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

ASH LANDFILL 1
OAK GROVE STEAM ELECTRIC STATION
ROBERTSON COUNTY, TEXAS

January 31, 2025

Prepared For:

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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 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 Ash Landfill 1 (the "CCR unit") at the Oak Grove Steam Electric Station (OGSES) in Robertson County, Texas. The CCR unit and CCR monitoring well network are shown on Figure 1.

At the beginning and end of the 2024 reporting period, the CCR unit was operating under a Detection Monitoring Program as described in § 257.94. The Detection Monitoring Program for the Ash Landfill 1 was established in September 2017. Statistically significant increases (SSIs) above background prediction limits were identified for several Appendix III parameters as part of the 2018 through 2023 Detection Monitoring events; however, Alternate Source Demonstrations were completed which indicated that a source other than the CCR unit caused the SSIs. During 2024, SSIs above background prediction limits were identified for several Appendix III constituents, including for boron, calcium, sulfate, and total dissolved solids (TDS) in well MW-8R, sulfate in well MW-07, and calcium in well MW-09. Alternate sources for the SSIs identified in the 2024 sample data are being evaluated in accordance with § 257.94. If an alternate source is not identified to be the cause of the SSIs, an Assessment Monitoring Program will be established in accordance with § 257.94(e)(2).

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 United States Environmental Protection Agency (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 Ash Landfill 1 is currently in a Detection Monitoring Program. The initial Detection Monitoring Program groundwater samples were collected from the Ash Landfill 1 CCR monitoring well network in October 2017. Subsequent Detection Monitoring Program groundwater samples have been collected on a semi-annual basis. Data evaluation is completed using procedures described in the Statistical Analysis Plan (Golder, 2022) and CCR Background Groundwater Monitoring and Statistical Analysis Report (BBA, 2023) to identify 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

Sampling Dates	Parameters	SSIs	Assessment Monitoring Program Established
October 2017	Appendix III	No	No
June 2018 September 2018 November 2018 (re-samples)	Appendix III	Yes	No (Alternate Source Demonstration Completed)
May 2019 August 2019	Appendix III	Yes	No (Alternate Source Demonstration Completed)
May 2020 September 2020	Appendix III	Yes	No (Alternate Source Demonstration Completed)
June 2021 October 2021	Appendix III	Yes	No (Alternate Source Demonstration Completed)
May 2022 September 2022	Appendix III	Yes	No (Alternate Source Demonstration Completed)
May 2023 August 2023	Appendix III	Yes	No (Alternate Source Demonstration Completed)
May 2024 August 2024	Appendix III	Yes	To Be Determined (Alternate Source Currently Being Assessed)

The statistical background values and Appendix III analytical data are presented in Tables 1 and 2, respectively, and the 2024 laboratory analytical reports are provided in Appendix A. SSIs of Appendix III parameters were identified during the 2018 through 2023 sampling events. An

initial Alternate Source Demonstration was completed in 2019, which indicated that a source other than the CCR unit caused SSIs observed in the 2018 sample data. Similarly, Alternate Source Demonstrations were completed each year for the 2019 to 2023 reporting periods. As a result, Ash Landfill 1 has remained in the Detection Monitoring Program. The Alternate Source Demonstration based on the 2023 sample data is presented in Appendix B, as required by § 257.94(e)(2). The completed Alternate Source Demonstration for the 2023 reporting period was submitted to the executive director via email on March 7, 2024, as required under 30 T.A.C. § 352.941(c)(2)

Detection Monitoring Program groundwater samples were collected from the CCR groundwater monitoring network on a semi-annual basis in 2024, as required by the CCR Rule. The first 2024 semi-annual Detection Monitoring Program sampling event was conducted in May 2024. The second 2024 semi-annual Detection Monitoring Program sampling event was conducted in August 2024. A resample for boron in well MW-8R was additionally collected in October 2024. The analytical data from the 2024 Detection Monitoring Program sampling events were evaluated using procedures described in the Statistical Analysis Plan to identify SSIs of Appendix III parameters over background concentrations. During 2024, SSIs above background prediction limits were identified for several Appendix III constituents, including for boron, calcium, sulfate, and TDS in well MW-8R, sulfate in well MW-07, and calcium in well MW-09. Alternate sources for the SSIs identified in the 2024 sample data are being evaluated in accordance with § 257.94. If an alternate source is not identified to be the cause of the SSIs, an Assessment Monitoring Program will be established in accordance with § 257.94(e)(2). A notification of the intent to make an Alternate Source Demonstration under 30 TAC § 352.941(c)(1) for SSIs observed in the 2024 sample data was submitted to the executive director via email on November 25, 2024.

3.0 KEY ACTIONS COMPLETED IN 2024

Two semi-annual Assessment Monitoring Program groundwater monitoring events and one resampling event 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 2.

Water elevations measured in the CCR wells during the semi-annual groundwater monitoring events are summarized in Table 3 and groundwater potentiometric surface maps based on the 2024 data 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 16 feet per year, which is similar to previously observed conditions at the site.

No CCR wells were installed or decommissioned in 2024.

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 Detection Monitoring Program in accordance with applicable provisions of § 257.95 and 30 T.A.C. § 352.941.

- If an alternate source is identified to be the cause of the SSIs observed in 2024, which are described in this report, a written demonstration will be completed within 90 days of SSI determination and included in the following Annual Groundwater Monitoring and Corrective Action Report. A notification of intent to make an Alternate Source Demonstration under 30 TAC § 352.941(c)(1) for SSIs observed in 2024 was submitted to the executive director via email on November 25, 2024.

- If an alternate source is not identified to be the cause of the SSIs, an Assessment Monitoring Program will be established.

6.0 REFERENCES

Bullock, Bennett & Associates, LLC (BBA), 2023. CCR Rule Background Groundwater Monitoring and Statistical Analysis Summary Report, Ash Landfill 1, Oak Grove Steam Electric Station, Robertson County, Texas.

Golder, 2022. Coal Combustion Residual Rule Statistical Analysis Plan - Revision No. 1, Oak Grove Steam Electric Station, Ash Landfill 1, Robertson County, Texas.

SIGNATURE PAGE

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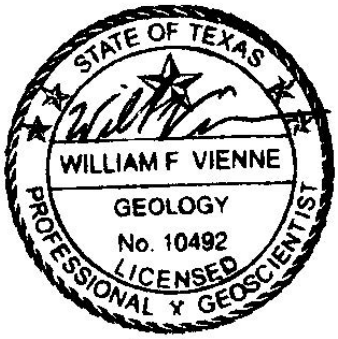
Senior Hydrogeologist



01/31/2025

FIGURES

LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL

REFERENCE(S)

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

LUMINANT
OAK GROVE STEAM ELECTRIC STATION
ROBERTSON COUNTY, TEXAS

Figure 1

ASH LANDFILL 1
SITE PLAN

PROJECT: 23643.05	BY: SLB	DATE: 12/5/2023	CHECKED: WV

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

TABLES

Table 1
Statistical Background Value
OGSES Ash Landfill 1

Parameter	Statistical Background Value
Boron (mg/L)	0.1
Calcium (mg/L)	81
Chloride (mg/L)	440
Fluoride (mg/L)	0.59
field pH (s.u.)	.3 7.0
Sulfate (mg/L)	190
Total Dissolved Solids (mg/L)	900

Source: BBA (2023)

TABLE 2
APPENDIX III ANALYTICAL RESULTS
OGSES ASH LANDFILL 1

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
Upgradient Wells								
AL-10	11/04/15	0.0682	34.5	149	0.149 J	6.86	72.6	590
	12/18/15	0.0539	37.5	81	0.15 J	6.45	20.6	414
	02/10/16	0.0637	48.6	108	0.197 J	6.75	34.9	599
	04/15/16	0.0573	44.8	86	0.133	6.51	23.6	549
	06/16/16	0.0915	34.7	66.7	0.155 J	6.44	23.5	436
	08/25/16	0.105	87.5	444	<0.1	6.61	96.3	1120
	10/04/16	0.0756	35.1	57.3	0.278 J	6.92	20.1	507
	12/22/16	0.0759	32.5	57.2	0.195 J	6.78	21.5	527
	10/02/17	0.0973	27	50.6	0.120 J	6.85	12.2	398
	06/04/18	0.0875	21.9	62.1	0.183 J	6.67	11.6	362
	09/06/18	0.113	21.9	56.7	0.260 J	6.66	11.8	371
	05/17/19	0.114	16.8	67.9	0.262 J	6.64	12.4	340
	08/20/19	0.115	18.8	66.2	0.363 J	6.87	11.8	333
	05/07/20	0.128	18.8	52.2	<0.100	6.78	11.1	317
	09/09/20	0.139	16.8	49.2	0.208 J	6.86	10.6	301
	06/16/21	0.107	15.2	41.9	0.27 J	6.82	9.92	267
	10/12/21	0.0878	15.1	51.4	<0.1	6.82	9.84	269
	05/11/22	0.0894	11.8	39.9	0.217 J	6.63	8.47	251
	09/26/22	0.107	10.5	34.7	0.180 J	6.69	9.47	234
	05/25/23	0.0880	8.70	24.0	0.165 J	6.65	8.29	225
	08/17/23	0.122	9.13	23.3	0.2	6.54	8.25	232
	05/21/24	0.0784	11.9	17.6	0.197 J	6.58	9.29	196
	08/14/24	0.0606	26.8	9.21	<0.100	6.58	76.8	206
MW-02	11/04/15	0.064	32.5	138	0.135 J	6.92	71.4	539
	12/18/15	0.0476	29	61.7	0.118 J	6.83	15.9	308
	02/10/16	0.0853	25.4	83.5	0.229 J	6.63	34	320
	04/15/16	0.0597	39.6	68	0.102	6.51	18.1	440
	06/16/16	0.106	26.5	87.8	0.161 J	6.89	34.8	343
	08/25/16	0.0492	12.9	21.9	0.164 J	6.58	22.4	163
	10/04/16	0.113	61.4	222	0.185 J	6.69	97.4	667
	12/21/16	0.11	47.8	185	0.293 J	6.78	83.4	590
	10/02/17	0.0567	22.2	42.4	<0.100	6.68	9.67	310
	06/04/18	0.144	82.4	275	0.139 J	6.28	121	740
	09/06/18	0.148	70.9	259	0.221 J	6.02	116	872
	05/17/19	0.0981	20	67.6	0.321 J	6.63	31.1	306
	08/20/19	0.0875	19.9	53.8	0.558	6.59	20.1	260
	05/07/20	0.0996	11.5	2.87	<0.100	6.63	6.14	106
	09/09/20	0.166	55.6	210	0.287 J	6.76	99.2	592
	06/16/21	0.0756	48	164	0.977	6.62	35.9	646
	10/12/21	0.0848	23.8	56.6	0.36	6.62	20.7	245
	05/11/22	0.110	47.6	152	0.179	6.63	62.3	504
	09/26/22	0.126	66.4	298	0.128 J	6.52	131	755
	05/25/23	0.114	53.3	193	0.106	6.82	77.7	571
	08/17/23	0.0833	22.8	59.4	0.356	6.54	20.3	233
	05/21/24	0.117	29.1	83.6	0.207 J	6.58	36.4	335
	08/14/24	0.0973	22.9	54.6	0.115 J	6.43	22.7	243

TABLE 2
APPENDIX III ANALYTICAL RESULTS
OGSES ASH LANDFILL 1

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
Downgradient Wells								
MW-05	11/04/15	0.0628	15.4	64.8	0.272 J	7.11	13.6	285
	12/18/15	0.0621	13	60.2	0.476	6.52	10.5	232
	02/10/16	0.0447	14	59.7	0.397 J	6.67	11.9	235
	04/15/16	0.0458	14.3	55.4	0.284	6.42	10.7	288
	06/15/16	0.058	14.2	60.4	0.306 J	6.61	11.8	269
	08/24/16	0.0877	13.1	63	0.262 J	6.75	11.8	287
	10/04/16	0.059	15.4	57.9	0.477	6.87	10.9	253
	12/22/16	0.0759	61.4	264	0.446	6.63	55.6	778
	10/02/17	0.0665	17.5	58.6	0.295 J	6.89	10.4	246
	06/05/18	0.0739	16.8	60	0.391 J	6.43	12.1	253
	09/07/18	0.077	15.8	63.3	0.392 J	6.11	10.6	249
	05/17/19	0.0686	13.5	66.4	0.462	6.57	11.2	257
	08/20/19	0.079	16	66.7	0.514	6.78	10.8	263
	05/07/20	0.0985	18	71.8	0.344 J	6.68	10.6	264
	09/09/20	0.201	20.5	79.8	0.372 J	6.81	66.5	407
	06/16/21	0.0753	17.7	77.7	0.415	6.69	10	255
	10/12/21	0.0615	20.9	83.6	0.433	6.52	11.7	282
	10/12/21 (DUP-1)	0.0703	20.9	85.5	0.425	6.52	12.1	272
	05/12/22	0.0773	20	80.9	0.438	6.74	11.5	285
	09/26/22	0.0768	19.8	87.8	0.383 J	6.73	12	290
	05/25/23	0.0642	19.8	93.3	0.353 J	6.73	11.9	310
	08/17/23	0.0675	20.9	104	0.39	6.61	12.1	300
	05/22/24	0.076	16.9	92.3	0.341 J	6.72	12.9	292
	08/15/24	0.068	22.4	106	0.252 J	6.78	12.7	327
MW-07	11/03/15	0.0483	8.57	20.2	0.289 J	6.42	11.5	276
	12/17/15	0.0539	8.75	17.7	0.319 J	6.86	14.7	243
	02/09/16	0.0547	13.3	28.9	0.276 J	7.18	25.3	283
	04/15/16	0.0567	10	20.9	0.187	6.71	16	341
	06/15/16	0.0639	10.5	22.9	0.226 J	6.75	23.2	294
	08/24/16	0.0691	9.58	20.4	0.159 J	6.89	21.8	290
	10/04/16	0.0549	10.3	15.6	0.277 J	6.82	17.1	256
	12/22/16	0.054	12.5	22.9	0.229 J	6.3	34.7	262
	10/02/17	0.0733	13.9	15.8	0.178 J	6.59	38.4	298
	06/05/18	0.105	17.5	15.7	0.169 J	5.98	61.1	316
	09/07/18	0.151	19.7	21.5	0.250 J	6.18	80.3	357
	11/6/18 resample	0.154	--	--	--	--	--	--
	05/17/19	0.132	17.1	20.2	0.244 J	6.83	84.1	355
	08/19/19	0.215	22.8	19.7	0.367 J	6.77	100	385
	05/07/20	0.302	29.7	22.4	0.234 J	6.84	123	432
	09/09/20	0.297	26.9	24.7	0.302 J	6.58	121	413
	06/16/21	0.186	25.8	26.2	0.378 J	6.84	108	404
	6/16/21 (DUP-1)	0.177	25.5	26.6	0.378 J	6.84	110	399
	10/13/21	0.181	31.6	29.6	<0.353	6.85	130	422
	05/12/22	0.297	34.6	31.4	0.208 J	6.75	144	484
	05/12/22 (DUP-1)	0.315	34.5	31.6	0.209 J	6.75	144	481
	09/26/22	0.282	35.8	33.9	0.143	6.41	150	499
	05/25/23	0.244	34.6	31.8	0.100 J	6.64	149	489
	5/25/23 (DUP-1)	0.243	33.9	31.4	0.106	6.64	147	482
	08/17/23	0.205	37.1	35.2	0.144	6.62	162	535
	8/17/23 (DUP-1)	0.228	38.1	35.5	0.148 J	6.62	162	535
	05/22/24	0.133	39.9	32.7	0.174 J	6.64	203	540
	5/22/24 (DUP-1)	0.126	41.6	33	0.171 J	6.64	202	531
	08/15/24	0.121	42	34.1	0.115 J	6.58	216	579
	8/15/2024 DUP	0.111	41.7	34.3	0.111	6.58	215	582
MW-08	11/04/15	0.0631	120	599	0.17 J	6.81	138	2070
	12/18/15	0.0604	70.4	488	0.158 J	6.78	49.8	1140
	02/09/16	0.0695	140	612	0.175 J	6.42	170	1530
	04/15/16	0.0726	133	566	<0.1	6.61	139	1680
	06/16/16	0.0677	76.6	520	<0.1	6.76	83.6	1090
	Aug 2016	Well Damaged						

TABLE 2
APPENDIX III ANALYTICAL RESULTS
OGSES ASH LANDFILL 1

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
MW-08R	12/22/16	0.0702	32.4	166	0.355 J	6.93	39.7	617
	03/21/17	0.0662	117	563	0.2 J	5.83	98.3	1220
	04/20/17	0.0696	115	560	0.149 J	5.91	94.9	1190
	10/02/17	0.061	13.1	14.4	<0.100	6.63	28.7	243
	06/05/18	0.082	18.9	53.9	0.138 J	6.37	9.66	302
	09/07/18	0.0921	106	504	0.242 J	5.84	96.9	1550
	11/6/2018 resample	--	15.7	19	--	--	--	268
	05/17/19	0.102	16.7	69.8	0.269 J	6.54	12.4	326
	08/20/19	0.096	24.9	48	0.501	6.84	30.7	255
	05/07/20	0.122	19	51.8	0.117 J	6.83	11.1	320
	09/09/20	0.0977	15.8	55.5	0.344 J	6.68	19.0	256
	06/16/21	0.116	15.3	43.5	0.263 J	6.76	9.26	266
	10/12/21	0.107	32.8	268	<0.1	6.76	136	874
	05/11/22	0.0648	43.8	111	0.979	6.89	27.3	563
	09/26/22	0.104	10.6	30.1	0.154	6.52	7.24	193
	05/25/23	0.0992	55.1	133	<0.100	6.82	102	494
	08/17/23	0.0916	11.1	15.2	0.135	6.5	34.5	231
	05/22/24	0.517	124	120	0.210 J	6.42	591	1430
	08/15/24	0.603	124	142	<0.100	6.63	521	1260
	10/23/24 resample	0.521	--	--	--	--	--	--
MW-09	11/03/15	0.0722	36.4	155	0.149 J	6.45	74.9	583
	12/18/15	0.077	40.3	157	0.266 J	6.48	83.1	528
	02/09/16	0.072	38.4	158	0.152 J	6.16	80	445
	04/15/16	0.0734	42.2	151	<0.1	6.41	80.9	568
	06/15/16	0.0778	43.1	174	<0.1	6.52	98.7	574
	08/25/16	0.0829	45.6	195	<0.1	6.76	116	715
	10/04/16	0.0803	47.8	179	0.256 J	6.64	108	648
	12/22/16	0.0776	42.6	290	0.159 J	6.87	116	791
	10/02/17	0.106	58.2	140	<0.100	6.76	95.3	433
	06/04/18	0.091	21.7	6.48	0.162 J	6.28	6.08	135
	09/06/18	0.0999	49.8	186	0.134 J	5.61	104	704
	11/6/2018 resample	--	--	--	--	--	58.6	--
	05/17/19	0.12	17.2	366	0.541	6.72	53.2	935
	08/20/19	0.117	26	61.2	0.359 J	6.96	22.3	331
	05/07/20	0.0988	20.2	45.1	0.234 J	6.68	17.3	212
	09/09/20	0.123	48.5	156	0.152 J	6.72	99.6	468
	06/16/21	0.0682	16.3	4.18	<0.100	6.84	8.19	127
	10/12/21	0.0821	20.7	29.9	<0.100	6.84	31.2	223
	05/12/22	0.111	67.9	195	0.124 J	6.57	119	582
	09/26/22	0.132	63.9	155	<0.100	6.79	108	482
	05/25/23	0.124	58.7	146	0.112 J	6.89	122	591
	08/17/23	0.136	59.8	195	0.177 J	6.58	122	633
	05/22/24	0.478	98.7	110	0.205 J	6.74	516	1270
	08/15/24	0.113	90.3	188	<0.100	6.82	96.9	518

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

TABLE 3
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 Pond Area				
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
		08/21/23	11.91	412.53
		05/20/24	10.31	414.13
		08/14/24	10.03	414.41
FGD-2	439.36	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 3
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 3
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 3
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 3
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 3
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)
Ash Landfill 1 Area				
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 3
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 3
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 3
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 03, 2024

Craig Bennett
BBA Engineering
165 N. Lampasas St.
Bertram, TX 78605
TEL: (512) 925-2549
FAX: (512) 355-9197

Order No.: 2405272

RE: OGSES-ASH LANDFILL CCR

Dear Craig Bennett:

DHL Analytical, Inc. received 7 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,

John DuPont
General Manager

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

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: BBA
ADDRESS: 165 N. VAMPASAS ST. BERTRAM, TX
PHONE: 512-355-9198 EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONAL REPORT COPIES TO:

DATE: 5-22-24
PO#: 23643V-20

LAB USE ONLY
DHL WORKORDER #: 2405272

PROJECT LOCATION OR NAME: OGSES- ASH LANDFILL CCR
CLIENT PROJECT # 23643V-20 COLLECTOR: JOHN BRAYSON

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

W=WATER L=LIQUID S=SOLID SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	Lab Use Only DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION HCL ☐	H_3PO_4 ☐	HNO_3	H_2SO_4	NaOH ☐	Zn Acetate ☐	ICE ☒	UNPRESERVED ☐	ANALYSES	BTEX ☐ MTBE ☐ [METHOD 8260]	TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐	GRO 8015 ☐ DRO 8015 ☐	VOC 8260 ☐ VOC 624.1 ☐	SVOC 8270 ☐ SVOC 625.1 ☐	PAH 8270 ☐ HOLD PAH ☐	PEST 8270 ☐ 625.1 ☐ O-P PEST 8270 ☐	PCB 8082 ☐ 608.3 ☐ PCB 8270 ☐ 625.1 ☐	HERB 8321 ☐ T PHOS ☐ AMMONIA ☐	METALS 6020 ☐ 200.8 ☐ DISS. METALS ☐	RCRA 8 ☐ TX11 ☐ _____	pH☐ HEX CHROM☐ ALKALINITY☐ COD☐	ANIONS 300 ☐ 9056 ☐ _____	TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐	TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐	RCI ☐ IGN ☐ DGAS ☐ OIL&GREASE ☐	TDS ☐ TSS ☐ % MOIST ☐ CYANIDE ☐	APPENDIX III			FIELD NOTES
MW02	01	5-21-24	1335	W	P	2			X				X																				X				
AL-10	02	↓	1545	W	P	2			X				X																				X				
MW05	03	5-22-24	0800	W	P	2			X				X																				X				
MW09	04		0910	W	P	2			X				X																				X				
MW08R	05		1015	W	P	2			X				X																				X				
MW07	06		1110	W	P	2			X				X																				X				
DUP-1	07	↓	1110	W	P	2			X				X																				X				

Relinquished By: (Sign)	DATE/TIME 5-22-24 13:26	Received by:
Relinquished By: (Sign)	DATE/TIME	Received by:
Relinquished By: (Sign)	DATE/TIME	Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐
RUSH-3 DAY☐
NORMAL ☒ OTHER ☐
DUE DATE _____ ☐

LAB USE ONLY **THERMO #:** 78
RECEIVING TEMP (°C): 0.1°C
IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO
CUSTODY SEALS ON ICE CHEST: ☐ BROKEN ☐ INTACT ☑ NOT USED
CARRIER: ☐ LSO ☐ FEDEX ☐ UPS ☐ COURIER ☑ 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 SO4)
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: **2405272** Received by: **KAO**

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

Carrier name: Hand Delivered

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

Cooler #	1
Temp °C	0.1
Seal Intact	NP

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

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

DHL Analytical, Inc. **Date:** *03-Jun-24*

CLIENT: BBA Engineering
Project: OGSES-ASH LANDFILL CCR
Lab Order: 2405272

CASE NARRATIVE

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

Method SW6020A - Metals Analysis
Method E300 - Anions Analysis
Method M2540C - TDS Analysis

LOG IN

The samples were received and log-in performed on 5/22/24. A total of 7 samples were received. The samples arrived in good condition and were properly packaged.

METALS ANALYSIS

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.

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT: BBA Engineering
Project: OGSES-ASH LANDFILL CCR
Lab Order: 2405272

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2405272-01	MW02		05/21/24 01:35 PM	05/22/2024
2405272-02	AL-10		05/21/24 03:45 PM	05/22/2024
2405272-03	MW05		05/22/24 08:00 AM	05/22/2024
2405272-04	MW09		05/22/24 09:10 AM	05/22/2024
2405272-05	MW08R		05/22/24 10:15 AM	05/22/2024
2405272-06	MW07		05/22/24 11:10 AM	05/22/2024
2405272-07	DUP-1		05/22/24 11:10 AM	05/22/2024

Lab Order: 2405272
Client: BBA Engineering
Project: OGSES-ASH LANDFILL CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2405272-01A	MW02	05/21/24 01:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW02	05/21/24 01:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW02	05/21/24 01:35 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
2405272-01B	MW02	05/21/24 01:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW02	05/21/24 01:35 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW02	05/21/24 01:35 PM	Aqueous	M2540C	TDS Preparation	05/24/24 12:30 PM	115544
2405272-02A	AL-10	05/21/24 03:45 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	AL-10	05/21/24 03:45 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
2405272-02B	AL-10	05/21/24 03:45 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	AL-10	05/21/24 03:45 PM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	AL-10	05/21/24 03:45 PM	Aqueous	M2540C	TDS Preparation	05/24/24 12:30 PM	115544
2405272-03A	MW05	05/22/24 08:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW05	05/22/24 08:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
2405272-03B	MW05	05/22/24 08:00 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW05	05/22/24 08:00 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW05	05/22/24 08:00 AM	Aqueous	M2540C	TDS Preparation	05/24/24 12:30 PM	115544
2405272-04A	MW09	05/22/24 09:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW09	05/22/24 09:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW09	05/22/24 09:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
2405272-04B	MW09	05/22/24 09:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW09	05/22/24 09:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW09	05/22/24 09:10 AM	Aqueous	M2540C	TDS Preparation	05/24/24 12:30 PM	115544
2405272-05A	MW08R	05/22/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW08R	05/22/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW08R	05/22/24 10:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
2405272-05B	MW08R	05/22/24 10:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW08R	05/22/24 10:15 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW08R	05/22/24 10:15 AM	Aqueous	M2540C	TDS Preparation	05/24/24 12:30 PM	115544

Lab Order: 2405272
Client: BBA Engineering
Project: OGSES-ASH LANDFILL CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2405272-06A	MW07	05/22/24 11:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW07	05/22/24 11:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	MW07	05/22/24 11:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
2405272-06B	MW07	05/22/24 11:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW07	05/22/24 11:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	MW07	05/22/24 11:10 AM	Aqueous	M2540C	TDS Preparation	05/24/24 12:30 PM	115544
2405272-07A	DUP-1	05/22/24 11:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	DUP-1	05/22/24 11:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
	DUP-1	05/22/24 11:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	05/24/24 07:02 AM	115539
2405272-07B	DUP-1	05/22/24 11:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	DUP-1	05/22/24 11:10 AM	Aqueous	E300	Anion Preparation	05/28/24 10:31 AM	115561
	DUP-1	05/22/24 11:10 AM	Aqueous	M2540C	TDS Preparation	05/24/24 12:30 PM	115544

Lab Order: 2405272
Client: BBA Engineering
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2405272-01A	MW02	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 10:54 AM	ICP-MS5_240528A
	MW02	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	5	05/28/24 11:52 AM	ICP-MS5_240528A
	MW02	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:20 AM	ICP-MS4_240529A
2405272-01B	MW02	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 04:23 PM	IC4_240529A
	MW02	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 02:31 AM	IC4_240529A
	MW02	Aqueous	M2540C	Total Dissolved Solids	115544	1	05/24/24 04:05 PM	WC_240524A
2405272-02A	AL-10	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:13 AM	ICP-MS4_240529A
	AL-10	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 10:44 AM	ICP-MS5_240528A
2405272-02B	AL-10	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 02:50 AM	IC4_240529A
	AL-10	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 04:42 PM	IC4_240529A
	AL-10	Aqueous	M2540C	Total Dissolved Solids	115544	1	05/24/24 04:05 PM	WC_240524A
2405272-03A	MW05	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 10:57 AM	ICP-MS5_240528A
	MW05	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:22 AM	ICP-MS4_240529A
2405272-03B	MW05	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 05:39 PM	IC4_240529A
	MW05	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 03:09 AM	IC4_240529A
	MW05	Aqueous	M2540C	Total Dissolved Solids	115544	1	05/24/24 04:05 PM	WC_240524A
2405272-04A	MW09	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	2	05/29/24 11:24 AM	ICP-MS4_240529A
	MW09	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 10:59 AM	ICP-MS5_240528A
	MW09	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	10	05/28/24 12:01 PM	ICP-MS5_240528A
2405272-04B	MW09	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 03:28 AM	IC4_240529A
	MW09	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 05:58 PM	IC4_240529A
	MW09	Aqueous	M2540C	Total Dissolved Solids	115544	1	05/24/24 04:05 PM	WC_240524A
2405272-05A	MW08R	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	2	05/29/24 11:26 AM	ICP-MS4_240529A
	MW08R	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:02 AM	ICP-MS5_240528A
	MW08R	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	10	05/28/24 12:04 PM	ICP-MS5_240528A
2405272-05B	MW08R	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 06:17 PM	IC4_240529A
	MW08R	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 03:47 AM	IC4_240529A
	MW08R	Aqueous	M2540C	Total Dissolved Solids	115544	1	05/24/24 04:05 PM	WC_240524A

Lab Order: 2405272
Client: BBA Engineering
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2405272-06A	MW07	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:04 AM	ICP-MS5_240528A
	MW07	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	5	05/28/24 12:06 PM	ICP-MS5_240528A
	MW07	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:28 AM	ICP-MS4_240529A
2405272-06B	MW07	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 04:06 AM	IC4_240529A
	MW07	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 06:36 PM	IC4_240529A
	MW07	Aqueous	M2540C	Total Dissolved Solids	115544	1	05/24/24 04:05 PM	WC_240524A
2405272-07A	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/29/24 11:30 AM	ICP-MS4_240529A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	1	05/28/24 11:07 AM	ICP-MS5_240528A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115539	5	05/28/24 12:09 PM	ICP-MS5_240528A
2405272-07B	DUP-1	Aqueous	E300	Anions by IC method - Water	115561	10	05/29/24 06:55 PM	IC4_240529A
	DUP-1	Aqueous	E300	Anions by IC method - Water	115561	1	05/30/24 04:25 AM	IC4_240529A
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	115544	1	05/24/24 04:05 PM	WC_240524A

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW02
Project:	OGSES-ASH LANDFILL CCR	**Lab ID:**	2405272-01
Project No:	23643V-20	**Collection Date:**	05/21/24 01:35 PM
Lab Order:	2405272	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.117	0.0100	0.0300		mg/L	1	05/29/24 11:20 AM
Calcium	29.1	0.500	1.50		mg/L	5	05/28/24 11:52 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	83.6	3.00	10.0		mg/L	10	05/29/24 04:23 PM
Fluoride	0.207	0.100	0.400	J	mg/L	1	05/30/24 02:31 AM
Sulfate	36.4	1.00	3.00		mg/L	1	05/30/24 02:31 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	335	10.0	10.0		mg/L	1	05/24/24 04:05 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	AL-10
Project:	OGSES-ASH LANDFILL CCR	**Lab ID:**	2405272-02
Project No:	23643V-20	**Collection Date:**	05/21/24 03:45 PM
Lab Order:	2405272	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.0784	0.0100	0.0300		mg/L	1	05/29/24 11:13 AM
Calcium	11.9	0.100	0.300		mg/L	1	05/28/24 10:44 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	17.6	0.300	1.00		mg/L	1	05/30/24 02:50 AM
Fluoride	0.197	0.100	0.400	J	mg/L	1	05/30/24 02:50 AM
Sulfate	9.29	1.00	3.00		mg/L	1	05/30/24 02:50 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	196	10.0	10.0		mg/L	1	05/24/24 04:05 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW05
Project:	OGSES-ASH LANDFILL CCR	**Lab ID:**	2405272-03
Project No:	23643V-20	**Collection Date:**	05/22/24 08:00 AM
Lab Order:	2405272	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.0760	0.0100	0.0300		mg/L	1	05/29/24 11:22 AM
Calcium	16.9	0.100	0.300		mg/L	1	05/28/24 10:57 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	92.3	3.00	10.0		mg/L	10	05/29/24 05:39 PM
Fluoride	0.341	0.100	0.400	J	mg/L	1	05/30/24 03:09 AM
Sulfate	12.9	1.00	3.00		mg/L	1	05/30/24 03:09 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	292	10.0	10.0		mg/L	1	05/24/24 04:05 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW09
Project:	OGSES-ASH LANDFILL CCR	**Lab ID:**	2405272-04
Project No:	23643V-20	**Collection Date:**	05/22/24 09:10 AM
Lab Order:	2405272	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.478	0.0200	0.0600		mg/L	2	05/29/24 11:24 AM
Calcium	98.7	1.00	3.00		mg/L	10	05/28/24 12:01 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	110	3.00	10.0		mg/L	10	05/29/24 05:58 PM
Fluoride	0.205	0.100	0.400	J	mg/L	1	05/30/24 03:28 AM
Sulfate	516	10.0	30.0		mg/L	10	05/29/24 05:58 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1270	50.0	50.0		mg/L	1	05/24/24 04:05 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW08R
Project:	OGSES-ASH LANDFILL CCR	**Lab ID:**	2405272-05
Project No:	23643V-20	**Collection Date:**	05/22/24 10:15 AM
Lab Order:	2405272	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.517	0.0200	0.0600		mg/L	2	05/29/24 11:26 AM
Calcium	124	1.00	3.00		mg/L	10	05/28/24 12:04 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	120	3.00	10.0		mg/L	10	05/29/24 06:17 PM
Fluoride	0.210	0.100	0.400	J	mg/L	1	05/30/24 03:47 AM
Sulfate	591	10.0	30.0		mg/L	10	05/29/24 06:17 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1430	50.0	50.0		mg/L	1	05/24/24 04:05 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW07
Project:	OGSES-ASH LANDFILL CCR	**Lab ID:**	2405272-06
Project No:	23643V-20	**Collection Date:**	05/22/24 11:10 AM
Lab Order:	2405272	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.133	0.0100	0.0300		mg/L	1	05/29/24 11:28 AM
Calcium	39.9	0.500	1.50		mg/L	5	05/28/24 12:06 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	32.7	0.300	1.00		mg/L	1	05/30/24 04:06 AM
Fluoride	0.174	0.100	0.400	J	mg/L	1	05/30/24 04:06 AM
Sulfate	203	10.0	30.0		mg/L	10	05/29/24 06:36 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	540	10.0	10.0		mg/L	1	05/24/24 04:05 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *03-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	DUP-1
Project:	OGSES-ASH LANDFILL CCR	**Lab ID:**	2405272-07
Project No:	23643V-20	**Collection Date:**	05/22/24 11:10 AM
Lab Order:	2405272	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.126	0.0100	0.0300		mg/L	1	05/29/24 11:30 AM
Calcium	41.6	0.500	1.50		mg/L	5	05/28/24 12:09 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	33.0	0.300	1.00		mg/L	1	05/30/24 04:25 AM
Fluoride	0.171	0.100	0.400	J	mg/L	1	05/30/24 04:25 AM
Sulfate	202	10.0	30.0		mg/L	10	05/29/24 06:55 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	531	10.0	10.0		mg/L	1	05/24/24 04:05 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

CLIENT: BBA Engineering
Work Order: 2405272
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240529A

The QC data in batch 115539 applies to the following samples: 2405272-01A, 2405272-02A, 2405272-03A, 2405272-04A, 2405272-05A, 2405272-06A, 2405272-07A

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	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: 2405272
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240529A

Sample ID: **ICV-240529**	Batch ID: **R133272**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_240529A**	Analysis Date: **5/29/2024 9:25:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.101	0.0300	0.100	0	101	90	110			

Sample ID: **LCVL-240529**	Batch ID: **R133272**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_240529A**	Analysis Date: **5/29/2024 9:42:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0240	0.0300	0.0200	0	120	80	120			

Sample ID: **CCV2-240529**	Batch ID: **R133272**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240529A**	Analysis Date: **5/29/2024 11:00:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.198	0.0300	0.200	0	98.9	90	110			

Sample ID: **CCV3-240529**	Batch ID: **R133272**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240529A**	Analysis Date: **5/29/2024 11:47:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.207	0.0300	0.200	0	104	90	110			

Qualifiers:

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: 2405272
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240528A

The QC data in batch 115539 applies to the following samples: 2405272-01A, 2405272-02A, 2405272-03A, 2405272-04A, 2405272-05A, 2405272-06A, 2405272-07A

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
Calcium	<0.100	0.300								

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
Calcium	4.82	0.300	5.00	0	96.5	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
Calcium	4.92	0.300	5.00	0	98.4	80	120	1.94	15	

Sample ID: **2405272-02A SD** Batch ID: **115539** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_240528A** Analysis Date: **5/28/2024 10:46:00 AM** Prep Date: **5/24/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	11.5	1.50	0	11.9				3.54	20	

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
Calcium	15.9	0.300	5.00	11.9	81.2	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
Calcium	16.6	0.300	5.00	11.9	94.9	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
Calcium	16.5	0.300	5.00	11.9	93.0	75	125	0.563	15	

Qualifiers:

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: 2405272
Project: OGSES-ASH LANDFILL 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
Calcium	2.56	0.300	2.50	0	102	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
Calcium	0.0909	0.300	0.100	0	90.9	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
Calcium	5.07	0.300	5.00	0	101	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
Calcium	5.00	0.300	5.00	0	100	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
Calcium	4.95	0.300	5.00	0	98.9	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	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: 2405272
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_240529A

The QC data in batch 115561 applies to the following samples: 2405272-01B, 2405272-02B, 2405272-03B, 2405272-04B, 2405272-05B, 2405272-06B, 2405272-07B

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	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: 2405272
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_240529A

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

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

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	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: 2405272
Project: OGSES-ASH LANDFILL 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			

Qualifiers:

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: 2405272
Project: OGSES-ASH LANDFILL CCR

ANALYTICAL QC SUMMARY REPORT

RunID: WC_240524A

The QC data in batch 115544 applies to the following samples: 2405272-01B, 2405272-02B, 2405272-03B, 2405272-04B, 2405272-05B, 2405272-06B, 2405272-07B

Sample ID: **MB-115544** Batch ID: **115544** TestNo: **M2540C** Units: **mg/L**
SampType: **MBLK** Run ID: **WC_240524A** Analysis Date: **5/24/2024 4:05:00 PM** Prep Date: **5/24/2024**

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-115544** Batch ID: **115544** TestNo: **M2540C** Units: **mg/L**
SampType: **LCS** Run ID: **WC_240524A** Analysis Date: **5/24/2024 4:05:00 PM** Prep Date: **5/24/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	738	10.0	745.6	0	99.0	90	113			

Sample ID: **2405259-14B-DUP** Batch ID: **115544** TestNo: **M2540C** Units: **mg/L**
SampType: **DUP** Run ID: **WC_240524A** Analysis Date: **5/24/2024 4:05:00 PM** Prep Date: **5/24/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	4800	50.0	0	4815				0.416	5	

Sample ID: **2405259-15B-DUP** Batch ID: **115544** TestNo: **M2540C** Units: **mg/L**
SampType: **DUP** Run ID: **WC_240524A** Analysis Date: **5/24/2024 4:05:00 PM** Prep Date: **5/24/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	3070	50.0	0	3075				0.326	5	

Qualifiers:

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

August 27, 2024

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

Order No.: 2408199

RE: OGSES-Ash Landfill-CCR

Dear Will Vienne:

DHL Analytical, Inc. received 7 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,

John DuPont
General Manager

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

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: BBA
ADDRESS: 165 N. CAMPASAS ST. BERTRAM, TX
PHONE: EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONAL REPORT COPIES TO:

DATE: 8-15-24
PO#: 236431-20

LAB USE ONLY
DHL WORKORDER #: 2408199

PROJECT LOCATION OR NAME: OGSES- ASH LANDFILL - CCR
CLIENT PROJECT #
COLLECTOR: JOHN BRAYTON

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

W=WATER L=LIQUID S=SOIL SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	Lab Use Only DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION: HCL ☐	H_3PO_4 ☐	HNO_3	H_2SO_4	NaOH ☐	Zn Acetate ☐	ICE ☒	UNPRESERVED ☐	ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8260]	TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐	GRO 8015 ☐ DRO 8015 ☐	VOC 8260 ☐ VOC 624.1 ☐	SVOC 8270 ☐ SVOC 625.1 ☐	PAH 8270 ☐ HOLD PAH ☐	PEST 8270 ☐ 625.1 ☐ O-P PEST 8270 ☐	PCB 8082 ☐ 608.3 ☐ PCB 8270 ☐ 625.1 ☐	HERB 8321 ☐ T PHOS ☐ AMMONIA ☐	METALS 6020 ☐ 200.8 ☐ DISS. METALS ☐	RCRA 8 ☐ TX11 ☐ _____	pH☐ HEX CHROM☐ ALKALINITY☐ COD☐	ANIONS 300 ☐ 9056 ☐ _____	TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐	TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐	RCI ☐ IGN ☐ DGAS ☐ OIL&GREASE ☐	TDS ☐ TSS ☐ % MOIST ☐ CYANIDE ☐	APPENDIX III			FIELD NOTES
MW-02	01	8-14-24	1550	W	P	2			X					X																			X			
AL-1D	02	↓	1800	W	P	2			X					X																			X			
MW-09	03	8-15-24	0750	W	P	2			X					X																			X			
MW-08R	04		0900	W	P	2			X					X																			X			
MW-05	05		1035	W	P	2			X					X																			X			
MW-07	06		1135	W	P	2			X					X																			X			
DUP-1	07	↓	1135	W	P	2			X					X																			X			

Relinquished By: (Sign)	DATE/TIME 8-15-24 14:04	Received by:
Relinquished By: (Sign)	DATE/TIME	Received by:
Relinquished By: (Sign)	DATE/TIME	Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐ RUSH-3 DAY☐
NORMAL ☒ OTHER ☐
DUE DATE _____ ☐

LAB USE ONLY **THERMO #:** 78
RECEIVING TEMP (°C): 0.9°C
IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO
CUSTODY SEALS ON ICE CHEST: ☐ BROKEN ☐ INTACT ☐ NOT USED
CARRIER: ☐ LSO ☐ FEDEX ☐ UPS ☐ COURIER ☑ 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 SO4)
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: **2408199**

Received by: **KAO**

Checklist completed by: Signature 8/15/2024 Date

Reviewed by: SH Initials 8/15/2024 Date

Carrier name: Hand Delivered

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

Cooler #	1
Temp °C	0.9
Seal Intact	NP

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

Client contacted: Date contacted: Person contacted:

Contacted by: Regarding:

Comments:

Corrective Action:

Laboratory Name: DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: OGSES-Ash Landfill-CCR	**LRC Date:** 8/27/2024
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 2408199**
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	**X**				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			**X**		
R2	OI	**Sample and Quality Control (QC) Identification**					
		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	**Test Reports**					
		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	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			**X**		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			**X**		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		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	**Laboratory Control Samples (LCS):**					
		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	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		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	**Analytical Duplicate Data**					
		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	**Method Quantitation Limits (MQLs):**					
		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 DCSs included in the laboratory data package?	**X**				
R10	OI	**Other Problems/Anomalies**					
		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

Project Name: OGSES-Ash Landfill-CCR	**LRC Date:** 8/27/2024
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 2408199**
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		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	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):**					
		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	**Mass Spectral Tuning:**					
		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	**Internal Standards (IS):**					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw Data (NELAC Section 5.5.10)**					
		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	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively Identified Compounds (TICs):**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) Results:**					
		1) Were percent recoveries within method QC limits?	X				
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	**Method Detection Limit (MDL) Studies**					
		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	**Proficiency Test Reports:**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		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	**Verification/Validation Documentation for Methods** (NELAC Chapter 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory Standard Operating Procedures (SOPs):**					
		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

08/27/24
Date

Name: Dr. Derhsing Luu
Official Title: Technical Director

DHL Analytical, Inc.

Date: *27-Aug-24*

CLIENT: BBA Engineering
Project: OGSES-Ash Landfill-CCR
Lab Order: 2408199

CASE NARRATIVE

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

Method SW6020B - Metals Analysis
Method E300 - Anions Analysis
Method M2540C - TDS Analysis

Exception Report R1-01

The samples were received and log-in performed on 8/15/2024. A total of 7 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

Exception Report R7-03

For Anions Analysis, for Batch 116819, the recovery of one anion (each) for the Matrix Spike and Matrix Spike Duplicate(s) (2408190-01 and 2408236-01 MS/MSD) was below the method control limits. These are flagged accordingly in the QC Summary Report. These anions were within method control limits in the associated LCS. No further corrective action was taken.

DHL Analytical, Inc.

Date: *27-Aug-24*

CLIENT: BBA Engineering
Project: OGSES-Ash Landfill-CCR
Lab Order: 2408199

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2408199-01	MW-02		08/14/24 03:50 PM	08/15/2024
2408199-02	AL-10		08/14/24 06:00 PM	08/15/2024
2408199-03	MW-09		08/15/24 07:50 AM	08/15/2024
2408199-04	MW-08R		08/15/24 09:00 AM	08/15/2024
2408199-05	MW-05		08/15/24 10:35 AM	08/15/2024
2408199-06	MW-07		08/15/24 11:35 AM	08/15/2024
2408199-07	DUP-1		08/15/24 11:35 AM	08/15/2024

Lab Order: 2408199
Client: BBA Engineering
Project: OGSES-Ash Landfill-CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408199-01A	MW-02	08/14/24 03:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	MW-02	08/14/24 03:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
2408199-01B	MW-02	08/14/24 03:50 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-02	08/14/24 03:50 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-02	08/14/24 03:50 PM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408199-02A	AL-10	08/14/24 06:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	AL-10	08/14/24 06:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	AL-10	08/14/24 06:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
2408199-02B	AL-10	08/14/24 06:00 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	AL-10	08/14/24 06:00 PM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	AL-10	08/14/24 06:00 PM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408199-03A	MW-09	08/15/24 07:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	MW-09	08/15/24 07:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	MW-09	08/15/24 07:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
2408199-03B	MW-09	08/15/24 07:50 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-09	08/15/24 07:50 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-09	08/15/24 07:50 AM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408199-04A	MW-08R	08/15/24 09:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	MW-08R	08/15/24 09:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
2408199-04B	MW-08R	08/15/24 09:00 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-08R	08/15/24 09:00 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-08R	08/15/24 09:00 AM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408199-05A	MW-05	08/15/24 10:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	MW-05	08/15/24 10:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
2408199-05B	MW-05	08/15/24 10:35 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-05	08/15/24 10:35 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-05	08/15/24 10:35 AM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408199-06A	MW-07	08/15/24 11:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884

Lab Order: 2408199
Client: BBA Engineering
Project: OGSES-Ash Landfill-CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408199-06A	MW-07	08/15/24 11:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	MW-07	08/15/24 11:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
2408199-06B	MW-07	08/15/24 11:35 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-07	08/15/24 11:35 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	MW-07	08/15/24 11:35 AM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812
2408199-07A	DUP-1	08/15/24 11:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	DUP-1	08/15/24 11:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
	DUP-1	08/15/24 11:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/22/24 06:55 AM	116884
2408199-07B	DUP-1	08/15/24 11:35 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	DUP-1	08/15/24 11:35 AM	Aqueous	E300	Anion Preparation	08/19/24 09:00 AM	116819
	DUP-1	08/15/24 11:35 AM	Aqueous	M2540C	TDS Preparation	08/19/24 11:24 AM	116812

Lab Order: 2408199
Client: BBA Engineering
Project: OGSES-Ash Landfill-CCR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2408199-01A	MW-02	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/23/24 11:02 AM	ICP-MS5_240823C
	MW-02	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/26/24 11:25 AM	ICP-MS4_240826A
2408199-01B	MW-02	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 08:16 PM	IC2_240819B
	MW-02	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 07:58 AM	IC2_240819B
	MW-02	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408199-02A	AL-10	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/26/24 11:33 AM	ICP-MS4_240826A
	AL-10	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/23/24 11:15 AM	ICP-MS5_240823C
	AL-10	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	5	08/23/24 01:47 PM	ICP-MS5_240823C
2408199-02B	AL-10	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 08:34 PM	IC2_240819B
	AL-10	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 08:16 AM	IC2_240819B
	AL-10	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408199-03A	MW-09	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/26/24 11:35 AM	ICP-MS4_240826A
	MW-09	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/23/24 11:17 AM	ICP-MS5_240823C
	MW-09	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	10	08/23/24 01:50 PM	ICP-MS5_240823C
2408199-03B	MW-09	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 08:52 PM	IC2_240819B
	MW-09	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 08:34 AM	IC2_240819B
	MW-09	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408199-04A	MW-08R	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/23/24 11:20 AM	ICP-MS5_240823C
	MW-08R	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	10	08/26/24 11:37 AM	ICP-MS4_240826A
2408199-04B	MW-08R	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 09:10 PM	IC2_240819B
	MW-08R	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 08:52 AM	IC2_240819B
	MW-08R	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408199-05A	MW-05	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/26/24 11:39 AM	ICP-MS4_240826A
	MW-05	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/23/24 11:22 AM	ICP-MS5_240823C
2408199-05B	MW-05	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 09:28 PM	IC2_240819B
	MW-05	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 09:10 AM	IC2_240819B
	MW-05	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408199-06A	MW-07	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/23/24 11:25 AM	ICP-MS5_240823C

Lab Order: 2408199
Client: BBA Engineering
Project: OGSES-Ash Landfill-CCR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2408199-06A	MW-07	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	5	08/23/24 01:53 PM	ICP-MS5_240823C
	MW-07	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/26/24 11:41 AM	ICP-MS4_240826A
2408199-06B	MW-07	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 09:28 AM	IC2_240819B
	MW-07	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 09:46 PM	IC2_240819B
	MW-07	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C
2408199-07A	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/26/24 11:43 AM	ICP-MS4_240826A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	1	08/23/24 11:28 AM	ICP-MS5_240823C
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116884	5	08/23/24 01:55 PM	ICP-MS5_240823C
2408199-07B	DUP-1	Aqueous	E300	Anions by IC method - Water	116819	10	08/19/24 10:04 PM	IC2_240819B
	DUP-1	Aqueous	E300	Anions by IC method - Water	116819	1	08/20/24 09:46 AM	IC2_240819B
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	116812	1	08/19/24 04:35 PM	WC_240819C

DHL Analytical, Inc.

Date: *27-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW-02
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2408199-01
Project No:	23643V-20	**Collection Date:**	08/14/24 03:50 PM
Lab Order:	2408199	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.0973	0.0100	0.0300		mg/L	1	08/26/24 11:25 AM
Calcium	22.9	0.100	0.300		mg/L	1	08/23/24 11:02 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	54.6	3.00	10.0		mg/L	10	08/19/24 08:16 PM
Fluoride	0.115	0.100	0.400	J	mg/L	1	08/20/24 07:58 AM
Sulfate	22.7	1.00	3.00		mg/L	1	08/20/24 07:58 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	243	10.0	10.0		mg/L	1	08/19/24 04:35 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-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	AL-10
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2408199-02
Project No:	23643V-20	**Collection Date:**	08/14/24 06:00 PM
Lab Order:	2408199	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.0606	0.0100	0.0300		mg/L	1	08/26/24 11:33 AM
Calcium	26.8	0.500	1.50		mg/L	5	08/23/24 01:47 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	9.21	0.300	1.00		mg/L	1	08/20/24 08:16 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/20/24 08:16 AM
Sulfate	76.8	1.00	3.00		mg/L	1	08/20/24 08:16 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	206	10.0	10.0		mg/L	1	08/19/24 04:35 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-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW-09
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2408199-03
Project No:	23643V-20	**Collection Date:**	08/15/24 07:50 AM
Lab Order:	2408199	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.113	0.0100	0.0300		mg/L	1	08/26/24 11:35 AM
Calcium	90.3	1.00	3.00		mg/L	10	08/23/24 01:50 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	188	3.00	10.0		mg/L	10	08/19/24 08:52 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/20/24 08:34 AM
Sulfate	96.9	1.00	3.00		mg/L	1	08/20/24 08:34 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	518	10.0	10.0		mg/L	1	08/19/24 04:35 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-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW-08R
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2408199-04
Project No:	23643V-20	**Collection Date:**	08/15/24 09:00 AM
Lab Order:	2408199	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.603	0.100	0.300		mg/L	10	08/26/24 11:37 AM
Calcium	124	1.00	3.00		mg/L	10	08/26/24 11:37 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	142	3.00	10.0		mg/L	10	08/19/24 09:10 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/20/24 08:52 AM
Sulfate	521	10.0	30.0		mg/L	10	08/19/24 09:10 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	1260	50.0	50.0		mg/L	1	08/19/24 04:35 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-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW-05
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2408199-05
Project No:	23643V-20	**Collection Date:**	08/15/24 10:35 AM
Lab Order:	2408199	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.0680	0.0100	0.0300		mg/L	1	08/26/24 11:39 AM
Calcium	22.4	0.100	0.300		mg/L	1	08/23/24 11:22 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	106	3.00	10.0		mg/L	10	08/19/24 09:28 PM
Fluoride	0.252	0.100	0.400	J	mg/L	1	08/20/24 09:10 AM
Sulfate	12.7	1.00	3.00		mg/L	1	08/20/24 09:10 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	327	10.0	10.0		mg/L	1	08/19/24 04:35 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-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW-07
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2408199-06
Project No:	23643V-20	**Collection Date:**	08/15/24 11:35 AM
Lab Order:	2408199	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.121	0.0100	0.0300		mg/L	1	08/26/24 11:41 AM
Calcium	42.0	0.500	1.50		mg/L	5	08/23/24 01:53 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	34.1	0.300	1.00		mg/L	1	08/20/24 09:28 AM
Fluoride	0.115	0.100	0.400	J	mg/L	1	08/20/24 09:28 AM
Sulfate	216	10.0	30.0		mg/L	10	08/19/24 09:46 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	579	10.0	10.0		mg/L	1	08/19/24 04:35 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-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	DUP-1
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2408199-07
Project No:	23643V-20	**Collection Date:**	08/15/24 11:35 AM
Lab Order:	2408199	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Boron	0.111	0.0100	0.0300		mg/L	1	08/26/24 11:43 AM
Calcium	41.7	0.500	1.50		mg/L	5	08/23/24 01:55 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	34.3	0.300	1.00		mg/L	1	08/20/24 09:46 AM
Fluoride	0.111	0.100	0.400	J	mg/L	1	08/20/24 09:46 AM
Sulfate	215	10.0	30.0		mg/L	10	08/19/24 10:04 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	582	10.0	10.0		mg/L	1	08/19/24 04:35 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: 2408199
Project: OGSES-Ash Landfill-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	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.270	0.300	0.300	0	90.2	70	130	0	0	

Sample ID: **DCS4-115670**	Batch ID: **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	RPDLimit	Qual
Boron	0.0298	0.0300	0.0300	0	99.4	70	130	0	0	

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240826A

The QC data in batch 116884 applies to the following samples: 2408199-01A, 2408199-02A, 2408199-03A, 2408199-04A, 2408199-05A, 2408199-06A, 2408199-07A

Sample ID: **MB-116884** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_240826A** Analysis Date: **8/26/2024 11:17:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID: **LCS-116884** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_240826A** Analysis Date: **8/26/2024 11:19:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.198	0.0300	0.200	0	99.2	80	120			

Sample ID: **LCSD-116884** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_240826A** Analysis Date: **8/26/2024 11:21:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.208	0.0300	0.200	0	104	80	120	4.86	15	

Sample ID: **2408199-01A SD** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_240826A** Analysis Date: **8/26/2024 11:29:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.117	0.150	0	0.0973				18.6	20	

Sample ID: **2408199-01A PDS** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_240826A** Analysis Date: **8/26/2024 11:51:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.288	0.0300	0.200	0.0973	95.2	75	125			

Sample ID: **2408199-01A MS** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_240826A** Analysis Date: **8/26/2024 11:53:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.280	0.0300	0.200	0.0973	91.2	75	125			

Sample ID: **2408199-01A MSD** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_240826A** Analysis Date: **8/26/2024 11:55:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.286	0.0300	0.200	0.0973	94.2	75	125	2.16	15	

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240826A

Sample ID: **ICV-240826**	Batch ID: **R134882**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_240826A**	Analysis Date: **8/26/2024 11:01:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0933	0.0300	0.100	0	93.3	90	110			
Calcium	2.55	0.300	2.50	0	102	90	110			

Sample ID: **LCVL-240826**	Batch ID: **R134882**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_240826A**	Analysis Date: **8/26/2024 11:11:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0220	0.0300	0.0200	0	110	80	120			
Calcium	0.0940	0.300	0.100	0	94.0	80	120			

Sample ID: **CCV1-240826**	Batch ID: **R134882**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240826A**	Analysis Date: **8/26/2024 11:58:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.195	0.0300	0.200	0	97.4	90	110			
Calcium	5.10	0.300	5.00	0	102	90	110			

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240606A

Sample ID: **DCS2-115670** Batch ID: **115670** TestNo: **SW6020B** Units: **mg/L**
SampType: **DCS2** Run ID: **ICP-MS5_240606A** Analysis Date: **6/6/2024 10:20:00 AM** Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.301	0.300	0.300	0	100	70	130	0	0	

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240823C

The QC data in batch 116884 applies to the following samples: 2408199-01A, 2408199-02A, 2408199-03A, 2408199-04A, 2408199-05A, 2408199-06A, 2408199-07A

Sample ID: **MB-116884** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_240823C** Analysis Date: **8/23/2024 10:49:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	<0.100	0.300								

Sample ID: **LCS-116884** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_240823C** Analysis Date: **8/23/2024 10:54:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.83	0.300	5.00	0	96.6	80	120			

Sample ID: **LCSD-116884** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_240823C** Analysis Date: **8/23/2024 10:57:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.90	0.300	5.00	0	97.9	80	120	1.37	15	

Sample ID: **2408199-01A SD** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_240823C** Analysis Date: **8/23/2024 11:04:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	22.8	1.50	0	22.9				0.341	20	

Sample ID: **2408199-01A PDS** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_240823C** Analysis Date: **8/23/2024 11:30:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	26.6	0.300	5.00	22.9	74.6	75	125			

Sample ID: **2408199-01A MS** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_240823C** Analysis Date: **8/23/2024 11:33:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	27.1	0.300	5.00	22.9	85.0	75	125			

Sample ID: **2408199-01A MSD** Batch ID: **116884** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_240823C** Analysis Date: **8/23/2024 11:36:00 AM** Prep Date: **8/22/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	27.5	0.300	5.00	22.9	93.0	75	125	1.47	15	

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240823C

Sample ID: **ICV-240823**	Batch ID: **R134859**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS5_240823C**	Analysis Date: **8/23/2024 8:51:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2.53	0.300	2.50	0	101	90	110			

Sample ID: **LCVL-240823**	Batch ID: **R134859**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS5_240823C**	Analysis Date: **8/23/2024 8:56:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.0971	0.300	0.100	0	97.1	80	120			

Sample ID: **CCV2-240823**	Batch ID: **R134859**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240823C**	Analysis Date: **8/23/2024 10:39:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.05	0.300	5.00	0	101	90	110			

Sample ID: **CCV3-240823**	Batch ID: **R134859**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240823C**	Analysis Date: **8/23/2024 11:38:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.00	0.300	5.00	0	100	90	110			

Sample ID: **CCV6-240823**	Batch ID: **R134859**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240823C**	Analysis Date: **8/23/2024 1:34:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.91	0.300	5.00	0	98.2	90	110			

Sample ID: **CCV7-240823**	Batch ID: **R134859**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240823C**	Analysis Date: **8/23/2024 2:06:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.95	0.300	5.00	0	99.0	90	110			

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-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	
Fluoride	0.452	0.400	0.4000	0	113	70	130	0	0	
Sulfate	2.92	3.00	3.000	0	97.5	70	130	0	0	

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240819B

The QC data in batch 116819 applies to the following samples: 2408199-01B, 2408199-02B, 2408199-03B, 2408199-04B, 2408199-05B, 2408199-06B, 2408199-07B

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	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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240819B

Sample ID: **2408236-01BMS**	Batch ID: **116819**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC2_240819B**	Analysis Date: **8/19/2024 7:40:21 PM**	Prep Date: **8/19/2024**

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: **2408236-01BMSD**	Batch ID: **116819**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC2_240819B**	Analysis Date: **8/19/2024 7:58:21 PM**	Prep Date: **8/19/2024**

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	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: 2408199
Project: OGSES-Ash Landfill-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			

Sample ID: **CCV5-240819**	Batch ID: **R134743**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240819B**	Analysis Date: **8/20/2024 11:16:21 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	4.29	0.400	4.000	0	107	90	110			
Sulfate	30.8	3.00	30.00	0	103	90	110			

Qualifiers:

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: 2408199
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: WC_240819C

The QC data in batch 116812 applies to the following samples: 2408199-01B, 2408199-02B, 2408199-03B, 2408199-04B, 2408199-05B, 2408199-06B, 2408199-07B

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	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

DHL Analytical, Inc.

Date: *27-Aug-24*

CLIENT: BBA Engineering
Work Order: 2408199
Project: OGSES-Ash Landfill-CCR

MQL SUMMARY REPORT

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

TestNo: SW6020B	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Boron	0.0100	0.0300
Calcium	0.100	0.300

TestNo: M2540C	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Total Dissolved Solids (Residue, Filt	10.0	10.0

Qualifiers: MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

October 31, 2024

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

Order No.: 2410212

RE: OGSES-Ash Landfill-CCR

Dear Will Vienne:

DHL Analytical, Inc. received 1 sample(s) on 10/23/2024 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,

Joel Grice
Executive VP of Environmental

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

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: BBA
ADDRESS: 165 N. LAMPASAS ST. BERTRAM, TX
PHONE: 512-355-9198 EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONAL REPORT COPIES TO:

DATE: 10-23-24
PO#: 23643V-20

LAB USE ONLY
DHL WORKORDER #: 2410212

PROJECT LOCATION OR NAME: OGSES-ASH LAND FILL- CCR
CLIENT PROJECT # 23643V-20 COLLECTOR: JOHN BEAMON

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

Lab Use Only

W=WATER L=LIQUID S=SOIL SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION: HCL ☐	H_3PO_4 ☐	HNO_3	H_2SO_4	NaOH ☐	Zn Acetate ☐	ICE ☒	UNPRESERVED ☐	ANALYSES	FIELD NOTES
MW-08R	01	10-23-24	1010	W	P	1			X				X		BORON	

ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8260] | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO 8015 ☐ DRO 8015 ☐ | VOC 8260 ☐ VOC 624.1 ☐ | SVOC 8270 ☐ SVOC 625.1 ☐ | PAH 8270 ☐ HOLD PAH ☐ | PEST 8270 ☐ 625.1 ☐ O-P PEST 8270 ☐ | PCB 8082 ☐ 608.3 ☐ PCB 8270 ☐ 625.1 ☐ | HERB 8321 ☐ T PHOS ☐ AMMONIA ☐ | METALS 6020 ☐ 200.8 ☐ DISS. METALS ☐ | RCRA 8 ☐ TX11 ☐ _____ | pH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐ | ANIONS 300 ☐ 9056 ☐ _____ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ IGN ☐ DGAS ☐ OIL&GREASE ☐ | TDS ☐ TSS ☐ % MOIST ☐ CYANIDE ☐

Relinquished By: (Sign) DATE/TIME 10-23-24 1652 Received by:
Relinquished By: (Sign) DATE/TIME Received by:
Relinquished By: (Sign) DATE/TIME Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐ RUSH-3 DAY☐
NORMAL ☒ OTHER ☐
DUE DATE _____ ☐

LAB USE ONLY
RECEIVING TEMP (°C): 3.4 **THERMO #:** 78
IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO
CUSTODY SEALS ON ICE CHEST: ☐ BROKEN ☐ INTACT ☒ NOT USED
CARRIER: ☐ LSO ☐ FEDEX ☐ UPS ☐ COURIER ☒ HAND DELIVERED

☐ **DHL DISPOSAL @ $10.00 each**

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name: **BBA Engineering** Date Received: **10/23/2024**

Work Order Number: **2410212** Received by: **EL**

Checklist completed by: _____ 10/23/2024 Reviewed by: SH 10/23/2024

Signature | Date | Initials | Date

Carrier name: Hand Delivered

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

Cooler # 1

Temp °C 3.4

Seal Intact NP

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

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

Laboratory Name: DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: OGSES-Ash Landfill-CCR	**LRC Date:** 10/31/2024
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 2410212**
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	**X**				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			**X**		
R2	OI	**Sample and Quality Control (QC) Identification**					
		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	**Test Reports**					
		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	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			**X**		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			**X**		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		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	**Laboratory Control Samples (LCS):**					
		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	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		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	**Analytical Duplicate Data**					
		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	**Method Quantitation Limits (MQLs):**					
		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 DCSs included in the laboratory data package?	**X**				
R10	OI	**Other Problems/Anomalies**					
		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

Project Name: OGSES-Ash Landfill-CCR	**LRC Date:** 10/31/2024
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 2410212**
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		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	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):**					
		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	**Mass Spectral Tuning:**					
		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	**Internal Standards (IS):**					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw Data (NELAC Section 5.5.10)**					
		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	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively Identified Compounds (TICs):**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) Results:**					
		1) Were percent recoveries within method QC limits?	X				
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	**Method Detection Limit (MDL) Studies**					
		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	**Proficiency Test Reports:**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		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	**Verification/Validation Documentation for Methods** (NELAC Chapter 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory Standard Operating Procedures (SOPs):**					
		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:

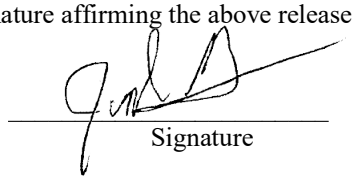
R1 Field chain-of-custody documentation;
R2 Sample identification cross-reference;
R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC Chapter 5,
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required 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: Joel Grice
Official Title: Executive VP of Environmental



Signature

10/31/2024
Date

Name: Don Winston
Official Title: Technical Director

DHL Analytical, Inc. **Date:** *31-Oct-24*

CLIENT: BBA Engineering
Project: OGSES-Ash Landfill-CCR
Lab Order: 2410212

CASE NARRATIVE

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

Method SW6020B - Metals Analysis

Exception Report R1-01

The samples were received and log-in performed on 10/23/2024. A total of 1 sample was received and analyzed. The sample arrived in good condition and was properly packaged.

DHL Analytical, Inc.

Date: *31-Oct-24*

CLIENT: BBA Engineering
Project: OGSES-Ash Landfill-CCR
Lab Order: 2410212

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2410212-01	MW-08R		10/23/24 10:10 AM	10/23/2024

Lab Order: 2410212
Client: BBA Engineering
Project: OGSES-Ash Landfill-CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2410212-01A	MW-08R	10/23/24 10:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	10/25/24 06:59 AM	117696
	MW-08R	10/23/24 10:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	10/25/24 06:59 AM	117696

Lab Order: 2410212
Client: BBA Engineering
Project: OGSES-Ash Landfill-CCR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2410212-01A	MW-08R	Aqueous	SW6020B	Total Metals: ICP-MS - Water	117696	1	10/28/24 11:17 AM	ICP-MS5_241028A
	MW-08R	Aqueous	SW6020B	Total Metals: ICP-MS - Water	117696	1	10/28/24 12:06 PM	ICP-MS4_241028B

DHL Analytical, Inc.

Date: *31-Oct-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	MW-08R
Project:	OGSES-Ash Landfill-CCR	**Lab ID:**	2410212-01
Project No:	23643V-20	**Collection Date:**	10/23/24 10:10 AM
Lab Order:	2410212	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **CMC**
Boron	0.521	0.0100	0.0300		mg/L	1	10/28/24 12:06 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: *31-Oct-24*

CLIENT: BBA Engineering
Work Order: 2410212
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240910A

Sample ID: **DCS4-117075** Batch ID: **117075** TestNo: **SW6020B** Units: **mg/L**
SampType: **DCS4** Run ID: **ICP-MS4_240910A** Analysis Date: **9/10/2024 11:10:00 AM** Prep Date: **9/6/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0292	0.0300	0.0300	0	97.3	70	130	0	0	

Qualifiers:

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: 2410212
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_241028B

The QC data in batch 117696 applies to the following samples: 2410212-01A

Sample ID: **MB-117696**	Batch ID: **117696**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MBLK**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 11:50:00 A**	Prep Date: **10/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID: **LCS-117696**	Batch ID: **117696**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCS**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 11:52:00 A**	Prep Date: **10/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.191	0.0300	0.200	0	95.4	80	120			

Sample ID: **LCSD-117696**	Batch ID: **117696**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 11:54:00 A**	Prep Date: **10/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.208	0.0300	0.200	0	104	80	120	8.57	15	

Sample ID: **2410196-13B SD**	Batch ID: **117696**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 12:03:00 P**	Prep Date: **10/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	7.98	3.00	0	7.39				7.73	20	

Sample ID: **2410196-13B PDS**	Batch ID: **117696**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 12:18:00 P**	Prep Date: **10/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	11.6	0.600	4.00	7.39	105	75	125			

Sample ID: **2410196-13B MS**	Batch ID: **117696**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 12:20:00 P**	Prep Date: **10/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	7.88	0.600	0.200	7.39	245	75	125			S

Sample ID: **2410196-13B MSD**	Batch ID: **117696**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 12:22:00 P**	Prep Date: **10/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	7.81	0.600	0.200	7.39	211	75	125	0.879	15	S

Qualifiers:

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: 2410212
Project: OGSES-Ash Landfill-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_241028B

Sample ID: **ICV-241028**	Batch ID: **R135885**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 9:39:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0951	0.0300	0.100	0	95.1	90	110			

Sample ID: **LCVL-241028**	Batch ID: **R135885**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 9:45:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0237	0.0300	0.0200	0	118	80	120			

Sample ID: **CCV1-241028**	Batch ID: **R135885**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 10:25:00 A**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.198	0.0300	0.200	0	98.9	90	110			

Sample ID: **CCV2-241028**	Batch ID: **R135885**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_241028B**	Analysis Date: **10/28/2024 12:25:00 P**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.200	0.0300	0.200	0	99.9	90	110			

Qualifiers:

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

DHL Analytical, Inc.

Date: *31-Oct-24*

CLIENT: BBA Engineering
Work Order: 2410212
Project: OGSES-Ash Landfill-CCR

MQL SUMMARY REPORT

TestNo: SW6020B	MDL	MQL
Analyte	**mg/L**	**mg/L**
Boron	0.0100	0.0300

Qualifiers: MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

APPENDIX B

ALTERNATE SOURCE DEMONSTRATION

FOR THE 2023 REPORTING PERIOD

Bullock, Bennett & Associates, LLC ∗ 165 N. Lampasas Street ∗ Bertram, Texas 78605
Telephone: 512.355.9198 ∗ Fax: 512.355.9197

March 8, 2024
BBA Project No. 23643-05

Mr. Eric Chavers
Luminant Generation Company LLC
6555 Sierra Drive
Irving, Texas 75039

RE: ALTERNATE SOURCE DEMONSTRATION
OAK GROVE STEAM ELECTRIC STATION – ASH LANDFILL 1
RUSK COUNTY, TEXAS

1.0 INTRODUCTION

This Alternate Source Demonstration (ASD) was prepared to document that a source other than the Ash Landfill 1 (the Site) caused the statistically significant increases (SSIs) over background levels observed during the 2023 Coal Combustion Residual (CCR) Detection Monitoring Program sampling events as required by 40 C.F.R. § 257.94(e)(2) of the federal CCR Rule. The Texas Commission on Environmental Quality (TCEQ) has adopted portions of the federal CCR rule at 30 T.A.C. Chapter 352 (Texas CCR Rule). 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) and the Federal CCR Program requirements for detection and assessment monitoring at 40 C.F.R. §257.94 and § 257.95 (*See* 30 T.A.C. §352.941 and 30 T.A.C. § 352.951). Pursuant to 30 T.A.C. § 352.941(c)(1), a notification was submitted to the Executive Director on December 19, 2023, indicating an intent to pursue an ASD. This ASD will be submitted to the Executive Director pursuant to 30 T.A.C. § 352.941(c)(2).

2.0 ASH LANDFILL 1 CCR MONITORING WELL NETWORK

A Site Plan of the Ash Landfill 1 and vicinity is shown on Figure 1. The CCR groundwater monitoring well system at the Ash Landfill 1 consists of six monitoring wells (MW-02, MW-05, MW-07, MW-08R, MW-09, and AL-10) that are each screened in the uppermost aquifer at the Site. The uppermost aquifer at the Site occurs under unconfined conditions within the shallow sand units at the Site (PBW 2017). Groundwater elevations have consistently been highest west of the Ash Landfill 1 and lowest east of the Ash Landfill 1 during the baseline and detection monitoring period, with a general groundwater flow direction from west to east (Attachment 1). Based on the observed groundwater gradient at the Site, the location of each CCR monitoring well relative to the Ash Landfill 1 is as follows

Upgradient/Background Wells	Downgradient Wells
MW-02 AL-10	MW-05 MW-07 MW-08R MW-09

3.0 2023 SEMI-ANNUAL DETECTION MONITORING RESULTS AND DISCUSSION

At the beginning and end of the 2023 reporting period, the Ash Landfill 1 was operating under a Detection Monitoring Program as described in 40 C.F.R. § 257.94. The Detection Monitoring Program for the Ash Landfill 1 was established in September 2017. Groundwater sample data collected from the CCR groundwater monitoring well network during the baseline and detection monitoring periods from 2015 through 2023 are summarized in Table 1.

During the 2023 reporting period, SSIs above background prediction limits were identified for boron and sulfate in downgradient wells MW-07 and MW-09 (maximum boron concentration of 0.228 mg/L and maximum sulfate concentration of 162 mg/L). Boron and sulfate SSIs above background prediction limits have historically been observed in the Ash Landfill 1 background wells AL-10 and MW-02 (maximum boron concentration of 0.166 mg/L and maximum sulfate concentration of 131 mg/L). Boron and sulfate SSIs have also been observed at the Site in the FGD Pond Area CCR background wells FGD-8 and FGD-11, which are located north and not directly downgradient of the Ash Landfill 1 (BBA, 2024). The maximum historical concentrations in the FGD Pond background wells are 0.242 mg/L for boron and 670 mg/L for sulfate, which are both higher than the maximum sample concentrations observed in the Ash Landfill 1 downgradient wells in 2023.

4.0 CONCLUSION

SSIs were observed for boron and sulfate in Ash Landfill 1 downgradient wells MW-07 and MW-09 during the 2023 Detection Monitoring Program period; however, because SSIs have been identified for boron and sulfate in background wells at similar or higher concentrations than those observed in MW-07 and MW-09 in 2023, the 2023 Ash Landfill 1 SSIs are attributed to natural variation in groundwater quality due to the heterogeneity of the groundwater system and are not considered evidence of a release from the CCR unit. It is recommended that Luminant continue the Detection Monitoring Program in accordance with 40 C.F.R § 257.94(e)(2). Initiation of an Assessment Monitoring Program is not required at this time.

5.0 REFERENCES

Pastor, Behling & Wheeler, LLC (PBW), 2017. Coal Combustion Residual Rule, Groundwater Monitoring System Certification, Oak Grove Steam Electric Station, Ash Landfill 1, Robertson County, Texas. October 16, 2017.

Bullock, Bennett & Associates, LLC (BBA), 2023. CCR Background Groundwater Monitoring and Statistical Analysis Summary Report, Ash Landfill 1, Oak Grove Steam Electric Station, Robertson County, Texas. September 15.

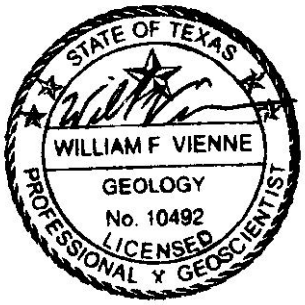
Bullock, Bennett & Associates, LLC (BBA), 2024. 2023 Annual Groundwater Monitoring and Corrective Action Report, Oak Grove Steam Electric Station Ash Landfill 1, Robertson County, Texas. January 31.

6.0 CLOSING

Thank you for the opportunity to assist on this project. Please contact me at wvienne@bbaengineering.com if you have any questions regarding this report.

Bullock, Bennett & Associates, LLC

William F. Vienne, P.G. (TX 10492)
Senior Hydrogeologist



03/08/2024

7.0 PROFESSIONAL CERTIFICATION

This document and all attachments were prepared by Bullock, Bennett & Associates, LLC under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I hereby certify that the alternative source demonstration at the referenced facility meets the detection monitoring requirements of the Federal CCR Program at 40 C.F.R. § 257.94 and the State CCR Program at 30 T.A.C. § 352.941.

Daniel B. Bullock, P.E.
Principal Engineer
Bullock, Bennett & Associates, LLC

3/08/2024

FIGURES

LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST

03/08/2024

REFERENCE(S)

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

LUMINANT
OAK GROVE STEAM ELECTRIC STATION
ROBERTSON COUNTY, TEXAS

Figure 1

ASH LANDFILL 1
SITE PLAN

PROJECT: 23643.05	BY: SLB	DATE: 12/5/2023	CHECKED: WV

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

TABLES

TABLE 1
APPENDIX III ANALYTICAL RESULTS
OGSES ASH LANDFILL 1

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
Background Prediction Limits*:		0.124	74.9	353	0.4	6.31 7.09	97.4	948
Upgradient Wells								
AL-10	11/04/15	0.0682	34.5	149	0.149 J	6.86	72.6	590
	12/18/15	0.0539	37.5	81	0.15 J	6.45	20.6	414
	02/10/16	0.0637	48.6	108	0.197 J	6.75	34.9	599
	04/15/16	0.0573	44.8	86	0.133	6.51	23.6	549
	06/16/16	0.0915	34.7	66.7	0.155 J	6.44	23.5	436
	08/25/16	0.105	87.5	444	<0.1	6.61	96.3	1,120
	10/04/16	0.0756	35.1	57.3	0.278 J	6.92	20.1	507
	12/22/16	0.0759	32.5	57.2	0.195 J	6.78	21.5	527
	10/02/17	0.0973	27	50.6	0.120 J	6.85	12.2	398
	06/04/18	0.0875	21.9	62.1	0.183 J	6.67	11.6	362
	09/06/18	0.113	21.9	56.7	0.260 J	6.66	11.8	371
	05/17/19	0.114	16.8	67.9	0.262 J	6.64	12.4	340
	08/20/19	0.115	18.8	66.2	0.363 J	6.87	11.8	333
	05/07/20	0.128	18.8	52.2	<0.100	6.78	11.1	317
	09/09/20	0.139	16.8	49.2	0.208 J	6.86	10.6	301
	06/16/21	0.107	15.2	41.9	0.27 J	6.82	9.92	267
	10/12/21	0.0878	15.1	51.4	<0.1	6.82	9.84	269
	05/11/22	0.0894	11.8	39.9	0.217 J	6.63	8.47	251
	09/26/22	0.107	10.5	34.7	0.180 J	6.69	9.47	234
	05/25/23	0.0880	8.70	24.0	0.165 J	6.65	8.29	225
	08/17/23	0.122	9.13	23.3	0.2	6.54	8.25	232
MW-02	11/04/15	0.064	32.5	138	0.135 J	6.92	71.4	539
	12/18/15	0.0476	29	61.7	0.118 J	6.83	15.9	308
	02/10/16	0.0853	25.4	83.5	0.229 J	6.63	34	320
	04/15/16	0.0597	39.6	68	0.102	6.51	18.1	440
	06/16/16	0.106	26.5	87.8	0.161 J	6.89	34.8	343
	08/25/16	0.0492	12.9	21.9	0.164 J	6.58	22.4	163
	10/04/16	0.113	61.4	222	0.185 J	6.69	97.4	667
	12/21/16	0.11	47.8	185	0.293 J	6.78	83.4	590
	10/02/17	0.0567	22.2	42.4	<0.100	6.68	9.67	310
	06/04/18	0.144	82.4	275	0.139 J	6.28	121	740
	09/06/18	0.148	70.9	259	0.221 J	6.02	116	872
	05/17/19	0.0981	20	67.6	0.321 J	6.63	31.1	306
	08/20/19	0.0875	19.9	53.8	0.558	6.59	20.1	260
	05/07/20	0.0996	11.5	2.87	<0.100	6.63	6.14	106
	09/09/20	0.166	55.6	210	0.287 J	6.76	99.2	592
	06/16/21	0.0756	48	164	0.977	6.62	35.9	646
	10/12/21	0.0848	23.8	56.6	0.36	6.62	20.7	245
	05/11/22	0.110	47.6	152	0.179	6.63	62.3	504
	09/26/22	0.126	66.4	298	0.128 J	6.52	131	755
	05/25/23	0.114	53.3	193	0.106	6.82	77.7	571
	08/17/23	0.0833	22.8	59.4	0.356	6.54	20.3	233
Downgradient Wells								
MW-05	11/04/15	0.0628	15.4	64.8	0.272 J	7.11	13.6	285
	12/18/15	0.0621	13	60.2	0.476	6.52	10.5	232
	02/10/16	0.0447	14	59.7	0.397 J	6.67	11.9	235
	04/15/16	0.0458	14.3	55.4	0.284	6.42	10.7	288
	06/15/16	0.058	14.2	60.4	0.306 J	6.61	11.8	269
	08/24/16	0.0877	13.1	63	0.262 J	6.75	11.8	287
	10/04/16	0.059	15.4	57.9	0.477	6.87	10.9	253
	12/22/16	0.0759	61.4	264	0.446	6.63	55.6	778
	10/02/17	0.0665	17.5	58.6	0.295 J	6.89	10.4	246
	06/05/18	0.0739	16.8	60	0.391 J	6.43	12.1	253
	09/07/18	0.077	15.8	63.3	0.392 J	6.11	10.6	249
	05/17/19	0.0686	13.5	66.4	0.462	6.57	11.2	257
	08/20/19	0.079	16	66.7	0.514	6.78	10.8	263
	05/07/20	0.0985	18	71.8	0.344 J	6.68	10.6	264
	09/09/20	0.201	20.5	79.8	0.372 J	6.81	66.5	407
	06/16/21	0.0753	17.7	77.7	0.415	6.69	10	255
	10/12/21	0.0615	20.9	83.6	0.433	6.52	11.7	282
	10/12/2021 DUP	0.0703	20.9	85.5	0.425	6.52	12.1	272
	05/12/22	0.0773	20	80.9	0.438	6.74	11.5	285
	09/26/22	0.0768	19.8	87.8	0.383 J	6.73	12	290
	05/25/23	0.0642	19.8	93.3	0.353 J	6.73	11.9	310
	08/17/23	0.0675	20.9	104	0.390	6.61	12.1	300

TABLE 1
APPENDIX III ANALYTICAL RESULTS
OGSES ASH LANDFILL 1

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
Background Prediction Limits*:		0.124	74.9	353	0.4	6.31 7.09	97.4	948
MW-07	11/03/15	0.0483	8.57	20.2	0.289 J	6.42	11.5	276
	12/17/15	0.0539	8.75	17.7	0.319 J	6.86	14.7	243
	02/09/16	0.0547	13.3	28.9	0.276 J	7.18	25.3	283
	04/15/16	0.0567	10	20.9	0.187	6.71	16	341
	06/15/16	0.0639	10.5	22.9	0.226 J	6.75	23.2	294
	08/24/16	0.0691	9.58	20.4	0.159 J	6.89	21.8	290
	10/04/16	0.0549	10.3	15.6	0.277 J	6.82	17.1	256
	12/22/16	0.054	12.5	22.9	0.229 J	6.29	34.7	262
	10/02/17	0.0733	13.9	15.8	0.178 J	6.59	38.4	298
	06/05/18	0.105	17.5	15.7	0.169 J	5.98	61.1	316
	09/07/18	0.151	19.7	21.5	0.250 J	6.18	80.3	357
	11/6/18 resample	0.154	--	--	--	--	--	--
	05/17/19	0.132	17.1	20.2	0.244 J	6.83	84.1	355
	08/19/19	0.215	22.8	19.7	0.367 J	6.77	100	385
	05/07/20	0.302	29.7	22.4	0.234 J	6.84	123	432
	09/09/20	0.297	26.9	24.7	0.302 J	6.58	121	413
	06/16/21	0.186	25.8	26.2	0.378 J	6.84	108	404
	6/16/21 DUP	0.177	25.5	26.6	0.378 J	6.84	110	399
	10/13/21	0.181	31.6	29.6	<0.353	6.85	130	422
	05/12/22	0.297	34.6	31.4	0.208 J	6.75	144	484
	05/12/22 DUP	0.315	34.5	31.6	0.209 J	6.75	144	481
	09/26/22	0.282	35.8	33.9	0.143	6.41	150	499
	05/25/23	0.244	34.6	31.8	0.100 J	6.64	149	489
	5/25/23 DUP	0.243	33.9	31.4	0.106	6.64	147	482
	08/17/23	0.205	37.1	35.2	0.144	6.62	162	535
	8/17/23 DUP	0.228	38.1	35.5	0.148 J	6.62	162	535
MW-08	11/04/15	0.0631	120	599	0.17 J	6.81	138	2,070
	12/18/15	0.0604	70.4	488	0.158 J	6.78	49.8	1,140
	02/09/16	0.0695	140	612	0.175 J	6.42	170	1,530
	04/15/16	0.0726	133	566	<0.1	6.61	139	1,680
	06/16/16	0.0677	76.6	520	<0.1	6.76	83.6	1,090
	8/2016	Well Damaged						
MW-08R	12/22/16	0.0702	32.4	166	0.355 J	6.93	39.7	617
	03/21/17	0.0662	117	563	0.2 J	5.83	98.3	1,220
	04/20/17	0.0696	115	560	0.149 J	5.91	94.9	1,190
	10/02/17	0.061	13.1	14.4	<0.100	6.63	28.7	243
	06/05/18	0.082	18.9	53.9	0.138 J	6.37	9.66	302
	09/07/18	0.0921	106	504	0.242 J	5.84	96.9	1,550
	11/6/2018 resample	--	15.7	19	--	--	--	268
	05/17/19	0.102	16.7	69.8	0.269 J	6.54	12.4	326
	08/20/19	0.096	24.9	48	0.501	6.84	30.7	255
	05/07/20	0.122	19	51.8	0.117 J	6.83	11.1	320
	09/09/20	0.0977	15.8	55.5	0.344 J	6.68	19.0	256
	06/16/21	0.116	15.3	43.5	0.263 J	6.76	9.26	266
	10/12/21	0.107	32.8	268	<0.1	6.76	136	874
	05/11/22	0.0648	43.8	111	0.979	6.89	27.3	563
	09/26/22	0.104	10.6	30.1	0.154	6.52	7.24	193
	05/25/23	0.0992	55.1	133	<0.100	6.82	102	494
	08/17/23	0.0916	11.1	15.2	0.135	6.50	34.5	231

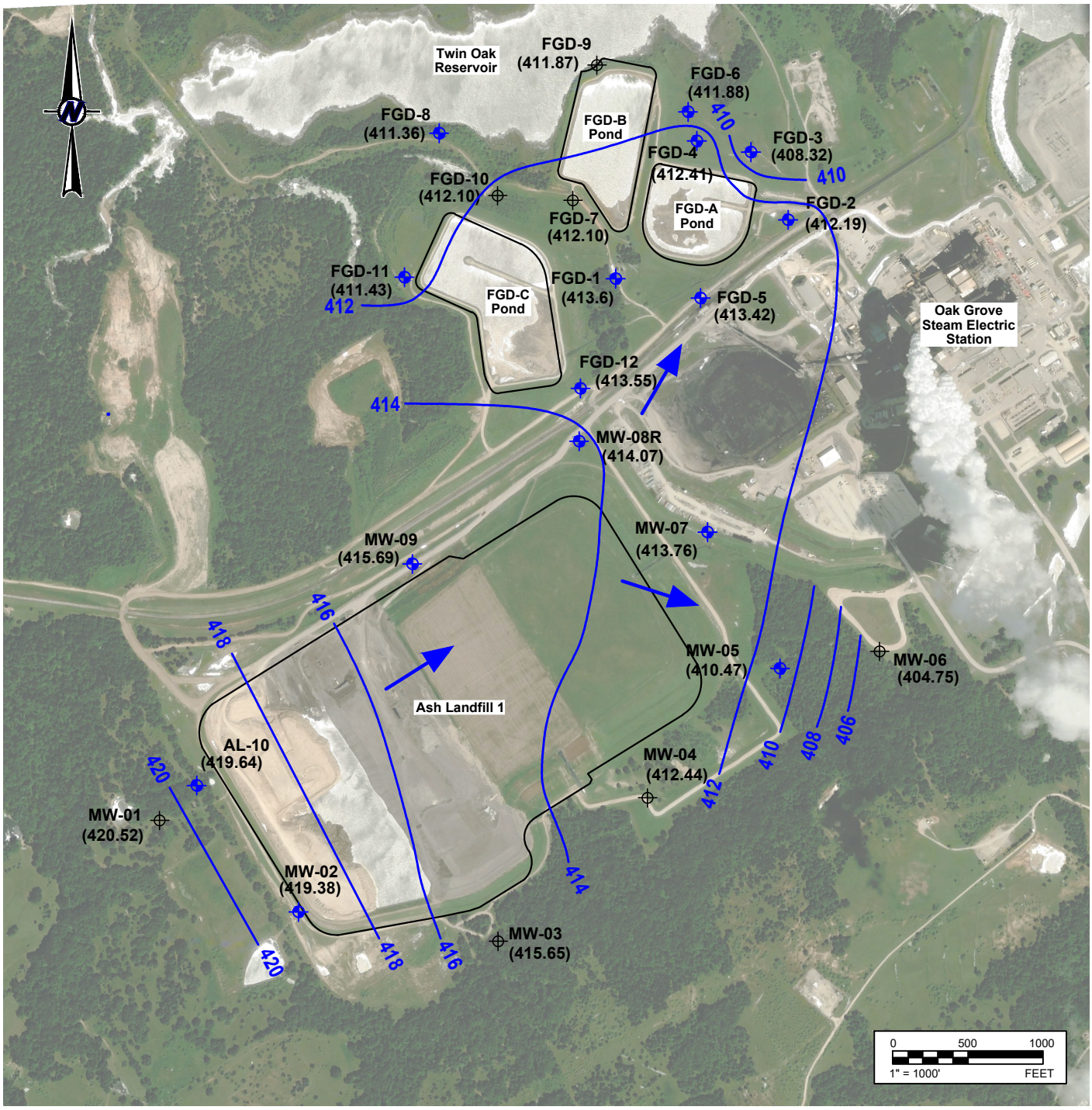
TABLE 1
APPENDIX III ANALYTICAL RESULTS
OGSES ASH LANDFILL 1

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
Background Prediction Limits*:		0.124	74.9	353	0.4	6.31 7.09	97.4	948
MW-09	11/03/15	0.0722	36.4	155	0.149 J	6.45	74.9	583
	12/18/15	0.077	40.3	157	0.266 J	6.48	83.1	528
	02/09/16	0.072	38.4	158	0.152 J	6.16	80	445
	04/15/16	0.0734	42.2	151	<0.1	6.41	80.9	568
	06/15/16	0.0778	43.1	174	<0.1	6.52	98.7	574
	08/25/16	0.0829	45.6	195	<0.1	6.76	116	715
	10/04/16	0.0803	47.8	179	0.256 J	6.64	108	648
	12/22/16	0.0776	42.6	290	0.159 J	6.87	116	791
	10/02/17	0.106	58.2	140	<0.100	6.76	95.3	433
	06/04/18	0.091	21.7	6.48	0.162 J	6.28	6.08	135
	09/06/18	0.0999	49.8	186	0.134 J	5.61	104	704
	11/6/2018 resample	--	--	--	--	--	58.6	--
	05/17/19	0.12	17.2	366	0.541	6.72	53.2	935
	08/20/19	0.117	26	61.2	0.359 J	6.96	22.3	331
	05/07/20	0.0988	20.2	45.1	0.234 J	6.68	17.3	212
	09/09/20	0.123	48.5	156	0.152 J	6.72	99.6	468
	06/16/21	0.0682	16.3	4.18	<0.100	6.84	8.19	127
	10/12/21	0.0821	20.7	29.9	<0.100	6.84	31.2	223
	05/12/22	0.111	67.9	195	0.124 J	6.57	119	582
	09/26/22	0.132	63.9	155	<0.100	6.79	108	482
	05/25/23	0.124	58.7	146	0.112 J	6.89	122	591
	08/17/23	0.136	59.8	195	0.177 J	6.58	122	633

Notes:
1. Abbreviations: mg/L - milligrams per liter; TDS - total dissolved solids; s.u. - standard units.
2. J - concentration is below method quantitation limit; result is an estimate.
3. * - The background prediction limits are based on data collected during the baseline period (i.e., pre-detection monitoring period) in 2015 and 2016. Updated background prediction limits based on data collected through 2023 (BBA, 2023) are currently under review by the TCEQ.

ATTACHMENT 1

2023 GROUNDWATER POTENTIOMETRIC SURFACE MAPS



LEGEND

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

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST
01/31/2024

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021

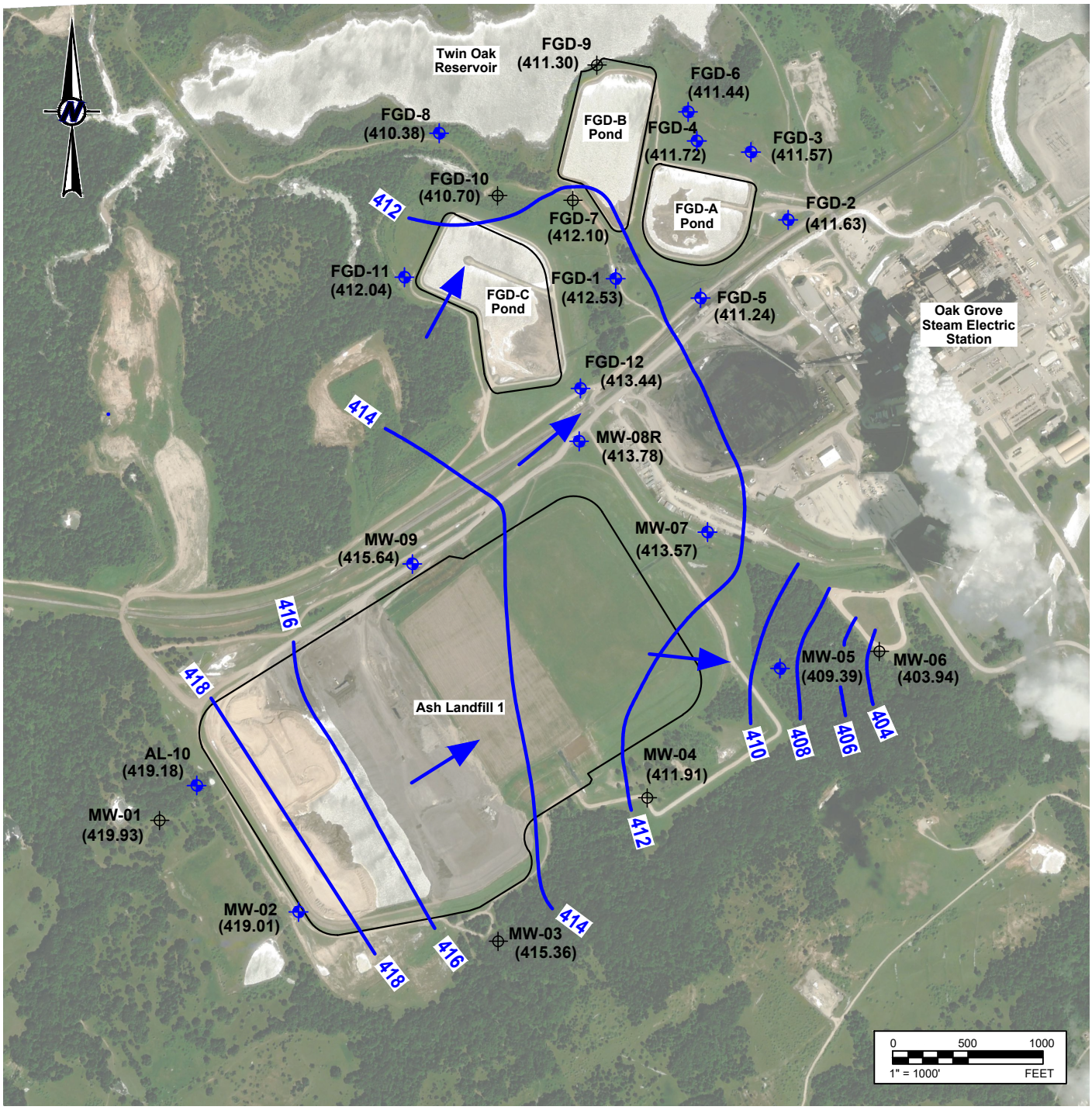
LUMINANT
OAK GROVE STEAM ELECTRIC STATION
ROBERTSON COUNTY, TEXAS

Figure 1

ASH LANDFILL AND FGD PONDS
POTENTIOMETRIC SURFACE MAP - MAY 2023

PROJECT: 23643.05	BY: SLB	DATE: 12/5/2023	CHECKED: WV

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



LEGEND

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

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST
01/31/2024

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021

LUMINANT
OAK GROVE STEAM ELECTRIC STATION
ROBERTSON COUNTY, TEXAS

Figure 2

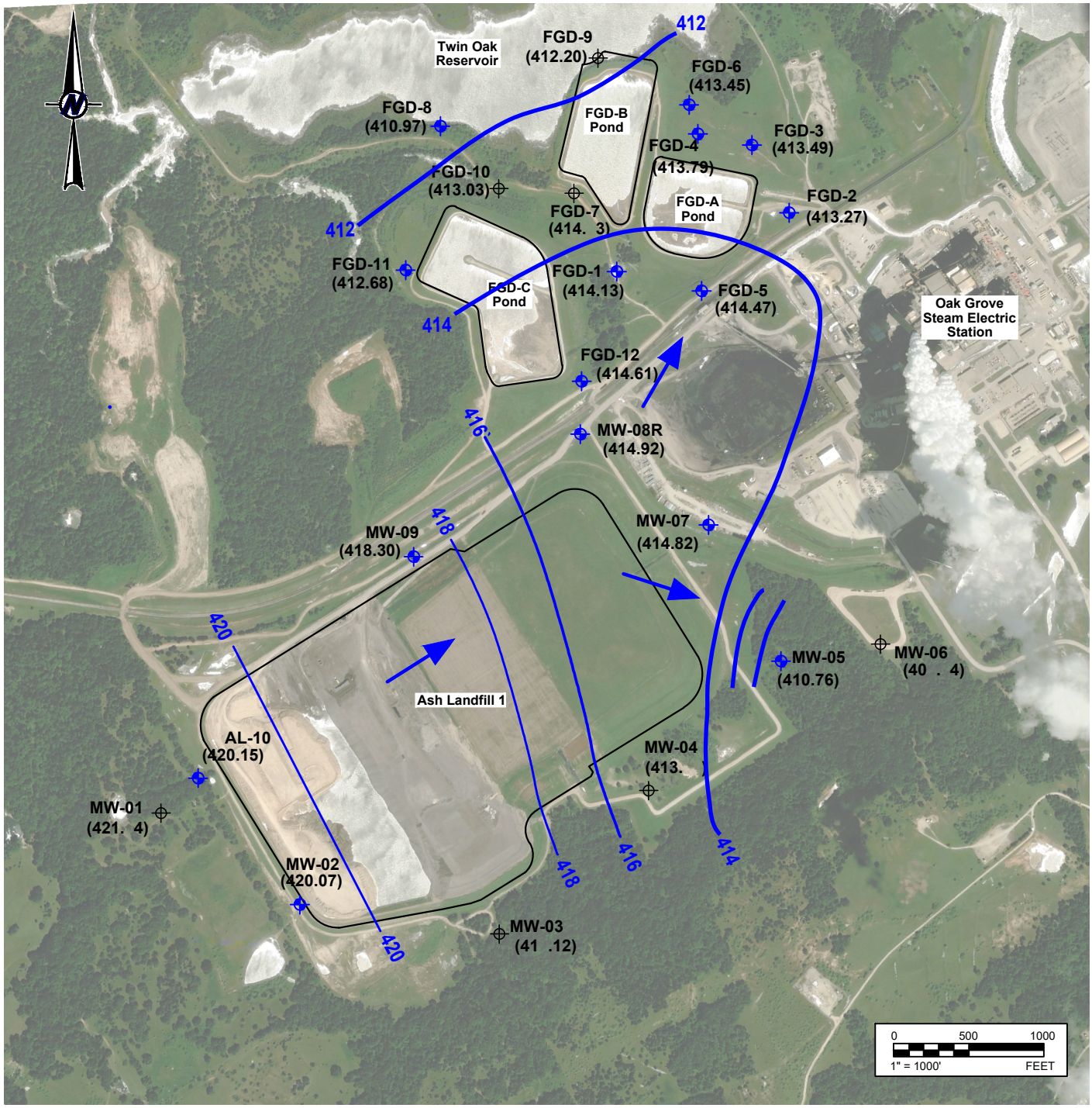
ASH LANDFILL AND FGD PONDS
POTENTIOMETRIC SURFACE MAP - AUGUST 2023

PROJECT: 23643.05	BY: SLB	DATE: 12/5/2023	CHECKED: WV

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

APPENDIX C

2024 GROUNDWATER POTENTIOMETRIC SURFACE MAPS



LEGEND

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

NM = Not Measured

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST

01/31/2025

REFERENCE(S)

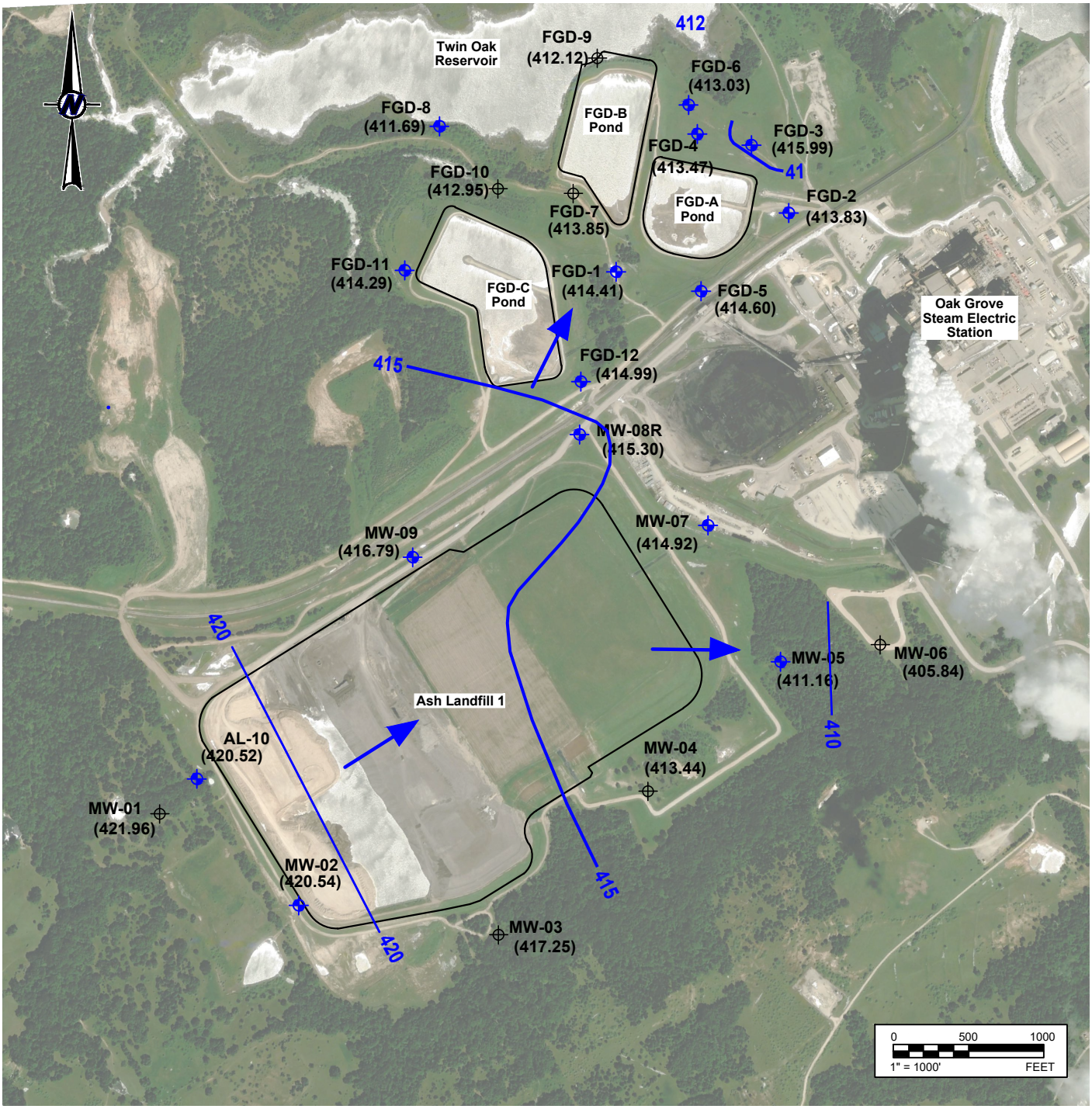
BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021

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



LEGEND

- NON-CCR MONITORING WELL
- CCR MONITORING WELL
- *(414.49)* GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- 400 GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 5 FT)
- INFERRED GROUNDWATER FLOW DIRECTION

NM = Not Measured

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST

01/31/2025

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021

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