pace Analytical  
12065 Lebanon Rd  
Mt. Juliet, TN 37122

TEL: (615) 773-5923  
FAX:  
Acct #: DHLRRTX

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests				
					Ra-228	Ra-226			
					E904.0	M7500 Ra B M			
FGD-11	Aqueous	09D	05/21/24 10:15 AM	1LHDPEHNO3	1				-09
FGD-12	Aqueous	10C	05/21/24 11:15 AM	1LHDPEHNO3		1			J-10
FGD-12	Aqueous	10D	05/21/24 11:15 AM	1LHDPEHNO3	1				

**General Comments:**

Please analyze these samples with Normal Turnaround Time.  
Report Ra-226, Ra-228 & Combined per Specs.  
Quality Control Package Needed: Standard - NELAC Rad Test compliant  
Email to cacc@dhanalytical.com & dupont@dhanalytical.com

Relinquished by:	Date/Time	Date/Time
	5/22/24 1700	Received by:  Easton Orpin
Relinquished by:		Received by:  SK



September 17, 2024

Will Vienne  
BBA Engineering  
165 N. Lampasas St.  
Bertram, TX 78605  
TEL: (512) 355-9198

FAX: Order No.: 2408200  
RE: OGSES-FGD PONDS - CCR

Dear Will Vienne:

DHL Analytical, Inc. received 10 sample(s) on 8/15/2024 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in red ink that reads "John DuPont".

John DuPont  
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211 - TX-C24-00120



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2300 Double Creek Dr. Round Rock, TX 78664

Phone 512.388.8222

Web: [www.dhlanalytical.com](http://www.dhlanalytical.com)

Email: [login@dhlanalytical.com](mailto:login@dhlanalytical.com)

# CHAIN-OF-CUSTODY

PAGE 1 OF 1

CLIENT: <u>BBA</u>	DATE: <u>8-15-24</u>	LAB USE ONLY					
ADDRESS: <u>165, N. LAMPASAS ST BETHLEM, TX</u>	PO#: <u>23643V-20</u>	DHL WORKORDER #: <u>2408200</u>					
PHONE: <u></u>	EMAIL: <u></u>	PROJECT LOCATION OR NAME: <u>OGSES - FGD PONDS - CCR</u>					
DATA REPORTED TO: <u>WILL VIENNE</u>	ADDITIONAL REPORT COPIES TO:						
Authorize 5% surcharge for TRRP report? <input type="checkbox"/> Yes <input type="checkbox"/> No	CLIENT PROJECT # <u>23643V-20</u>						
<b>Field Sample I.D.</b>	<b>Lab Use Only</b>	<b>W=WATER L=LIQUID S=SOIL SO=SOLID</b>	<b>SE=SEDIMENT P=PAINT SL=SLUDGE</b>	<b># of Containers</b>	<b>PRESERVATION</b>	<b>ANALYSES</b>	<b>COLLECTOR: JOHN BRAYTON</b>
	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type		
FGD-6	01	8-13-24	1015	W	P	4 X X	XX
FGD-4	02		1115	W	P	4 X X	XX
FGD-3	03		1210	W	P	4 X X	XX
FGD-2	04		1315	W	P	4 X X	XX
FGD-5	05		1425	W	P	4 X X	XX
FGD-1	06		1530	W	P	4 X X	XX
DVP-1	07	↓	1530	W	P	4 X X	XX
FGD-8	08	8-14-24	0915	W	P	4 X X	XX
FGD-11	09	↓	1120	W	P	4 X X	XX
FGD-12	10	↓	1230	W	P	4 X X	XX
FIELD NOTES							

Relinquished By: (Sign)	DATE/TIME <u>8-15-24</u>	Received by:	TURN AROUND TIME (CALL FIRST FOR RUSH)	LAB USE ONLY	THERMO #:
	14:06		RUSH-1 DAY <input type="checkbox"/> RUSH-2 DAY <input type="checkbox"/> RUSH-3 DAY <input type="checkbox"/> NORMAL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> DUE DATE <input type="checkbox"/>	RECEIVING TEMP (°C): <u>0.4°C, 0.8°C, 0.7°C</u>	<u>78</u>
Relinquished By: (Sign)	DATE/TIME	Received by:	IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO		
Relinquished By: (Sign)	DATE/TIME	Received by:	CUSTODY SEALS ON ICE CHEST: <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input checked="" type="checkbox"/> NOT USED		
			CARRIER: <input type="checkbox"/> LSO <input type="checkbox"/> FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> COURIER <input checked="" type="checkbox"/> HAND DELIVERED		

DHL DISPOSAL @ \$10.00 each

## **Eric Lau**

---

**From:** John DuPont  
**Sent:** Tuesday, May 28, 2019 11:35 AM  
**To:** Eric Lau  
**Subject:** FW: CCR Analysis

Appendix III Parameters:

Metals (Ca and B)  
Anions (Cl, F, and SO<sub>4</sub>)  
TDS

Appendix IV Parameters:

Metals (As, Ba, Be, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, and Tl)  
Ra-226  
Ra-228

# DHL Analytical, Inc.

## Sample Receipt Checklist

Client Name: BBA Engineering

Date Received: 8/15/2024

Work Order Number: 2408200

Received by: KAO

Checklist completed by:

*SM*

8/15/2024

Date

Reviewed by:

*SH*

8/15/2024

Date

Carrier name: Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Water - pH<2 acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> LOT # 13171
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Adjusted? <u>No</u>	Checked by <u>SM</u>	
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> LOT #
	Adjusted? _____	Checked by _____	

Container/Temp Blank temperature in compliance?

Yes  No

Cooler #	1	2	3
Temp °C	0.4	0.8	0.7
Seal Intact	NP	NP	NP

Any No response must be detailed in the comments section below.

Client contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

<b>Laboratory Name: DHL Analytical, Inc.</b>							
<b>Laboratory Review Checklist: Reportable Data</b>							
Project Name: OGSES-FGD PONDS - CCR		LRC Date: 9/17/24					
Reviewer Name: Carlos Castro		Laboratory Work Order: 2408200					
Prep Batch Number(s): See Prep Dates Report		Run Batch: See Analytical Dates Report					
# <sup>1</sup>	A <sup>2</sup>	Description				Yes	No
		<b>Chain-of-Custody (C-O-C)</b>				NA <sup>3</sup>	NR <sup>4</sup>
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?				X	
		2) Were all departures from standard conditions described in an exception report?				X	
R2	OI	<b>Sample and Quality Control (QC) Identification</b>					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?				X	
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?				X	
R3	OI	<b>Test Reports</b>					
		1) Were all samples prepared and analyzed within holding times?				X	
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?				X	
		3) Were calculations checked by a peer or supervisor?				X	
		4) Were all analyte identifications checked by a peer or supervisor?				X	
		5) Were sample detection limits reported for all analytes not detected?				X	
		6) Were all results for soil and sediment samples reported on a dry weight basis?					X
		7) Were % moisture (or solids) reported for all soil and sediment samples?					X
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035?					X
		9) If required for the project, TICs reported?					X
R4	O	<b>Surrogate Recovery Data</b>					
		1) Were surrogates added prior to extraction?					X
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?					X
R5	OI	<b>Test Reports/Summary Forms for Blank Samples</b>					
		1) Were appropriate type(s) of blanks analyzed?				X	
		2) Were blanks analyzed at the appropriate frequency?				X	
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?				X	
		4) Were blank concentrations < MDL?				X	
		5) For analyte(s) detected in a blank sample, was the concentration, unadjusted for sample specific factors, in all associated field samples, greater than 10 times the concentration in the blank sample?					X
R6	OI	<b>Laboratory Control Samples (LCS):</b>					
		1) Were all COCs included in the LCS?				X	
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?				X	
		3) Were LCSs analyzed at the required frequency?				X	
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?				X	
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?				X	
		6) Was the LCSD RPD within QC limits (if applicable)?				X	
R7	OI	<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data</b>					
		1) Were the project/method specified analytes included in the MS and MSD?				X	
		2) Were MS/MSD analyzed at the appropriate frequency?				X	
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?				X	R7-03
		4) Were MS/MSD RPDs within laboratory QC limits?				X	
R8	OI	<b>Analytical Duplicate Data</b>					
		1) Were appropriate analytical duplicates analyzed for each matrix?				X	
		2) Were analytical duplicates analyzed at the appropriate frequency?				X	
		3) Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	<b>Method Quantitation Limits (MQLs):</b>					
		1) Are the MQLs for each method analyte included in the laboratory data package?				X	
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?				X	
		3) Are unadjusted MQLs and DCSSs included in the laboratory data package?				X	
R10	OI	<b>Other Problems/Anomalies</b>					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?				X	
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?				X	
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?				X	

**Laboratory Name: DHL Analytical, Inc.**
**Laboratory Review Checklist (continued): Supporting Data**

<b>Project Name:</b> OGSES-FGD PONDS - CCR		<b>LRC Date:</b> 9/17/24				
<b>Reviewer Name:</b> Carlos Castro		<b>Laboratory Work Order:</b> 2408200				
<b>Prep Batch Number(s):</b> See Prep Dates Report		<b>Run Batch:</b> See Analytical Dates Report				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>
S1	OI	<b>Initial Calibration (ICAL)</b>				ER# <sup>5</sup>
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X			
		2) Were percent RSDs or correlation coefficient criteria met?	X			
		3) Was the number of standards recommended in the method used for all analytes?	X			
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X			
		5) Are ICAL data available for all instruments used?	X			
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X			
S2	OI	<b>Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):</b>				
		1) Was the CCV analyzed at the method-required frequency?	X			
		2) Were percent differences for each analyte within the method-required QC limits?	X			
		3) Was the ICAL curve verified for each analyte?	X			
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X			
S3	O	<b>Mass Spectral Tuning:</b>				
		1) Was the appropriate compound for the method used for tuning?	X			
		2) Were ion abundance data within the method-required QC limits?	X			
S4	O	<b>Internal Standards (IS):</b>				
		1) Were IS area counts and retention times within the method-required QC limits?	X			
S5	OI	<b>Raw Data (NELAC Section 5.5.10):</b>				
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X			
		2) Were data associated with manual integrations flagged on the raw data?	X			
S6	O	<b>Dual Column Confirmation</b>				
		1) Did dual column confirmation results meet the method-required QC?				X
S7	O	<b>Tentatively Identified Compounds (TICs):</b>				
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X
S8	I	<b>Interference Check Sample (ICS) Results:</b>				
		1) Were percent recoveries within method QC limits?	X			
S9	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>				
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X		S9-01
S10	OI	<b>Method Detection Limit (MDL) Studies</b>				
		1) Was a MDL study performed for each reported analyte?	X			
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X			
S11	OI	<b>Proficiency Test Reports:</b>				
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X			
S12	OI	<b>Standards Documentation</b>				
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X			
S13	OI	<b>Compound/Analyte Identification Procedures</b>				
		1) Are the procedures for compound/analyte identification documented?	X			
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>				
		1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C?	X			
		2) Is documentation of the analyst's competency up-to-date and on file?	X			
S15	OI	<b>Verification/Validation Documentation for Methods (NELAC Chapter 5)</b>				
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X			
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs):</b>				
		1) Are laboratory SOPs current and on file for each method performed?	X			

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC Chapter 5,
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for each “No” or “Not Reviewed (NR)” item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory is not accredited under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on May 30 - June 2, 2023. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name: John DuPont  
Official Title: General Manager

  
Signature

09/17/24  
Date

Name: Dr. Derhsing Luu  
Official Title: Technical Director

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR  
**Lab Order:** 2408200

**CASE NARRATIVE**

Samples were analyzed using the methods outlined in the following references:

Method SW6020B - Metals Analysis  
Method SW7470A - Mercury Analysis  
Method E300 - Anions Analysis  
Method M2540C - TDS Analysis  
Sub-contract - Radium-228 and Radium-226 analyses by methods E904/9320 and SM7500 Ra B M.  
Analyzed at Pace Analytical.

**Exception Report R1-01**

The samples were received and log-in performed on 8/15/24. A total of 10 samples were received. The samples arrived in good condition and were properly packaged.

**Exception Report R7-03**

For Anions analysis performed on 8/19/24 (batch 116819) the matrix spikes and matrix spike duplicate recoveries (2408190-01 MS/MSD & 2408236-01 MS/MSD) were below control limits for Chloride and Sulfate. This was due to matrix effect. These are flagged accordingly in the QC summary report. The samples selected for the matrix spikes and matrix spike duplicates were not from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

**Exception Report S9-01**

For Metals analysis performed on 8/20/24 the PDS recovery was out of control limits for Calcium. This is flagged accordingly in the QC summary report. The serial dilution was within control limits for this analyte. No further corrective actions were taken.

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR  
**Lab Order:** 2408200

**Work Order Sample Summary**

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2408200-01	FDG-6		08/13/24 10:15 AM	08/15/2024
2408200-02	FGD-4		08/13/24 11:15 AM	08/15/2024
2408200-03	FDG-3		08/13/24 12:10 PM	08/15/2024
2408200-04	FGD-2		08/13/24 01:15 PM	08/15/2024
2408200-05	FGD-5		08/13/24 02:25 PM	08/15/2024
2408200-06	FGD-1		08/13/24 03:30 PM	08/15/2024
2408200-07	DUP-1		08/13/24 03:30 PM	08/15/2024
2408200-08	FGD-8		08/14/24 09:15 AM	08/15/2024
2408200-09	FGD-11		08/14/24 11:20 AM	08/15/2024
2408200-10	FGD-12		08/14/24 12:30 PM	08/15/2024

**Lab Order:** 2408200  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR

## PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408200-01A	FDG-6	08/13/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FDG-6	08/13/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FDG-6	08/13/24 10:15 AM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
2408200-01B	FDG-6	08/13/24 10:15 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FDG-6	08/13/24 10:15 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FDG-6	08/13/24 10:15 AM	Aqueous	M2540C	TDS Preparation	08/16/24 02:06 PM	116776
2408200-02A	FGD-4	08/13/24 11:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-4	08/13/24 11:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-4	08/13/24 11:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
2408200-02B	FGD-4	08/13/24 11:15 AM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
	FGD-4	08/13/24 11:15 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-4	08/13/24 11:15 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
2408200-03A	FGD-3	08/13/24 12:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-3	08/13/24 12:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-3	08/13/24 12:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
2408200-03B	FGD-3	08/13/24 12:10 PM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
	FGD-3	08/13/24 12:10 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-3	08/13/24 12:10 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
2408200-04A	FGD-2	08/13/24 01:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-2	08/13/24 01:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-2	08/13/24 01:15 PM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
2408200-04B	FGD-2	08/13/24 01:15 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-2	08/13/24 01:15 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-2	08/13/24 01:15 PM	Aqueous	E300	Anion Preparation	08/23/24 09:00 AM	116942
2408200-05A	FGD-2	08/13/24 01:15 PM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
	FGD-5	08/13/24 02:25 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820

**Lab Order:** 2408200  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR

## PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408200-05A	FGD-5	08/13/24 02:25 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-5	08/13/24 02:25 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-5	08/13/24 02:25 PM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
2408200-05B	FGD-5	08/13/24 02:25 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-5	08/13/24 02:25 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-5	08/13/24 02:25 PM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408200-06A	FGD-1	08/13/24 03:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-1	08/13/24 03:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-1	08/13/24 03:30 PM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
2408200-06B	FGD-1	08/13/24 03:30 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-1	08/13/24 03:30 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-1	08/13/24 03:30 PM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408200-07A	DUP-1	08/13/24 03:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	DUP-1	08/13/24 03:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	DUP-1	08/13/24 03:30 PM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
2408200-07B	DUP-1	08/13/24 03:30 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	DUP-1	08/13/24 03:30 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	DUP-1	08/13/24 03:30 PM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408200-08A	FGD-8	08/14/24 09:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-8	08/14/24 09:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-8	08/14/24 09:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-8	08/14/24 09:15 AM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
2408200-08B	FGD-8	08/14/24 09:15 AM	Aqueous	E300	Anion Preparation	08/23/24 09:00 AM	116942
	FGD-8	08/14/24 09:15 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-8	08/14/24 09:15 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-8	08/14/24 09:15 AM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408200-09A	FGD-11	08/14/24 11:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-11	08/14/24 11:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820

**Lab Order:** 2408200  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR

**PREP DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408200-09A	FGD-11	08/14/24 11:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-11	08/14/24 11:20 AM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:10 AM	116907
2408200-09B	FGD-11	08/14/24 11:20 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-11	08/14/24 11:20 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-11	08/14/24 11:20 AM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408200-10A	FGD-12	08/14/24 12:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-12	08/14/24 12:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/24 06:47 AM	116820
	FGD-12	08/14/24 12:30 PM	Aqueous	SW7470A	Mercury Aq Prep	08/23/24 09:11 AM	116908
2408200-10B	FGD-12	08/14/24 12:30 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-12	08/14/24 12:30 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	FGD-12	08/14/24 12:30 PM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812

**Lab Order:** 2408200  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2408200-01A	FDG-6	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 11:47 AM	CETAC2_HG_240826B
	FDG-6	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:34 PM	ICP-MS4_240820C
	FDG-6	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 01:47 PM	ICP-MS5_240820B
2408200-01B	FDG-6	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 11:34 PM	IC2_240819B
	FDG-6	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 03:46 AM	IC2_240819B
	FDG-6	Aqueous	M2540C	Total Dissolved Solids	116776	1	08/16/24 04:30 PM	WC_240816C
2408200-02A	FGD-4	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:12 PM	CETAC2_HG_240826B
	FGD-4	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:36 PM	ICP-MS4_240820C
	FGD-4	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 01:50 PM	ICP-MS5_240820B
	FGD-4	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	5	08/20/24 03:05 PM	ICP-MS5_240820B
2408200-02B	FGD-4	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 11:52 PM	IC2_240819B
	FGD-4	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 04:04 AM	IC2_240819B
	FGD-4	Aqueous	M2540C	Total Dissolved Solids	116776	1	08/16/24 04:30 PM	WC_240816C
2408200-03A	FDG-3	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:14 PM	CETAC2_HG_240826B
	FDG-3	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	5	08/20/24 03:07 PM	ICP-MS5_240820B
	FDG-3	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 01:52 PM	ICP-MS5_240820B
	FDG-3	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:38 PM	ICP-MS4_240820C
2408200-03B	FDG-3	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 04:22 AM	IC2_240819B
	FDG-3	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 12:10 AM	IC2_240819B
	FDG-3	Aqueous	M2540C	Total Dissolved Solids	116776	1	08/16/24 04:30 PM	WC_240816C
2408200-04A	FGD-2	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:17 PM	CETAC2_HG_240826B
	FGD-2	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	10	08/20/24 02:40 PM	ICP-MS4_240820C
	FGD-2	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 01:55 PM	ICP-MS5_240820B
2408200-04B	FGD-2	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 12:28 AM	IC2_240819B
	FGD-2	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 04:40 AM	IC2_240819B
	FGD-2	Aqueous	E300	Anions by IC method - Water	116942	100	08/23/24 04:11 PM	IC4_240823A

**Lab Order:** 2408200  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2408200-04B	FGD-2	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408200-05A	FGD-5	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:19 PM	CETAC2_HG_240826_B
	FGD-5	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:42 PM	ICP-MS4_240820C
	FGD-5	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 01:57 PM	ICP-MS5_240820B
	FGD-5	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	10	08/20/24 03:10 PM	ICP-MS5_240820B
2408200-05B	FGD-5	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 04:58 AM	IC2_240819B
	FGD-5	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 12:46 AM	IC2_240819B
	FGD-5	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408200-06A	FGD-1	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:21 PM	CETAC2_HG_240826_B
	FGD-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:44 PM	ICP-MS4_240820C
	FGD-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:00 PM	ICP-MS5_240820B
2408200-06B	FGD-1	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 01:04 AM	IC2_240819B
	FGD-1	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 05:16 AM	IC2_240819B
	FGD-1	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408200-07A	DUP-1	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:24 PM	CETAC2_HG_240826_B
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:46 PM	ICP-MS4_240820C
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:03 PM	ICP-MS5_240820B
2408200-07B	DUP-1	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 05:34 AM	IC2_240819B
	DUP-1	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 01:22 AM	IC2_240819B
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408200-08A	FGD-8	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:26 PM	CETAC2_HG_240826_B
	FGD-8	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	50	08/20/24 03:13 PM	ICP-MS5_240820B
	FGD-8	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:48 PM	ICP-MS4_240820C
	FGD-8	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:05 PM	ICP-MS5_240820B
2408200-08B	FGD-8	Aqueous	E300	Anions by IC method - Water	116942	100	08/23/24 04:30 PM	IC4_240823A
	FGD-8	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 05:52 AM	IC2_240819B

**Lab Order:** 2408200  
**Client:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2408200-08B	FGD-8	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 01:40 AM	IC2_240819B
	FGD-8	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408200-09A	FGD-11	Aqueous	SW7470A	Mercury Total: Aqueous	116907	1	08/26/24 12:28 PM	CETAC2_HG_240826B
	FGD-11	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:50 PM	ICP-MS4_240820C
	FGD-11	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:08 PM	ICP-MS5_240820B
2408200-09B	FGD-11	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 01:58 AM	IC2_240819B
	FGD-11	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 06:10 AM	IC2_240819B
	FGD-11	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408200-10A	FGD-12	Aqueous	SW7470A	Mercury Total: Aqueous	116908	1	08/26/24 01:15 PM	CETAC2_HG_240826B
	FGD-12	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 03:05 PM	ICP-MS4_240820C
	FGD-12	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116820	1	08/20/24 02:31 PM	ICP-MS5_240820B
2408200-10B	FGD-12	Aqueous	E300	Anions by IC method - Water	116819	10	08/20/24 02:16 AM	IC2_240819B
	FGD-12	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 06:28 AM	IC2_240819B
	FGD-12	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C

**CLIENT:** BBA Engineering **Client Sample ID:** FDG-6  
**Project:** OGSES-FGD PONDS - CCR **Lab ID:** 2408200-01  
**Project No:** 23643V-20 **Collection Date:** 08/13/24 10:15 AM  
**Lab Order:** 2408200 **Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 01:47 PM
Arsenic	0.00894	0.00200	0.00500		mg/L	1	08/20/24 01:47 PM
Barium	0.0663	0.00300	0.0100		mg/L	1	08/20/24 01:47 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:47 PM
Boron	0.0818	0.0100	0.0300		mg/L	1	08/20/24 02:34 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:47 PM
Calcium	22.1	0.100	0.300		mg/L	1	08/20/24 01:47 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:47 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 01:47 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:47 PM
Lithium	0.00688	0.00500	0.0100	J	mg/L	1	08/20/24 01:47 PM
Molybdenum	0.00536	0.00200	0.00500		mg/L	1	08/20/24 01:47 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:47 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 01:47 PM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 11:47 AM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	259	3.00	10.0		mg/L	10	08/19/24 11:34 PM
Fluoride	0.429	0.100	0.400		mg/L	1	08/20/24 03:46 AM
Sulfate	58.5	1.00	3.00		mg/L	1	08/20/24 03:46 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	817	10.0	10.0		mg/L	1	08/16/24 04:30 PM

Qualifiers: ND - Not Detected at the SDL

S - Spike Recovery outside control limits

J - Analyte detected between SDL and RL

C - Sample Result or QC discussed in Case Narrative

B - Analyte detected in the associated Method Blank

RL - Reporting Limit (MQL adjusted for moisture and sample size)

DF - Dilution Factor

SDL - Sample Detection Limit

N - Parameter not NELAP certified

E - TPH pattern not Gas or Diesel Range Pattern

See Final Page of Report for MQLs and MDLs

<b>CLIENT:</b>	BBA Engineering	<b>Client Sample ID:</b> FGD-4					
<b>Project:</b>	OGSES-FGD PONDS - CCR	<b>Lab ID:</b> 2408200-02					
<b>Project No:</b>	23643V-20	<b>Collection Date:</b> 08/13/24 11:15 AM					
<b>Lab Order:</b>	2408200	<b>Matrix:</b> AQUEOUS					
Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>		<b>SW6020B</b>					
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 01:50 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:50 PM
Barium	0.101	0.00300	0.0100		mg/L	1	08/20/24 01:50 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:50 PM
Boron	0.0797	0.0100	0.0300		mg/L	1	08/20/24 02:36 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:50 PM
Calcium	29.0	0.500	1.50		mg/L	5	08/20/24 03:05 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:50 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 01:50 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:50 PM
Lithium	0.0106	0.00500	0.0100		mg/L	1	08/20/24 01:50 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:50 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:50 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 01:50 PM
<b>MERCURY TOTAL: AQUEOUS</b>		<b>SW7470A</b>					
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:12 PM
<b>ANIONS BY IC METHOD - WATER</b>		<b>E300</b>					
Chloride	189	3.00	10.0		mg/L	10	08/19/24 11:52 PM
Fluoride	0.377	0.100	0.400	J	mg/L	1	08/20/24 04:04 AM
Sulfate	51.1	1.00	3.00		mg/L	1	08/20/24 04:04 AM
<b>TOTAL DISSOLVED SOLIDS</b>		<b>M2540C</b>					
Total Dissolved Solids (Residue, Filterable)	662	10.0	10.0		mg/L	1	08/16/24 04:30 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

# DHL Analytical, Inc.

Date: 17-Sep-24

**CLIENT:** BBA Engineering **Client Sample ID:** FDG-3  
**Project:** OGSES-FGD PONDS - CCR **Lab ID:** 2408200-03  
**Project No:** 23643V-20 **Collection Date:** 08/13/24 12:10 PM  
**Lab Order:** 2408200 **Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 01:52 PM
Arsenic	0.00204	0.00200	0.00500	J	mg/L	1	08/20/24 01:52 PM
Barium	0.0340	0.00300	0.0100		mg/L	1	08/20/24 01:52 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:52 PM
Boron	0.0932	0.0100	0.0300		mg/L	1	08/20/24 02:38 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:52 PM
Calcium	31.3	0.500	1.50		mg/L	5	08/20/24 03:07 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:52 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 01:52 PM
Lead	0.000313	0.000300	0.00100	J	mg/L	1	08/20/24 01:52 PM
Lithium	0.0336	0.00500	0.0100		mg/L	1	08/20/24 01:52 PM
Molybdenum	0.00322	0.00200	0.00500	J	mg/L	1	08/20/24 01:52 PM
Selenium	0.00351	0.00200	0.00500	J	mg/L	1	08/20/24 01:52 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 01:52 PM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:14 PM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	43.6	3.00	10.0		mg/L	10	08/20/24 12:10 AM
Fluoride	0.970	0.100	0.400		mg/L	1	08/20/24 04:22 AM
Sulfate	113	1.00	3.00		mg/L	1	08/20/24 04:22 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	659	10.0	10.0		mg/L	1	08/16/24 04:30 PM

**Qualifiers:** ND - Not Detected at the SDL

S - Spike Recovery outside control limits

J - Analyte detected between SDL and RL

C - Sample Result or QC discussed in Case Narrative

B - Analyte detected in the associated Method Blank

RL - Reporting Limit (MQL adjusted for moisture and sample size)

DF - Dilution Factor

SDL - Sample Detection Limit

N - Parameter not NELAP certified

E - TPH pattern not Gas or Diesel Range Pattern

See Final Page of Report for MQLs and MDLs

# DHL Analytical, Inc.

Date: 17-Sep-24

**CLIENT:** BBA Engineering **Client Sample ID:** FGD-2  
**Project:** OGSES-FGD PONDS - CCR **Lab ID:** 2408200-04  
**Project No:** 23643V-20 **Collection Date:** 08/13/24 01:15 PM  
**Lab Order:** 2408200 **Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 01:55 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:55 PM
Barium	0.0653	0.00300	0.0100		mg/L	1	08/20/24 01:55 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:55 PM
Boron	1.60	0.100	0.300		mg/L	10	08/20/24 02:40 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:55 PM
Calcium	174	1.00	3.00		mg/L	10	08/20/24 02:40 PM
Chromium	0.00203	0.00200	0.00500	J	mg/L	1	08/20/24 01:55 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 01:55 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:55 PM
Lithium	0.0261	0.00500	0.0100		mg/L	1	08/20/24 01:55 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:55 PM
Selenium	0.0235	0.00200	0.00500		mg/L	1	08/20/24 01:55 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 01:55 PM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:17 PM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	686	30.0	100		mg/L	100	08/23/24 04:11 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/20/24 04:40 AM
Sulfate	560	10.0	30.0		mg/L	10	08/20/24 12:28 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	2120	50.0	50.0		mg/L	1	08/19/24 04:35 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
	See Final Page of Report for MQLs and MDLs	

**CLIENT:** BBA Engineering **Client Sample ID:** FGD-5  
**Project:** OGSES-FGD PONDS - CCR **Lab ID:** 2408200-05  
**Project No:** 23643V-20 **Collection Date:** 08/13/24 02:25 PM  
**Lab Order:** 2408200 **Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 01:57 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:57 PM
Barium	0.120	0.00300	0.0100		mg/L	1	08/20/24 01:57 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:57 PM
Boron	0.0983	0.0100	0.0300		mg/L	1	08/20/24 02:42 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:57 PM
Calcium	119	1.00	3.00		mg/L	10	08/20/24 03:10 PM
Chromium	0.0484	0.00200	0.00500		mg/L	1	08/20/24 01:57 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 01:57 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 01:57 PM
Lithium	0.173	0.00500	0.0100		mg/L	1	08/20/24 01:57 PM
Molybdenum	0.00547	0.00200	0.00500		mg/L	1	08/20/24 01:57 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 01:57 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 01:57 PM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:19 PM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	353	3.00	10.0		mg/L	10	08/20/24 12:46 AM
Fluoride	0.451	0.100	0.400		mg/L	1	08/20/24 04:58 AM
Sulfate	152	10.0	30.0		mg/L	10	08/20/24 12:46 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	1010	10.0	10.0		mg/L	1	08/19/24 04:35 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

<b>CLIENT:</b>	BBA Engineering	<b>Client Sample ID:</b> FGD-1					
<b>Project:</b>	OGSES-FGD PONDS - CCR	<b>Lab ID:</b> 2408200-06					
<b>Project No:</b>	23643V-20	<b>Collection Date:</b> 08/13/24 03:30 PM					
<b>Lab Order:</b>	2408200	<b>Matrix:</b> AQUEOUS					
Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>		<b>SW6020B</b>					
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 02:00 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:00 PM
Barium	0.0408	0.00300	0.0100		mg/L	1	08/20/24 02:00 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:00 PM
Boron	0.0788	0.0100	0.0300		mg/L	1	08/20/24 02:44 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:00 PM
Calcium	14.7	0.100	0.300		mg/L	1	08/20/24 02:00 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:00 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 02:00 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:00 PM
Lithium	0.0290	0.00500	0.0100		mg/L	1	08/20/24 02:00 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:00 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:00 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 02:00 PM
<b>MERCURY TOTAL: AQUEOUS</b>		<b>SW7470A</b>					
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:21 PM
<b>ANIONS BY IC METHOD - WATER</b>		<b>E300</b>					
Chloride	39.1	0.300	1.00		mg/L	1	08/20/24 05:16 AM
Fluoride	0.364	0.100	0.400	J	mg/L	1	08/20/24 05:16 AM
Sulfate	46.3	1.00	3.00		mg/L	1	08/20/24 05:16 AM
<b>TOTAL DISSOLVED SOLIDS</b>		<b>M2540C</b>					
Total Dissolved Solids (Residue, Filterable)	273	10.0	10.0		mg/L	1	08/19/24 04:35 PM

Qualifiers: ND - Not Detected at the SDL

S - Spike Recovery outside control limits

J - Analyte detected between SDL and RL

C - Sample Result or QC discussed in Case Narrative

B - Analyte detected in the associated Method Blank

RL - Reporting Limit (MQL adjusted for moisture and sample size)

DF - Dilution Factor

SDL - Sample Detection Limit

N - Parameter not NELAP certified

E - TPH pattern not Gas or Diesel Range Pattern

See Final Page of Report for MQLs and MDLs

**CLIENT:** BBA Engineering **Client Sample ID:** DUP-1  
**Project:** OGSES-FGD PONDS - CCR **Lab ID:** 2408200-07  
**Project No:** 23643V-20 **Collection Date:** 08/13/24 03:30 PM  
**Lab Order:** 2408200 **Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 02:03 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:03 PM
Barium	0.0408	0.00300	0.0100		mg/L	1	08/20/24 02:03 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:03 PM
Boron	0.0805	0.0100	0.0300		mg/L	1	08/20/24 02:46 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:03 PM
Calcium	14.9	0.100	0.300		mg/L	1	08/20/24 02:03 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:03 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 02:03 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:03 PM
Lithium	0.0295	0.00500	0.0100		mg/L	1	08/20/24 02:03 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:03 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:03 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 02:03 PM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:24 PM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	39.3	0.300	1.00		mg/L	1	08/20/24 05:34 AM
Fluoride	0.365	0.100	0.400	J	mg/L	1	08/20/24 05:34 AM
Sulfate	46.1	1.00	3.00		mg/L	1	08/20/24 05:34 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	269	10.0	10.0		mg/L	1	08/19/24 04:35 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

**CLIENT:** BBA Engineering **Client Sample ID:** FGD-8  
**Project:** OGSES-FGD PONDS - CCR **Lab ID:** 2408200-08  
**Project No:** 23643V-20 **Collection Date:** 08/14/24 09:15 AM  
**Lab Order:** 2408200 **Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 02:05 PM
Arsenic	0.00513	0.00200	0.00500		mg/L	1	08/20/24 02:05 PM
Barium	0.952	0.00300	0.0100		mg/L	1	08/20/24 02:05 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:05 PM
Boron	0.0790	0.0100	0.0300		mg/L	1	08/20/24 02:48 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:05 PM
Calcium	393	5.00	15.0		mg/L	50	08/20/24 03:13 PM
Chromium	0.00246	0.00200	0.00500	J	mg/L	1	08/20/24 02:05 PM
Cobalt	0.0215	0.00300	0.00500		mg/L	1	08/20/24 02:05 PM
Lead	0.00104	0.000300	0.00100		mg/L	1	08/20/24 02:05 PM
Lithium	0.0240	0.00500	0.0100		mg/L	1	08/20/24 02:05 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:05 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:05 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 02:05 PM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:26 PM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	2340	30.0	100		mg/L	100	08/23/24 04:30 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/20/24 05:52 AM
Sulfate	388	10.0	30.0		mg/L	10	08/20/24 01:40 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	4530	50.0	50.0		mg/L	1	08/19/24 04:35 PM

Qualifiers: ND - Not Detected at the SDL

S - Spike Recovery outside control limits

J - Analyte detected between SDL and RL

C - Sample Result or QC discussed in Case Narrative

B - Analyte detected in the associated Method Blank

RL - Reporting Limit (MQL adjusted for moisture and sample size)

DF - Dilution Factor

SDL - Sample Detection Limit

N - Parameter not NELAP certified

E - TPH pattern not Gas or Diesel Range Pattern

See Final Page of Report for MQLs and MDLs

# DHL Analytical, Inc.

Date: 17-Sep-24

**CLIENT:** BBA Engineering  
**Project:** OGSES-FGD PONDS - CCR  
**Project No:** 23643V-20  
**Lab Order:** 2408200

**Client Sample ID:** FGD-11  
**Lab ID:** 2408200-09  
**Collection Date:** 08/14/24 11:20 AM  
**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>							
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 02:08 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:08 PM
Barium	0.192	0.00300	0.0100		mg/L	1	08/20/24 02:08 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:08 PM
Boron	0.0899	0.0100	0.0300		mg/L	1	08/20/24 02:50 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:08 PM
Calcium	57.0	1.00	3.00		mg/L	10	08/20/24 03:15 PM
Chromium	0.00596	0.00200	0.00500		mg/L	1	08/20/24 02:08 PM
Cobalt	0.00632	0.00300	0.00500		mg/L	1	08/20/24 02:08 PM
Lead	0.000409	0.000300	0.00100	J	mg/L	1	08/20/24 02:08 PM
Lithium	0.0123	0.00500	0.0100		mg/L	1	08/20/24 02:08 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:08 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:08 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 02:08 PM
<b>MERCURY TOTAL: AQUEOUS</b>							
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 12:28 PM
<b>ANIONS BY IC METHOD - WATER</b>							
Chloride	294	3.00	10.0		mg/L	10	08/20/24 01:58 AM
Fluoride	0.321	0.100	0.400	J	mg/L	1	08/20/24 06:10 AM
Sulfate	24.5	1.00	3.00		mg/L	1	08/20/24 06:10 AM
<b>TOTAL DISSOLVED SOLIDS</b>							
Total Dissolved Solids (Residue, Filterable)	706	10.0	10.0		mg/L	1	08/19/24 04:35 PM

**Qualifiers:** ND - Not Detected at the SDL

S - Spike Recovery outside control limits

J - Analyte detected between SDL and RL

C - Sample Result or QC discussed in Case Narrative

B - Analyte detected in the associated Method Blank

RL - Reporting Limit (MQL adjusted for moisture and sample size)

DF - Dilution Factor

SDL - Sample Detection Limit

N - Parameter not NELAP certified

E - TPH pattern not Gas or Diesel Range Pattern

See Final Page of Report for MQLs and MDLs

<b>CLIENT:</b>	BBA Engineering	<b>Client Sample ID:</b> FGD-12					
<b>Project:</b>	OGSES-FGD PONDS - CCR	<b>Lab ID:</b> 2408200-10					
<b>Project No:</b>	23643V-20	<b>Collection Date:</b> 08/14/24 12:30 PM					
<b>Lab Order:</b>	2408200	<b>Matrix:</b> AQUEOUS					
Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS: ICP-MS - WATER</b>		<b>SW6020B</b>					
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/20/24 02:31 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:31 PM
Barium	0.0654	0.00300	0.0100		mg/L	1	08/20/24 02:31 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:31 PM
Boron	0.0753	0.0100	0.0300		mg/L	1	08/20/24 03:05 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/20/24 02:31 PM
Calcium	8.52	0.100	0.300		mg/L	1	08/20/24 02:31 PM
Chromium	0.00623	0.00200	0.00500		mg/L	1	08/20/24 02:31 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	08/20/24 02:31 PM
Lead	0.00162	0.000300	0.00100		mg/L	1	08/20/24 02:31 PM
Lithium	0.0249	0.00500	0.0100		mg/L	1	08/20/24 02:31 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:31 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/20/24 02:31 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/20/24 02:31 PM
<b>MERCURY TOTAL: AQUEOUS</b>		<b>SW7470A</b>					
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/26/24 01:15 PM
<b>ANIONS BY IC METHOD - WATER</b>		<b>E300</b>					
Chloride	15.1	0.300	1.00		mg/L	1	08/20/24 06:28 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/20/24 06:28 AM
Sulfate	22.1	1.00	3.00		mg/L	1	08/20/24 06:28 AM
<b>TOTAL DISSOLVED SOLIDS</b>		<b>M2540C</b>					
Total Dissolved Solids (Residue, Filterable)	156	10.0	10.0		mg/L	1	08/19/24 04:35 PM

<b>Qualifiers:</b>	ND - Not Detected at the SDL	S - Spike Recovery outside control limits
	J - Analyte detected between SDL and RL	C - Sample Result or QC discussed in Case Narrative
	B - Analyte detected in the associated Method Blank	RL - Reporting Limit (MQL adjusted for moisture and sample size)
	DF - Dilution Factor	SDL - Sample Detection Limit
	N - Parameter not NELAP certified	E - TPH pattern not Gas or Diesel Range Pattern
See Final Page of Report for MQLs and MDLs		

**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

**ANALYTICAL QC SUMMARY REPORT****RunID:** CETAC2\_HG\_240711A

Sample ID:	DCS-116189	Batch ID:	116189	TestNo:	SW7470A	Units:	mg/L			
SampType:	DCS	Run ID:	CETAC2_HG_240711A	Analysis Date:	7/11/2024 11:37:36 AM	Prep Date:	7/11/2024			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000194	0.000200	0.000200	0	97.0	82	119	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** CETAC2\_HG\_240826B

The QC data in batch 116907 applies to the following samples: 2408200-01A, 2408200-02A, 2408200-03A, 2408200-04A, 2408200-05A, 2408200-06A, 2408200-07A, 2408200-08A, 2408200-09A

Sample ID:	MB-116907	Batch ID:	116907	TestNo:	SW7470A	Units:	mg/L				
SampType:	MBLK	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 11:11:20 AM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		<0.0000800	0.000200								
Sample ID:	LCS-116907	Batch ID:	116907	TestNo:	SW7470A	Units:	mg/L				
SampType:	LCS	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 11:13:36 AM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00190	0.000200	0.00200	0	95.0	85	115			
Sample ID:	LCSD-116907	Batch ID:	116907	TestNo:	SW7470A	Units:	mg/L				
SampType:	LCSD	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 11:15:52 AM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00185	0.000200	0.00200	0	92.5	85	115	2.67	15	
Sample ID:	2408200-01AMS	Batch ID:	116907	TestNo:	SW7470A	Units:	mg/L				
SampType:	MS	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 12:03:35 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00181	0.000200	0.00200	0	90.5	80	120			
Sample ID:	2408200-01AMSD	Batch ID:	116907	TestNo:	SW7470A	Units:	mg/L				
SampType:	MSD	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 12:05:51 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00189	0.000200	0.00200	0	94.5	80	120	4.32	15	
Sample ID:	2408200-01APDS	Batch ID:	116907	TestNo:	SW7470A	Units:	mg/L				
SampType:	PDS	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 12:08:07 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00246	0.000200	0.00250	0	98.4	85	115			
Sample ID:	2408200-01ASD	Batch ID:	116907	TestNo:	SW7470A	Units:	mg/L				
SampType:	SD	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 12:10:23 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		<0.000400	0.00100		0	0			0	10	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** CETAC2\_HG\_240826B

The QC data in batch 116908 applies to the following samples: 2408200-10A

Sample ID:	MB-116908	Batch ID:	116908	TestNo:	SW7470A	Units:	mg/L				
SampType:	MBLK	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 12:35:27 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		<0.0000800	0.000200								
Sample ID:	LCS-116908	Batch ID:	116908	TestNo:	SW7470A	Units:	mg/L				
SampType:	LCS	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 12:42:17 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00185	0.000200	0.00200	0	92.5	85	115			
Sample ID:	LCSD-116908	Batch ID:	116908	TestNo:	SW7470A	Units:	mg/L				
SampType:	LCSD	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 12:44:34 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.00195	0.000200	0.00200	0	97.5	85	115	5.26	15	
Sample ID:	2408286-02CMS	Batch ID:	116908	TestNo:	SW7470A	Units:	mg/L				
SampType:	MS	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 1:04:14 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0100	0.00100	0.0100	0	100	80	120			
Sample ID:	2408286-02CMSD	Batch ID:	116908	TestNo:	SW7470A	Units:	mg/L				
SampType:	MSD	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 1:06:31 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0114	0.00100	0.0100	0	114	80	120	13.1	15	
Sample ID:	2408286-02CPDS	Batch ID:	116908	TestNo:	SW7470A	Units:	mg/L				
SampType:	PDS	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 1:08:48 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0126	0.00100	0.0125	0	101	85	115			
Sample ID:	2408286-02CSD	Batch ID:	116908	TestNo:	SW7470A	Units:	mg/L				
SampType:	SD	Run ID:	CETAC2_HG_240826B	Analysis Date:	8/26/2024 1:11:05 PM	Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		<0.00200	0.00500	0	0				0	10	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** CETAC2\_HG\_240826B

Sample ID: ICV-240826	Batch ID: R134878	TestNo: SW7470A	Units: mg/L
SampType: ICV	Run ID: CETAC2_HG_240826B	Analysis Date: 8/26/2024 11:06:46 AM	Prep Date:
Analyte			
Mercury			
	Result 0.00379	RL 0.000200	SPK value 0.00400
	Ref Val 0	%REC 94.8	LowLimit 90
		HighLimit 110	%RPD RPDLimit Qual
Sample ID: CCV1-240826	Batch ID: R134878	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC2_HG_240826B	Analysis Date: 8/26/2024 11:40:48 AM	Prep Date:
Analyte			
Mercury			
	Result 0.00196	RL 0.000200	SPK value 0.00200
	Ref Val 0	%REC 98.0	LowLimit 90
		HighLimit 110	%RPD RPDLimit Qual
Sample ID: CCV2-240826	Batch ID: R134878	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC2_HG_240826B	Analysis Date: 8/26/2024 12:30:52 PM	Prep Date:
Analyte			
Mercury			
	Result 0.00200	RL 0.000200	SPK value 0.00200
	Ref Val 0	%REC 100	LowLimit 90
		HighLimit 110	%RPD RPDLimit Qual
Sample ID: CCV3-240826	Batch ID: R134878	TestNo: SW7470A	Units: mg/L
SampType: CCV	Run ID: CETAC2_HG_240826B	Analysis Date: 8/26/2024 1:31:43 PM	Prep Date:
Analyte			
Mercury			
	Result 0.00192	RL 0.000200	SPK value 0.00200
	Ref Val 0	%REC 96.0	LowLimit 90
		HighLimit 110	%RPD RPDLimit Qual

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4\_240606B

Sample ID: DCS2-115670	Batch ID: 115670	TestNo: SW6020B	Units: mg/L								
SampType: DCS2	Run ID: ICP-MS4_240606B	Analysis Date: 6/6/2024 9:52:00 AM	Prep Date: 6/5/2024								
Analyte											
Calcium	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Boron				0.270	0.300	0.300	0	90.2	70	130	0
Sample ID: DCS4-115670				TestNo: SW6020B	Units: mg/L						
SampType: DCS4	Run ID: ICP-MS4_240606B	Analysis Date: 6/6/2024 9:57:00 AM	Prep Date: 6/5/2024								
Analyte				Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD
Boron	0.0298	0.0300	0.0300	0	99.4	70	130	0	0	0	0

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4\_240820C

The QC data in batch 116820 applies to the following samples: 2408200-01A, 2408200-02A, 2408200-03A, 2408200-04A, 2408200-05A, 2408200-06A, 2408200-07A, 2408200-08A, 2408200-09A, 2408200-10A

Sample ID:	MB-116820	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	MBLK	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 2:18:00 PM	Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		<0.0100	0.0300								
Sample ID:	LCS-116820	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCS	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 2:20:00 PM	Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.176	0.0300	0.200	0	88.0	80	120			
Sample ID:	LCSD-116820	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCSD	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 2:22:00 PM	Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.188	0.0300	0.200	0	93.9	80	120	6.52	15	
Sample ID:	2408210-01A SD	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	SD	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 2:32:00 PM	Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.328	0.300	0	0.342				4.14	20	
Sample ID:	2408210-01A PDS	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	PDS	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 2:52:00 PM	Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.712	0.0600	0.400	0.342	92.6	75	125			
Sample ID:	2408210-01A MS	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	MS	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 2:54:00 PM	Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.534	0.0600	0.200	0.342	96.2	75	125			
Sample ID:	2408210-01A MSD	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	MSD	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 2:56:00 PM	Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.529	0.0600	0.200	0.342	93.8	75	125	0.885	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4\_240820C

Sample ID:	ICV-240820	Batch ID:	R134764	TestNo:	SW6020B		Units:	mg/L			
SampType:	ICV	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 9:31:00 AM		Prep Date:				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.0978	0.0300	0.100	0	97.8	90	110			
Calcium		2.49	0.300	2.50	0	99.6	90	110			
Sample ID:	LCVL-240820	Batch ID:	R134764	TestNo:	SW6020B		Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 9:46:00 AM		Prep Date:				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.0203	0.0300	0.0200	0	102	80	120			
Calcium		0.104	0.300	0.100	0	104	80	120			
Sample ID:	CCV4-240820	Batch ID:	R134764	TestNo:	SW6020B		Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 11:48:00 AM		Prep Date:				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.202	0.0300	0.200	0	101	90	110			
Calcium		5.16	0.300	5.00	0	103	90	110			
Sample ID:	CCV5-240820	Batch ID:	R134764	TestNo:	SW6020B		Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 3:00:00 PM		Prep Date:				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.196	0.0300	0.200	0	97.8	90	110			
Calcium		5.04	0.300	5.00	0	101	90	110			
Sample ID:	CCV6-240820	Batch ID:	R134764	TestNo:	SW6020B		Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_240820C	Analysis Date:	8/20/2024 3:07:00 PM		Prep Date:				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron		0.200	0.0300	0.200	0	99.8	90	110			

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240606A

Sample ID: DCS1-115670	Batch ID: 115670	TestNo: SW6020B	Units: mg/L		
SampType: DCS	Run ID: ICP-MS5_240606A	Analysis Date: 6/6/2024 10:16:00 AM	Prep Date: 6/5/2024		
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>					
Antimony      0.000866      0.00250      0.00100      0      86.6      70      130      0      0					
Beryllium      0.000511      0.00100      0.000500      0      102      70      130      0      0					
Cadmium      0.000503      0.00100      0.000500      0      101      70      130      0      0					
Lead      0.000485      0.00100      0.000500      0      97.0      70      130      0      0					
Thallium      0.000538      0.00150      0.000500      0      108      70      130      0      0					
<b>Sample ID: DCS2-115670</b> <b>Batch ID: 115670</b>	<b>TestNo: SW6020B</b>		<b>Units: mg/L</b>		
SampType: DCS2      Run ID: ICP-MS5_240606A	Analysis Date: 6/6/2024 10:20:00 AM		Prep Date: 6/5/2024		
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>					
Calcium      0.301      0.300      0.300      0      100      70      130      0      0					
<b>Sample ID: DCS3-115670</b> <b>Batch ID: 115670</b>	<b>TestNo: SW6020B</b>		<b>Units: mg/L</b>		
SampType: DCS3      Run ID: ICP-MS5_240606A	Analysis Date: 6/6/2024 10:22:00 AM		Prep Date: 6/5/2024		
<b>Analyte</b> <b>Result</b> <b>RL</b> <b>SPK value</b> <b>Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>					
Arsenic      0.00487      0.00500      0.00500      0      97.4      70      130      0      0					
Barium      0.00503      0.0100      0.00500      0      101      70      130      0      0					
Chromium      0.00496      0.00500      0.00500      0      99.2      70      130      0      0					
Cobalt      0.00489      0.00500      0.00500      0      97.8      70      130      0      0					
Lithium      0.00467      0.0100      0.00500      0      93.4      70      130      0      0					
Molybdenum      0.00496      0.00500      0.00500      0      99.3      70      130      0      0					
Selenium      0.00461      0.00500      0.00500      0      92.2      70      130      0      0					

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240820B

The QC data in batch 116820 applies to the following samples: 2408200-01A, 2408200-02A, 2408200-03A, 2408200-04A, 2408200-05A, 2408200-06A, 2408200-07A, 2408200-08A, 2408200-09A, 2408200-10A

Sample ID:	MB-116820	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	MBLK	Run ID:	ICP-MS5_240820B	Analysis Date: 8/20/2024 1:31:00 PM		Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony		<0.000800	0.00250								
Arsenic		<0.00200	0.00500								
Barium		<0.00300	0.0100								
Beryllium		<0.000300	0.00100								
Cadmium		<0.000300	0.00100								
Calcium		<0.100	0.300								
Chromium		<0.00200	0.00500								
Cobalt		<0.00300	0.00500								
Lead		<0.000300	0.00100								
Lithium		<0.00500	0.0100								
Molybdenum		<0.00200	0.00500								
Selenium		<0.00200	0.00500								
Thallium		<0.000500	0.00150								

Sample ID:	LCS-116820	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCS	Run ID:	ICP-MS5_240820B	Analysis Date: 8/20/2024 1:34:00 PM		Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony		0.200	0.00250	0.200	0	100	80	120			
Arsenic		0.198	0.00500	0.200	0	98.9	80	120			
Barium		0.198	0.0100	0.200	0	99.0	80	120			
Beryllium		0.200	0.00100	0.200	0	100	80	120			
Cadmium		0.196	0.00100	0.200	0	98.2	80	120			
Calcium		5.03	0.300	5.00	0	101	80	120			
Chromium		0.196	0.00500	0.200	0	97.9	80	120			
Cobalt		0.198	0.00500	0.200	0	99.0	80	120			
Lead		0.194	0.00100	0.200	0	97.0	80	120			
Lithium		0.206	0.0100	0.200	0	103	80	120			
Molybdenum		0.190	0.00500	0.200	0	94.9	80	120			
Selenium		0.202	0.00500	0.200	0	101	80	120			
Thallium		0.188	0.00150	0.200	0	94.1	80	120			

Sample ID:	LCSD-116820	Batch ID:	116820	TestNo:	SW6020B	Units:	mg/L				
SampType:	LCSD	Run ID:	ICP-MS5_240820B	Analysis Date: 8/20/2024 1:37:00 PM		Prep Date:	8/20/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony		0.199	0.00250	0.200	0	99.7	80	120	0.384	15	
Arsenic		0.197	0.00500	0.200	0	98.6	80	120	0.291	15	
Barium		0.198	0.0100	0.200	0	98.8	80	120	0.215	15	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240820B

Sample ID: LCSD-116820	Batch ID: 116820	TestNo: SW6020B	Units: mg/L
SampType: LCSD	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 1:37:00 PM	Prep Date: 8/20/2024

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.199	0.00100	0.200	0	99.7	80	120	0.226	15	
Cadmium	0.196	0.00100	0.200	0	97.9	80	120	0.327	15	
Calcium	5.05	0.300	5.00	0	101	80	120	0.291	15	
Chromium	0.196	0.00500	0.200	0	98.1	80	120	0.223	15	
Cobalt	0.199	0.00500	0.200	0	99.5	80	120	0.515	15	
Lead	0.193	0.00100	0.200	0	96.7	80	120	0.302	15	
Lithium	0.203	0.0100	0.200	0	102	80	120	1.38	15	
Molybdenum	0.191	0.00500	0.200	0	95.4	80	120	0.530	15	
Selenium	0.202	0.00500	0.200	0	101	80	120	0.174	15	
Thallium	0.189	0.00150	0.200	0	94.4	80	120	0.246	15	

Sample ID: 2408210-01A SD	Batch ID: 116820	TestNo: SW6020B	Units: mg/L
SampType: SD	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 1:45:00 PM	Prep Date: 8/20/2024

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0.00111				0	20	
Arsenic	<0.0100	0.0250	0	0.00240				0	20	
Barium	0.0580	0.0500	0	0.0563				2.99	20	
Beryllium	<0.00150	0.00500	0	0				0	20	
Cadmium	<0.00150	0.00500	0	0				0	20	
Calcium	88.4	1.50	0	87.9				0.580	20	
Chromium	<0.0100	0.0250	0	0				0	20	
Cobalt	<0.0150	0.0250	0	0				0	20	
Lead	<0.00150	0.00500	0	0.000350				0	20	
Lithium	0.0436	0.0500	0	0.0426				2.30	20	
Molybdenum	<0.0100	0.0250	0	0.00667				0	20	
Selenium	<0.0100	0.0250	0	0.00380				0	20	
Thallium	<0.00250	0.00750	0	0				0	20	

Sample ID: 2408210-01A PDS	Batch ID: 116820	TestNo: SW6020B	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 2:10:00 PM	Prep Date: 8/20/2024

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0.00111	94.4	75	125			
Arsenic	0.193	0.00500	0.200	0.00240	95.3	75	125			
Barium	0.254	0.0100	0.200	0.0563	99.0	75	125			
Beryllium	0.193	0.00100	0.200	0	96.5	75	125			
Cadmium	0.196	0.00100	0.200	0	98.1	75	125			
Calcium	87.5	0.300	5.00	87.9	-7.56	75	125			S
Chromium	0.199	0.00500	0.200	0	99.5	75	125			
Cobalt	0.191	0.00500	0.200	0	95.5	75	125			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor
	J Analyte detected between MDL and RL	MDL Method Detection Limit
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits
	RL Reporting Limit	S Spike Recovery outside control limits
	J Analyte detected between SDL and RL	N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240820B

Sample ID: 2408210-01A PDS	Batch ID: 116820	TestNo: SW6020B	Units: mg/L							
SampType: PDS	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 2:10:00 PM	Prep Date: 8/20/2024							
<b>Analyte</b>										
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.194	0.00100	0.200	0.000350	96.8	75	125			
Lithium	0.240	0.0100	0.200	0.0426	98.5	75	125			
Molybdenum	0.192	0.00500	0.200	0.00667	92.6	75	125			
Selenium	0.193	0.00500	0.200	0.00380	94.8	75	125			
Thallium	0.193	0.00150	0.200	0	96.4	75	125			
<b>Sample ID: 2408210-01A MS</b>				TestNo: SW6020B	Units: mg/L					
SampType: MS	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 2:13:00 PM	Prep Date: 8/20/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.202	0.00250	0.200	0.00111	100	75	125			
Arsenic	0.194	0.00500	0.200	0.00240	95.6	75	125			
Barium	0.256	0.0100	0.200	0.0563	99.8	75	125			
Beryllium	0.194	0.00100	0.200	0	96.9	75	125			
Cadmium	0.195	0.00100	0.200	0	97.6	75	125			
Calcium	92.5	0.300	5.00	87.9	92.2	75	125			
Chromium	0.196	0.00500	0.200	0	98.2	75	125			
Cobalt	0.190	0.00500	0.200	0	95.2	75	125			
Lead	0.196	0.00100	0.200	0.000350	97.6	75	125			
Lithium	0.242	0.0100	0.200	0.0426	99.8	75	125			
Molybdenum	0.198	0.00500	0.200	0.00667	95.9	75	125			
Selenium	0.195	0.00500	0.200	0.00380	95.7	75	125			
Thallium	0.191	0.00150	0.200	0	95.3	75	125			
<b>Sample ID: 2408210-01A MSD</b>				TestNo: SW6020B	Units: mg/L					
SampType: MSD	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 2:16:00 PM	Prep Date: 8/20/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.202	0.00250	0.200	0.00111	101	75	125	0.285	15	
Arsenic	0.196	0.00500	0.200	0.00240	97.0	75	125	1.46	15	
Barium	0.253	0.0100	0.200	0.0563	98.3	75	125	1.22	15	
Beryllium	0.193	0.00100	0.200	0	96.7	75	125	0.145	15	
Cadmium	0.195	0.00100	0.200	0	97.4	75	125	0.116	15	
Calcium	93.2	0.300	5.00	87.9	106	75	125	0.734	15	
Chromium	0.196	0.00500	0.200	0	98.2	75	125	0.004	15	
Cobalt	0.192	0.00500	0.200	0	96.2	75	125	1.07	15	
Lead	0.194	0.00100	0.200	0.000350	96.6	75	125	0.979	15	
Lithium	0.243	0.0100	0.200	0.0426	100	75	125	0.365	15	
Molybdenum	0.198	0.00500	0.200	0.00667	95.5	75	125	0.406	15	
Selenium	0.197	0.00500	0.200	0.00380	96.4	75	125	0.702	15	
Thallium	0.190	0.00150	0.200	0	95.1	75	125	0.298	15	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240820B

Sample ID: ICV-240820	Batch ID: R134762	TestNo: SW6020B		Units: mg/L						
SampType: ICV	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 9:38:00 AM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.100	0.00250	0.100	0	100	90	110			
Arsenic	0.101	0.00500	0.100	0	101	90	110			
Barium	0.101	0.0100	0.100	0	101	90	110			
Beryllium	0.101	0.00100	0.100	0	101	90	110			
Cadmium	0.102	0.00100	0.100	0	102	90	110			
Calcium	2.53	0.300	2.50	0	101	90	110			
Chromium	0.102	0.00500	0.100	0	102	90	110			
Cobalt	0.102	0.00500	0.100	0	102	90	110			
Lead	0.0990	0.00100	0.100	0	99.0	90	110			
Lithium	0.102	0.0100	0.100	0	102	90	110			
Molybdenum	0.0950	0.00500	0.100	0	95.0	90	110			
Selenium	0.105	0.00500	0.100	0	105	90	110			
Thallium	0.0958	0.00150	0.100	0	95.8	90	110			
Sample ID: LCVL-240820	Batch ID: R134762	TestNo: SW6020B		Units: mg/L						
SampType: LCVL	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 9:44:00 AM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00198	0.00250	0.00200	0	98.9	80	120			
Arsenic	0.00487	0.00500	0.00500	0	97.3	80	120			
Barium	0.00491	0.0100	0.00500	0	98.2	80	120			
Beryllium	0.00105	0.00100	0.00100	0	105	80	120			
Cadmium	0.00101	0.00100	0.00100	0	101	80	120			
Calcium	0.0935	0.300	0.100	0	93.5	80	120			
Chromium	0.00508	0.00500	0.00500	0	102	80	120			
Cobalt	0.00503	0.00500	0.00500	0	101	80	120			
Lead	0.00102	0.00100	0.00100	0	102	80	120			
Lithium	0.0102	0.0100	0.0100	0	102	80	120			
Molybdenum	0.00480	0.00500	0.00500	0	96.0	80	120			
Selenium	0.00512	0.00500	0.00500	0	102	80	120			
Thallium	0.000940	0.00150	0.00100	0	94.0	80	120			
Sample ID: CCV4-240820	Batch ID: R134762	TestNo: SW6020B		Units: mg/L						
SampType: CCV	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 12:15:00 PM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	100	90	110			
Arsenic	0.200	0.00500	0.200	0	100	90	110			
Barium	0.197	0.0100	0.200	0	98.6	90	110			
Beryllium	0.195	0.00100	0.200	0	97.7	90	110			
Cadmium	0.197	0.00100	0.200	0	98.4	90	110			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240820B

Sample ID: CCV4-240820	Batch ID: R134762	TestNo: SW6020B		Units: mg/L
SampType: CCV	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 12:15:00 PM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Calcium	4.87	0.300	5.00	0 97.4 90 110
Chromium	0.197	0.00500	0.200	0 98.3 90 110
Cobalt	0.199	0.00500	0.200	0 99.3 90 110
Lead	0.194	0.00100	0.200	0 97.2 90 110
Lithium	0.197	0.0100	0.200	0 98.6 90 110
Molybdenum	0.190	0.00500	0.200	0 95.1 90 110
Selenium	0.203	0.00500	0.200	0 101 90 110
Thallium	0.188	0.00150	0.200	0 94.1 90 110

Sample ID: CCV5-240820	Batch ID: R134762	TestNo: SW6020B		Units: mg/L
SampType: CCV	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 2:18:00 PM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Antimony	0.199	0.00250	0.200	0 99.6 90 110
Arsenic	0.197	0.00500	0.200	0 98.5 90 110
Barium	0.198	0.0100	0.200	0 99.2 90 110
Beryllium	0.192	0.00100	0.200	0 96.2 90 110
Cadmium	0.197	0.00100	0.200	0 98.6 90 110
Calcium	5.23	0.300	5.00	0 105 90 110
Chromium	0.198	0.00500	0.200	0 99.0 90 110
Cobalt	0.198	0.00500	0.200	0 99.0 90 110
Lead	0.193	0.00100	0.200	0 96.6 90 110
Lithium	0.201	0.0100	0.200	0 101 90 110
Molybdenum	0.192	0.00500	0.200	0 95.9 90 110
Selenium	0.204	0.00500	0.200	0 102 90 110
Thallium	0.188	0.00150	0.200	0 94.2 90 110

Sample ID: CCV6-240820	Batch ID: R134762	TestNo: SW6020B		Units: mg/L
SampType: CCV	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 2:58:00 PM Prep Date:		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Antimony	0.199	0.00250	0.200	0 99.6 90 110
Arsenic	0.197	0.00500	0.200	0 98.4 90 110
Barium	0.199	0.0100	0.200	0 99.3 90 110
Beryllium	0.194	0.00100	0.200	0 97.2 90 110
Cadmium	0.196	0.00100	0.200	0 97.9 90 110
Calcium	5.07	0.300	5.00	0 101 90 110
Chromium	0.196	0.00500	0.200	0 98.1 90 110
Cobalt	0.200	0.00500	0.200	0 100 90 110
Lead	0.194	0.00100	0.200	0 97.1 90 110
Lithium	0.204	0.0100	0.200	0 102 90 110

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor
J	Analyte detected between MDL and RL	MDL Method Detection Limit
ND	Not Detected at the Method Detection Limit	R RPD outside accepted control limits
RL	Reporting Limit	S Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS5\_240820B

Sample ID: CCV6-240820	Batch ID: R134762	TestNo: SW6020B		Units:	mg/L					
SampType: CCV	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 2:58:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Molybdenum	0.191	0.00500	0.200	0	95.3	90	110			
Selenium	0.206	0.00500	0.200	0	103	90	110			
Thallium	0.189	0.00150	0.200	0	94.3	90	110			

Sample ID: CCV7-240820	Batch ID: R134762	TestNo: SW6020B		Units:	mg/L					
SampType: CCV	Run ID: ICP-MS5_240820B	Analysis Date: 8/20/2024 3:28:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.99	0.300	5.00	0	99.8	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240801A

Sample ID: DCS3-116527	Batch ID: 116527	TestNo: E300	Units: mg/L							
SampType: DCS3	Run ID: IC2_240801A	Analysis Date: 8/1/2024 2:22:44 PM	Prep Date: 8/1/2024							
Analyte										
	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	1.02	1.00	1.000	0	102	70	130	0	0	0
Fluoride	0.452	0.400	0.4000	0	113	70	130	0	0	0
Sulfate	2.92	3.00	3.000	0	97.5	70	130	0	0	0

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240819B

The QC data in batch 116819 applies to the following samples: 2408200-01B, 2408200-02B, 2408200-03B, 2408200-04B, 2408200-05B, 2408200-06B, 2408200-07B, 2408200-08B, 2408200-09B, 2408200-10B

Sample ID:	MB-116819	Batch ID:	116819	TestNo:	E300	Units:	mg/L			
SampType:	MBLK	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 1:13:34 PM		Prep Date:	8/19/2024			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	<0.300	1.00								
Fluoride	<0.100	0.400								
Sulfate	<1.00	3.00								
Sample ID:	LCS-116819	Batch ID:	116819	TestNo:	E300	Units:	mg/L			
SampType:	LCS	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 1:31:34 PM		Prep Date:	8/19/2024			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.0	1.00	10.00	0	100	90	110			
Fluoride	4.15	0.400	4.000	0	104	90	110			
Sulfate	30.0	3.00	30.00	0	100	90	110			
Sample ID:	LCSD-116819	Batch ID:	116819	TestNo:	E300	Units:	mg/L			
SampType:	LCSD	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 1:49:34 PM		Prep Date:	8/19/2024			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.85	1.00	10.00	0	98.5	90	110	1.84	20	
Fluoride	4.08	0.400	4.000	0	102	90	110	1.81	20	
Sulfate	29.5	3.00	30.00	0	98.5	90	110	1.61	20	
Sample ID:	2408190-01BMS	Batch ID:	116819	TestNo:	E300	Units:	mg/L			
SampType:	MS	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 6:46:21 PM		Prep Date:	8/19/2024			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4430	100	2000	2779	82.8	90	110			S
Fluoride	2100	40.0	2000	16.96	104	90	110			
Sulfate	4420	300	2000	2532	94.5	90	110			
Sample ID:	2408190-01BMSD	Batch ID:	116819	TestNo:	E300	Units:	mg/L			
SampType:	MSD	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 7:04:21 PM		Prep Date:	8/19/2024			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4460	100	2000	2779	84.0	90	110	0.566	20	S
Fluoride	2100	40.0	2000	16.96	104	90	110	0.060	20	
Sulfate	4460	300	2000	2532	96.3	90	110	0.816	20	

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240819B

Sample ID: <b>2408236-01BMS</b>	Batch ID: <b>116819</b>	TestNo:	<b>E300</b>		Units:	<b>mg/L</b>				
SampType: <b>MS</b>	Run ID: <b>IC2_240819B</b>		Analysis Date: <b>8/19/2024 7:40:21 PM</b>		Prep Date:	<b>8/19/2024</b>				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	237	10.0	200.0	41.80	97.8	90	110			
Fluoride	207	4.00	200.0	3.054	102	90	110			
Sulfate	1300	30.0	200.0	1176	62.0	90	110			S

Sample ID: <b>2408236-01BMSD</b>	Batch ID: <b>116819</b>	TestNo:	<b>E300</b>		Units:	<b>mg/L</b>				
SampType: <b>MSD</b>	Run ID: <b>IC2_240819B</b>		Analysis Date: <b>8/19/2024 7:58:21 PM</b>		Prep Date:	<b>8/19/2024</b>				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	240	10.0	200.0	41.80	98.9	90	110	0.943	20	
Fluoride	209	4.00	200.0	3.054	103	90	110	0.916	20	
Sulfate	1310	30.0	200.0	1176	68.5	90	110	0.993	20	S

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC2\_240819B

Sample ID:	ICV-240819	Batch ID:	R134743	TestNo:	E300	Units:	mg/L			
SampType:	ICV	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 12:15:01 PM		Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.1	1.00	25.00	0	100	90	110			
Fluoride	10.2	0.400	10.00	0	102	90	110			
Sulfate	76.6	3.00	75.00	0	102	90	110			
Sample ID:	CCV1-240819	Batch ID:	R134743	TestNo:	E300	Units:	mg/L			
SampType:	CCV	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 2:51:56 PM		Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.82	1.00	10.00	0	98.2	90	110			
Fluoride	4.09	0.400	4.000	0	102	90	110			
Sulfate	29.5	3.00	30.00	0	98.4	90	110			
Sample ID:	CCV2-240819	Batch ID:	R134743	TestNo:	E300	Units:	mg/L			
SampType:	CCV	Run ID:	IC2_240819B	Analysis Date: 8/19/2024 10:58:21 PM		Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Fluoride	4.24	0.400	4.000	0	106	90	110			
Sulfate	30.5	3.00	30.00	0	102	90	110			
Sample ID:	CCV4-240819	Batch ID:	R134743	TestNo:	E300	Units:	mg/L			
SampType:	CCV	Run ID:	IC2_240819B	Analysis Date: 8/20/2024 7:40:21 AM		Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Fluoride	4.27	0.400	4.000	0	107	90	110			
Sulfate	30.7	3.00	30.00	0	102	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4\_240821B

Sample ID: DCS3-116883	Batch ID: 116883	TestNo: E300	Units: mg/L							
SampType: DCS3	Run ID: IC4_240821B	Analysis Date: 8/21/2024 2:12:37 PM	Prep Date: 8/21/2024							
<hr/>										
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.962	1.00	1.000	0	96.2	65	135	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4\_240823A

The QC data in batch 116942 applies to the following samples: 2408200-04B, 2408200-08B

Sample ID:	MB-116942	Batch ID:	116942	TestNo:	E300	Units:	mg/L				
SampType:	MBLK	Run ID:	IC4_240823A	Analysis Date: 8/23/2024 11:40:35 AM		Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		<0.300	1.00								
Sample ID:	LCS-116942	Batch ID:	116942	TestNo:	E300	Units:	mg/L				
SampType:	LCS	Run ID:	IC4_240823A	Analysis Date: 8/23/2024 11:59:35 AM		Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		9.96	1.00	10.00	0	99.6	90	110			
Sample ID:	LCSD-116942	Batch ID:	116942	TestNo:	E300	Units:	mg/L				
SampType:	LCSD	Run ID:	IC4_240823A	Analysis Date: 8/23/2024 12:18:35 PM		Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		9.81	1.00	10.00	0	98.1	90	110	1.50	20	
Sample ID:	2408276-01BMS	Batch ID:	116942	TestNo:	E300	Units:	mg/L				
SampType:	MS	Run ID:	IC4_240823A	Analysis Date: 8/23/2024 3:33:42 PM		Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		2530	100	2000	639.4	94.7	90	110			
Sample ID:	2408276-01BMSD	Batch ID:	116942	TestNo:	E300	Units:	mg/L				
SampType:	MSD	Run ID:	IC4_240823A	Analysis Date: 8/23/2024 3:52:42 PM		Prep Date:	8/23/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		2460	100	2000	639.4	90.8	90	110	3.15	20	

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** IC4\_240823A

Sample ID: ICV-240823	Batch ID: R134856	TestNo: E300	Units: mg/L							
SampType: ICV	Run ID: IC4_240823A	Analysis Date: 8/23/2024 11:02:35 AM Prep Date:								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.1	1.00	25.00	0	101	90	110			
Sample ID: CCV1-240823	Batch ID: R134856	TestNo: E300	Units: mg/L							
SampType: CCV	Run ID: IC4_240823A	Analysis Date: 8/23/2024 7:21:42 PM Prep Date:								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.41	1.00	10.00	0	94.1	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240816C

The QC data in batch 116776 applies to the following samples: 2408200-01B, 2408200-02B, 2408200-03B

Sample ID: MB-116776	Batch ID: 116776	TestNo: M2540C	Units: mg/L							
SampType: MBLK	Run ID: WC_240816C	Analysis Date: 8/16/2024 4:30:00 PM	Prep Date: 8/16/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	<10.0	10.0								
Sample ID: LCS-116776	Batch ID: 116776	TestNo: M2540C	Units: mg/L							
SampType: LCS	Run ID: WC_240816C	Analysis Date: 8/16/2024 4:30:00 PM	Prep Date: 8/16/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	718	10.0	745.6	0	96.3	90	113			
Sample ID: 2408187-01A-DUP	Batch ID: 116776	TestNo: M2540C	Units: mg/L							
SampType: DUP	Run ID: WC_240816C	Analysis Date: 8/16/2024 4:30:00 PM	Prep Date: 8/16/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	1370	50.0	0	1400				2.17	5	
Sample ID: 2408187-03A-DUP	Batch ID: 116776	TestNo: M2540C	Units: mg/L							
SampType: DUP	Run ID: WC_240816C	Analysis Date: 8/16/2024 4:30:00 PM	Prep Date: 8/16/2024							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	1260	50.0	0	1265				0.794	5	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAP certified

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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

## ANALYTICAL QC SUMMARY REPORT

**RunID:** WC\_240819C

The QC data in batch 116812 applies to the following samples: 2408200-04B, 2408200-05B, 2408200-06B, 2408200-07B, 2408200-08B, 2408200-09B, 2408200-10B

Sample ID:	MB-116812	Batch ID:	116812	TestNo:	M2540C	Units:	mg/L				
SampType:	MBLK	Run ID:	WC_240819C	Analysis Date: 8/19/2024 4:35:00 PM		Prep Date:	8/19/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)		<10.0	10.0								
Sample ID:	LCS-116812	Batch ID:	116812	TestNo:	M2540C	Units:	mg/L				
SampType:	LCS	Run ID:	WC_240819C	Analysis Date: 8/19/2024 4:35:00 PM		Prep Date:	8/19/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)		751	10.0	745.6	0	101	90	113			
Sample ID:	2408200-04B-DUP	Batch ID:	116812	TestNo:	M2540C	Units:	mg/L				
SampType:	DUP	Run ID:	WC_240819C	Analysis Date: 8/19/2024 4:35:00 PM		Prep Date:	8/19/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)		2030	50.0	0	2120				4.58	5	
Sample ID:	2408200-08B-DUP	Batch ID:	116812	TestNo:	M2540C	Units:	mg/L				
SampType:	DUP	Run ID:	WC_240819C	Analysis Date: 8/19/2024 4:35:00 PM		Prep Date:	8/19/2024				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)		4460	50.0	0	4530				1.56	5	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
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**CLIENT:** BBA Engineering  
**Work Order:** 2408200  
**Project:** OGSES-FGD PONDS - CCR

**MQL SUMMARY REPORT**

<b>TestNo:</b> E300	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Chloride	0.300	1.00
Fluoride	0.100	0.400
Sulfate	1.00	3.00

<b>TestNo:</b> SW6020B	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Antimony	0.000800	0.00250
Arsenic	0.00200	0.00500
Barium	0.00300	0.0100
Beryllium	0.000300	0.00100
Boron	0.0100	0.0300
Cadmium	0.000300	0.00100
Calcium	0.100	0.300
Chromium	0.00200	0.00500
Cobalt	0.00300	0.00500
Lead	0.000300	0.00100
Lithium	0.00500	0.0100
Molybdenum	0.00200	0.00500
Selenium	0.00200	0.00500
Thallium	0.000500	0.00150

<b>TestNo:</b> SW7470A	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Mercury	0.0000800	0.000200

<b>TestNo:</b> M2540C	<b>MDL</b>	<b>MQL</b>
<b>Analyte</b>	<b>mg/L</b>	<b>mg/L</b>
Total Dissolved Solids (Residue, Filt)	10.0	10.0

September 16, 2024

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc**DHL Analytical, Inc.**

Sample Delivery Group: L1769423

Samples Received: 08/20/2024

Project Number: 2408200

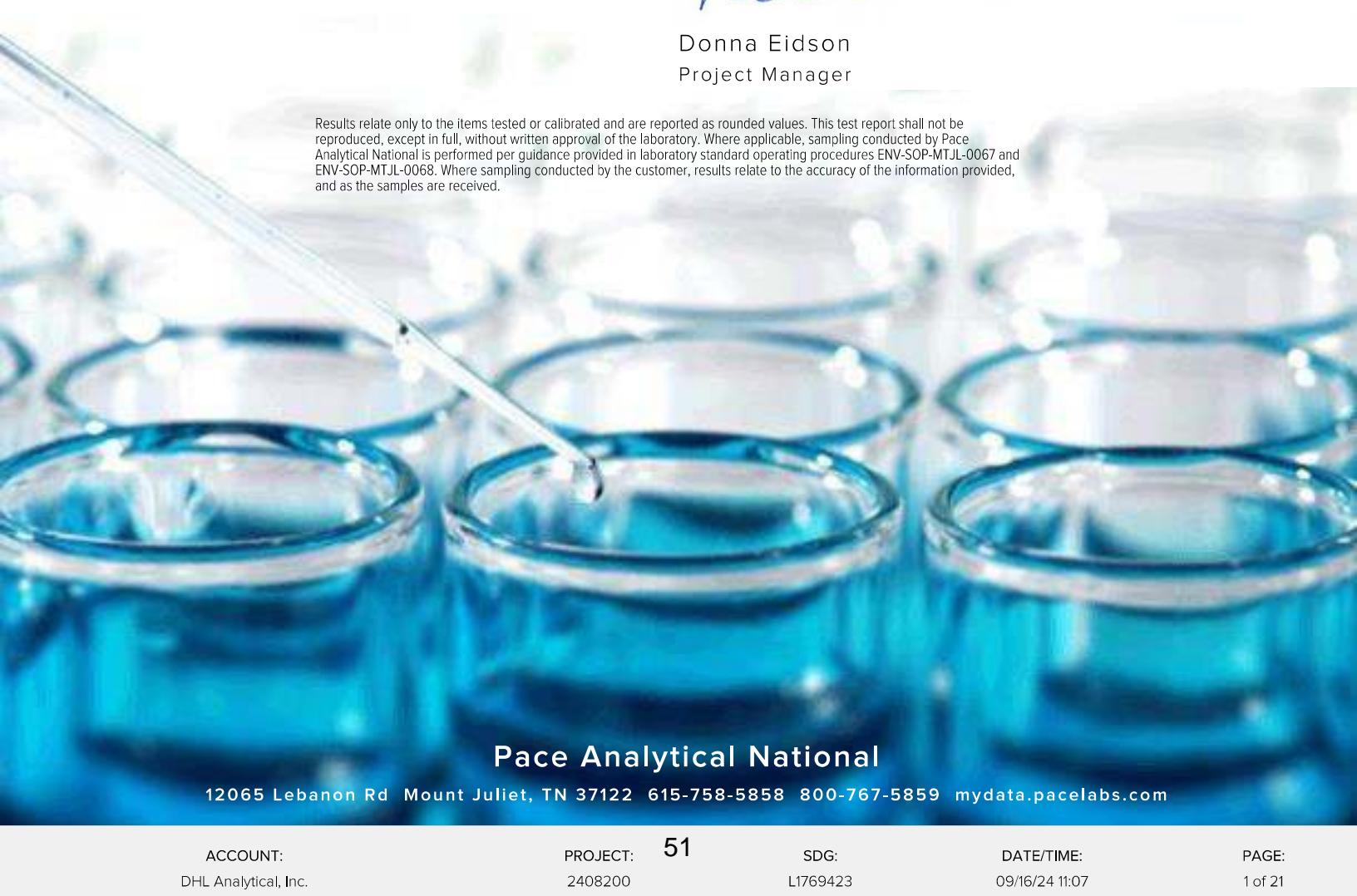
Description:

Report To: John DuPont  
2300 Double Creek Drive  
Round Rock, TX 78664

Entire Report Reviewed By:

Donna Eidson  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

**Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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# SAMPLE SUMMARY

		Collected by	Collected date/time	Received date/time		
			08/13/24 10:15	08/20/24 10:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 17:34	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			08/13/24 11:15	08/20/24 10:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 17:34	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			08/13/24 12:10	08/20/24 10:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 17:34	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			08/13/24 13:15	08/20/24 10:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 17:35	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			08/13/24 14:25	08/20/24 10:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 17:35	ZRG	Mt. Juliet, TN
		Collected by	Collected date/time	Received date/time		
			08/13/24 15:30	08/20/24 10:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 23:17	ZRG	Mt. Juliet, TN

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

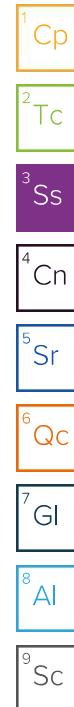
<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time	
				08/13/24 15:30	08/20/24 10:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 23:17	ZRG	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
				08/14/24 09:15	08/20/24 10:30	
FDG-8 L1769423-08 Non-Potable Water			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 23:17	ZRG	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
				08/14/24 11:20	08/20/24 10:30	
FDG-11 L1769423-09 Non-Potable Water			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 23:17	ZRG	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
				08/14/24 12:30	08/20/24 10:30	
FDG-12 L1769423-10 Non-Potable Water			Collected by	Collected date/time	Received date/time	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2353274	1	08/30/24 12:50	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2348539	1	08/22/24 16:21	09/06/24 20:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2348539	1	08/22/24 16:21	08/26/24 23:17	ZRG	Mt. Juliet, TN



# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Donna Eidson  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.285	TPU 0.491	MDA 0.505	Lc pCi/l	Analysis Date date / time 09/06/2024 20:04	<u>Batch</u> <a href="#">WG2353274</a>
RADIUM-228	0.709					0.263	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Barium	92.7					30.0-143	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Yttrium	108					30.0-136	09/06/2024 20:04	<a href="#">WG2353274</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 0.437	MDA 0.528	Analysis Date date / time 09/06/2024 20:04	<u>Batch</u> <a href="#">WG2348539</a>
Combined Radium	1.54					

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.331	TPU 0.740	MDA 0.155	Lc pCi/l	Analysis Date date / time 08/26/2024 17:34	<u>Batch</u> <a href="#">WG2348539</a>
RADIUM-226	0.835					0.128	08/26/2024 17:34	<a href="#">WG2348539</a>
(T) Barium-133	105					30.0-143	08/26/2024 17:34	<a href="#">WG2348539</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.302	TPU 0.508	MDA 0.523	Lc pCi/l	Analysis Date date / time 09/06/2024 20:04	<u>Batch</u> <a href="#">WG2353274</a>
RADIUM-228	1.24							
(T) Barium	93.1					30.0-143	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Yttrium	101					30.0-136	09/06/2024 20:04	<a href="#">WG2353274</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 0.440	MDA 0.546	Analysis Date date / time 09/06/2024 20:04	<u>Batch</u> <a href="#">WG2348539</a>
Combined Radium	2.01					

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.320	TPU 0.725	MDA 0.156	Lc pCi/l	Analysis Date date / time 08/26/2024 17:34	<u>Batch</u> <a href="#">WG2348539</a>
RADIUM-226	0.773							
(T) Barium-133	108					30.0-143	08/26/2024 17:34	<a href="#">WG2348539</a>

## Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-228	-0.0876	<u>U</u>	0.348	0.563	0.640	0.332	09/06/2024 20:04	<u>WG2353274</u>
(T) Barium	85.4					30.0-143	09/06/2024 20:04	<u>WG2353274</u>
(T) Yttrium	101					30.0-136	09/06/2024 20:04	<u>WG2353274</u>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.367	<u>J</u>	0.417	0.666	09/06/2024 20:04	<u>WG2348539</u>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-226	0.367		0.229	0.446	0.183	0.144	08/26/2024 17:34	<u>WG2348539</u>
(T) Barium-133	96.7					30.0-143	08/26/2024 17:34	<u>WG2348539</u>

## Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-228	-0.182	<u>U</u>	0.294	0.493	0.545	0.284	09/06/2024 20:04	<u>WG2353274</u>
(T) Barium	99.0					30.0-143	09/06/2024 20:04	<u>WG2353274</u>
(T) Yttrium	101					30.0-136	09/06/2024 20:04	<u>WG2353274</u>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

## Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.411	<u>J</u>	0.390	0.591	09/06/2024 20:04	<u>WG2348539</u>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-226	0.411		0.257	0.481	0.228	0.169	08/26/2024 17:35	<u>WG2348539</u>
(T) Barium-133	91.7					30.0-143	08/26/2024 17:35	<u>WG2348539</u>

## Radiochemistry by Method 904/9320

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-228	-0.0634	<u>U</u>	0.312	0.525	0.576	0.300	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Barium	92.1					30.0-143	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Yttrium	93.5					30.0-136	09/06/2024 20:04	<a href="#">WG2353274</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result	<u>Qualifier</u>	Uncertainty	MDA	Analysis Date	Batch
Combined Radium	0.220	<u>U</u>	0.359	0.602	09/06/2024 20:04	<a href="#">WG2348539</a>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	<u>Qualifier</u>	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
RADIUM-226	0.220		0.178	0.330	0.176	0.138	08/26/2024 17:35	<a href="#">WG2348539</a>
(T) Barium-133	100					30.0-143	08/26/2024 17:35	<a href="#">WG2348539</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-228	0.442	J	0.363	0.640	0.657	0.343	09/06/2024 20:04	WG2353274
(T) Barium	101					30.0-143	09/06/2024 20:04	WG2353274
(T) Yttrium	106					30.0-136	09/06/2024 20:04	WG2353274

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>
Combined Radium	1.03		0.467	0.679	09/06/2024 20:04	WG2348539

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-226	0.590		0.294	0.608	0.172	0.142	08/26/2024 23:17	WG2348539
(T) Barium-133	102					30.0-143	08/26/2024 23:17	WG2348539

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-228	0.441	J	0.247	0.449	0.444	0.233	09/06/2024 20:04	WG2353274
(T) Barium	96.2					30.0-143	09/06/2024 20:04	WG2353274
(T) Yttrium	101					30.0-136	09/06/2024 20:04	WG2353274

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>
Combined Radium	0.909		0.373	0.504	09/06/2024 20:04	WG2348539

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-226	0.469		0.280	0.527	0.239	0.177	08/26/2024 23:17	WG2348539
(T) Barium-133	101					30.0-143	08/26/2024 23:17	WG2348539

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.465	TPU 0.811	MDA 0.711	Lc 0.373	Analysis Date date / time 09/06/2024 20:04	<u>Batch</u> <a href="#">WG2353274</a>
RADIUM-228	4.89							
(T) Barium	100					30.0-143	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Yttrium	106					30.0-136	09/06/2024 20:04	<a href="#">WG2353274</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u> + / -	Uncertainty 0.801	MDA 0.748	Analysis Date date / time 09/06/2024 20:04	<u>Batch</u> <a href="#">WG2348539</a>
Combined Radium	7.97					

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u> + / -	2 sigma CE 0.652	TPU 1.97	MDA 0.232	Lc 0.169	Analysis Date date / time 08/26/2024 23:17	<u>Batch</u> <a href="#">WG2348539</a>
RADIUM-226	3.09							
(T) Barium-133	109					30.0-143	08/26/2024 23:17	<a href="#">WG2348539</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-228	1.05		0.287	0.485	0.500	0.260	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Barium	99.9					30.0-143	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Yttrium	112					30.0-136	09/06/2024 20:04	<a href="#">WG2353274</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>
Combined Radium	2.56		0.547	0.528	09/06/2024 20:04	<a href="#">WG2348539</a>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-226	1.51		0.466	1.12	0.171	0.141	08/26/2024 23:17	<a href="#">WG2348539</a>
(T) Barium-133	104					30.0-143	08/26/2024 23:17	<a href="#">WG2348539</a>

## Radiochemistry by Method 904/9320

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-228	1.74		0.500	0.874	0.871	0.457	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Barium	86.7					30.0-143	09/06/2024 20:04	<a href="#">WG2353274</a>
(T) Yttrium	101					30.0-136	09/06/2024 20:04	<a href="#">WG2353274</a>

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Radiochemistry by Method Calculation

Analyte	Result pCi/l	<u>Qualifier</u>	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	<u>Batch</u>
Combined Radium	2.71		0.617	0.889	09/06/2024 20:04	<a href="#">WG2348539</a>

## Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	<u>Qualifier</u>	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	<u>Batch</u>
RADIUM-226	0.975		0.362	0.852	0.180	0.141	08/26/2024 23:17	<a href="#">WG2348539</a>
(T) Barium-133	98.6					30.0-143	08/26/2024 23:17	<a href="#">WG2348539</a>

## QUALITY CONTROL SUMMARY

L1769423-01,02,03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R4118078-1 09/06/24 20:04

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.426	<u>U</u>	0.244	0.225	0.116
(T) Barium	106		106		
(T) Yttrium	95.1		95.1		

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L1769423-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1769423-06 09/06/24 20:04 • (DUP) R4118078-4 09/06/24 20:04

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER 1.10	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-228	0.442	0.363	0.657	0.343	-0.117	0.353	0.655	0.342	200	1.10	<u>U</u>	20	3
(T) Barium	101				108	108							
(T) Yttrium	106				109	109							

## Laboratory Control Sample (LCS)

(LCS) R4118078-5 09/09/24 23:21

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-228	5.00	5.04	101	80.0-120	
(T) Barium			74.7		
(T) Yttrium			64.7		

## L1772365-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1772365-01 09/06/24 20:04 • (MS) R4118078-2 09/06/24 20:04 • (MSD) R4118078-3 09/06/24 20:04

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.275	16.3	16.6	97.4	99.2	1	70.0-130			1.77		20
(T) Barium		95.8		104	110								
(T) Yttrium		113		101	100								

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## QUALITY CONTROL SUMMARY

L1769423-01,02,03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R4112759-1 08/26/24 16:33

Analyte	MB Result pCi/l	<u>MB Qualifier</u>	MB 2 sigma CE +/-	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0331	J	0.0444	0.0643	0.0477
(T) Barium-133	94.0		94.0		

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>QC<sup>7</sup>GI<sup>8</sup>AI<sup>9</sup>Sc

## L1769423-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1769423-06 08/26/24 23:17 • (DUP) R4112759-5 08/26/24 16:33

Analyte	Original Result pCi/l	Original 2 sigma CE +/-	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE +/-	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %	DUP RER Limit
Radium-226	0.590	0.294	0.172	0.142	0.414	0.251	0.177	0.146	35.1	0.455	20	3
(T) Barium-133	102			104	104							

## Laboratory Control Sample (LCS)

(LCS) R4112759-2 08/26/24 16:33

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Radium-226	5.00	4.99	99.8	75.0-125	
(T) Barium-133		104			

## L1769393-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1769393-06 08/26/24 17:34 • (MS) R4112759-3 08/26/24 16:33 • (MSD) R4112759-4 08/26/24 16:33

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
Radium-226	20.0	1.12	17.7	20.4	82.9	96.6	1	75.0-125			14.4		20
(T) Barium-133		98.2		83.5	86.8								

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDA	Minimum Detectable Activity.	1 Cp
Rec.	Recovery.	2 Tc
RER	Replicate Error Ratio.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.	6 Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	7 GI
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	8 AI
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	9 Sc
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

### Qualifier      Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

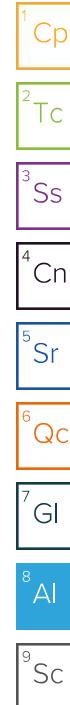
Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky <sup>6</sup>	KY90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana	LA018
Maine	TN00003
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 <sup>5</sup>	1461.02
Canada	1461.01
EPA-Crypto	TN00003

Nebraska	NE-OS-15-05
Nevada	TN000032021-1
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico <sup>1</sup>	TN00003
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004002
South Dakota	n/a
Tennessee <sup>14</sup>	2006
Texas	T104704245-20-18
Texas <sup>5</sup>	LAB0152
Utah	TN000032021-11
Vermont	VT2006
Virginia	110033
Washington	C847
West Virginia	233
Wisconsin	998093910
Wyoming	A2LA
AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



DHL Analytical, Inc.  
2300 Double Creek Drive  
Round Rock, TX 78664

TEL: (512) 388-8222 FAX:  
Work Order: 2408200

**Subcontractor:**

Pace Analytical  
12065 Lebanon Rd  
Mt. Juliet, TN 37122

TEL: (615) 773-5923  
FAX:  
Acct #: DHLRRTX

# CHAIN-OF-CUSTODY RECORD

Page 1 of 2

AMB Pb-210 AMB-3

Sample Receipt Checklist		total 20
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	If Applicable
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	VOA Zero Headspace: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Pres. Correct/Check: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
RA Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

U769423

16-Aug-24

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests			
					Ra-228	Ra-226	E904.0	M7500 Ra B M
FDG-6	Aqueous	01C	08/13/24 10:15 AM	250HDPE		1		
FDG-6	Aqueous	01D	08/13/24 10:15 AM	250HDPE	1			
FGD-4	Aqueous	02C	08/13/24 11:15 AM	250HDPE		1		
FGD-4	Aqueous	02D	08/13/24 11:15 AM	250HDPE	1			
FDG-3	Aqueous	03C	08/13/24 12:10 PM	250HDPE		1		
FDG-3	Aqueous	03D	08/13/24 12:10 PM	250HDPE	1			
FGD-2	Aqueous	04C	08/13/24 01:15 PM	250HDPE		1		
FGD-2	Aqueous	04D	08/13/24 01:15 PM	250HDPE	1			
FGD-5	Aqueous	05C	08/13/24 02:25 PM	250HDPE		1		
FGD-5	Aqueous	05D	08/13/24 02:25 PM	250HDPE	1			
FGD-1	Aqueous	06C	08/13/24 03:30 PM	250HDPE		1		
FGD-1	Aqueous	06D	08/13/24 03:30 PM	250HDPE	1			
DUP-1	Aqueous	07C	08/13/24 03:30 PM	250HDPE		1		
DUP-1	Aqueous	07D	08/13/24 03:30 PM	250HDPE	1			
FGD-8	Aqueous	08C	08/14/24 09:15 AM	250HDPE		1		
FGD-8	Aqueous	08D	08/14/24 09:15 AM	250HDPE	1			
FGD-11	Aqueous	09C	08/14/24 11:20 AM	250HDPE		1		
								-09

General Comments:

Please analyze these samples with Normal Turnaround Time.  
Report Ra-226, Ra-228 & Combined per Specs.  
Quality Control Package Needed: Standard - NELAC Rad Test compliant  
Email to cacc@dhlanalytical.com & dupont@dhlanalytical.com

Relinquished by:		Date/Time		Date/Time
Relinquished by:	8/16/24 5:00 pm	Received by:		08-20-24-0900 1030
Relinquished by:		Received by:		

DHL Analytical, Inc.  
2300 Double Creek Drive  
Round Rock, TX 78664

TEL: (512) 388-8222      FAX:  
Work Order: 2408200

**Subcontractor:**

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12065 Lebanon Rd  
Mt. Juliet, TN 37122

TEL: (615) 773-5923  
FAX:  
Acct #: DHLRRTX

Page 2 of 2

# CHAIN-OF-CUSTODY RECORD

U769473  
16-Aug-24

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests		
					Ra-228	Ra-226	E904.0 M7500 Ra B M
FGD-11	Aqueous	09D	08/14/24 11:20 AM	250HDPE	1		-09
FGD-12	Aqueous	10C	08/14/24 12:30 PM	250HDPE		1	
FGD-12	Aqueous	10D	08/14/24 12:30 PM	250HDPE	1		J-10

**General Comments:**

Please analyze these samples with Normal Turnaround Time.  
Report Ra-226, Ra-228 & Combined per Specs.  
Quality Control Package Needed: Standard - NELAC Rad Test compliant  
Email to cac@dhlanalytical.com & dupont@dhlanalytical.com

Relinquished by: *J. Munley*  
Relinquished by:

Date/Time

8/16/24 5:00 pm  
Received by:

Date/Time

*[Signature]* 08-20-24 1030  
Received by:

**APPENDIX B**

**ASSESSMENT MONITORING PROGRAM**

**STATISTICAL DATA SUMMARY**

## **Confidence Interval Graphs**

### **EXPLANATION**



95% Upper confidence limit

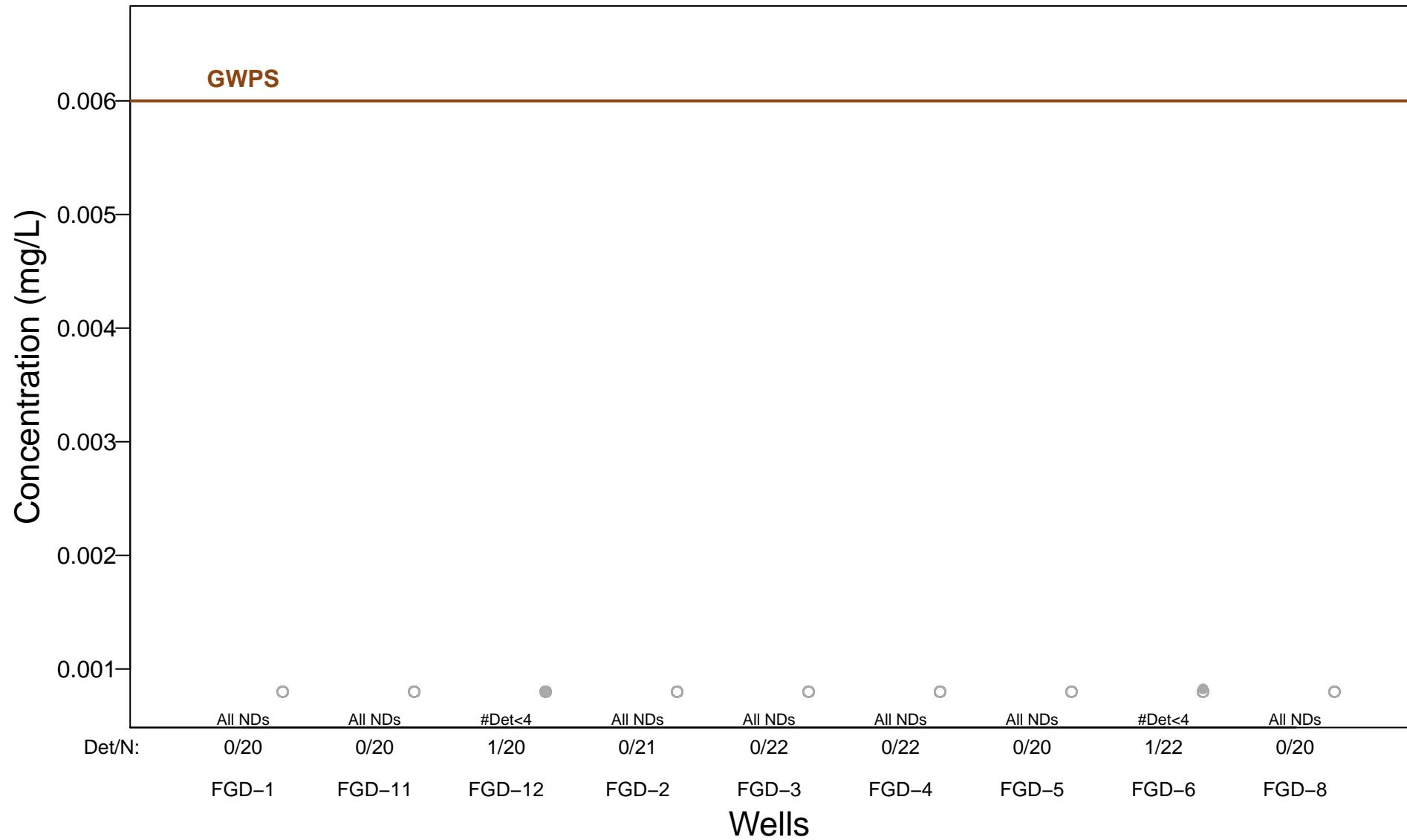


95% Lower confidence limit

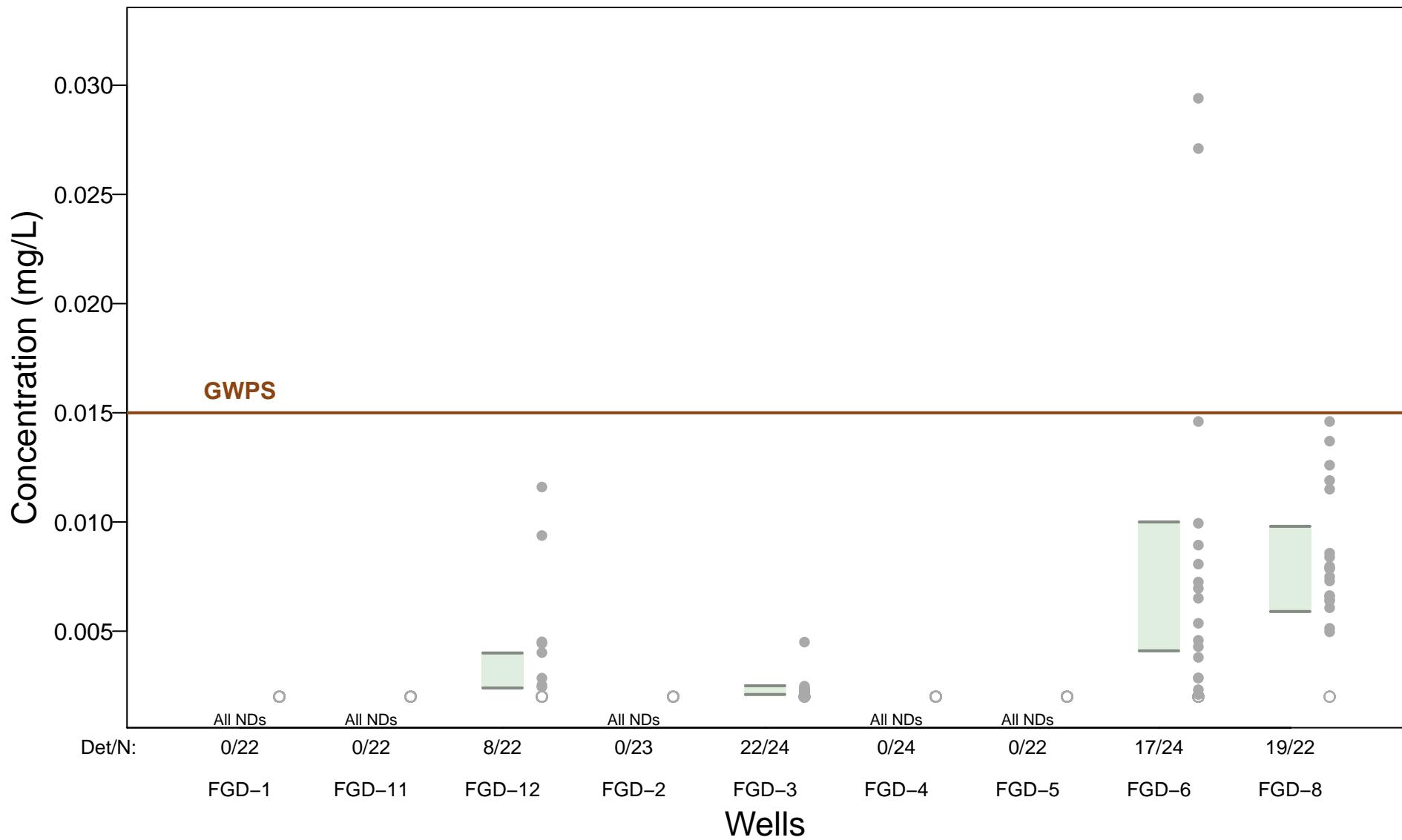
- Detected sample concentration
- Non-detect sample result (concentration set to laboratory reporting limit)

Note: An SSL is indicated if the lower confidence limit exceeds the GWPS.

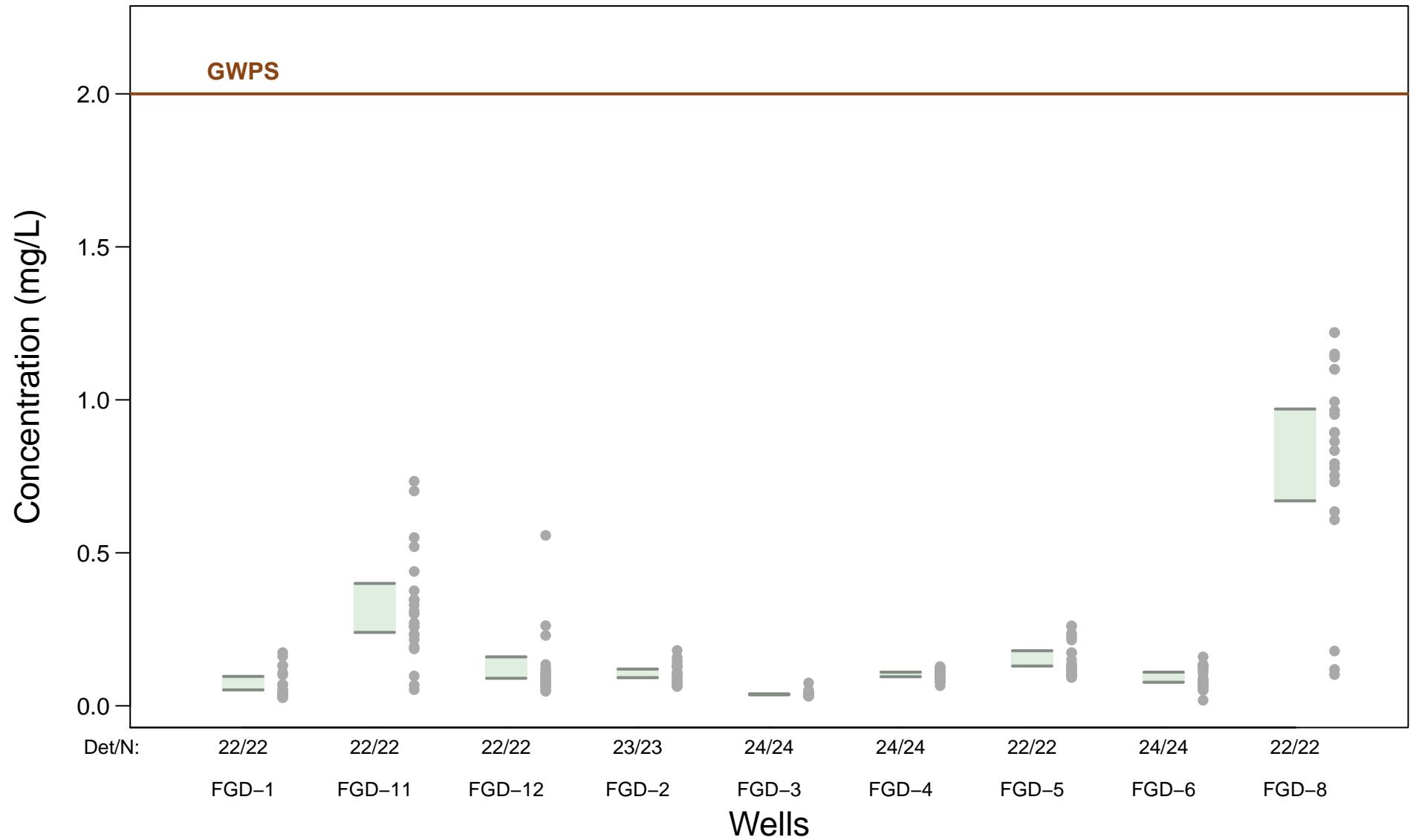
## Antimony – 95% Confidence Intervals



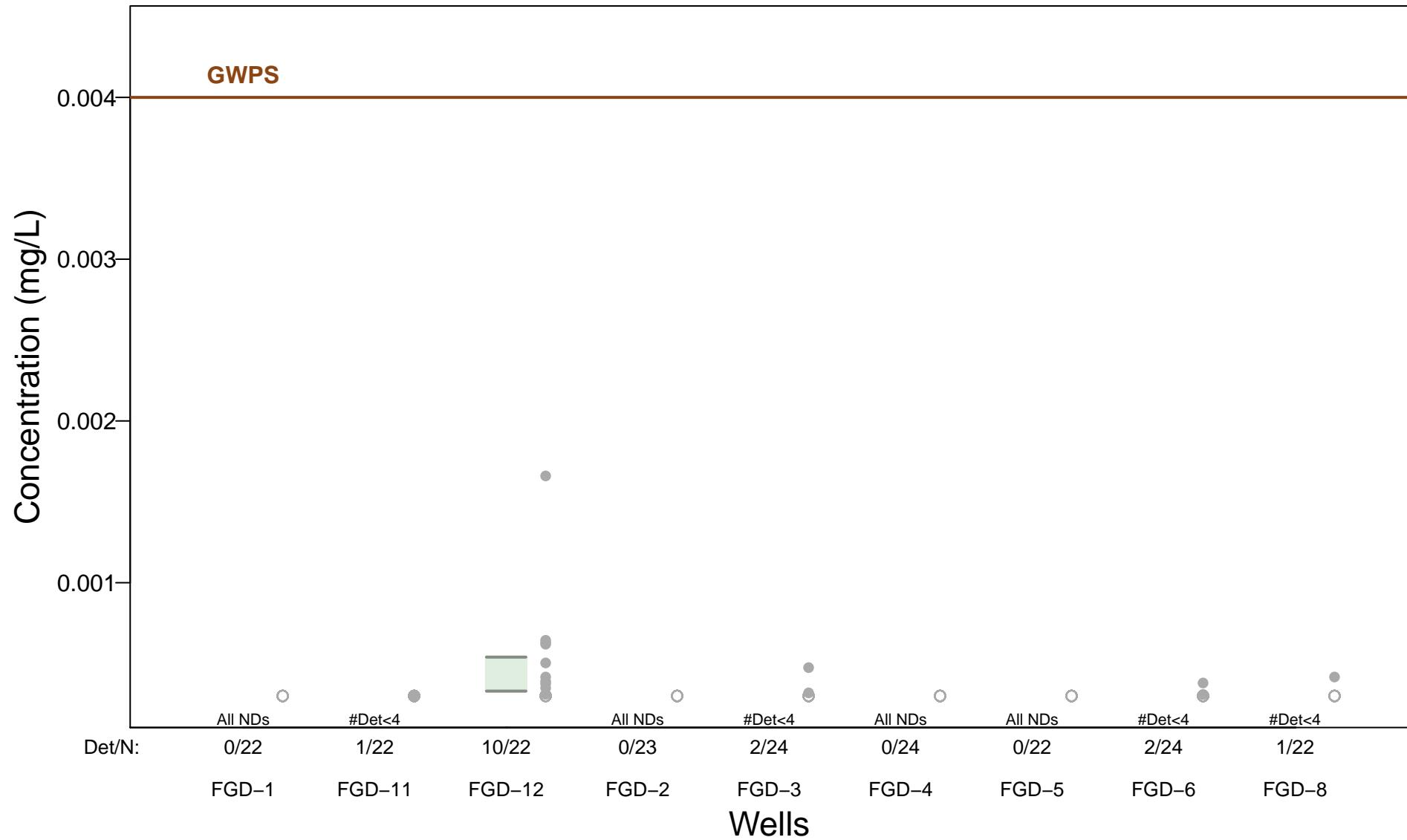
## Arsenic – 95% Confidence Intervals



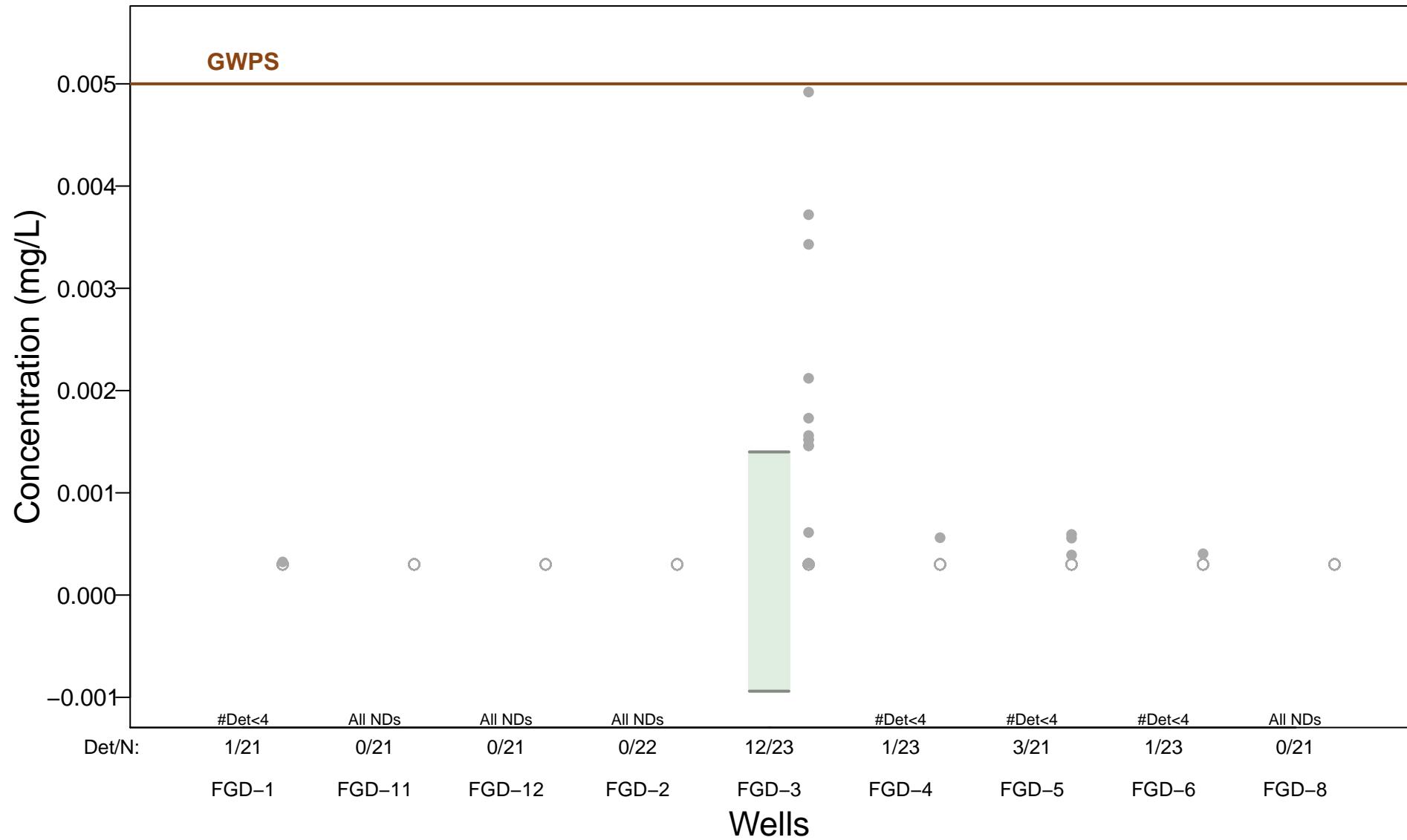
## Barium – 95% Confidence Intervals



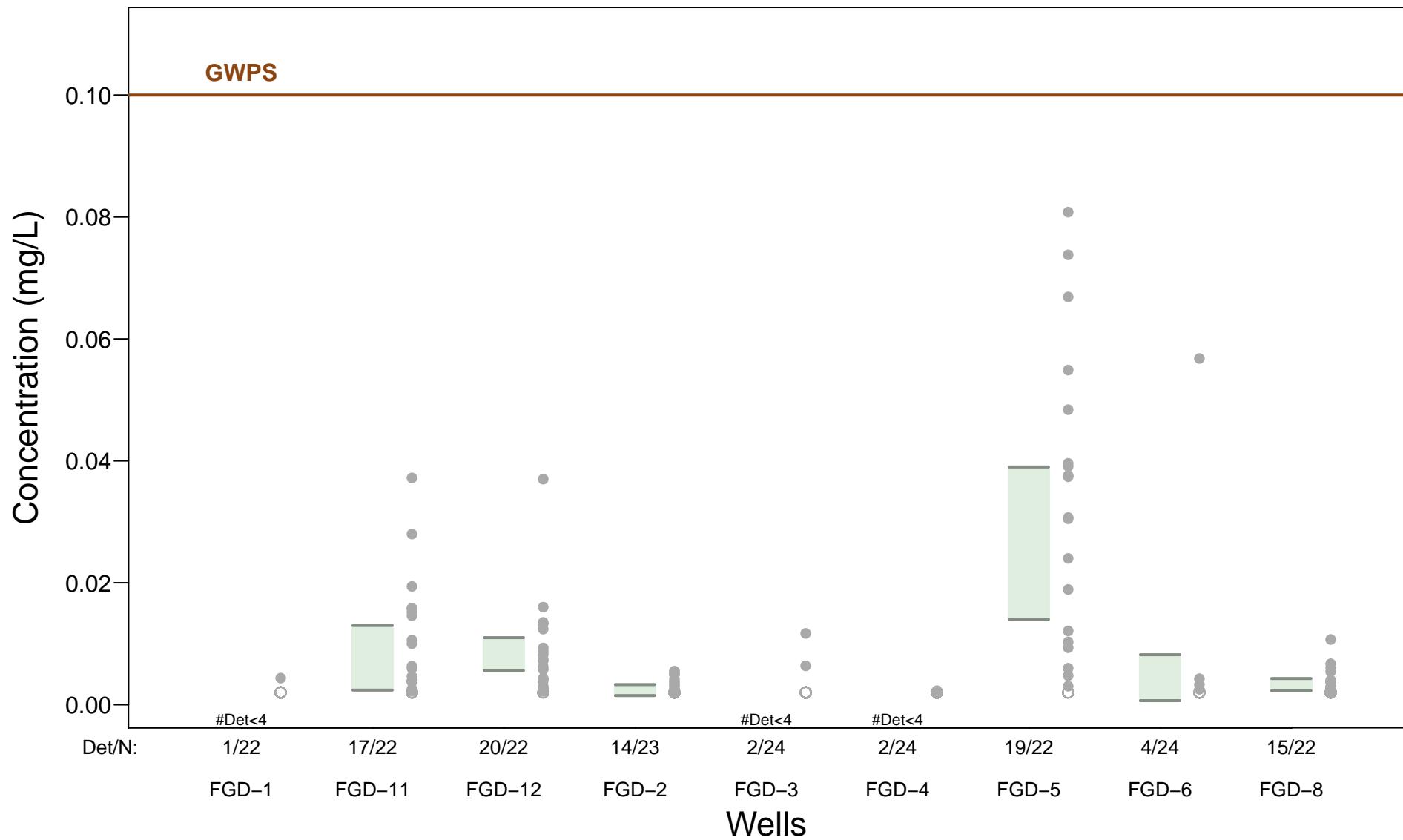
## Beryllium – 95% Confidence Intervals



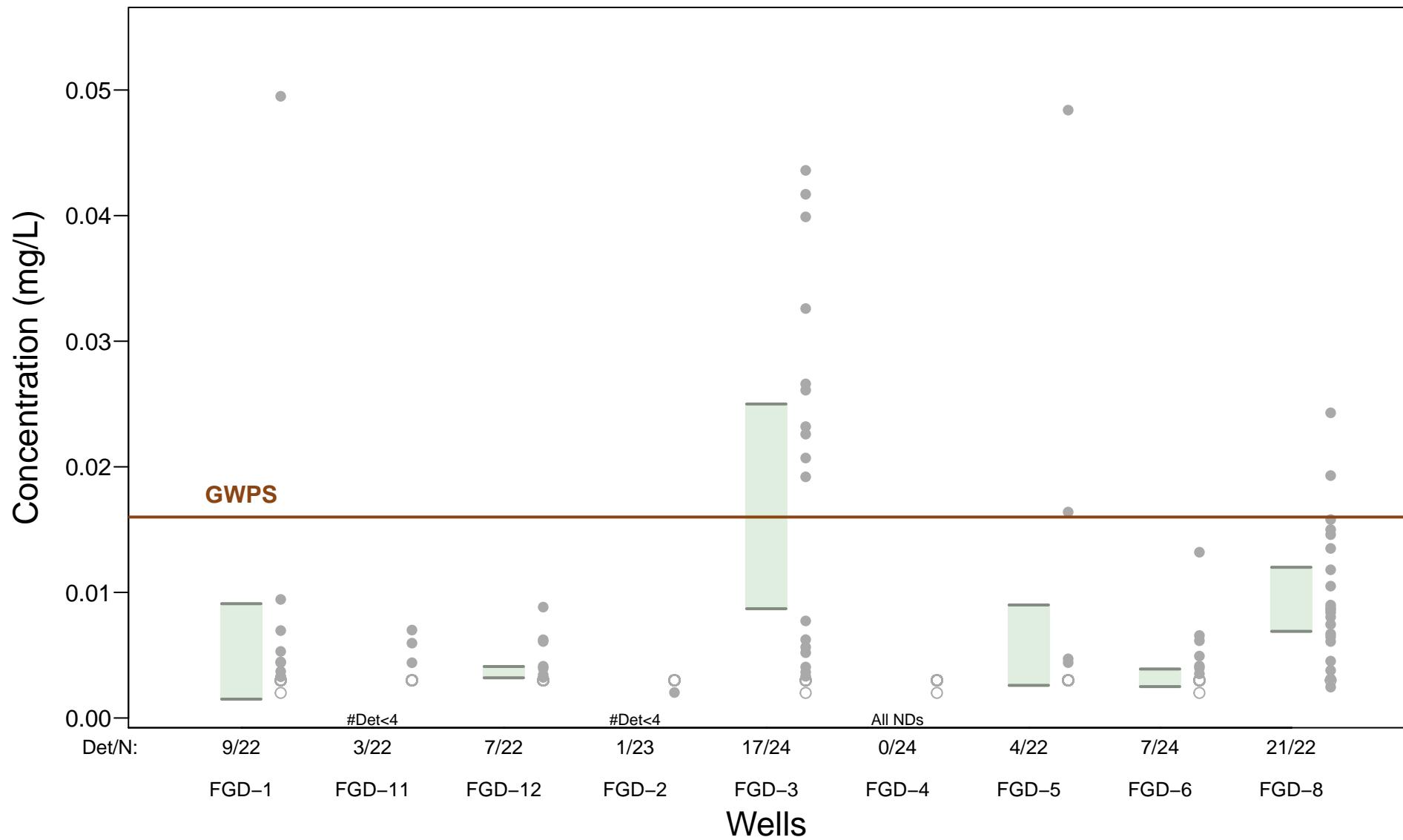
# Cadmium – 95% Confidence Intervals



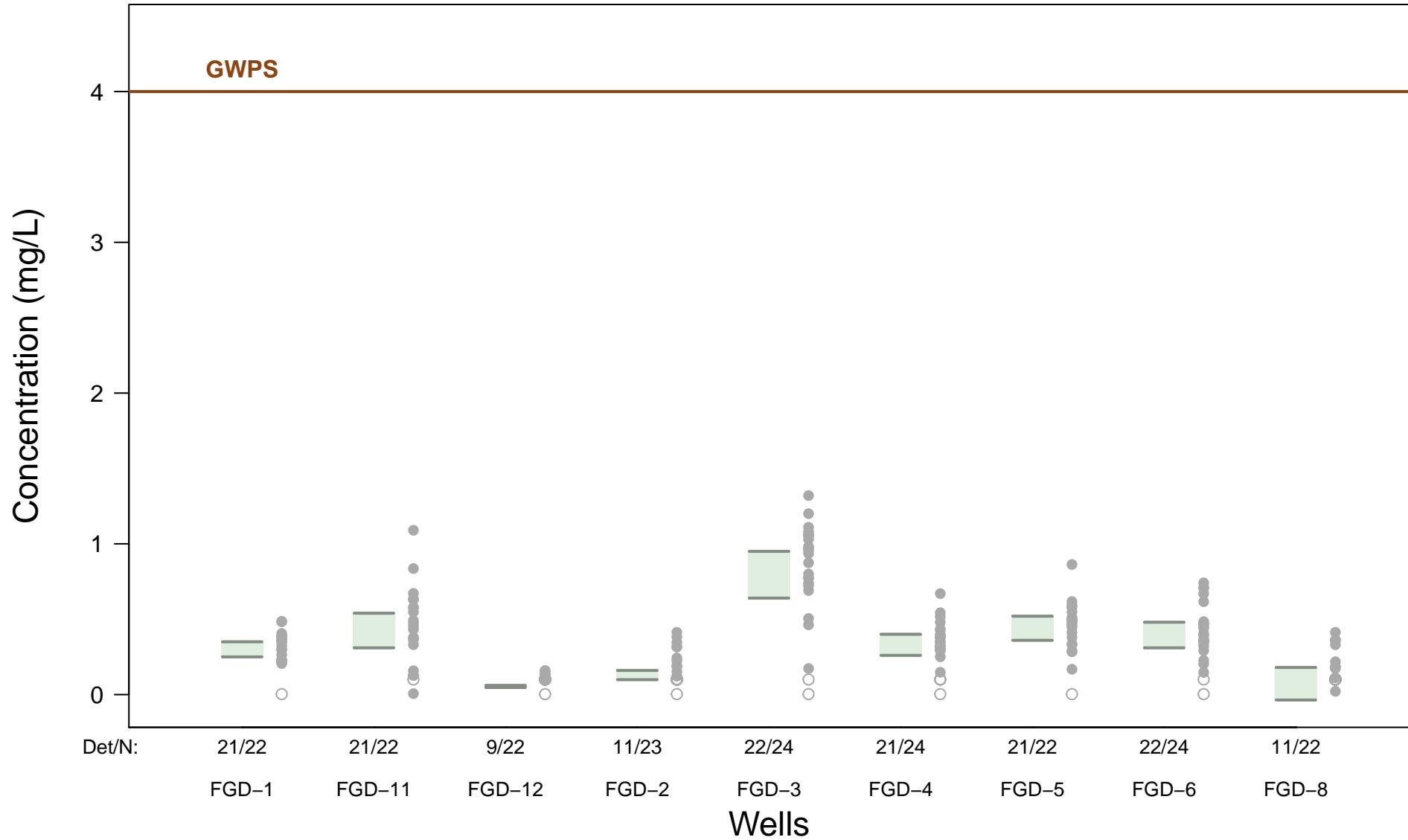
# Chromium – 95% Confidence Intervals



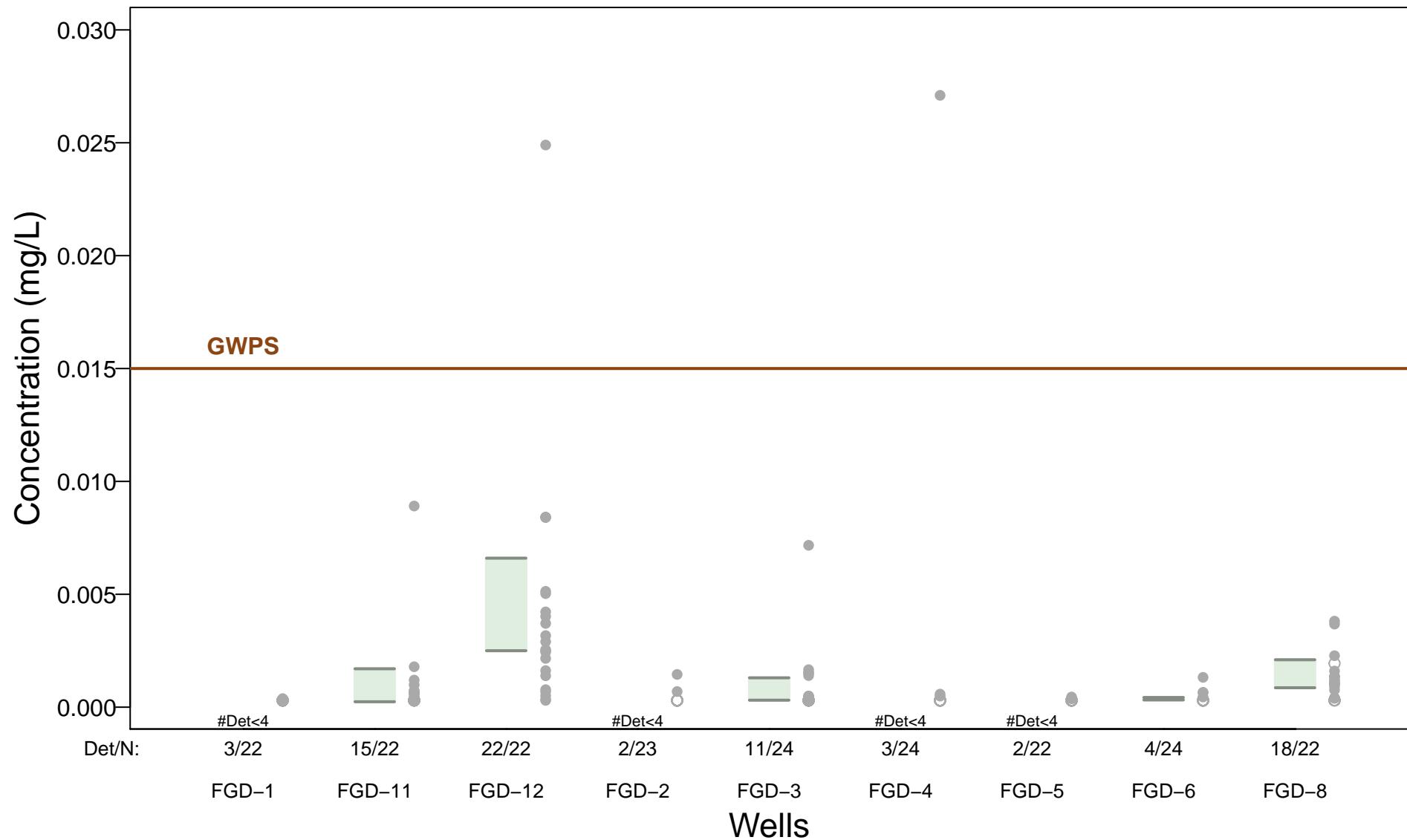
# Cobalt – 95% Confidence Intervals



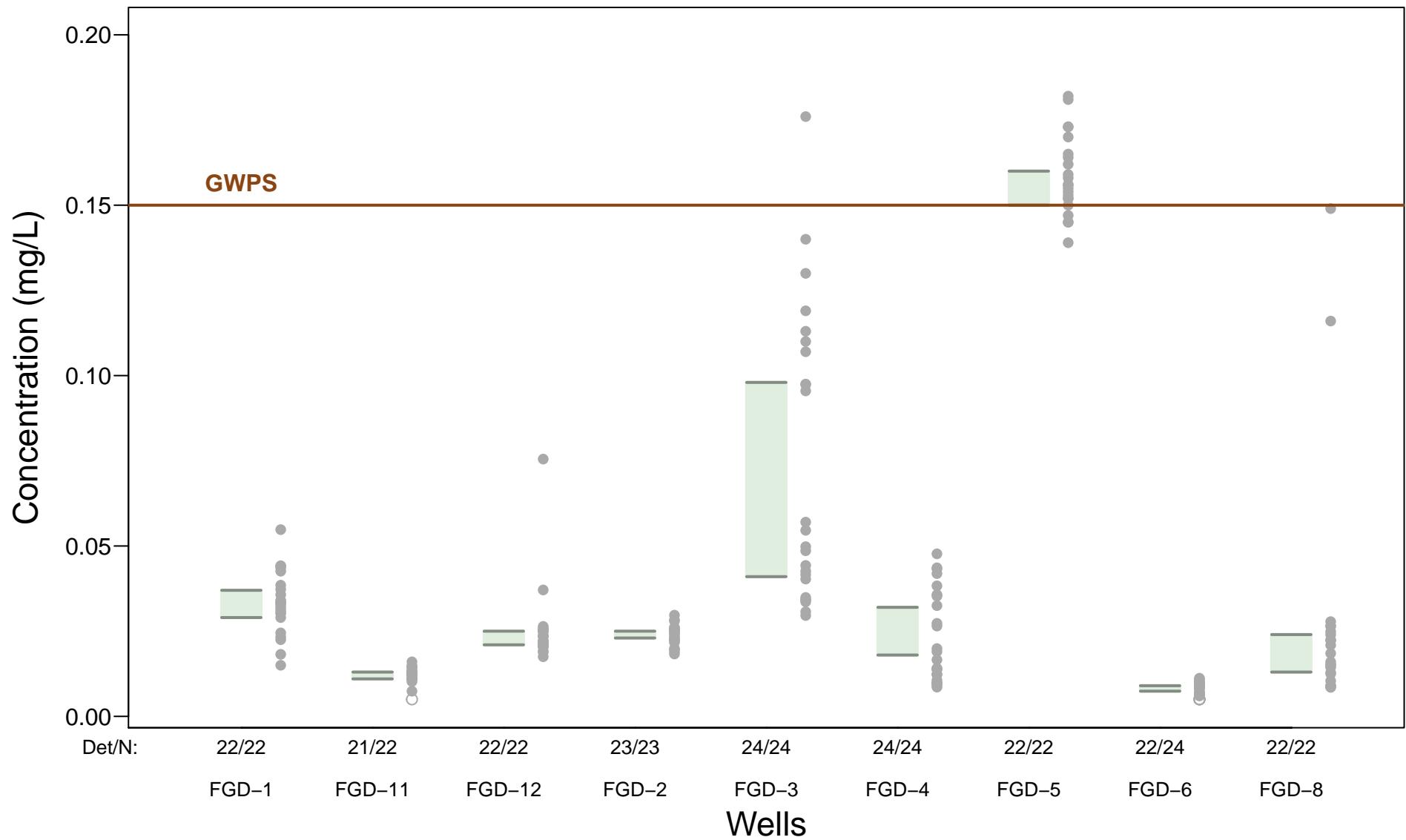
## Fluoride (Appendix IV) – 95% Confidence Intervals



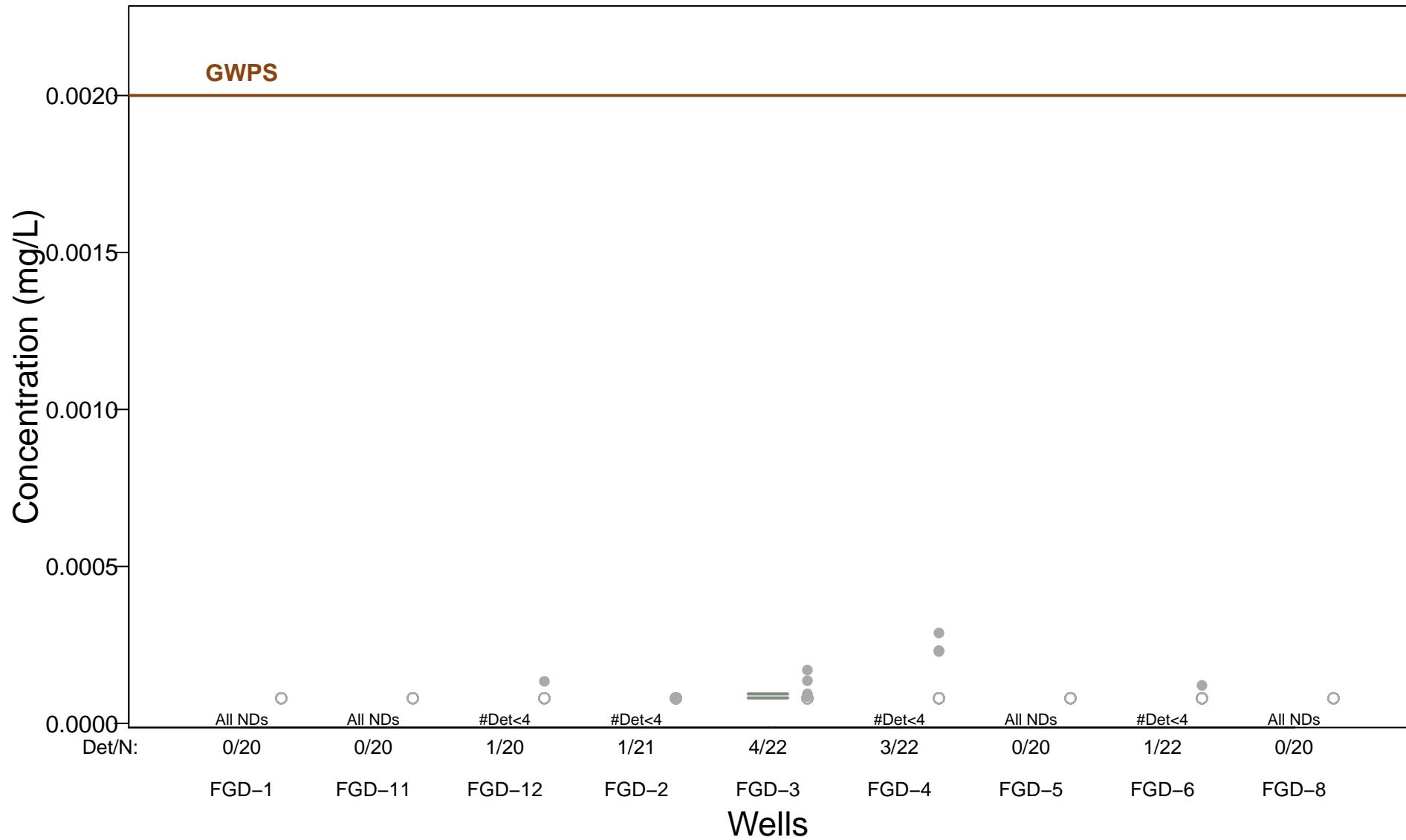
## Lead – 95% Confidence Intervals



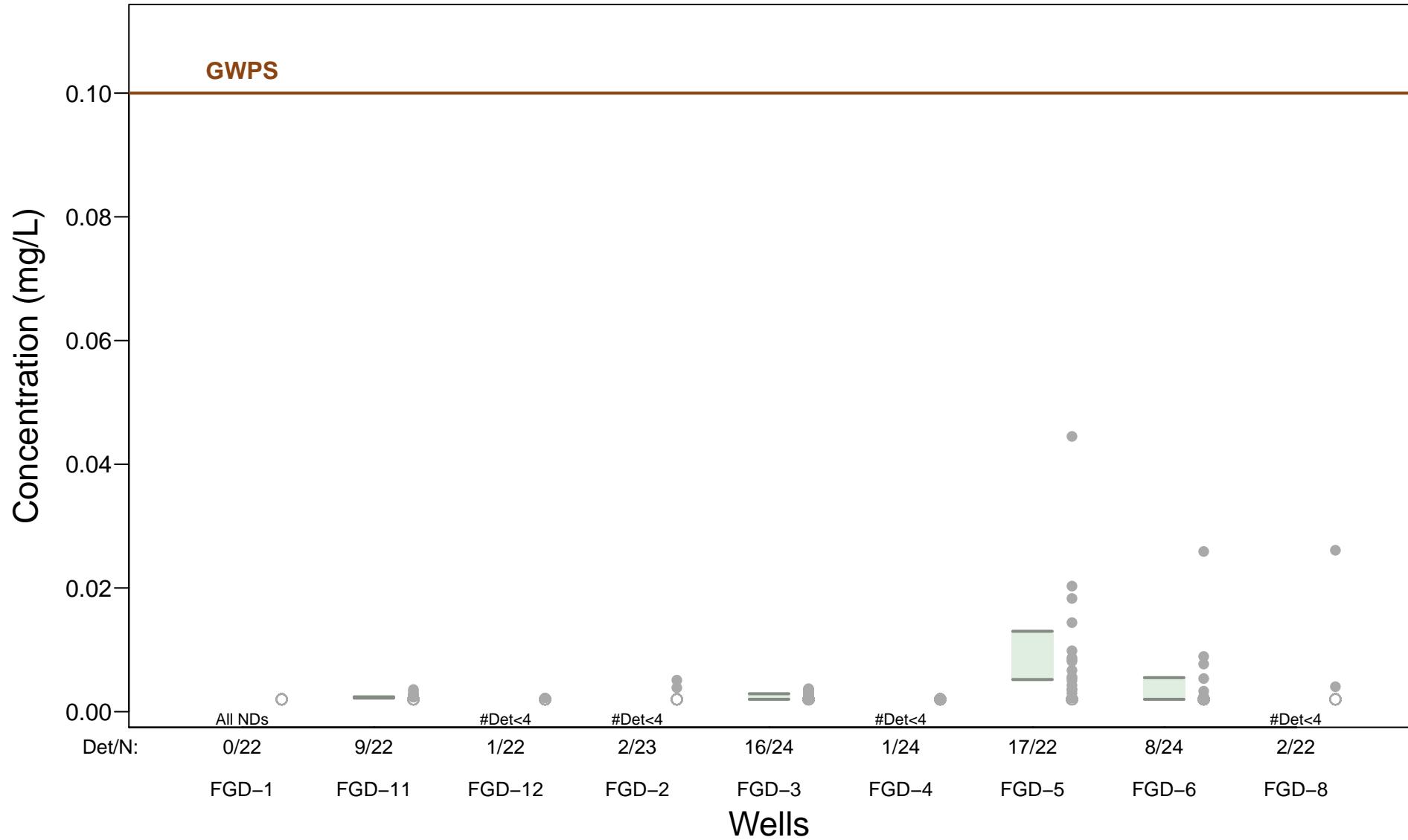
# Lithium – 95% Confidence Intervals



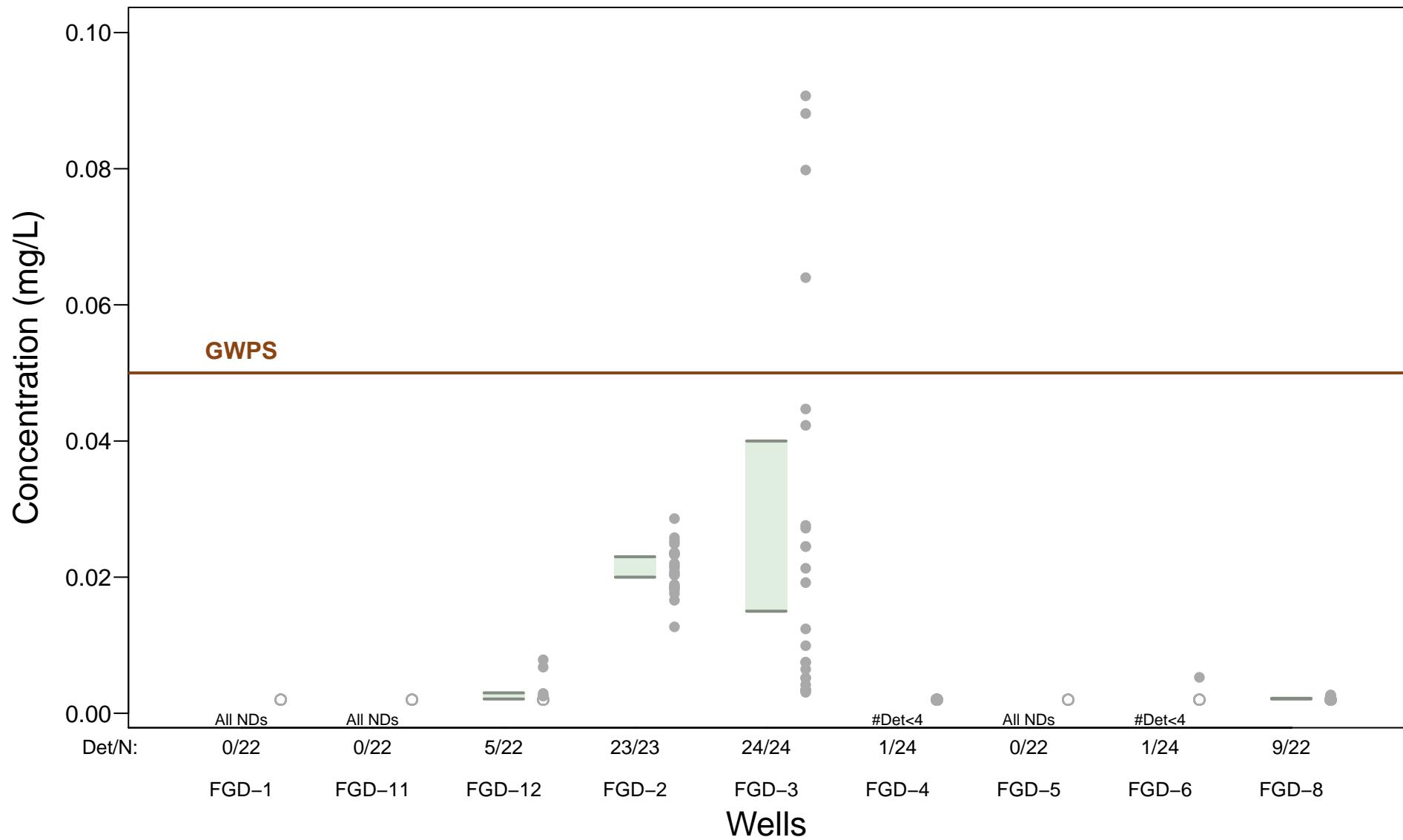
## Mercury – 95% Confidence Intervals



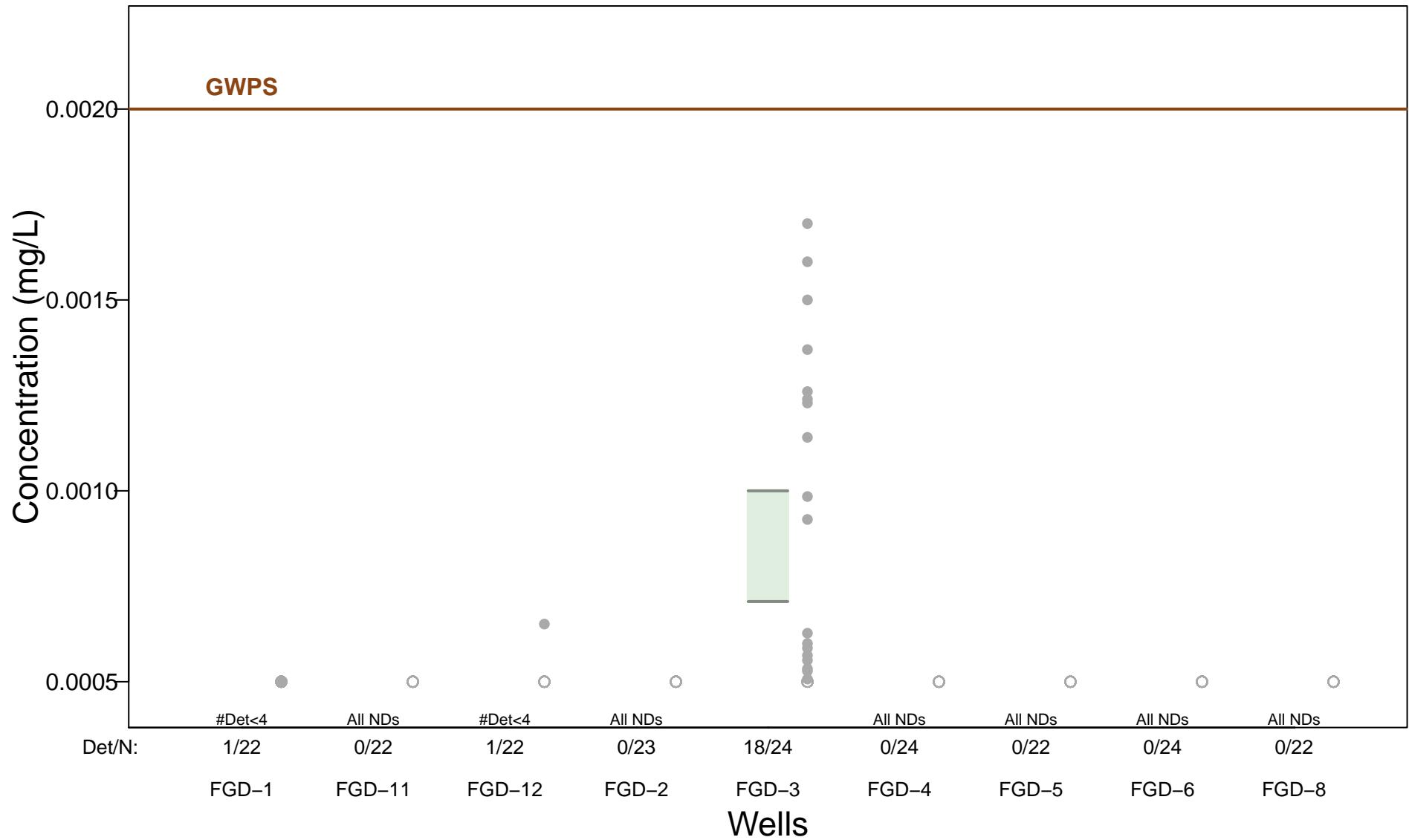
## Molybdenum – 95% Confidence Intervals



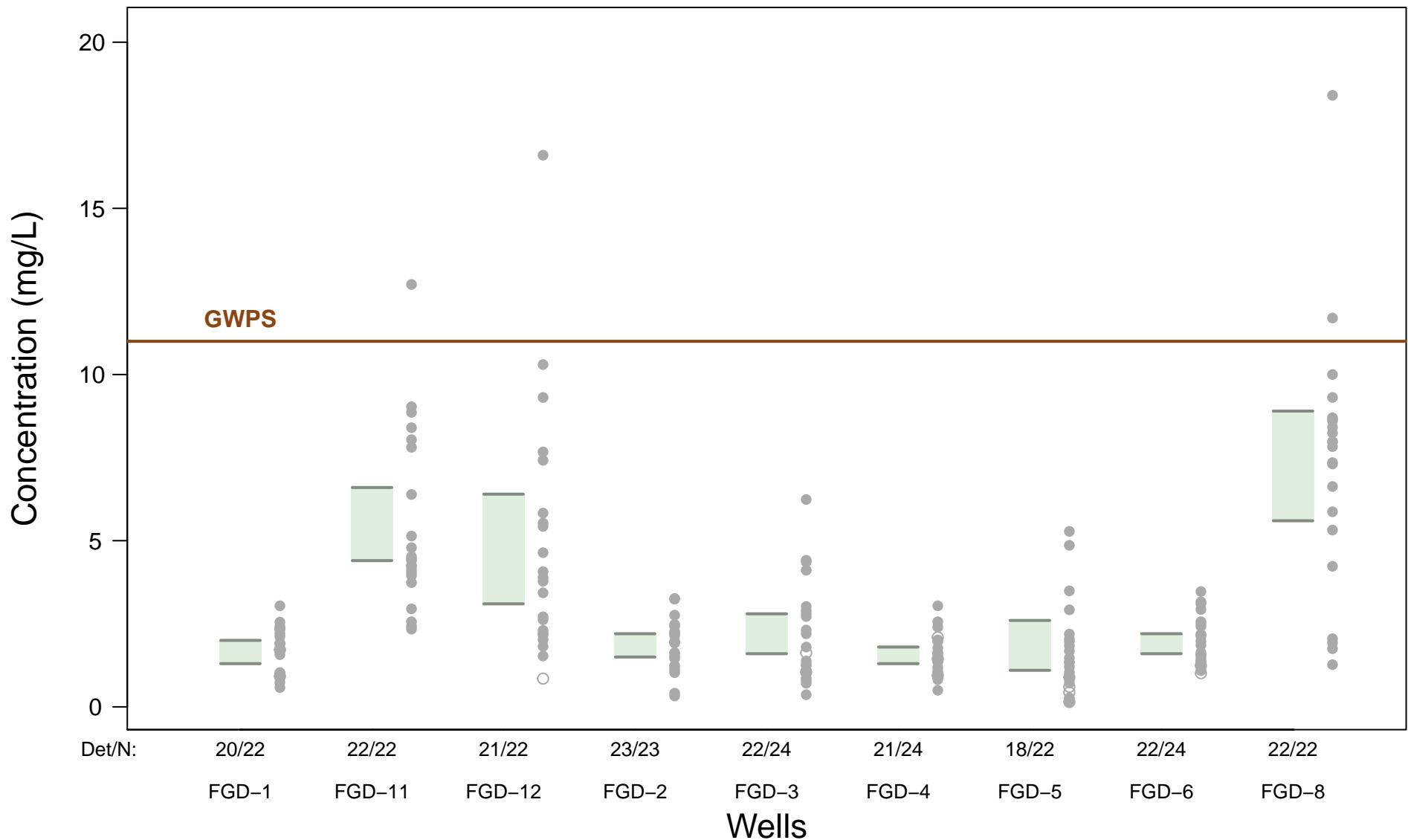
# Selenium – 95% Confidence Intervals



## Thallium – 95% Confidence Intervals



# Radium-226/228 combined – 95% Confidence Intervals



**Statistical Data Summary Table**

STATISTICAL DATA SUMMARY TABLE

Site	Area	Analyte	Well	# Detects	# Samples	% Detects	Gradient	GWPS	Minimum Detect	Maximum Detect	Distribution	LCL	UCL	LCL > GWPS?
OGSES	FGD Pond Area	Antimony	FGD-1	0	20	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Antimony	FGD-11	0	20	0	Upgradient Wells	0.006	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Antimony	FGD-12	1	20	5	Downgradient Wells	0.006	0.0008	0.0008	Nonparametric, det<4			
OGSES	FGD Pond Area	Antimony	FGD-2	0	21	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Antimony	FGD-3	0	22	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Antimony	FGD-4	0	22	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Antimony	FGD-5	0	20	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Antimony	FGD-6	1	22	5	Downgradient Wells	0.006	0.000825	0.000825	Nonparametric, det<4			
OGSES	FGD Pond Area	Antimony	FGD-8	0	20	0	Upgradient Wells	0.006	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Arsenic	FGD-1	0	22	0	Downgradient Wells	0.015	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Arsenic	FGD-11	0	22	0	Upgradient Wells	0.015	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Arsenic	FGD-12	8	22	36	Downgradient Wells	0.015	0.00245	0.0116	Nonparametric, <50% Detec	0.0024	0.004	FALSE
OGSES	FGD Pond Area	Arsenic	FGD-2	0	23	0	Downgradient Wells	0.015	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Arsenic	FGD-3	22	24	92	Downgradient Wells	0.015	0.00204	0.0045	Nonparametric	0.0021	0.0025	FALSE
OGSES	FGD Pond Area	Arsenic	FGD-4	0	24	0	Downgradient Wells	0.015	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Arsenic	FGD-5	0	22	0	Downgradient Wells	0.015	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Arsenic	FGD-6	17	24	71	Downgradient Wells	0.015	0.0021	0.0294	Gamma	0.0041	0.01	FALSE
OGSES	FGD Pond Area	Arsenic	FGD-8	19	22	86	Upgradient Wells	0.015	0.00497	0.0146	Gamma	0.0059	0.0098	FALSE
OGSES	FGD Pond Area	Barium	FGD-1	22	22	100	Downgradient Wells	2	0.0263	0.174	Lognormal	0.052	0.096	FALSE
OGSES	FGD Pond Area	Barium	FGD-11	22	22	100	Upgradient Wells	2	0.0527	0.734	Normal	0.24	0.4	FALSE
OGSES	FGD Pond Area	Barium	FGD-12	22	22	100	Downgradient Wells	2	0.0474	0.557	Lognormal	0.09	0.16	FALSE
OGSES	FGD Pond Area	Barium	FGD-2	23	23	100	Downgradient Wells	2	0.0631	0.181	Normal	0.092	0.12	FALSE
OGSES	FGD Pond Area	Barium	FGD-3	24	24	100	Downgradient Wells	2	0.0315	0.0748	Nonparametric	0.036	0.039	FALSE
OGSES	FGD Pond Area	Barium	FGD-4	24	24	100	Downgradient Wells	2	0.0657	0.128	Normal	0.095	0.11	FALSE
OGSES	FGD Pond Area	Barium	FGD-5	22	22	100	Downgradient Wells	2	0.0926	0.261	Lognormal	0.13	0.18	FALSE
OGSES	FGD Pond Area	Barium	FGD-6	24	24	100	Downgradient Wells	2	0.0182	0.16	Normal	0.077	0.11	FALSE
OGSES	FGD Pond Area	Barium	FGD-8	22	22	100	Upgradient Wells	2	0.102	1.22	Normal	0.67	0.97	FALSE
OGSES	FGD Pond Area	Beryllium	FGD-1	0	22	0	Downgradient Wells	0.004	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Beryllium	FGD-11	1	22	5	Upgradient Wells	0.004	0.000303	0.000303	Nonparametric, det<4			
OGSES	FGD Pond Area	Beryllium	FGD-12	10	22	45	Downgradient Wells	0.004	0.00031	0.00166	Nonparametric, <50% Detec	0.00033	0.00054	FALSE
OGSES	FGD Pond Area	Beryllium	FGD-2	0	23	0	Downgradient Wells	0.004	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Beryllium	FGD-3	2	24	8	Downgradient Wells	0.004	0.000319	0.000475	Nonparametric, det<4			
OGSES	FGD Pond Area	Beryllium	FGD-4	0	24	0	Downgradient Wells	0.004	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Beryllium	FGD-5	0	22	0	Downgradient Wells	0.004	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Beryllium	FGD-6	2	24	8	Downgradient Wells	0.004	0.000309	0.00038	Nonparametric, det<4			
OGSES	FGD Pond Area	Beryllium	FGD-8	1	22	5	Upgradient Wells	0.004	0.000417	0.000417	Nonparametric, det<4			
OGSES	FGD Pond Area	Cadmium	FGD-1	1	21	5	Downgradient Wells	0.005	0.000324	0.000324	Nonparametric, det<4			
OGSES	FGD Pond Area	Cadmium	FGD-11	0	21	0	Upgradient Wells	0.005	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Cadmium	FGD-12	0	21	0	Downgradient Wells	0.005	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Cadmium	FGD-2	0	22	0	Downgradient Wells	0.005	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Cadmium	FGD-3	12	23	52	Downgradient Wells	0.005	0.000311	0.00492	Normal	-0.00094	0.0014	FALSE
OGSES	FGD Pond Area	Cadmium	FGD-4	1	23	4	Downgradient Wells	0.005	0.000561	0.000561	Nonparametric, det<4			
OGSES	FGD Pond Area	Cadmium	FGD-5	3	21	14	Downgradient Wells	0.005	0.000392	0.000593	Nonparametric, det<4			
OGSES	FGD Pond Area	Cadmium	FGD-6	1	23	4	Downgradient Wells	0.005	0.000404	0.000404	Nonparametric, det<4			
OGSES	FGD Pond Area	Cadmium	FGD-8	0	21	0	Upgradient Wells	0.005	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Chromium	FGD-1	1	22	5	Downgradient Wells	0.1	0.00437	0.00437	Nonparametric, det<4			
OGSES	FGD Pond Area	Chromium	FGD-11	17	22	77	Upgradient Wells	0.1	0.00222	0.0372	Normal	0.0024	0.013	FALSE
OGSES	FGD Pond Area	Chromium	FGD-12	20	22	91	Downgradient Wells	0.1	0.00218	0.037	Gamma	0.0056	0.011	FALSE

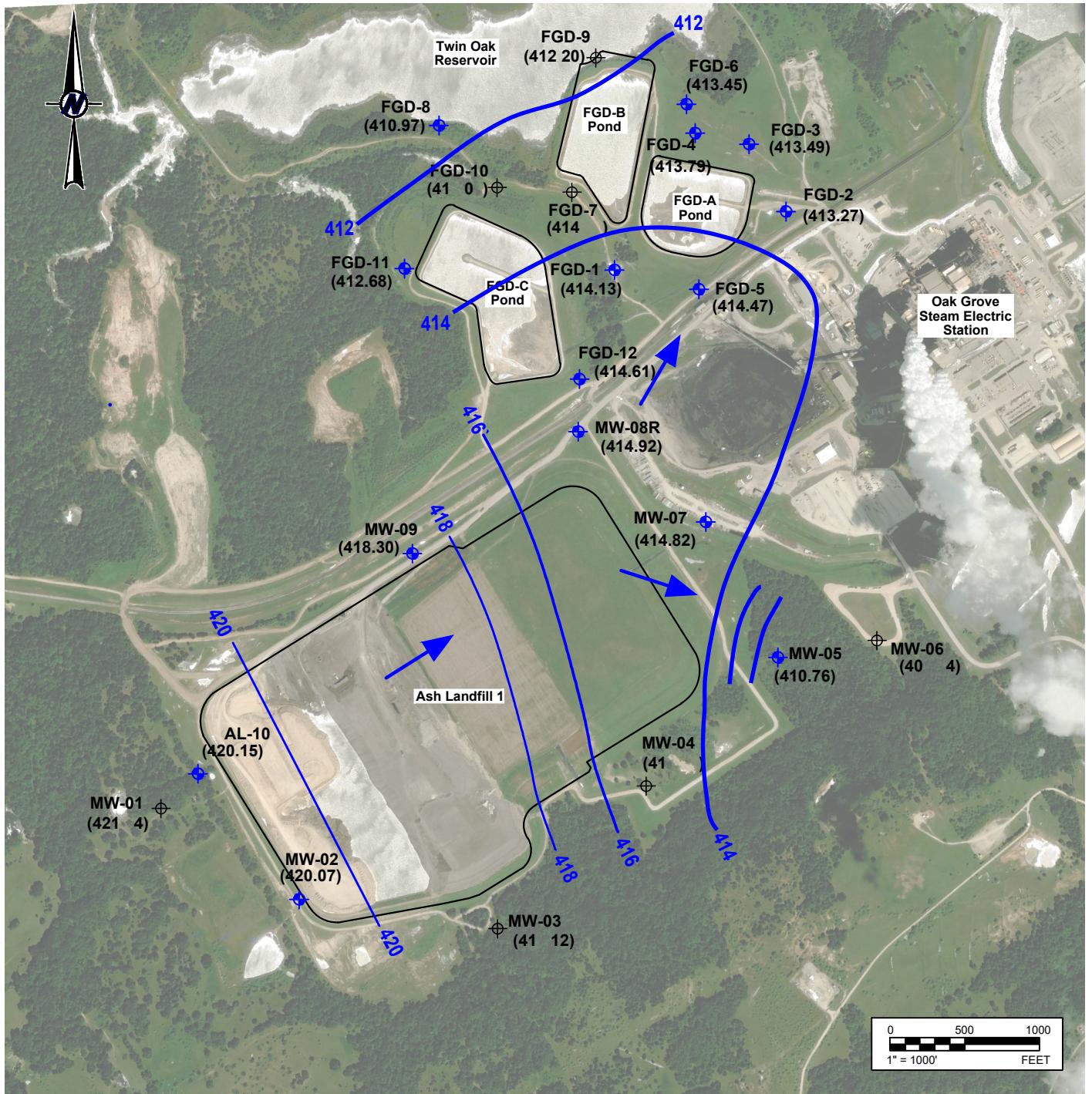
STATISTICAL DATA SUMMARY TABLE

Site	Area	Analyte	Well	# Detects	# Samples	% Detects	Gradient	GWPS	Minimum Detect	Maximum Detect	Distribution	LCL	UCL	LCL > GWPS?
OGSES	FGD Pond Area	Chromium	FGD-2	14	23	61	Downgradient Wells	0.1	0.00203	0.00549	Normal	0.0015	0.0033	FALSE
OGSES	FGD Pond Area	Chromium	FGD-3	2	24	8	Downgradient Wells	0.1	0.00638	0.0117	Nonparametric, det<4			
OGSES	FGD Pond Area	Chromium	FGD-4	2	24	8	Downgradient Wells	0.1	0.00208	0.0023	Nonparametric, det<4			
OGSES	FGD Pond Area	Chromium	FGD-5	19	22	86	Downgradient Wells	0.1	0.00304	0.0808	Normal	0.014	0.039	FALSE
OGSES	FGD Pond Area	Chromium	FGD-6	4	24	17	Downgradient Wells	0.1	0.00253	0.0568	Nonparametric, <50% Detec	0.00067	0.0082	FALSE
OGSES	FGD Pond Area	Chromium	FGD-8	15	22	68	Upgradient Wells	0.1	0.00202	0.0107	Gamma	0.0023	0.0043	FALSE
OGSES	FGD Pond Area	Cobalt	FGD-1	9	22	41	Downgradient Wells	0.016	0.0033	0.0495	Nonparametric, <50% Detec	0.0015	0.0091	FALSE
OGSES	FGD Pond Area	Cobalt	FGD-11	3	22	14	Upgradient Wells	0.016	0.0044	0.007	Nonparametric, det<4			
OGSES	FGD Pond Area	Cobalt	FGD-12	7	22	32	Downgradient Wells	0.016	0.00323	0.00883	Nonparametric, <50% Detec	0.0032	0.0041	FALSE
OGSES	FGD Pond Area	Cobalt	FGD-2	1	23	4	Downgradient Wells	0.016	0.00203	0.00203	Nonparametric, det<4			
OGSES	FGD Pond Area	Cobalt	FGD-3	17	24	71	Downgradient Wells	0.016	0.00332	0.0436	Gamma	0.0087	0.025	FALSE
OGSES	FGD Pond Area	Cobalt	FGD-4	0	24	0	Downgradient Wells	0.016	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Cobalt	FGD-5	4	22	18	Downgradient Wells	0.016	0.00441	0.0484	Nonparametric, <50% Detec	0.0026	0.009	FALSE
OGSES	FGD Pond Area	Cobalt	FGD-6	7	24	29	Downgradient Wells	0.016	0.00352	0.0132	Nonparametric, <50% Detec	0.0025	0.0039	FALSE
OGSES	FGD Pond Area	Cobalt	FGD-8	21	22	95	Upgradient Wells	0.016	0.00246	0.0243	Normal	0.0069	0.012	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-1	21	22	95	Downgradient Wells	4	0.206	0.486	Normal	0.25	0.35	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-11	21	22	95	Upgradient Wells	4	0.00632	1.09	Normal	0.31	0.54	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-12	9	22	41	Downgradient Wells	4	0.101	0.159	Nonparametric, <50% Detec	0.047	0.061	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-2	11	23	48	Downgradient Wells	4	0.122	0.413	Nonparametric, <50% Detec	0.099	0.16	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-3	22	24	92	Downgradient Wells	4	0.173	1.32	Normal	0.64	0.95	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-4	21	24	88	Downgradient Wells	4	0.148	0.67	Normal	0.26	0.4	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-5	21	22	95	Downgradient Wells	4	0.168	0.863	Normal	0.36	0.52	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-6	22	24	92	Downgradient Wells	4	0.147	0.741	Normal	0.31	0.48	FALSE
OGSES	FGD Pond Area	Fluoride (Appendix IV)	FGD-8	11	22	50	Upgradient Wells	4	0.0215	0.413	Normal	-0.036	0.18	FALSE
OGSES	FGD Pond Area	Lead	FGD-1	3	22	14	Downgradient Wells	0.015	0.000342	0.000379	Nonparametric, det<4			
OGSES	FGD Pond Area	Lead	FGD-11	15	22	68	Upgradient Wells	0.015	0.000332	0.00891	Nonparametric	0.00024	0.0017	FALSE
OGSES	FGD Pond Area	Lead	FGD-12	22	22	100	Downgradient Wells	0.015	0.0003	0.0249	Gamma	0.0025	0.0066	FALSE
OGSES	FGD Pond Area	Lead	FGD-2	2	23	9	Downgradient Wells	0.015	0.000693	0.00145	Nonparametric, det<4			
OGSES	FGD Pond Area	Lead	FGD-3	11	24	46	Downgradient Wells	0.015	0.000313	0.00717	Nonparametric, <50% Detec	0.00031	0.0013	FALSE
OGSES	FGD Pond Area	Lead	FGD-4	3	24	13	Downgradient Wells	0.015	0.000489	0.0271	Nonparametric, det<4			
OGSES	FGD Pond Area	Lead	FGD-5	2	22	9	Downgradient Wells	0.015	0.000369	0.00045	Nonparametric, det<4			
OGSES	FGD Pond Area	Lead	FGD-6	4	24	17	Downgradient Wells	0.015	0.000451	0.00132	Nonparametric, <50% Detec	0.00032	0.00043	FALSE
OGSES	FGD Pond Area	Lead	FGD-8	18	22	82	Upgradient Wells	0.015	0.00039	0.00381	te with ProUCL-type - use	0.00086	0.0021	FALSE
OGSES	FGD Pond Area	Lithium	FGD-1	22	22	100	Downgradient Wells	0.15	0.015	0.0548	Normal	0.029	0.037	FALSE
OGSES	FGD Pond Area	Lithium	FGD-11	21	22	95	Upgradient Wells	0.15	0.00739	0.016	Normal	0.011	0.013	FALSE
OGSES	FGD Pond Area	Lithium	FGD-12	22	22	100	Downgradient Wells	0.15	0.0175	0.0755	Nonparametric	0.021	0.025	FALSE
OGSES	FGD Pond Area	Lithium	FGD-2	23	23	100	Downgradient Wells	0.15	0.0183	0.0297	Normal	0.023	0.025	FALSE
OGSES	FGD Pond Area	Lithium	FGD-3	24	24	100	Downgradient Wells	0.15	0.0296	0.176	Nonparametric	0.041	0.098	FALSE
OGSES	FGD Pond Area	Lithium	FGD-4	24	24	100	Downgradient Wells	0.15	0.00858	0.0477	Lognormal	0.018	0.032	FALSE
OGSES	FGD Pond Area	Lithium	FGD-5	22	22	100	Downgradient Wells	0.15	0.139	0.182	Normal	0.15	0.16	FALSE
OGSES	FGD Pond Area	Lithium	FGD-6	22	24	92	Downgradient Wells	0.15	0.006	0.0112	Normal	0.0074	0.009	FALSE
OGSES	FGD Pond Area	Lithium	FGD-8	22	22	100	Upgradient Wells	0.15	0.00851	0.149	Nonparametric	0.013	0.024	FALSE
OGSES	FGD Pond Area	Mercury	FGD-1	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Mercury	FGD-11	0	20	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Mercury	FGD-12	1	20	5	Downgradient Wells	0.002	0.000134	0.000134	Nonparametric, det<4			
OGSES	FGD Pond Area	Mercury	FGD-2	1	21	5	Downgradient Wells	0.002	0.00008	0.00008	Nonparametric, det<4			
OGSES	FGD Pond Area	Mercury	FGD-3	4	22	18	Downgradient Wells	0.002	0.0000853	0.00017	Nonparametric, <50% Detec	0.000081	0.000094	FALSE
OGSES	FGD Pond Area	Mercury	FGD-4	3	22	14	Downgradient Wells	0.002	0.000229	0.000288	Nonparametric, det<4			

STATISTICAL DATA SUMMARY TABLE

Site	Area	Analyte	Well	# Detects	# Samples	% Detects	Gradient	GWPS	Minimum Detect	Maximum Detect	Distribution	LCL	UCL	LCL > GWPS?
OGSES	FGD Pond Area	Mercury	FGD-5	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Mercury	FGD-6	1	22	5	Downgradient Wells	0.002	0.000121	0.000121	Nonparametric, det<4			
OGSES	FGD Pond Area	Mercury	FGD-8	0	20	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Molybdenum	FGD-1	0	22	0	Downgradient Wells	0.1	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Molybdenum	FGD-11	9	22	41	Upgradient Wells	0.1	0.00235	0.00358	Nonparametric, <50% Detected	0.0022	0.0024	FALSE
OGSES	FGD Pond Area	Molybdenum	FGD-12	1	22	5	Downgradient Wells	0.1	0.00221	0.00221	Nonparametric, det<4			
OGSES	FGD Pond Area	Molybdenum	FGD-2	2	23	9	Downgradient Wells	0.1	0.00387	0.0051	Nonparametric, det<4			
OGSES	FGD Pond Area	Molybdenum	FGD-3	16	24	67	Downgradient Wells	0.1	0.0021	0.0037	Normal	0.002	0.0029	FALSE
OGSES	FGD Pond Area	Molybdenum	FGD-4	1	24	4	Downgradient Wells	0.1	0.00211	0.00211	Nonparametric, det<4			
OGSES	FGD Pond Area	Molybdenum	FGD-5	17	22	77	Downgradient Wells	0.1	0.00217	0.0445	Gamma	0.0052	0.013	FALSE
OGSES	FGD Pond Area	Molybdenum	FGD-6	8	24	33	Downgradient Wells	0.1	0.00205	0.0259	Nonparametric, <50% Detected	0.002	0.0055	FALSE
OGSES	FGD Pond Area	Molybdenum	FGD-8	2	22	9	Upgradient Wells	0.1	0.00404	0.0261	Nonparametric, det<4			
OGSES	FGD Pond Area	Selenium	FGD-1	0	22	0	Downgradient Wells	0.05	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Selenium	FGD-11	0	22	0	Upgradient Wells	0.05	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Selenium	FGD-12	5	22	23	Downgradient Wells	0.05	0.00254	0.00786	Nonparametric, <50% Detected	0.0021	0.003	FALSE
OGSES	FGD Pond Area	Selenium	FGD-2	23	23	100	Downgradient Wells	0.05	0.0127	0.0286	Normal	0.02	0.023	FALSE
OGSES	FGD Pond Area	Selenium	FGD-3	24	24	100	Downgradient Wells	0.05	0.00308	0.0907	Gamma	0.015	0.04	FALSE
OGSES	FGD Pond Area	Selenium	FGD-4	1	24	4	Downgradient Wells	0.05	0.00214	0.00214	Nonparametric, det<4			
OGSES	FGD Pond Area	Selenium	FGD-5	0	22	0	Downgradient Wells	0.05	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Selenium	FGD-6	1	24	4	Downgradient Wells	0.05	0.00528	0.00528	Nonparametric, det<4			
OGSES	FGD Pond Area	Selenium	FGD-8	9	22	41	Upgradient Wells	0.05	0.0021	0.0027	Nonparametric, <50% Detected	0.0021	0.0022	FALSE
OGSES	FGD Pond Area	Thallium	FGD-1	1	22	5	Downgradient Wells	0.002	0.0005	0.0005	Nonparametric, det<4			
OGSES	FGD Pond Area	Thallium	FGD-11	0	22	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Thallium	FGD-12	1	22	5	Downgradient Wells	0.002	0.000651	0.000651	Nonparametric, det<4			
OGSES	FGD Pond Area	Thallium	FGD-2	0	23	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Thallium	FGD-3	18	24	75	Downgradient Wells	0.002	0.000507	0.0017	Nonparametric	0.00071	0.001	FALSE
OGSES	FGD Pond Area	Thallium	FGD-4	0	24	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Thallium	FGD-5	0	22	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Thallium	FGD-6	0	24	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Thallium	FGD-8	0	22	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-1	20	22	91	Downgradient Wells	11	0.58	3.04	Normal	1.3	2	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-11	22	22	100	Upgradient Wells	11	2.34	12.71	Gamma	4.4	6.6	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-12	21	22	95	Downgradient Wells	11	1.53	16.6	Normal	3.1	6.4	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-2	23	23	100	Downgradient Wells	11	0.328	3.26	Normal	1.5	2.2	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-3	22	24	92	Downgradient Wells	11	0.367	6.24	Gamma	1.6	2.8	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-4	21	24	88	Downgradient Wells	11	0.498	3.04	Normal	1.3	1.8	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-5	18	22	82	Downgradient Wells	11	0.132	5.28	Gamma	1.1	2.6	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-6	22	24	92	Downgradient Wells	11	1.09	3.47	Normal	1.6	2.2	FALSE
OGSES	FGD Pond Area	Radium-226/228 combination	FGD-8	22	22	100	Upgradient Wells	11	1.27	18.4	Normal	5.6	8.9	FALSE

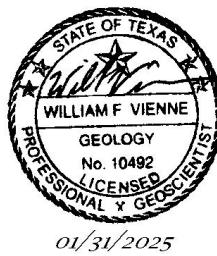
**APPENDIX C**  
**2024 Groundwater Potentiometric Surface Maps**



#### LEGEND

- NON-CCR MONITORING WELL
- CCR MONITORING WELL (414.49)
- GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 2 FT)
- 400 (400 ft contour)
- INFERRRED GROUNDWATER FLOW DIRECTION

NM = Not Measured



#### LUMINANT OAK GROVE STEAM ELECTRIC STATION ROBERTSON COUNTY, TEXAS

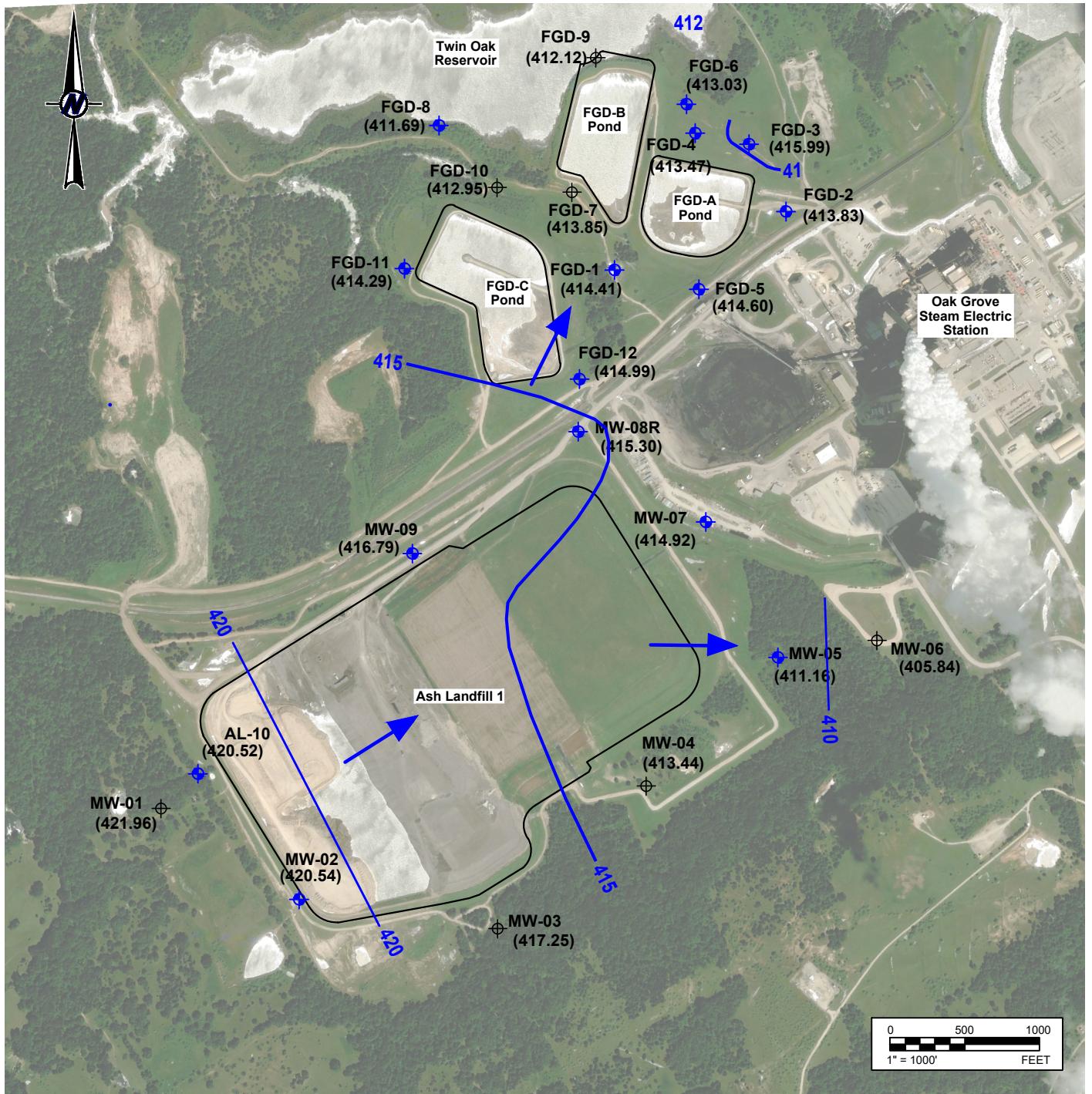
#### ASH LANDFILL AND FGD PONDS POTENTIOMETRIC SURFACE MAP MAY 20-21, 2024

PROJECT: 23643.05 BY: SLB DATE: 7/22/2024 CHECKED: WV

Bullock, Bennett & Associates, LLC  
Engineering and Geoscience  
Texas Registrations: Engineering F-8542, Geoscience 50127

#### REFERENCE(S)

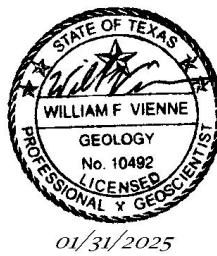
BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021



#### LEGEND

- NON-CCR MONITORING WELL
- CCR MONITORING WELL
- (414.49)
- GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 5 FT)
- 400
- 410
- 415
- 420
- 425
- 430
- 435
- 440
- 450
- INFERRED GROUNDWATER FLOW DIRECTION

NM = Not Measured



#### LUMINANT OAK GROVE STEAM ELECTRIC STATION ROBERTSON COUNTY, TEXAS

#### ASH LANDFILL AND FGD PONDS POTENTIOMETRIC SURFACE MAP August 14, 2024

PROJECT: 23643.05 BY: SLB DATE: 1/14/2025 CHECKED: WV

Bullock, Bennett & Associates, LLC  
Engineering and Geoscience

Texas Registrations: Engineering F-8542, Geoscience 50127

#### REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021