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Dynegy Midwest Generation, LLC

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1940102203-001

**2022 ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE
ACTION REPORT**
BOTTOM ASH POND
BALDWIN POWER PLANT
BALDWIN, ILLINOIS
CCR UNIT 601

**2022 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT BOTTOM ASH POND**

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ACRONYMS AND ABBREVIATIONS

§	Section
35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternate Source Demonstration
BAP	Bottom Ash Pond
BPP	Baldwin Power Plant
CCR	coal combustion residuals
CMA	Corrective Measures Assessment
GWPS	groundwater protection standard
IEPA	Illinois Environmental Protection Agency
NA	not applicable
NRT/OBG	Natural Resource Technology, an OBG Company
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Multi-Site Sampling and Analysis Plan
SSL	statistically significant level
TBD	to be determined

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) Section (§) 257.90(e) for the Bottom Ash Pond (BAP) located at the Baldwin Power Plant (BPP) near Baldwin, Illinois.

Groundwater is being monitored at the BAP in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95. Assessment monitoring was initiated at the BAP on April 9, 2018.

No changes were made to the monitoring system in 2022 (no wells were installed or decommissioned). As discussed in Section 5 of this annual report, the monitoring well network will be updated in 2023 to use the same monitoring well network developed for compliance with Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845, which was submitted to the Illinois Environmental Protection Agency (IEPA) via an operating permit application.

The following Statistically Significant Levels (SSLs) of 40 C.F.R. § 257 Appendix IV parameters were determined:

- Lithium at well MW-370

Alternate Source Demonstrations (ASDs) were completed for the SSLs referenced above. Consequently, a Corrective Measures Assessment (CMA) is not required and the BAP remains in the Assessment Monitoring Program.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of Dynegy Midwest Generation, LLC, to provide the information required by 40 C.F.R. § 257.90(e) for the BAP located at the BPP near Baldwin, Illinois.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a coal combustion residuals (CCR) unit must prepare an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year that documents the status of the Groundwater Monitoring and Corrective Action Program for the CCR unit, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and projects key activities for the upcoming year. At a minimum, the annual report must 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 relative to background levels).
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 of §257 pursuant to §257.94(e):
 - A. Identify those constituents listed in Appendix III of §257 and the names of the monitoring wells associated with such an increase.
 - B. Provide the date when the assessment monitoring program was initiated for the CCR unit.

- iv. If it was determined that there was a statistically significant level above the groundwater protection standard [GWPS] for one or more constituents listed in Appendix IV of §257 pursuant to §257.95(g) include all of the following:
 - A. Identify those constituents listed in Appendix IV of §257 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.
 - 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.
- vi. Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

This report provides the required information for the BAP for calendar year 2022.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the Monitoring Program status in calendar year 2022 and the BAP remains in the Assessment Monitoring Program in accordance with 40 C.F.R. § 257.95.

3. KEY ACTIONS COMPLETED IN 2022

The Assessment Monitoring Program is summarized in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. No changes were made to the monitoring system in 2022 (no wells were installed or decommissioned). In general, one groundwater sample was collected from each background and compliance well during each monitoring event. All samples were collected and analyzed in accordance with the Sampling and Analysis Plan (SAP; Natural Resource Technology, an OBG Company [NRT/OBG], 2017a), and the Statistical Analysis Plan (NRT/OBG, 2017b). Potentiometric surface maps for the third quarter of 2021 and both monitoring events in 2022 are included in **Figures 2 through 4**. All monitoring data and analytical results obtained under 40 C.F.R. § 257.90 through 257.98 (as applicable) in the third quarter of 2021 and both monitoring events in 2022 are presented in **Tables 1 through 3**. Laboratory reports for the third quarter of 2021 and both monitoring events in 2022 are included in **Appendix A**.

Analytical data were evaluated in accordance with the Multi-Site Statistical Analysis Plan (NRT/OBG, 2017b) to determine any SSLs of Appendix IV parameters over GWPSs. Notifications were completed in accordance with 40 C.F.R. § 257.95(g). Statistical background values are provided in **Table 4** and GWPSs in **Table 5**. A flow chart showing the statistical methodology for determination of background values is included as **Appendix B**. A summary of the determination of SSLs is included in **Table 6**. A flow chart showing the statistical methodology for determination of SSLs is included as **Appendix C**.

Additional monitoring wells were installed in 2022 under 35 I.A.C. § 845 and groundwater samples were collected from the installed wells. The additional monitoring wells were installed for further hydrogeologic investigation and water quality evaluation. Following investigation activities and collection of background groundwater quality, a subset of monitoring wells will be proposed for inclusion with the groundwater monitoring well network.

Potential alternate sources were evaluated as outlined in the 40 C.F.R. § 257.95(g)(3)(ii). Alternate Source Demonstrations (ASDs) were completed and certified by a qualified professional engineer. The dates the ASDs were completed are provided in Table A. The ASDs are included in Appendix D.

Table A. 2021-2022 Assessment Monitoring Program Summary

Sampling Dates	Analytical Data Receipt Date	Parameters Collected	SSL(s)	SSL(s) Determination Date	ASD Completion Date
September 14-16, 2021	October 13, 2021	Appendix III Appendix IV Detected ¹	Lithium at well MW-370	January 11, 2022	April 11, 2022
March 28-29, 2022	May 12, 2022	Appendix III Appendix IV	Lithium at well MW-370	August 10, 2022	November 08, 2022
September 29-30, 2022	November 15, 2022	Appendix III Appendix IV Detected ¹	Lithium at well MW-370	January 30, 2023	TBD

Notes:

ASD: Alternate Source Demonstration

NA: not applicable

SSL: Statistically Significant Level

TBD: to be determined

¹ Groundwater sample analysis was limited to Appendix IV parameters detected during previous events in accordance with 40 C.F.R. § 257.95(d)(1).

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the Groundwater Monitoring Program during 2022. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2023

The following key activities are planned for 2023:

- Beginning in 2023, the current monitoring well system will be updated to use the same monitoring well network that was proposed for compliance with 35 I.A.C. § 845 which includes all of the monitoring wells used in the 2022 monitoring system. This is a logical step toward aligning the two regulatory programs. The following documents support the expanded monitoring system for 2023:
 - Hydrogeological Site Characterization Report (Ramboll, 2021), which expands upon the hydrogeologic information provided in the Hydrogeologic Monitoring Plan
 - Multi-Site SAP (Ramboll, 2022a)
 - Multi-Site Quality Assurance Project Plan (Ramboll, 2022b)
 - Multi-Site Data Management Plan (Ramboll, 2022c)
 - Multi-Site Statistical Analysis Plan and Certification (Ramboll, 2022d)
 - 40 C.F.R. § 257 Groundwater Monitoring Plan (Ramboll, 2022e), which replaces the monitoring plan provided in the Hydrogeologic Monitoring Plan
 - Monitoring Well Network Certification
- Continuation of the assessment monitoring program with semi-annual sampling scheduled for the first and third quarters of 2023.
- Complete evaluation of analytical data from the compliance wells to determine whether an SSL of Appendix IV parameters above GWPSs has occurred.
- If an SSL is identified, potential alternate sources (*i.e.*, a source other than the CCR unit caused the SSL or that the SSL resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated.
 - If an alternate source is identified to be the cause of the SSL, a written demonstration will be completed within 90 days of SSL determination and included in the 2023 Annual Groundwater Monitoring and Corrective Action Report.
 - If an alternate source(s) is not identified to be the cause of the SSL, the applicable requirements of 40 C.F.R. §§ 257.94 through 257.98 (*e.g.*, assessment of corrective measures) as may apply in 2023 will be met, including associated recordkeeping/notifications required by 40 C.F.R. §§ 257.105 through 257.108.
 - Additional monitoring wells were installed in 2022 under 35 I.A.C § 845 and groundwater samples were collected from the installed wells. The additional monitoring wells were installed for further hydrogeologic investigation and water quality evaluation. Following investigation activities and collection of background groundwater quality, a subset of monitoring wells will be proposed for inclusion with the groundwater monitoring well network for 35 I.A.C. § 845 and 40 C.F.R. § 257.

6. REFERENCES

Natural Resource Technology, an OBG Company (NRT/OBG), 2017a. Sampling and Analysis Plan, Baldwin Bottom Ash Pond, Baldwin Energy Complex, Baldwin, Illinois, Project No. 2285, Revision 0, October 17, 2017.

Natural Resource Technology, an OBG Company (NRT/OBG), 2017b. Statistical Analysis Plan, Baldwin Energy Complex, Havana Power Station, Hennepin Power Station, Wood River Power Station, Dynegy Midwest Generation, LLC, October 17, 2017.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. Hydrogeological Site Characterization Report, the Bottom Ash Pond, Baldwin Power Plant, Baldwin, Illinois. October 21, 2021.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022a. Multi-Site Sampling and Analysis Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022b. Multi-Site Quality Assurance Project Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022c. Multi-Site Data Management Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022d. Multi-Site Statistical Analysis Plan, 40 C.F.R. § 257. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022e. 40 C.F.R. § 257 Groundwater Monitoring Plan, the Bottom Ash Pond, Baldwin Power Plant, Baldwin, Illinois. December 28, 2022.

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Well ID	Monitored Unit	Well Screen Interval (feet BGS)	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
MW-104SR	PMP	4.8 - 14.8	Water Level Only	38.18836	-89.85343	09/13/2021	12.63	442.91
MW-104SR	PMP	4.8 - 14.8	Water Level Only	38.18836	-89.85343	03/28/2022	8.03	447.51
MW-104SR	PMP	4.8 - 14.8	Water Level Only	38.18836	-89.85343	09/29/2022	13.45	442.09
MW-104DR	PMP	23.2 - 28.2	Water Level Only	38.18834	-89.85343	09/13/2021	12.65	442.97
MW-104DR	PMP	23.2 - 28.2	Water Level Only	38.18834	-89.85343	03/28/2022	8.10	447.52
MW-104DR	PMP	23.2 - 28.2	Water Level Only	38.18834	-89.85343	09/29/2022	14.00	441.62
MW-150	PMP	15 - 24.7	Water Level Only	38.18940	-89.87847	09/13/2021	20.39	376.15
MW-150	PMP	15 - 24.7	Water Level Only	38.18940	-89.87847	03/28/2022	17.15	379.39
MW-150	PMP	15 - 24.7	Water Level Only	38.18940	-89.87847	09/29/2022	20.65	375.89
MW-151	PMP	6.1 - 15.8	Water Level Only	38.18845	-89.87235	09/13/2021	6.26	393.70
MW-151	PMP	6.1 - 15.8	Water Level Only	38.18845	-89.87235	03/28/2022	4.16	395.80
MW-151	PMP	6.1 - 15.8	Water Level Only	38.18845	-89.87235	09/29/2022	6.87	393.09
MW-152	PMP	7.5 - 16.7	Water Level Only	38.18757	-89.86676	09/13/2021	7.35	417.64
MW-152	PMP	7.5 - 16.7	Water Level Only	38.18757	-89.86676	03/28/2022	5.20	419.79
MW-152	PMP	7.5 - 16.7	Water Level Only	38.18757	-89.86676	09/29/2022	6.99	418.00
MW-153	PMP	10.4 - 20	Water Level Only	38.18588	-89.86101	09/13/2021	15.20	430.47
MW-153	PMP	10.4 - 20	Water Level Only	38.18588	-89.86101	03/28/2022	8.90	436.77
MW-153	PMP	10.4 - 20	Water Level Only	38.18588	-89.86101	09/29/2022	16.85	428.82
MW-154	PMP	7.5 - 12.2	Water Level Only	38.19655	-89.88373	09/13/2021	14.35	373.41
MW-154	PMP	7.5 - 12.2	Water Level Only	38.19655	-89.88373	03/28/2022	4.99	382.77
MW-155	PMP	10.3 - 19.9	Water Level Only	38.19331	-89.88288	09/13/2021	19.79	373.76
MW-155	PMP	10.3 - 19.9	Water Level Only	38.19331	-89.88288	03/28/2022	17.65	375.90
MW-252	PMP	44.4 - 49	Water Level Only	38.18756	-89.86674	09/13/2021	1.57	423.50
MW-252	PMP	44.4 - 49	Water Level Only	38.18756	-89.86674	03/28/2022	1.28	423.79
MW-252	PMP	44.4 - 49	Water Level Only	38.18756	-89.86674	09/29/2022	8.19	416.88
MW-253	PMP	29.9 - 34.5	Water Level Only	38.18588	-89.86103	09/13/2021	14.65	431.19
MW-253	PMP	29.9 - 34.5	Water Level Only	38.18588	-89.86103	03/28/2022	10.73	435.11
MW-253	PMP	29.9 - 34.5	Water Level Only	38.18588	-89.86103	09/29/2022	15.98	429.86
MW-304	UA	45 - 55	Background	38.18833	-89.85344	09/13/2021	10.09	445.40
MW-304	UA	45 - 55	Background	38.18833	-89.85344	03/28/2022	9.50	445.99
MW-304	UA	45 - 55	Background	38.18833	-89.85344	09/29/2022	10.28	445.21

TABLE 1
GROUNDWATER ELEVATIONS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Well ID	Monitored Unit	Well Screen Interval (feet BGS)	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
MW-306	UA	72.7 - 87.7	Background	38.20114	-89.84676	09/13/2021	10.18	442.99
MW-306	UA	72.7 - 87.7	Background	38.20114	-89.84676	03/28/2022	17.19	435.98
MW-306	UA	72.7 - 87.7	Background	38.20114	-89.84676	09/29/2022	17.96	435.21
MW-350	UA	41.6 - 46.2	Water Level Only	38.18942	-89.87848	09/13/2021	23.38	373.42
MW-350	UA	41.6 - 46.2	Water Level Only	38.18942	-89.87848	03/28/2022	23.10	373.70
MW-350	UA	41.6 - 46.2	Water Level Only	38.18942	-89.87848	09/29/2022	23.95	372.85
MW-352	UA	67.9 - 72.5	Water Level Only	38.18755	-89.86673	09/13/2021	3.73	421.31
MW-352	UA	67.9 - 72.5	Water Level Only	38.18755	-89.86673	03/28/2022	0.40	424.64
MW-352	UA	67.9 - 72.5	Water Level Only	38.18755	-89.86673	09/29/2022	0.40	424.64
MW-355	UA	27.4 - 32	Water Level Only	38.19331	-89.88286	09/13/2021	24.33	369.36
MW-355	UA	27.4 - 32	Water Level Only	38.19331	-89.88286	03/28/2022	21.63	372.06
MW-355	UA	27.4 - 32	Water Level Only	38.19331	-89.88286	09/29/2022	24.30	369.39
MW-356	UA	56 - 66	Compliance	38.19896	-89.86958	09/13/2021	3.99	423.61
MW-356	UA	56 - 66	Compliance	38.19896	-89.86958	03/28/2022	4.20	423.40
MW-356	UA	56 - 66	Compliance	38.19896	-89.86958	09/30/2022	4.32	423.28
MW-366	UA	42 - 52	Water Level Only	38.19219	-89.87234	09/13/2021	17.19	407.89
MW-366	UA	42 - 52	Water Level Only	38.19219	-89.87234	03/28/2022	10.52	414.56
MW-366	UA	42 - 52	Water Level Only	38.19219	-89.87234	09/30/2022	17.91	407.17
MW-369	UA	56 - 66	Compliance	38.19699	-89.87026	09/13/2021	13.80	408.91
MW-369	UA	56 - 66	Compliance	38.19699	-89.87026	03/28/2022	8.43	414.28
MW-369	UA	56 - 66	Compliance	38.19699	-89.87026	09/30/2022	14.55	408.16
MW-370	UA	53 - 63	Compliance	38.19560	-89.86967	09/13/2021	18.99	401.86
MW-370	UA	53 - 63	Compliance	38.19560	-89.86967	03/28/2022	17.54	403.31
MW-370	UA	53 - 63	Compliance	38.19560	-89.86967	09/30/2022	18.90	401.95
MW-375	UA	57 - 67	Water Level Only	38.18905	-89.87351	09/13/2021	32.04	391.01
MW-375	UA	57 - 67	Water Level Only	38.18905	-89.87351	03/28/2022	31.16	391.89
MW-375	UA	57 - 67	Water Level Only	38.18905	-89.87351	09/30/2022	33.25	389.80
MW-377	UA	46 - 56	Water Level Only	38.18839	-89.86974	09/13/2021	5.25	416.11
MW-377	UA	46 - 56	Water Level Only	38.18839	-89.86974	03/28/2022	4.98	416.38
MW-377	UA	46 - 56	Water Level Only	38.18839	-89.86974	09/30/2022	6.09	415.27
MW-382	UA	56 - 66	Compliance	38.19454	-89.86804	09/13/2021	16.59	414.60
MW-382	UA	56 - 66	Compliance	38.19454	-89.86804	03/28/2022	16.38	414.81
MW-382	UA	56 - 66	Compliance	38.19454	-89.86804	09/30/2022	16.90	414.29
MW-383	UA	58 - 68	Water Level Only	38.19491	-89.85829	09/13/2021	18.51	440.98
MW-383	UA	58 - 68	Water Level Only	38.19491	-89.85829	03/28/2022	18.42	441.07

TABLE 1
GROUNDWATER ELEVATIONS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Well ID	Monitored Unit	Well Screen Interval (feet BGS)	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
MW-383	UA	58 - 68	Water Level Only	38.19491	-89.85829	09/30/2022	18.96	440.53
MW-384	UA	60.5 - 70.5	Water Level Only	38.19179	-89.86070	09/13/2021	13.58	445.37
MW-384	UA	60.5 - 70.5	Water Level Only	38.19179	-89.86070	03/28/2022	13.75	445.20
MW-384	UA	60.5 - 70.5	Water Level Only	38.19179	-89.86070	09/30/2022	14.40	444.55
MW-390	UA	50 - 65	Water Level Only	38.19296	-89.86979	09/13/2021	8.01	420.05
MW-390	UA	50 - 65	Water Level Only	38.19296	-89.86979	03/28/2022	4.62	423.44
MW-390	UA	50 - 65	Water Level Only	38.19296	-89.86979	09/30/2022	8.91	419.15
MW-391	UA	55 - 70	Water Level Only	38.19087	-89.87476	09/13/2021	50.18	376.45
MW-391	UA	55 - 70	Water Level Only	38.19087	-89.87476	03/28/2022	52.91	373.72
MW-391	UA	55 - 70	Water Level Only	38.19087	-89.87476	09/30/2022	56.90	369.73
OW-156	PMP	7.9 - 17.2	Water Level Only	38.19897	-89.86959	09/13/2021	9.38	418.49
OW-156	PMP	7.9 - 17.2	Water Level Only	38.19897	-89.86959	03/28/2022	3.60	424.27
OW-156	PMP	7.9 - 17.2	Water Level Only	38.19897	-89.86959	09/30/2022	7.02	420.85
OW-157	PMP	7.8 - 17.1	Water Level Only	38.19384	-89.86738	09/13/2021	7.35	425.29
OW-157	PMP	7.8 - 17.1	Water Level Only	38.19384	-89.86738	03/28/2022	5.09	427.55
OW-157	PMP	7.8 - 17.1	Water Level Only	38.19384	-89.86738	09/30/2022	7.12	425.52
TPZ-164	CCR	5.2 - 9.7	Water Level Only	38.19559	-89.86280	03/28/2022	3.96	431.14
TPZ-164	CCR	5.2 - 9.7	Water Level Only	38.19559	-89.86280	09/30/2022	5.05	430.05

Notes:
 BGS = below ground surface
 BMP = below measuring point
 NAVD88 = North American Vertical Datum of 1988
 Monitored Unit Abbreviations:
 CCR = coal combustion residuals
 PMP = potential migration pathway
 UA = uppermost aquifer

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Well ID	Well Type	Date	Event ID	Boron, total (mg/L)	Calcium, total (mg/L)	Chloride, total (mg/L)	Fluoride, total (mg/L)	pH (field) (SU)	Sulfate, total (mg/L)	Total Dissolved Solids (mg/L)
<i>Background Value(s)</i>	--	--	--	1.84	64.2	153	1.88	7.4/11.5	208	1,420
MW-304	Background	09/14/2021	A4D	1.61	13.3	168	1.60	7.7	231	1,290
MW-304	Background	03/28/2022	A5	1.71	14.5	161	1.76	7.8	198	1,410
MW-304	Background	09/29/2022	A5D	1.75 J	10.2	174	1.70	7.7	199	1,470
MW-306	Background	09/16/2021	A4D	0.025 U	594	96.0	0.130	12.0	20 U	934
MW-306	Background	03/29/2022	A5	0.120	47.3	63.0	0.550	10.9	41.0	298
MW-306	Background	09/29/2022	A5D	0.110	39.8	68.0	0.490	11.3	41.0	300
MW-356	Compliance	09/15/2021	A4D	2.03	11.6	37.0	2.14	7.7	53.0	690
MW-356	Compliance	03/29/2022	A5	1.85	11.7	41.0	2.30	7.7	51.0	710
MW-356	Compliance	09/30/2022	A5D	2.92	12.6	36.0	2.06	7.8	50.0	698
MW-369	Compliance	09/15/2021	A4D	0.647	79.5	289	3.83	8.2	134	1,450
MW-369	Compliance	03/29/2022	A5	1.07	8.86	222	3.10	8.4	112	1,340
MW-369	Compliance	09/30/2022	A5D	0.592	110	87.0	0.680	8.5	96.0	754
MW-370	Compliance	09/15/2021	A4D	1.91	45.0	1,560	3.05	7.5	266	3,240
MW-370	Compliance	03/29/2022	A5	1.61	34.2	1,470	3.15	7.6	270	3,240
MW-370	Compliance	09/30/2022	A5D	2.67	51.4	1,520	2.98	7.6	273	3,320
MW-382	Compliance	09/15/2021	A4D	1.75	25.7	36.0	2.90	7.7	459	1,120
MW-382	Compliance	03/29/2022	A5	2.22	27.9	43.0	3.01	7.8	395	1,120
MW-382	Compliance	09/30/2022	A5D	1.69	29.1	37.0	2.70	7.8	449	1,080

Notes:

Exceedance of Background

mg/L = milligrams per liter

SU = Standard Units

U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate. Lab reports may or may not report both the limit of detection and the limit of quantitation. Limits are provided in the electronic data deliverable. As such, the U-flagged result value provided in this table may not match the result value provided in the lab report.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Well ID	Well Type	Date	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226 + 228 (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)
MW-304	Background	09/14/2021	0.001 U	0.00210	0.0189	--	--	0.0015 U	0.001 U	1.60	0.001 U	0.0777	--	0.00210	0.744	0.001 U	0.002 U
MW-304	Background	03/28/2022	0.001 U	0.00210	0.0194	0.001 U	0.001 U	0.0015 U	0.001 U	1.76	0.001 U	0.0829	0.0002 U	0.0015 U	0.968 B	0.001 U	0.002 U
MW-304	Background	09/29/2022	0.0004 U	0.00270 J	0.0183 J	--	--	0.0013 J	0.0001 U	1.70	0.0006 U	0.0861 J	--	0.0008 J	0.616	0.0006 U	0.001 U
MW-306	Background	09/16/2021	0.001 U	0.001 U	1.04	--	--	0.0271	0.00350	0.130	0.00520	0.0584	--	0.00860	8.20	0.001 U	0.002 U
MW-306	Background	03/29/2022	0.001 U	0.00230	0.0157	0.001 U	0.001 U	0.0015 U	0.001 U	0.550	0.001 U	0.0122	0.0002 U	0.0278	0.566 B	0.001 U	0.002 U
MW-306	Background	09/29/2022	0.0004 U	0.00140	0.0121	--	--	0.0007 U	0.0001 U	0.490	0.0006 U	0.0113	--	0.0224	0.241	0.0006 U	0.001 U
MW-356	Compliance	09/15/2021	0.001 U	0.001 U	0.0299	--	--	0.0015 U	0.001 U	2.14	0.001 U	0.0583	--	0.00160	0.336	0.001 U	--
MW-356	Compliance	03/29/2022	0.001 U	0.001 U	0.0290	0.001 U	0.001 U	0.0015 U	0.001 U	2.30	0.00100	0.0717	0.0002 U	0.0015 U	0.422 B	0.001 U	0.002 U
MW-356	Compliance	09/30/2022	--	0.0006 J	0.0450	--	--	0.0007 U	0.0001 U	2.06	0.0006 U	0.0840	--	0.00190	0.350	--	--
MW-369	Compliance	09/15/2021	0.001 U	0.00190	0.0691	--	--	0.0015 U	0.001 U	3.83	0.001 U	0.0247	--	0.00600	1.28	0.001 U	--
MW-369	Compliance	03/29/2022	0.001 U	0.00710	0.0102	0.001 U	0.001 U	0.0015 U	0.001 U	3.10	0.001 U	0.0592	0.0002 U	0.00950	0.323 JB	0.001 U	0.002 U
MW-369	Compliance	09/30/2022	--	0.00110	0.123	--	--	0.0007 U	0.0003 J	0.680	0.0006 U	0.0232	--	0.00660	0.393	--	--
MW-370	Compliance	09/15/2021	0.001 U	0.001 U	0.0407	--	--	0.0015 U	0.001 U	3.05	0.001 U	0.156	--	0.0149	0.248	0.001 U	--
MW-370	Compliance	03/29/2022	0.001 U	0.001 U	0.0240	0.001 U	0.001 U	0.0015 U	0.001 U	3.15	0.001 U	0.223	0.0002 U	0.0178	0.883 JB	0.001 U	0.002 U
MW-370	Compliance	09/30/2022	--	0.0009 J	0.0589	--	--	0.001 J	0.0003 J	2.98	0.0006 U	0.210	--	0.0165	1.07	--	--
MW-382	Compliance	09/15/2021	0.001 U	0.00220	0.0279	--	--	0.0124	0.00330	2.90	0.00430	0.0650	--	0.00270	0.921	0.001 U	--
MW-382	Compliance	03/29/2022	0.001 U	0.00270	0.0320	0.001 U	0.001 U	0.0123	0.00360	3.01	0.00400	0.0638	0.0002 U	0.00230	0.274	0.001 U	0.002 U
MW-382	Compliance	09/30/2022	--	0.00230	0.0271	--	--	0.0131	0.00330	2.70	0.00390	0.0621	--	0.00280	1.07	--	--

Notes:
 mg/L = milligrams per liter
 pCi/L = picoCuries per liter
 -- = not analyzed
 U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
 J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. Lab reports may or may not report both the limit of detection and the limit of quantitation. Limits are provided in the electronic data deliverable. As such, the U-flagged result value provided in this table may not match the result value provided in the lab report.
 B = The analyte was found in sample and in associated method blank.
 JB = The result is an estimated quantity, and the analyte was found in both the sample and in the associated method blank.

TABLE 4
STATISTICAL BACKGROUND VALUES
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Parameter	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Boron (mg/L)	11/28/2017 - 03/26/2020	12	0	Non-parametric UPL	1.84
Calcium (mg/L)	11/28/2017 - 03/26/2020	12	0	Parametric UPL	64.2
Chloride (mg/L)	11/28/2017 - 03/26/2020	12	0	Non-parametric UPL	153
Fluoride (mg/L)	11/28/2017 - 03/26/2020	12	0	Non-parametric UPL	1.88
pH (field) (SU)	11/28/2017 - 03/26/2020	12	0	Non-parametric LPL/UPL	7.4/11.5
Sulfate (mg/L)	11/28/2017 - 03/26/2020	12	0	Non-parametric UPL	208
Total Dissolved Solids (mg/L)	11/28/2017 - 03/26/2020	12	0	Non-parametric UPL	1,420

Notes:

LPL = lower prediction limit (applicable for pH only)
 mg/L = milligrams per liter
 SU = standard units
 UPL = upper prediction limit

TABLE 5
GROUNDWATER PROTECTION STANDARDS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Parameter	Background					MCL/HBL	Groundwater Protection Standard*	Groundwater Protection Standard Source
	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Value			
Antimony (mg/L)	06/27/2018 - 03/26/2020	10	100	All ND - Last Reporting Limit	0.001	0.006	0.006	MCL/HBL
Arsenic (mg/L)	06/27/2018 - 03/26/2020	10	0	Parametric UTL	0.00361	0.010	0.010	MCL/HBL
Barium (mg/L)	06/27/2018 - 03/26/2020	10	0	Parametric UTL	0.0275	2	2	MCL/HBL
Beryllium (mg/L)	06/27/2018 - 03/26/2020	8	100	All ND - Last Reporting Limit	0.001	0.004	0.004	MCL/HBL
Cadmium (mg/L)	06/27/2018 - 03/26/2020	8	100	All ND - Last Reporting Limit	0.001	0.005	0.005	MCL/HBL
Chromium (mg/L)	06/27/2018 - 03/26/2020	10	100	All ND - Last Reporting Limit	0.002	0.1	0.1	MCL/HBL
Cobalt (mg/L)	06/27/2018 - 03/26/2020	8	100	All ND - Last Reporting Limit	0.001	0.006	0.006	MCL/HBL
Fluoride (mg/L)	11/28/2017 - 03/26/2020	12	0	Non-parametric UTL	1.88	4.0	4.0	MCL/HBL
Lead (mg/L)	06/27/2018 - 03/26/2020	8	100	All ND - Last Reporting Limit	0.001	0.015	0.015	MCL/HBL
Lithium (mg/L)	06/27/2018 - 03/26/2020	10	0	Non-parametric UTL	0.0958	0.04	0.0958	Background
Mercury (mg/L)	06/27/2018 - 03/26/2020	8	100	All ND - Last Reporting Limit	0.0002	0.002	0.002	MCL/HBL
Molybdenum (mg/L)	06/27/2018 - 03/26/2020	10	0	Non-parametric UTL	0.0299	0.1	0.1	MCL/HBL
Radium 226 + Radium 228 (pCi/L)	06/27/2018 - 03/26/2020	10	0	Parametric UTL	1.61	5	5	MCL/HBL
Selenium (mg/L)	06/27/2018 - 03/26/2020	10	100	All ND - Last Reporting Limit	0.001	0.05	0.05	MCL/HBL
Thallium (mg/L)	06/27/2018 - 03/26/2020	8	100	All ND - Last Reporting Limit	0.002	0.002	0.002	MCL/HBL

Notes:
 * Groundwater Protection Standard is the higher of the MCL/HBL or background.
 MCL/HBL = maximum contaminant level/health-based level
 mg/L = milligrams per liter
 ND = non-detect
 pCi/L = picoCuries per liter
 UTL = upper tolerance limit

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-356	Antimony, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	93	CI around median	0.00100	0.006	MCL/HBL
MW-356	Antimony, total	mg/L	A5	12/29/2015 - 03/29/2022	15	93	CI around median	0.00100	0.006	MCL/HBL
MW-356	Arsenic, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	69	CI around median	0.00100	0.010	MCL/HBL
MW-356	Arsenic, total	mg/L	A5	12/29/2015 - 03/29/2022	17	71	CI around median	0.00100	0.010	MCL/HBL
MW-356	Arsenic, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	72	CI around median	0.00100	0.010	MCL/HBL
MW-356	Barium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around mean	0.0297	2	MCL/HBL
MW-356	Barium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CI around mean	0.0296	2	MCL/HBL
MW-356	Barium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around median	0.0297	2	MCL/HBL
MW-356	Beryllium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-356	Cadmium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-356	Chromium, total	mg/L	A4D	12/29/2015 - 09/15/2021	15	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-356	Chromium, total	mg/L	A5	12/29/2015 - 03/29/2022	16	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-356	Chromium, total	mg/L	A5D	12/29/2015 - 09/30/2022	17	100	All ND - Last	0.0007	0.1	MCL/HBL
MW-356	Cobalt, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	100	All ND - Last	0.001	0.006	MCL/HBL
MW-356	Cobalt, total	mg/L	A5	12/29/2015 - 03/29/2022	15	100	All ND - Last	0.001	0.006	MCL/HBL
MW-356	Cobalt, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	100	All ND - Last	0.0001	0.006	MCL/HBL
MW-356	Fluoride, total	mg/L	A4D	12/29/2015 - 09/15/2021	17	0	CB around linear reg	1.97	4.0	MCL/HBL
MW-356	Fluoride, total	mg/L	A5	12/29/2015 - 03/29/2022	18	0	CB around linear reg	2.03	4.0	MCL/HBL
MW-356	Fluoride, total	mg/L	A5D	12/29/2015 - 09/30/2022	19	0	CB around linear reg	2.03	4.0	MCL/HBL
MW-356	Lead, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	100	All ND - Last	0.001	0.015	MCL/HBL
MW-356	Lead, total	mg/L	A5	12/29/2015 - 03/29/2022	15	93	Most recent sample	0.001	0.015	MCL/HBL
MW-356	Lead, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	94	Most recent sample	0.0006	0.015	MCL/HBL
MW-356	Lithium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CB around linear reg	0.0531	0.0958	Background
MW-356	Lithium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CB around linear reg	0.0562	0.0958	Background
MW-356	Lithium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CB around linear reg	0.0601	0.0958	Background
MW-356	Mercury, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-356	Molybdenum, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	44	CI around median	0.00150	0.1	MCL/HBL
MW-356	Molybdenum, total	mg/L	A5	12/29/2015 - 03/29/2022	17	47	CI around median	0.00150	0.1	MCL/HBL
MW-356	Molybdenum, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	44	CI around median	0.00150	0.1	MCL/HBL
MW-356	Radium 226 + Radium 228, total	pCi/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around geomean	0.122	5	MCL/HBL

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-356	Radium 226 + Radium 228, total	pCi/L	A5	12/29/2015 - 03/29/2022	17	0	CI around geomean	0.131	5	MCL/HBL
MW-356	Radium 226 + Radium 228, total	pCi/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around geomean	0.167	5	MCL/HBL
MW-356	Selenium, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	100	All ND - Last	0.001	0.05	MCL/HBL
MW-356	Selenium, total	mg/L	A5	12/29/2015 - 03/29/2022	15	100	All ND - Last	0.001	0.05	MCL/HBL
MW-356	Thallium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-369	Antimony, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	71	CB around linear reg	-0.000532	0.006	MCL/HBL
MW-369	Antimony, total	mg/L	A5	12/29/2015 - 03/29/2022	15	73	CB around linear reg	-0.000421	0.006	MCL/HBL
MW-369	Arsenic, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around geomean	0.00157	0.010	MCL/HBL
MW-369	Arsenic, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CI around geomean	0.00166	0.010	MCL/HBL
MW-369	Arsenic, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around geomean	0.00160	0.010	MCL/HBL
MW-369	Barium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CB around linear reg	0.0761	2	MCL/HBL
MW-369	Barium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CB around linear reg	0.0430	2	MCL/HBL
MW-369	Barium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CB around T-S line	0.0622	2	MCL/HBL
MW-369	Beryllium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-369	Cadmium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-369	Chromium, total	mg/L	A4D	12/29/2015 - 09/15/2021	15	87	CI around median	0.00100	0.1	MCL/HBL
MW-369	Chromium, total	mg/L	A5	12/29/2015 - 03/29/2022	16	88	CI around median	0.00100	0.1	MCL/HBL
MW-369	Chromium, total	mg/L	A5D	12/29/2015 - 09/30/2022	17	88	CB around T-S line	0.000715	0.1	MCL/HBL
MW-369	Cobalt, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	86	CI around median	0.00100	0.006	MCL/HBL
MW-369	Cobalt, total	mg/L	A5	12/29/2015 - 03/29/2022	15	87	CI around median	0.00100	0.006	MCL/HBL
MW-369	Cobalt, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	88	CI around median	0.00100	0.006	MCL/HBL
MW-369	Fluoride, total	mg/L	A4D	12/29/2015 - 09/15/2021	17	0	CB around T-S line	-1.68	4.0	MCL/HBL
MW-369	Fluoride, total	mg/L	A5	12/29/2015 - 03/29/2022	18	0	CI around geomean	1.20	4.0	MCL/HBL
MW-369	Fluoride, total	mg/L	A5D	12/29/2015 - 09/30/2022	19	0	CB around T-S line	-0.933	4.0	MCL/HBL
MW-369	Lead, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	93	CI around median	0.00100	0.015	MCL/HBL
MW-369	Lead, total	mg/L	A5	12/29/2015 - 03/29/2022	15	93	CI around median	0.00100	0.015	MCL/HBL
MW-369	Lead, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	94	CI around median	0.00100	0.015	MCL/HBL
MW-369	Lithium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	Future median	0.0212	0.0958	Background
MW-369	Lithium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	Future median	0.0247	0.0958	Background

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS
2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT
601 - BOTTOM ASH POND
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-369	Lithium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around mean	0.0244	0.0958	Background
MW-369	Mercury, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-369	Molybdenum, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CB around T-S line	-0.0201	0.1	MCL/HBL
MW-369	Molybdenum, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CB around T-S line	-0.00933	0.1	MCL/HBL
MW-369	Molybdenum, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CB around T-S line	-0.0148	0.1	MCL/HBL
MW-369	Radium 226 + Radium 228, total	pCi/L	A4D	12/29/2015 - 09/15/2021	16	0	CB around linear reg	0.542	5	MCL/HBL
MW-369	Radium 226 + Radium 228, total	pCi/L	A5	12/29/2015 - 03/29/2022	17	0	CI around mean	0.329	5	MCL/HBL
MW-369	Radium 226 + Radium 228, total	pCi/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around mean	0.345	5	MCL/HBL
MW-369	Selenium, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	50	CB around T-S line	-0.0297	0.05	MCL/HBL
MW-369	Selenium, total	mg/L	A5	12/29/2015 - 03/29/2022	15	53	CB around T-S line	-0.0245	0.05	MCL/HBL
MW-369	Thallium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-370	Antimony, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	64	CB around linear reg	-0.000313	0.006	MCL/HBL
MW-370	Antimony, total	mg/L	A5	12/29/2015 - 03/29/2022	15	67	CB around linear reg	-0.000235	0.006	MCL/HBL
MW-370	Arsenic, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	31	CB around linear reg	0.0000329	0.010	MCL/HBL
MW-370	Arsenic, total	mg/L	A5	12/29/2015 - 03/29/2022	17	35	CB around linear reg	0.0000330	0.010	MCL/HBL
MW-370	Arsenic, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	39	CB around linear reg	0.0000291	0.010	MCL/HBL
MW-370	Barium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around mean	0.0372	2	MCL/HBL
MW-370	Barium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CI around mean	0.0356	2	MCL/HBL
MW-370	Barium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around mean	0.0362	2	MCL/HBL
MW-370	Beryllium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-370	Cadmium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-370	Chromium, total	mg/L	A4D	12/29/2015 - 09/15/2021	15	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-370	Chromium, total	mg/L	A5	12/29/2015 - 03/29/2022	16	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-370	Chromium, total	mg/L	A5D	12/29/2015 - 09/30/2022	17	100	All ND - Last	0.001	0.1	MCL/HBL
MW-370	Cobalt, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	93	CI around median	0.00100	0.006	MCL/HBL
MW-370	Cobalt, total	mg/L	A5	12/29/2015 - 03/29/2022	15	93	CI around median	0.00100	0.006	MCL/HBL
MW-370	Cobalt, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	94	CI around median	0.00100	0.006	MCL/HBL
MW-370	Fluoride, total	mg/L	A4D	12/29/2015 - 09/15/2021	17	0	CB around linear reg	2.92	4.0	MCL/HBL
MW-370	Fluoride, total	mg/L	A5	12/29/2015 - 03/29/2022	18	0	CB around linear reg	2.96	4.0	MCL/HBL

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-370	Fluoride, total	mg/L	A5D	12/29/2015 - 09/30/2022	19	0	CB around linear reg	2.94	4.0	MCL/HBL
MW-370	Lead, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	100	All ND - Last	0.001	0.015	MCL/HBL
MW-370	Lead, total	mg/L	A5	12/29/2015 - 03/29/2022	15	100	All ND - Last	0.001	0.015	MCL/HBL
MW-370	Lead, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	100	All ND - Last	0.0006	0.015	MCL/HBL
MW-370	Lithium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	Future median	0.151	0.0958	Background
MW-370	Lithium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CB around T-S line	0.137	0.0958	Background
MW-370	Lithium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CB around linear reg	0.148	0.0958	Background
MW-370	Mercury, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-370	Molybdenum, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around mean	0.0159	0.1	MCL/HBL
MW-370	Molybdenum, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CI around mean	0.0161	0.1	MCL/HBL
MW-370	Molybdenum, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around mean	0.0161	0.1	MCL/HBL
MW-370	Radium 226 + Radium 228, total	pCi/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around geomean	0.360	5	MCL/HBL
MW-370	Radium 226 + Radium 228, total	pCi/L	A5	12/29/2015 - 03/29/2022	17	0	CI around geomean	0.381	5	MCL/HBL
MW-370	Radium 226 + Radium 228, total	pCi/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around geomean	0.439	5	MCL/HBL
MW-370	Selenium, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	93	Most recent sample	0.001	0.05	MCL/HBL
MW-370	Selenium, total	mg/L	A5	12/29/2015 - 03/29/2022	15	93	Most recent sample	0.001	0.05	MCL/HBL
MW-370	Thallium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-382	Antimony, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	100	All ND - Last	0.001	0.006	MCL/HBL
MW-382	Antimony, total	mg/L	A5	12/29/2015 - 03/29/2022	15	100	All ND - Last	0.001	0.006	MCL/HBL
MW-382	Arsenic, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	25	CI around median	0.00100	0.010	MCL/HBL
MW-382	Arsenic, total	mg/L	A5	12/29/2015 - 03/29/2022	17	24	CI around median	0.00100	0.010	MCL/HBL
MW-382	Arsenic, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	22	CI around median	0.00110	0.010	MCL/HBL
MW-382	Barium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around mean	0.0159	2	MCL/HBL
MW-382	Barium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	CI around mean	0.0164	2	MCL/HBL
MW-382	Barium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around mean	0.0169	2	MCL/HBL
MW-382	Beryllium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-382	Cadmium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-382	Chromium, total	mg/L	A4D	12/29/2015 - 09/15/2021	15	13	CI around geomean	0.00159	0.1	MCL/HBL
MW-382	Chromium, total	mg/L	A5	12/29/2015 - 03/29/2022	16	12	CI around geomean	0.00173	0.1	MCL/HBL

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS
 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BALDWIN POWER PLANT
 601 - BOTTOM ASH POND
 BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-382	Chromium, total	mg/L	A5D	12/29/2015 - 09/30/2022	17	12	CB around linear reg	0.00686	0.1	MCL/HBL
MW-382	Cobalt, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	86	CI around median	0.00100	0.006	MCL/HBL
MW-382	Cobalt, total	mg/L	A5	12/29/2015 - 03/29/2022	15	80	CB around linear reg	0.00174	0.006	MCL/HBL
MW-382	Cobalt, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	75	CB around T-S line	0.00100	0.006	MCL/HBL
MW-382	Fluoride, total	mg/L	A4D	12/29/2015 - 09/15/2021	17	0	CI around median	2.77	4.0	MCL/HBL
MW-382	Fluoride, total	mg/L	A5	12/29/2015 - 03/29/2022	18	0	CI around median	2.78	4.0	MCL/HBL
MW-382	Fluoride, total	mg/L	A5D	12/29/2015 - 09/30/2022	19	0	CI around median	2.77	4.0	MCL/HBL
MW-382	Lead, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	71	CI around median	0.00100	0.015	MCL/HBL
MW-382	Lead, total	mg/L	A5	12/29/2015 - 03/29/2022	15	67	CI around median	0.00100	0.015	MCL/HBL
MW-382	Lead, total	mg/L	A5D	12/29/2015 - 09/30/2022	16	62	CI around median	0.00100	0.015	MCL/HBL
MW-382	Lithium, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	0	Future median	0.0640	0.0958	Background
MW-382	Lithium, total	mg/L	A5	12/29/2015 - 03/29/2022	17	0	Future median	0.0638	0.0958	Background
MW-382	Lithium, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around mean	0.0584	0.0958	Background
MW-382	Mercury, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-382	Molybdenum, total	mg/L	A4D	12/29/2015 - 09/15/2021	16	19	CB around T-S line	0.00115	0.1	MCL/HBL
MW-382	Molybdenum, total	mg/L	A5	12/29/2015 - 03/29/2022	17	18	CB around T-S line	0.00164	0.1	MCL/HBL
MW-382	Molybdenum, total	mg/L	A5D	12/29/2015 - 09/30/2022	18	17	CB around T-S line	0.00197	0.1	MCL/HBL
MW-382	Radium 226 + Radium 228, total	pCi/L	A4D	12/29/2015 - 09/15/2021	16	0	CI around geomean	0.240	5	MCL/HBL
MW-382	Radium 226 + Radium 228, total	pCi/L	A5	12/29/2015 - 03/29/2022	17	0	CI around geomean	0.242	5	MCL/HBL
MW-382	Radium 226 + Radium 228, total	pCi/L	A5D	12/29/2015 - 09/30/2022	18	0	CI around geomean	0.267	5	MCL/HBL
MW-382	Selenium, total	mg/L	A4D	12/29/2015 - 09/15/2021	14	100	All ND - Last	0.001	0.05	MCL/HBL
MW-382	Selenium, total	mg/L	A5	12/29/2015 - 03/29/2022	15	100	All ND - Last	0.001	0.05	MCL/HBL
MW-382	Thallium, total	mg/L	A5	12/29/2015 - 03/29/2022	13	100	All ND - Last	0.002	0.002	MCL/HBL

Notes:

Exceedance of GWPS

mg/L = milligrams per liter

pCi/L = picocuries per liter

Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result

Statistical Calculation = method used to calculate the statistical result:

All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown

CB around linear reg = Confidence band around linear regression

CB around T-S line = Confidence band around Thiel-Sen line

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

Future median = Median of the three most recent samples

Most recent sample = Result for the most recently collected sample used due to insufficient data

Statistical Result = calculated in accordance with Statistical Analysis Plan using constituent concentrations observed at monitoring well during all sampling events within the specified date range

GWPS = Groundwater Protection Standard

GWPS Source:

MCL/HBL = maximum contaminant level/health-based level

Background = background concentration

FIGURES

PROJECT: 169000XXXX | DATED: 1/5/2022 | DESIGNER: galarrmc
 Y:\Mapping\Projects\222285\MXD\2021_AnnualGWM_CAR\BaldwinBAP_601\Figure 1 BAL BAP 601 MW Location Map.mxd



- BACKGROUND WELL
- COMPLIANCE WELL
- SOURCE SAMPLE LOCATION
- 40 C.F.R. § 257 REGULATED UNIT (SUBJECT UNIT)
- FLY ASH POND SYSTEM (CLOSED)
- SITE FEATURE
- CAPPED AREA
- PROPERTY BOUNDARY



MONITORING WELL LOCATION MAP

2022 ANNUAL GROUNDWATER MONITORING
 AND CORRECTIVE ACTION REPORT
 BOTTOM ASH POND
 BALDWIN POWER PLANT
 BALDWIN, ILLINOIS

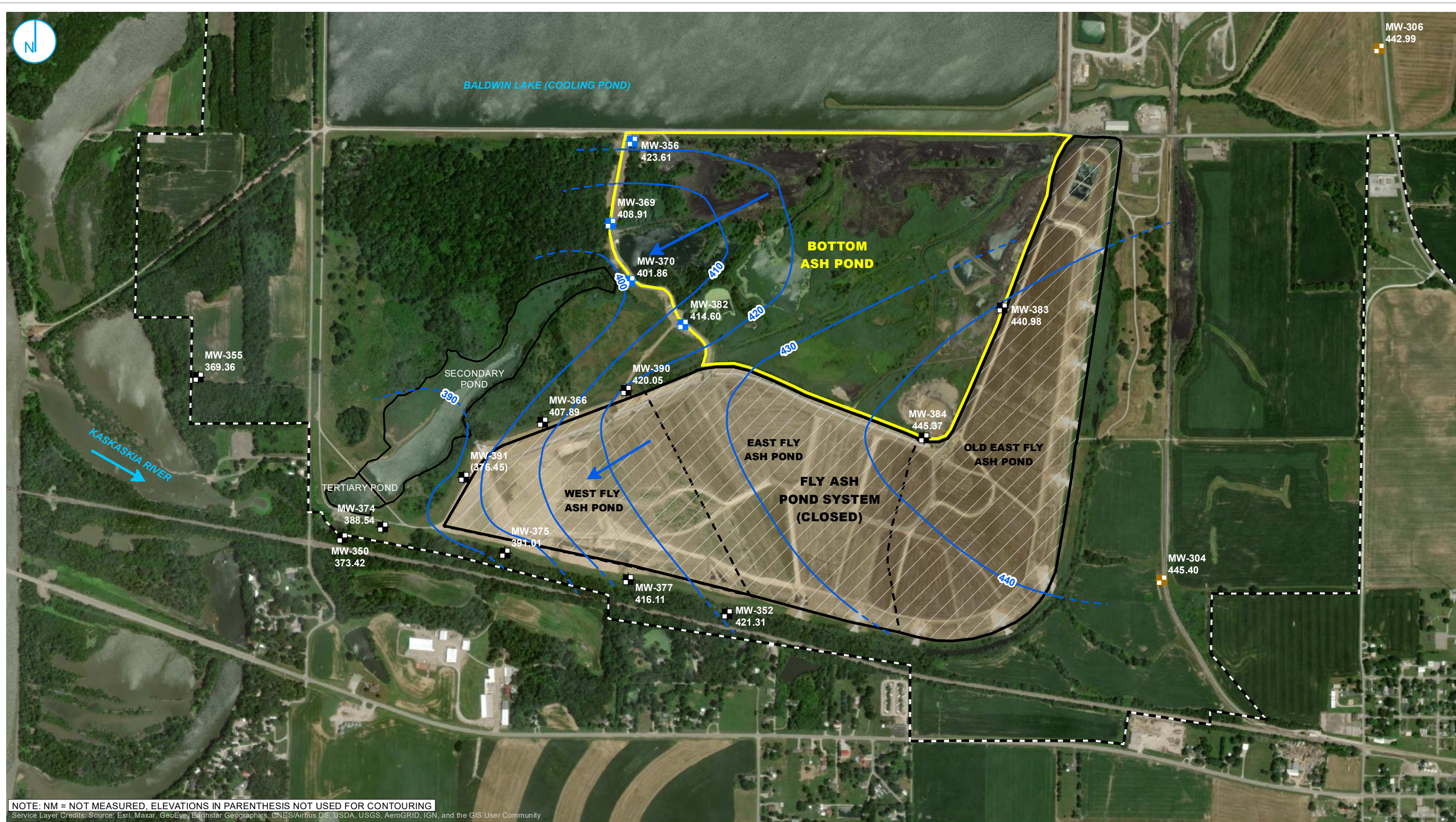
FIGURE 1

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

PROJECT: 169000XXXX | DATED: 3/14/2022 | DESIGNER: galarmmc
 Y:\Mapping\Projects\22\2285\MXD\GW_Contours\Round_2021\Baldwin\BAP_601\BAL BAP 601 GWE Contours D9A4D 20210913.mxd



NOTE: NM = NOT MEASURED, ELEVATIONS IN PARENTHESIS NOT USED FOR CONTOURING
 Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- BACKGROUND WELL
- COMPLIANCE WELL
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (10-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- PART 257 REGULATED UNIT (SUBJECT UNIT)
- FLY ASH POND SYSTEM
- SITE FEATURE
- CAPPED AREA
- PROPERTY BOUNDARY



**POTENTIOMETRIC SURFACE MAP
 SEPTEMBER 13, 2021**

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

BOTTOM ASH POND
 BALDWIN POWER PLANT
 BALDWIN, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



PROJECT: 16900XXXXX | DATED: 10/26/2022 | DESIGNER: gpalarmc



- BACKGROUND WELL
- COMPLIANCE WELL
- PORE WATER WELL
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (10-FT CONTOUR INTERVAL, NAVD88)
- - - INFERRED GROUNDWATER ELEVATION CONTOUR
- ➔ GROUNDWATER FLOW DIRECTION
- PART 257 REGULATED UNIT (SUBJECT UNIT)
- FLY ASH POND SYSTEM (CLOSED)
- SITE FEATURE
- CAPPED AREA
- PROPERTY BOUNDARY

NOTES:
 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



**POTENTIOMETRIC SURFACE MAP
 MARCH 28, 2022**

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BOTTOM ASH POND
 BALDWIN POWER PLANT
 BALDWIN, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



MW-306
435.98

BALDWIN LAKE (COOLING POND)

BOTTOM ASH POND

FLY ASH POND SYSTEM (CLOSED)

KASKASKIA RIVER

SECONDARY POND

TERTIARY POND

WEST FLY ASH POND

EAST FLY ASH POND

OLD EAST FLY ASH POND

MW-154
(382.77)

MW-155
(375.90)

MW-355
372.06

MW-350
373.70

MW-150
(379.39)

MW-366
414.56

MW-391
(373.72)

MW-375
391.89

MW-151
(395.80)

MW-377
416.38

MW-252
(423.79)

MW-152
(419.79)

MW-352
424.64

OW-156
(424.27)

MW-356
423.40

MW-369
414.28

MW-370
403.31

MW-382
414.81

MW-390
423.44

OW-157
(427.55)

TPZ-164
(431.14)

MW-383
441.07

MW-384
445.20

MW-104SR
(447.51)

MW-104DR
(447.52)

MW-304
445.99

MW-253
(435.11)

MW-153
(436.77)

PROJECT: 16900XXXXX | DATED: 12/19/2022 | DESIGNER: gpalarmc



- BACKGROUND WELL
- COMPLIANCE WELL
- PORE WATER WELL
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (10-FT CONTOUR INTERVAL, NAVD88)
- - - INFERRED GROUNDWATER ELEVATION CONTOUR
- ➔ GROUNDWATER FLOW DIRECTION
- PART 257 REGULATED UNIT (SUBJECT UNIT)
- FLY ASH POND SYSTEM (CLOSED)
- SITE FEATURE
- CAPPED AREA
- PROPERTY BOUNDARY

NOTES:
 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



**POTENTIOMETRIC SURFACE MAP
 SEPTEMBER 29, 2022**

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 BOTTOM ASH POND
 BALDWIN POWER PLANT
 BALDWIN, ILLINOIS

FIGURE 4

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

APPENDICES

**APPENDIX A
LABORATORY REPORTS**

February 10, 2022

Brian Voelker
Vistra Energy
1500 Eastport Plaza Drive
Collinsville, IL 62234
TEL: (618) 343-7824
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Groundwater Q3 2021

WorkOrder: 21081645

Dear Brian Voelker:

TEKLAB, INC received 31 samples on 9/16/2021 1:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	15
Dates Report	16
Quality Control Results	21
Receiving Check List	46
Chain of Custody	Appended

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

Cooler Receipt Temp: 3.0 °C

An employee of Teklab, Inc. collected the sample(s).

BA_601_TPZ-164_Source Water was not collected; the location was not accessible. 154 went dry before sampling was completed. Nitrate and TDS (total) could not be analyzed. EAH 9/17/21

Due to lab error, all 154 analyses will be reported from 9/21/21 collection (WO# 21091241). EAH 9/22/21

This report was revised on February 10, 2022 per Ramboll/Eric Bauer's request. The reason for the revision is to update static elevation data for 304, 304 DUP, and 306. Please replace report dated October 13, 2021 with this report. EAH 2/10/22

This report contains CCR 601 data. EAH 2/10/22

Locations

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Accreditations

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021
 Lab ID: 21081645-011
 Matrix: GROUNDWATER

Work Order: 21081645
 Report Date: 10-Feb-22

Client Sample ID: 304
 Collection Date: 09/14/2021 9:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water	*	-5.00		10.09	ft	1	09/14/2021 9:48	R299488
Depth to water from measuring point	*	0		10.09	ft	1	09/14/2021 9:48	R299488
Elevation of groundwater surface	*	0		445.40	ft	1	09/14/2021 9:48	R299488
Measuring Point Elevation	*	0		455.49	ft	1	09/14/2021 9:48	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.4	NTU	1	09/14/2021 9:48	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-24	mV	1	09/14/2021 9:48	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		2730	µS/cm	1	09/14/2021 9:48	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		17.2	°C	1	09/14/2021 9:48	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.38	mg/L	1	09/14/2021 9:48	R299488
SW-846 9040B								
pH, Field	*	1.00		7.72		1	09/14/2021 9:48	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		784	mg/L	1	09/15/2021 13:51	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	09/15/2021 13:51	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1290	mg/L	1	09/17/2021 15:03	R299150
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		231	mg/L	20	09/20/2021 17:05	R299276
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		1.60	mg/L	1	09/15/2021 13:43	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		168	mg/L	5	09/16/2021 21:35	R299090
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		13.3	mg/L	1	09/21/2021 1:40	181946
Magnesium	NELAP	0.050		5.79	mg/L	1	09/21/2021 1:40	181946
Potassium	NELAP	0.100		2.36	mg/L	1	09/21/2021 1:40	181946
Sodium	NELAP	0.050		565	mg/L	1	09/21/2021 1:40	181946
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/24/2021 1:02	181947
Arsenic	NELAP	0.0010		0.0021	mg/L	5	09/21/2021 21:57	181947
Barium	NELAP	0.0010		0.0189	mg/L	5	09/21/2021 21:57	181947
Boron	NELAP	0.0250		1.61	mg/L	5	09/21/2021 21:57	181947
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	09/21/2021 21:57	181947
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	09/21/2021 21:57	181947
Lead	NELAP	0.0010		< 0.0010	mg/L	5	09/21/2021 21:57	181947
Lithium	*	0.0030		0.0777	mg/L	5	09/21/2021 21:57	181947
Molybdenum	NELAP	0.0015		0.0021	mg/L	5	09/21/2021 21:57	181947
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/21/2021 21:57	181947



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021
 Lab ID: 21081645-012
 Matrix: GROUNDWATER

Work Order: 21081645
 Report Date: 10-Feb-22

Client Sample ID: 306

Collection Date: 09/16/2021 12:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water	*	-5.00		10.18	ft	1	09/16/2021 12:31	R299488
Depth to water from measuring point	*	0		10.18	ft	1	09/16/2021 12:31	R299488
Elevation of groundwater surface	*	0		442.99	ft	1	09/16/2021 12:31	R299488
Measuring Point Elevation	*	0		453.17	ft	1	09/16/2021 12:31	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		13	NTU	1	09/16/2021 12:31	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-57	mV	1	09/16/2021 12:31	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		6540	µS/cm	1	09/16/2021 12:31	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		18.4	°C	1	09/16/2021 12:31	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		7.45	mg/L	1	09/16/2021 12:31	R299488
SW-846 9040B								
pH, Field	*	1.00		12.0		1	09/16/2021 12:31	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	09/17/2021 11:39	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		78	mg/L	1	09/17/2021 11:39	R299047
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		934	mg/L	1	09/21/2021 14:47	R299280
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20	R	< 20	mg/L	2	09/23/2021 15:21	R299361
<i>RPD for MS/MSD was outside control limits due to matrix interference.</i>								
<i>Elevated reporting limit due to matrix interference.</i>								
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.13	mg/L	1	09/17/2021 14:16	R299066
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		96	mg/L	10	09/20/2021 22:09	R299278
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100	S	594	mg/L	1	09/21/2021 1:48	181946
Magnesium	NELAP	0.050		0.136	mg/L	1	09/21/2021 1:48	181946
Potassium	NELAP	0.100		2.58	mg/L	1	09/21/2021 1:48	181946
Sodium	NELAP	0.050		21.9	mg/L	1	09/21/2021 1:48	181946
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	J	0.0008	mg/L	5	09/30/2021 3:14	181947
Arsenic	NELAP	0.0010	J	0.0007	mg/L	5	09/30/2021 3:14	181947
Barium	NELAP	0.0010		1.04	mg/L	5	09/30/2021 3:14	181947
Boron	NELAP	0.0250	J	0.0177	mg/L	5	09/21/2021 22:05	181947
Chromium	NELAP	0.0015		0.0271	mg/L	5	09/21/2021 22:05	181947
Cobalt	NELAP	0.0010		0.0035	mg/L	5	09/21/2021 22:05	181947
Lead	NELAP	0.0010		0.0052	mg/L	5	09/21/2021 22:05	181947
Lithium	*	0.0030		0.0584	mg/L	5	09/21/2021 22:05	181947



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081645-012
Matrix: GROUNDWATER

Work Order: 21081645
Report Date: 10-Feb-22
Client Sample ID: 306
Collection Date: 09/16/2021 12:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Molybdenum	NELAP	0.0015		0.0086	mg/L	5	09/30/2021 3:14	181947
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/30/2021 3:14	181947



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021
 Lab ID: 21081645-016
 Matrix: GROUNDWATER

Work Order: 21081645
 Report Date: 10-Feb-22

Client Sample ID: 356

Collection Date: 09/15/2021 14:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		3.99	ft	1	09/15/2021 14:06	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		6.5	NTU	1	09/15/2021 14:06	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-68	mV	1	09/15/2021 14:06	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		1500	µS/cm	1	09/15/2021 14:06	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		19.3	°C	1	09/15/2021 14:06	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.55	mg/L	1	09/15/2021 14:06	R299488
SW-846 9040B								
pH, Field	*	1.00		7.70		1	09/15/2021 14:06	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		551	mg/L	1	09/17/2021 8:26	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	09/17/2021 8:26	R299047
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		690	mg/L	1	09/21/2021 14:48	R299280
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		53	mg/L	2	09/23/2021 15:56	R299361
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		2.14	mg/L	1	09/17/2021 9:43	R299066
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		37	mg/L	1	09/20/2021 22:46	R299278
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		11.6	mg/L	1	09/23/2021 19:01	182134
Magnesium	NELAP	0.050		7.31	mg/L	1	09/23/2021 19:01	182134
Potassium	NELAP	0.100		2.62	mg/L	1	09/23/2021 19:01	182134
Sodium	NELAP	0.050		245	mg/L	1	09/23/2021 19:01	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:02	182135
Arsenic	NELAP	0.0010	J	0.0004	mg/L	5	09/28/2021 1:02	182135
Barium	NELAP	0.0010		0.0299	mg/L	5	09/28/2021 1:02	182135
Boron	NELAP	0.0250		2.03	mg/L	5	09/28/2021 1:02	182135
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	09/28/2021 1:02	182135
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:02	182135
Lead	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:02	182135
Lithium	*	0.0030		0.0583	mg/L	5	09/28/2021 1:02	182135
Molybdenum	NELAP	0.0015		0.0016	mg/L	5	09/28/2021 1:02	182135
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:02	182135



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021
 Lab ID: 21081645-018
 Matrix: GROUNDWATER

Work Order: 21081645
 Report Date: 10-Feb-22

Client Sample ID: 369

Collection Date: 09/15/2021 12:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		13.80	ft	1	09/15/2021 12:41	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		9.1	NTU	1	09/15/2021 12:41	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-216	mV	1	09/15/2021 12:41	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		3640	µS/cm	1	09/15/2021 12:41	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		20.0	°C	1	09/15/2021 12:41	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.32	mg/L	1	09/15/2021 12:41	R299488
SW-846 9040B								
pH, Field	*	1.00		8.22		1	09/15/2021 12:41	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		772	mg/L	1	09/17/2021 8:39	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		41	mg/L	1	09/17/2021 8:39	R299047
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1450	mg/L	1	09/21/2021 15:41	R299280
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		134	mg/L	10	09/20/2021 23:07	R299276
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		3.83	mg/L	1	09/17/2021 9:46	R299066
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		289	mg/L	10	09/20/2021 23:08	R299278
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100	S	79.5	mg/L	1	09/23/2021 19:04	182134
Magnesium	NELAP	0.050	S	30.8	mg/L	1	09/23/2021 19:04	182134
Potassium	NELAP	0.100		3.65	mg/L	1	09/23/2021 19:04	182134
Sodium	NELAP	0.050	S	227	mg/L	1	09/23/2021 19:04	182134
<i>Matrix spike control limits for Ca, Mg and Na are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:20	182135
Arsenic	NELAP	0.0010		0.0019	mg/L	5	09/28/2021 1:20	182135
Barium	NELAP	0.0010		0.0691	mg/L	5	09/28/2021 1:20	182135
Boron	NELAP	0.0250		0.647	mg/L	5	09/28/2021 1:20	182135
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	09/28/2021 1:20	182135
Cobalt	NELAP	0.0010	J	0.0004	mg/L	5	09/28/2021 1:20	182135
Lead	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:20	182135
Lithium	*	0.0030		0.0247	mg/L	5	09/28/2021 1:20	182135
Molybdenum	NELAP	0.0015		0.0060	mg/L	5	09/28/2021 1:20	182135
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:20	182135



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021
 Lab ID: 21081645-019
 Matrix: GROUNDWATER

Work Order: 21081645
 Report Date: 10-Feb-22
 Client Sample ID: 370
 Collection Date: 09/15/2021 11:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		18.99	ft	1	09/15/2021 11:35	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.3	NTU	1	09/15/2021 11:35	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		52	mV	1	09/15/2021 11:35	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		7400	µS/cm	1	09/15/2021 11:35	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		18.7	°C	1	09/15/2021 11:35	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		1.09	mg/L	1	09/15/2021 11:35	R299488
SW-846 9040B								
pH, Field	*	1.00		7.49		1	09/15/2021 11:35	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		412	mg/L	1	09/17/2021 8:48	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	09/17/2021 8:48	R299047
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		3240	mg/L	1	09/21/2021 15:41	R299280
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		266	mg/L	10	09/20/2021 23:31	R299276
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		3.05	mg/L	1	09/17/2021 9:48	R299066
SW-846 9251 (TOTAL)								
Chloride	NELAP	50		1560	mg/L	50	09/23/2021 17:43	R299362
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		45.0	mg/L	1	09/23/2021 19:18	182134
Magnesium	NELAP	0.050		25.6	mg/L	1	09/23/2021 19:18	182134
Potassium	NELAP	0.100		6.05	mg/L	1	09/23/2021 19:18	182134
Sodium	NELAP	0.050		1200	mg/L	1	09/23/2021 19:18	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:46	182135
Arsenic	NELAP	0.0010	J	0.0008	mg/L	5	09/28/2021 1:46	182135
Barium	NELAP	0.0010		0.0407	mg/L	5	09/28/2021 1:46	182135
Boron	NELAP	0.0250		1.91	mg/L	5	09/28/2021 1:46	182135
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	09/28/2021 1:46	182135
Cobalt	NELAP	0.0010	J	0.0003	mg/L	5	09/28/2021 1:46	182135
Lead	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:46	182135
Lithium	*	0.0030		0.156	mg/L	5	09/28/2021 1:46	182135
Molybdenum	NELAP	0.0015		0.0149	mg/L	5	09/28/2021 1:46	182135
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 1:46	182135



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021
 Lab ID: 21081645-022
 Matrix: GROUNDWATER

Work Order: 21081645
 Report Date: 10-Feb-22

Client Sample ID: 382

Collection Date: 09/15/2021 10:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		16.59	ft	1	09/15/2021 10:26	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		77	NTU	1	09/15/2021 10:26	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		10	mV	1	09/15/2021 10:26	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		2150	µS/cm	1	09/15/2021 10:26	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		18.1	°C	1	09/15/2021 10:26	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		1.34	mg/L	1	09/15/2021 10:26	R299488
SW-846 9040B								
pH, Field	*	1.00		7.71		1	09/15/2021 10:26	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		467	mg/L	1	09/17/2021 8:55	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	09/17/2021 8:55	R299047
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1120	mg/L	1	09/21/2021 15:42	R299280
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		459	mg/L	10	09/20/2021 23:39	R299276
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		2.90	mg/L	1	09/17/2021 9:50	R299066
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		36	mg/L	1	09/20/2021 23:34	R299278
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		25.7	mg/L	1	09/23/2021 19:23	182134
Magnesium	NELAP	0.050		11.6	mg/L	1	09/23/2021 19:23	182134
Potassium	NELAP	0.100		5.10	mg/L	1	09/23/2021 19:23	182134
Sodium	NELAP	0.050		363	mg/L	1	09/23/2021 19:23	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 2:46	182135
Arsenic	NELAP	0.0010		0.0022	mg/L	5	09/28/2021 2:46	182135
Barium	NELAP	0.0010		0.0279	mg/L	5	09/28/2021 2:46	182135
Boron	NELAP	0.0250		1.75	mg/L	5	09/28/2021 2:46	182135
Chromium	NELAP	0.0015		0.0124	mg/L	5	09/28/2021 2:46	182135
Cobalt	NELAP	0.0010		0.0033	mg/L	5	09/28/2021 2:46	182135
Lead	NELAP	0.0010		0.0043	mg/L	5	09/28/2021 2:46	182135
Lithium	*	0.0030		0.0650	mg/L	5	09/28/2021 2:46	182135
Molybdenum	NELAP	0.0015		0.0027	mg/L	5	09/28/2021 2:46	182135
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 2:46	182135



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021
 Lab ID: 21081645-029
 Matrix: GROUNDWATER

Work Order: 21081645
 Report Date: 10-Feb-22
 Client Sample ID: 304 DUP
 Collection Date: 09/14/2021 9:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water	*	-5.00		10.09	ft	1	09/14/2021 9:48	R299488
Depth to water from measuring point	*	0		10.09	ft	1	09/14/2021 9:48	R299488
Elevation of groundwater surface	*	0		445.40	ft	1	09/14/2021 9:48	R299488
Measuring Point Elevation	*	0		455.49	ft	1	09/14/2021 9:48	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.4	NTU	1	09/14/2021 9:48	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-24	mV	1	09/14/2021 9:48	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		2730	µS/cm	1	09/14/2021 9:48	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		17.2	°C	1	09/14/2021 9:48	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.38	mg/L	1	09/14/2021 9:48	R299488
SW-846 9040B								
pH, Field	*	1.00		7.72		1	09/14/2021 9:48	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		743	mg/L	1	09/15/2021 14:43	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		20	mg/L	1	09/15/2021 14:43	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1260	mg/L	1	09/20/2021 15:28	R299208
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		234	mg/L	5	09/16/2021 22:44	R299089
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		1.67	mg/L	1	09/15/2021 14:05	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		163	mg/L	5	09/16/2021 22:44	R299090
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		10.1	mg/L	1	09/23/2021 19:54	182134
Magnesium	NELAP	0.050		4.52	mg/L	1	09/23/2021 19:54	182134
Potassium	NELAP	0.100		2.20	mg/L	1	09/23/2021 19:54	182134
Sodium	NELAP	0.050		510	mg/L	1	09/23/2021 19:54	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	J	0.0005	mg/L	5	09/28/2021 3:30	182135
Arsenic	NELAP	0.0010		0.0025	mg/L	5	09/28/2021 3:30	182135
Barium	NELAP	0.0010		0.0193	mg/L	5	09/28/2021 3:30	182135
Boron	NELAP	0.0250		1.65	mg/L	5	09/28/2021 3:30	182135
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	09/28/2021 3:30	182135
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 3:30	182135
Lead	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 3:30	182135
Lithium	*	0.0030		0.0785	mg/L	5	09/28/2021 3:30	182135
Molybdenum	NELAP	0.0015		0.0022	mg/L	5	09/28/2021 3:30	182135
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/28/2021 3:30	182135



Sample Summary

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21081645-011	304	Groundwater	4	09/14/2021 9:48
21081645-012	306	Groundwater	4	09/16/2021 12:31
21081645-016	356	Groundwater	2	09/15/2021 14:06
21081645-018	369	Groundwater	2	09/15/2021 12:41
21081645-019	370	Groundwater	2	09/15/2021 11:35
21081645-022	382	Groundwater	2	09/15/2021 10:26
21081645-029	304 DUP	Groundwater	4	09/14/2021 9:45
21081645-030	BA_601_TPZ-164_Source Water	Groundwater	2	



Dates Report

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21081645-011A	304	09/14/2021 9:48	09/16/2021 13:50		
	Field Elevation Measurements				09/14/2021 9:48
	Standard Methods 2130 B Field				09/14/2021 9:48
	Standard Methods 18th Ed. 2580 B Field				09/14/2021 9:48
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 13:51
	Standard Methods 2320 B 1997, 2011				09/15/2021 13:51
	Standard Methods 2510 B Field				09/14/2021 9:48
	Standard Methods 2540 C (Total) 1997, 2011				09/17/2021 15:03
	Standard Methods 2550 B Field				09/14/2021 9:48
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/16/2021 19:10
	Standard Methods 4500-NO3 F (Total) 2000, 2011				09/16/2021 10:43
	Standard Methods 4500-O G Field				09/14/2021 9:48
	SW-846 9036 (Total)				09/20/2021 17:05
	SW-846 9040B				09/14/2021 9:48
	SW-846 9214 (Total)				09/15/2021 13:43
	SW-846 9251 (Total)				09/16/2021 21:35
21081645-011B	304	09/14/2021 9:48	09/16/2021 13:50		
	Standard Methods 2540 C (Dissolved) 1997, 2011				09/20/2021 16:41
	SW-846 9036 (Dissolved)				09/20/2021 16:14
	SW-846 9251 (Dissolved)				09/16/2021 0:08
21081645-011C	304	09/14/2021 9:48	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/17/2021 11:40	09/21/2021 1:40
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/17/2021 11:40	09/21/2021 1:40
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/17/2021 12:04	09/21/2021 21:57
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/17/2021 12:04	09/24/2021 1:02
21081645-011D	304	09/14/2021 9:48	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			09/22/2021 9:13	09/22/2021 17:24
21081645-012A	306	09/16/2021 12:31	09/16/2021 13:50		
	Field Elevation Measurements				09/16/2021 12:31
	Standard Methods 2130 B Field				09/16/2021 12:31
	Standard Methods 18th Ed. 2580 B Field				09/16/2021 12:31
	Standard Methods 2320 B (Total) 1997, 2011				09/17/2021 11:39
	Standard Methods 2320 B 1997, 2011				09/17/2021 11:39
	Standard Methods 2510 B Field				09/16/2021 12:31
	Standard Methods 2540 C (Total) 1997, 2011				09/21/2021 14:47
	Standard Methods 2550 B Field				09/16/2021 12:31
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/16/2021 20:06



Dates Report

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: **21081645**

Client Project: **Baldwin Groundwater Q3 2021**

Report Date: **10-Feb-22**

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
					09/17/2021 13:11
					09/16/2021 12:31
					09/23/2021 15:21
					09/16/2021 12:31
					09/17/2021 14:16
					09/20/2021 22:09
21081645-012B	306	09/16/2021 12:31	09/16/2021 13:50		
					09/21/2021 14:14
					09/27/2021 16:56
					09/20/2021 21:56
21081645-012C	306	09/16/2021 12:31	09/16/2021 13:50		
				09/17/2021 11:40	09/21/2021 1:48
				09/17/2021 11:40	09/21/2021 1:48
				09/17/2021 12:04	09/21/2021 22:05
				09/17/2021 12:04	09/24/2021 1:11
				09/17/2021 12:04	09/30/2021 3:14
21081645-012D	306	09/16/2021 12:31	09/16/2021 13:50		
				09/22/2021 9:13	09/22/2021 17:26
21081645-016A	356	09/15/2021 14:06	09/16/2021 13:50		
					09/15/2021 14:06
					09/15/2021 14:06
					09/15/2021 14:06
					09/17/2021 8:26
					09/17/2021 8:26
					09/15/2021 14:06
					09/21/2021 14:48
					09/15/2021 14:06
					09/23/2021 15:56
					09/15/2021 14:06
					09/17/2021 9:43
					09/20/2021 22:46
21081645-016B	356	09/15/2021 14:06	09/16/2021 13:50		
				09/22/2021 13:52	09/23/2021 19:01
				09/22/2021 14:00	09/28/2021 1:02
21081645-018A	369	09/15/2021 12:41	09/16/2021 13:50		
					09/15/2021 12:41



Dates Report

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: **21081645**

Client Project: **Baldwin Groundwater Q3 2021**

Report Date: **10-Feb-22**

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Standard Methods 2130 B Field				09/15/2021 12:41
	Standard Methods 18th Ed. 2580 B Field				09/15/2021 12:41
	Standard Methods 2320 B (Total) 1997, 2011				09/17/2021 8:39
	Standard Methods 2320 B 1997, 2011				09/17/2021 8:39
	Standard Methods 2510 B Field				09/15/2021 12:41
	Standard Methods 2540 C (Total) 1997, 2011				09/21/2021 15:41
	Standard Methods 2550 B Field				09/15/2021 12:41
	Standard Methods 4500-O G Field				09/15/2021 12:41
	SW-846 9036 (Total)				09/20/2021 23:07
	SW-846 9040B				09/15/2021 12:41
	SW-846 9214 (Total)				09/17/2021 9:46
	SW-846 9251 (Total)				09/20/2021 23:08
21081645-018B	369	09/15/2021 12:41	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:04
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 1:20
21081645-019A	370	09/15/2021 11:35	09/16/2021 13:50		
	Field Elevation Measurements				09/15/2021 11:35
	Standard Methods 2130 B Field				09/15/2021 11:35
	Standard Methods 18th Ed. 2580 B Field				09/15/2021 11:35
	Standard Methods 2320 B (Total) 1997, 2011				09/17/2021 8:48
	Standard Methods 2320 B 1997, 2011				09/17/2021 8:48
	Standard Methods 2510 B Field				09/15/2021 11:35
	Standard Methods 2540 C (Total) 1997, 2011				09/21/2021 15:41
	Standard Methods 2550 B Field				09/15/2021 11:35
	Standard Methods 4500-O G Field				09/15/2021 11:35
	SW-846 9036 (Total)				09/20/2021 23:31
	SW-846 9040B				09/15/2021 11:35
	SW-846 9214 (Total)				09/17/2021 9:48
	SW-846 9251 (Total)				09/23/2021 17:43
21081645-019B	370	09/15/2021 11:35	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 1:46
21081645-022A	382	09/15/2021 10:26	09/16/2021 13:50		
	Field Elevation Measurements				09/15/2021 10:26
	Standard Methods 2130 B Field				09/15/2021 10:26
	Standard Methods 18th Ed. 2580 B Field				09/15/2021 10:26
	Standard Methods 2320 B (Total) 1997, 2011				09/17/2021 8:55



Dates Report

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
	Standard Methods 2320 B 1997, 2011				09/17/2021 8:55
	Standard Methods 2510 B Field				09/15/2021 10:26
	Standard Methods 2540 C (Total) 1997, 2011				09/21/2021 15:42
	Standard Methods 2550 B Field				09/15/2021 10:26
	Standard Methods 4500-O G Field				09/15/2021 10:26
	SW-846 9036 (Total)				09/20/2021 23:39
	SW-846 9040B				09/15/2021 10:26
	SW-846 9214 (Total)				09/17/2021 9:50
	SW-846 9251 (Total)				09/20/2021 23:34
21081645-022B	382	09/15/2021 10:26	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:23
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 2:46
21081645-029A	304 DUP	09/14/2021 9:45	09/16/2021 13:50		
	Field Elevation Measurements				09/14/2021 9:48
	Standard Methods 2130 B Field				09/14/2021 9:48
	Standard Methods 18th Ed. 2580 B Field				09/14/2021 9:48
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 14:43
	Standard Methods 2320 B 1997, 2011				09/15/2021 14:43
	Standard Methods 2510 B Field				09/14/2021 9:48
	Standard Methods 2540 C (Total) 1997, 2011				09/20/2021 15:28
	Standard Methods 2550 B Field				09/14/2021 9:48
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/16/2021 19:12
	Standard Methods 4500-NO3 F (Total) 2000, 2011				09/16/2021 11:12
	Standard Methods 4500-O G Field				09/14/2021 9:48
	SW-846 9036 (Total)				09/16/2021 22:44
	SW-846 9040B				09/14/2021 9:48
	SW-846 9214 (Total)				09/15/2021 14:05
	SW-846 9251 (Total)				09/16/2021 22:44
21081645-029B	304 DUP	09/14/2021 9:45	09/16/2021 13:50		
	Standard Methods 2540 C (Dissolved) 1997, 2011				09/20/2021 16:06
	SW-846 9036 (Dissolved)				09/16/2021 0:42
	SW-846 9251 (Dissolved)				09/16/2021 0:43
21081645-029C	304 DUP	09/14/2021 9:45	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:54
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:54
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 3:30
21081645-029D	304 DUP	09/14/2021 9:45	09/16/2021 13:50		



Dates Report

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			09/22/2021 9:13	09/22/2021 18:03



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

STANDARD METHODS 2510 B FIELD

Batch R299488		SampType: LCS		Units µS/cm						
SampID: LCS-R299488										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Spec. Conductance, Field	*	0		1500	1409	0	106.6	90	110	09/16/2021
Spec. Conductance, Field	*	0		1340	1409	0	95.2	90	110	09/15/2021
Spec. Conductance, Field	*	0		1320	1409	0	93.7	90	110	09/14/2021
Spec. Conductance, Field	*	0		1450	1409	0	102.8	90	110	09/13/2021

SW-846 9040B

Batch R299488		SampType: LCS		Units						
SampID: LCS-R299488										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
pH, Field	*	1.00		6.93	7.000	0	99.0	98.57	101.4	09/13/2021
pH, Field	*	1.00		7.02	7.000	0	100.3	98.57	101.4	09/16/2021
pH, Field	*	1.00		7.07	7.000	0	101.0	98.57	101.4	09/15/2021
pH, Field	*	1.00		7.09	7.000	0	101.3	98.57	101.4	09/14/2021

STANDARD METHODS 2540 C (DISSOLVED) 1997, 2011

Batch R299208		SampType: DUP		Units mg/L				RPD Limit: 5		
SampID: 21081645-003BDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids	*	20		1580				1520	3.74	09/20/2021

Batch R299208		SampType: DUP		Units mg/L				RPD Limit: 5		
SampID: 21081645-014BDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids	*	20		1320				1324	0.61	09/20/2021

Batch R299280		SampType: DUP		Units mg/L				RPD Limit: 5		
SampID: 21081645-010BDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids	*	20		394				382.0	3.09	09/21/2021

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R299150		SampType: MBLK		Units mg/L						
SampID: MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/17/2021
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/17/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R299150		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		900	1000	0	90.0	90	110	09/17/2021	
Total Dissolved Solids	*	20		908	1000	0	90.8	90	110	09/17/2021	

Batch R299150		SampType: DUP		Units mg/L							RPD Limit: 5	Date Analyzed
SampID: 21081645-001ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids	*	20		1540				1552	1.04	09/17/2021		

Batch R299150		SampType: DUP		Units mg/L							RPD Limit: 5	Date Analyzed
SampID: 21081645-021ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids	*	20		594				580.0	2.39	09/17/2021		

Batch R299208		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/20/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/20/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/20/2021	

Batch R299208		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		910	1000	0	91.0	90	110	09/20/2021	
Total Dissolved Solids	*	20		930	1000	0	93.0	90	110	09/20/2021	
Total Dissolved Solids	*	20		930	1000	0	93.0	90	110	09/20/2021	

Batch R299208		SampType: DUP		Units mg/L							RPD Limit: 5	Date Analyzed
SampID: 21081645-026ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids	*	20		1580				1620	2.25	09/20/2021		

Batch R299208		SampType: DUP		Units mg/L							RPD Limit: 5	Date Analyzed
SampID: 21081645-028ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids	*	20		716				716.0	0.00	09/20/2021		



Quality Control Results

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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R299280		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/21/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/21/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	09/21/2021	

Batch R299280		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		934	1000	0	93.4	90	110	09/21/2021	
Total Dissolved Solids	*	20		920	1000	0	92.0	90	110	09/21/2021	
Total Dissolved Solids	*	20		930	1000	0	93.0	90	110	09/21/2021	

Batch R299280		SampType: DUP		Units mg/L						RPD Limit: 5		Date Analyzed
SampID: 21081645-012ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids	*	20		940				934.0	0.64	09/21/2021		

Batch R299280		SampType: DUP		Units mg/L						RPD Limit: 5		Date Analyzed
SampID: 21081645-019ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids	*	20		3230				3242	0.31	09/21/2021		

Batch R300870		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids	*	20	S	38	16.00	0	237.5	-100	100	10/04/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids	*	20	S	124	16.00	0	775.0	-100	100	10/04/2021	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	10/04/2021	



Quality Control Results

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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R300870 SampType: LCS Units mg/L

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids	*	20		930	1000	0	93.0	90	110	10/04/2021
Total Dissolved Solids	*	20		916	1000	0	91.6	90	110	10/04/2021
Total Dissolved Solids	*	20	B	956	1000	0	95.6	90	110	10/04/2021
Total Dissolved Solids	*	20	B	986	1000	0	98.6	90	110	10/04/2021

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R299001 SampType: MBLK Units mg/L

SampID: MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/15/2021
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/15/2021

Batch R299001 SampType: LCS Units mg/L

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.25		1.60	1.520	0	105.6	90	110	09/15/2021
Nitrogen, Nitrite (as N)		0.25		1.59	1.520	0	104.6	90	110	09/15/2021

Batch R299001 SampType: MS Units mg/L

SampID: 21081645-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.05	H	0.49	0.5000	0	97.6	85	115	09/16/2021

Batch R299001 SampType: MSD Units mg/L

SampID: 21081645-002AMSD

RPD Limit: 10

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Nitrogen, Nitrite (as N)		0.05	H	0.52	0.5000	0	104.0	0.4880	6.35	09/16/2021

Batch R299001 SampType: MS Units mg/L

SampID: 21081645-014AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.05		0.48	0.5000	0	96.6	85	115	09/15/2021



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R299001		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 21081645-014AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.49	0.5000	0	98.0	0.4830	1.44	09/15/2021	

Batch R299001		SampType: MS		Units mg/L							
SampID: 21081645-015AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.46	0.5000	0	91.0	85	115	09/16/2021	

Batch R299001		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 21081645-015AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.47	0.5000	0	93.8	0.4550	3.03	09/16/2021	

STANDARD METHODS 4500-NO3 F (TOTAL) 2000, 2011

Batch R299050		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		< 0.050	0.0090	0	0	-100	100	09/16/2021	

Batch R299050		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.497	0.5000	0	99.4	90	110	09/16/2021	

Batch R299050		SampType: MS		Units mg/L							
SampID: 21081645-013AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.331	0.2500	0.07730	101.3	85	115	09/16/2021	

Batch R299050		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 21081645-013AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.331	0.2500	0.07730	101.4	0.3306	0.03	09/16/2021	



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Client: **Vistra Energy**

Work Order: **21081645**

Client Project: **Baldwin Groundwater Q3 2021**

Report Date: **10-Feb-22**

STANDARD METHODS 4500-NO3 F (TOTAL) 2000, 2011

Batch R299088 SampType: MBLK Units mg/L										
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		< 0.050	0.0090	0	0	-100	100	09/17/2021

Batch R299088 SampType: LCS Units mg/L										
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.491	0.5000	0	98.2	90	110	09/17/2021

Batch R299088 SampType: MS Units mg/L										
SampID: 21081645-004AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		1.00		12.8	5.000	8.024	96.5	85	115	09/17/2021

Batch R299088 SampType: MSD Units mg/L		RPD Limit: 10								
SampID: 21081645-004AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		1.00		13.0	5.000	8.024	99.2	12.85	1.05	09/17/2021

SW-846 9036 (DISSOLVED)

Batch R299089 SampType: MS Units mg/L										
SampID: 21081645-002BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		50		188	100.0	77.35	110.6	85	115	09/16/2021

Batch R299089 SampType: MSD Units mg/L		RPD Limit: 10								
SampID: 21081645-002BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		50		189	100.0	77.35	111.5	187.9	0.48	09/16/2021

Batch R299276 SampType: MBLK Units mg/L										
SampID: MB-R299276										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		< 10	7.620	0	0	-100	100	09/20/2021



Quality Control Results

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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 9036 (DISSOLVED)

Batch R299276 **SampType: LCS** Units mg/L

SampID: LCS-R299276

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		20	20.00	0	98.5	90	110	09/20/2021

Batch R299276 **SampType: MS** Units mg/L

SampID: 21081645-011BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		100		408	200.0	198.4	105.0	85	115	09/20/2021

Batch R299276 **SampType: MSD** Units mg/L

SampID: 21081645-011BMSD

RPD Limit: 10

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		100		426	200.0	198.4	113.6	408.4	4.14	09/20/2021

Batch R299523 **SampType: MBLK** Units mg/L

SampID: MB-R299523

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		< 10	7.620	0	0	-100	100	09/27/2021

Batch R299523 **SampType: LCS** Units mg/L

SampID: LCS-R299523

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		19	20.00	0	92.9	90	110	09/27/2021

Batch R299523 **SampType: MS** Units mg/L

SampID: 21081645-010BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		50		230	100.0	135.7	94.5	85	115	09/27/2021

Batch R299523 **SampType: MSD** Units mg/L

SampID: 21081645-010BMSD

RPD Limit: 10

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		50		243	100.0	135.7	107.2	230.1	5.38	09/27/2021



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 9036 (TOTAL)

Batch R299021		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/15/2021	

Batch R299021		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	98.5	90	110	09/15/2021	

Batch R299089		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/16/2021	

Batch R299089		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		21	20.00	0	106.4	90	110	09/16/2021	

Batch R299276		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/20/2021	

Batch R299276		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	98.5	90	110	09/20/2021	

Batch R299276		SampType: MS		Units mg/L							
SampID: 21081645-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		200		663	400.0	231.4	108.0	85	115	09/20/2021	

Batch R299276		SampType: MSD		Units mg/L							
SampID: 21081645-011AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		200		672	400.0	231.4	110.3	663.3	1.37	09/20/2021	



Quality Control Results

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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 9036 (TOTAL)

Batch R299361		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/23/2021	

Batch R299361		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	99.0	90	110	09/23/2021	

Batch R299361		SampType: MS		Units mg/L							
SampID: 21081645-012AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20		44	40.00	0	110.0	85	115	09/23/2021	

Batch R299361		SampType: MSD		Units mg/L							
SampID: 21081645-012AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		20	R	39	40.00	0	98.2	43.99	11.31	09/23/2021	

Batch R299523		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/27/2021	

Batch R299523		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	92.9	90	110	09/27/2021	

Batch R301070		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	10/08/2021	

Batch R301070		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	100.4	90	110	10/08/2021	



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 9214 (TOTAL)

Batch R298993		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	09/15/2021	

Batch R298993		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		0.93	1.000	0	93.2	90	110	09/15/2021	

Batch R298993		SampType: MS		Units mg/L							
SampID: 21081645-026AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		5.25	2.000	3.104	107.4	75	125	09/15/2021	

Batch R298993		SampType: MSD		Units mg/L							
SampID: 21081645-026AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		5.26	2.000	3.104	107.7	5.251	0.13	09/15/2021	

Batch R298993		SampType: MS		Units mg/L							
SampID: 21081645-029AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		3.87	2.000	1.669	110.2	75	125	09/15/2021	

Batch R298993		SampType: MSD		Units mg/L							
SampID: 21081645-029AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		3.82	2.000	1.669	107.5	3.872	1.38	09/15/2021	

Batch R299066		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	09/17/2021	

Batch R299066		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		1.07	1.000	0	106.7	90	110	09/17/2021	



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 9214 (TOTAL)

Batch R299066		SampType: MS		Units mg/L							Date Analyzed
SampID: 21081645-012AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.19	2.000	0.1320	102.8	75	125	09/17/2021	

Batch R299066		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 21081645-012AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Fluoride		0.10		2.24	2.000	0.1320	105.6	2.188	2.53	09/17/2021		

Batch R299066		SampType: MS		Units mg/L							Date Analyzed
SampID: 21081645-025AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		3.38	2.000	1.259	105.8	75	125	09/17/2021	

Batch R299066		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 21081645-025AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Fluoride		0.10		3.39	2.000	1.259	106.4	3.376	0.30	09/17/2021		

SW-846 9251 (DISSOLVED)

Batch R299022		SampType: MS		Units mg/L							Date Analyzed
SampID: 21081645-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		2		73	40.00	36.06	91.1	85	115	09/15/2021	

Batch R299022		SampType: MSD		Units mg/L							RPD Limit: 15	Date Analyzed
SampID: 21081645-002BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Chloride		2		72	40.00	36.06	90.0	72.51	0.62	09/15/2021		

Batch R299022		SampType: MS		Units mg/L							Date Analyzed
SampID: 21081645-011BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		5	E	258	100.0	156.1	102.3	85	115	09/16/2021	



Quality Control Results

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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 9251 (DISSOLVED)

Batch R299022		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 21081645-011BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		5	E	254	100.0	156.1	97.9	258.4	1.73	09/16/2021	

Batch R299278		SampType: MS		Units mg/L							
SampID: 21081645-010BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		39	20.00	20.46	91.0	85	115	09/20/2021	

Batch R299278		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 21081645-010BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		1		38	20.00	20.46	90.1	38.65	0.44	09/20/2021	

SW-846 9251 (TOTAL)

Batch R299022		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		< 1	0.5000	0	0	-100	100	09/15/2021	

Batch R299022		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		20	20.00	0	98.6	90	110	09/15/2021	

Batch R299090		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		< 1	0.5000	0	0	-100	100	09/16/2021	

Batch R299090		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	1		20	20.00	0	100.4	90	110	09/16/2021	



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 9251 (TOTAL)

Batch R299090		SampType: MS		Units mg/L							Date Analyzed
SampID: 21081645-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		5	E	259	100.0	167.8	90.9	85	115	09/16/2021	

Batch R299090		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 21081645-011AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Chloride		5	E	263	100.0	167.8	95.4	258.7	1.70	09/16/2021	

Batch R299278		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride	*	1		< 1	0.5000	0	0	-100	100	09/20/2021	

Batch R299278		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride	*	1		20	20.00	0	99.8	90	110	09/20/2021	

Batch R299278		SampType: MS		Units mg/L							Date Analyzed
SampID: 21081645-012AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		10		279	200.0	95.61	91.8	85	115	09/20/2021	

Batch R299278		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 21081645-012AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Chloride		10		278	200.0	95.61	91.3	279.2	0.36	09/20/2021	

Batch R299362		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride	*	1		< 1	0.5000	0	0	-100	100	09/23/2021	

Batch R299362		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride	*	1		20	20.00	0	99.7	90	110	09/23/2021	



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

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SW-846 9251 (TOTAL)

Batch R299524 **SampType: MBLK** Units mg/L

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1		< 1	0.5000	0	0	-100	100	09/27/2021

Batch R299524 **SampType: LCS** Units mg/L

SampID: ICB/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1		20	20.00	0	98.8	90	110	09/27/2021

Batch R301071 **SampType: MBLK** Units mg/L

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1		< 1	0.5000	0	0	-100	100	10/08/2021

Batch R301071 **SampType: LCS** Units mg/L

SampID: ICB/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1		20	20.00	0	100.9	90	110	10/08/2021

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 182116 **SampType: MBLK** Units mg/L

SampID: MBLK-182116

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	09/22/2021
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	09/22/2021
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	09/22/2021

Batch 182116 **SampType: LCS** Units mg/L

SampID: LCS-182116

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0200		0.458	0.500	0	91.5	85	115	09/22/2021
Iron		0.0400		1.77	2.00	0	88.7	85	115	09/22/2021
Manganese		0.0070		0.465	0.500	0	93.0	85	115	09/22/2021



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 182116		SampType: LCSD		Units mg/L				RPD Limit: 20			
SampID: LCSD-182116											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0200		0.472	0.500	0	94.5	0.458	3.14	09/22/2021	
Iron		0.0400		1.85	2.00	0	92.7	1.77	4.42	09/22/2021	
Manganese		0.0070		0.477	0.500	0	95.4	0.465	2.55	09/22/2021	

Batch 182116		SampType: MS		Units mg/L							
SampID: 21081645-003DMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Boron		0.0200	S	11.2	0.500	11.0	36.9	75	125	09/22/2021	
Iron		0.0400		1.70	2.00	0	85.2	75	125	09/22/2021	
Manganese		0.0070		0.477	0.500	0.0183	91.7	75	125	09/22/2021	

Batch 182116		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 21081645-003DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0200	S	11.4	0.500	11.0	67.1	11.2	1.34	09/22/2021	
Iron		0.0400		1.74	2.00	0	86.9	1.70	1.92	09/22/2021	
Manganese		0.0070		0.487	0.500	0.0183	93.8	0.477	2.20	09/22/2021	

Batch 182116		SampType: MS		Units mg/L							
SampID: 21081645-014DMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Boron		0.0200		2.35	0.500	1.93	83.8	75	125	09/22/2021	
Iron		0.0400		1.98	2.00	0.220	88.0	75	125	09/22/2021	
Manganese		0.0070		0.472	0.500	0.0161	91.3	75	125	09/22/2021	

Batch 182116		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 21081645-014DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0200		2.35	0.500	1.93	84.3	2.35	0.10	09/22/2021	
Iron		0.0400		1.97	2.00	0.220	87.5	1.98	0.51	09/22/2021	
Manganese		0.0070		0.471	0.500	0.0161	91.0	0.472	0.32	09/22/2021	



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 181946 **SampType: MBLK** Units mg/L

SampID: MBLK-181946

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	09/20/2021
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	09/20/2021
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	09/20/2021
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	09/20/2021
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	09/20/2021
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	09/20/2021
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	09/20/2021
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	09/20/2021

Batch 181946 **SampType: LCS** Units mg/L

SampID: LCS-181946

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.66	2.500	0	106.2	85	115	09/20/2021
Iron		0.0400		2.05	2.00	0	102.7	85	115	09/20/2021
Iron		0.0400		2.05	2.000	0	102.7	85	115	09/20/2021
Magnesium		0.0500		2.77	2.500	0	110.9	85	115	09/20/2021
Manganese		0.0070		0.530	0.5000	0	106.1	85	115	09/20/2021
Manganese		0.0070		0.530	0.500	0	106.1	85	115	09/20/2021
Potassium		0.100		2.58	2.500	0	103.2	85	115	09/20/2021
Sodium		0.0500		2.49	2.500	0	99.7	85	115	09/20/2021

Batch 181946 **SampType: MS** Units mg/L

SampID: 21081645-012CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100	S	598	2.500	593.7	168.0	75	125	09/21/2021
Iron		0.0400		2.47	2.00	0.434	101.8	75	125	09/21/2021
Magnesium		0.050		2.87	2.500	0.1361	109.4	75	125	09/21/2021
Manganese		0.0070		0.537	0.500	0.0071	106.0	75	125	09/21/2021
Potassium		0.100		5.30	2.500	2.575	108.9	75	125	09/21/2021
Sodium		0.050		24.5	2.500	21.88	104.0	75	125	09/21/2021



Quality Control Results

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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 181946		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 21081645-012CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	603	2.500	593.7	364.0	597.9	0.82	09/21/2021	
Iron		0.0400		2.42	2.00	0.434	99.6	2.47	1.80	09/21/2021	
Magnesium		0.050		2.83	2.500	0.1361	107.6	2.872	1.61	09/21/2021	
Manganese		0.0070		0.529	0.500	0.0071	104.4	0.537	1.46	09/21/2021	
Potassium		0.100		5.28	2.500	2.575	108.1	5.297	0.36	09/21/2021	
Sodium		0.050		24.7	2.500	21.88	113.2	24.48	0.94	09/21/2021	

Batch 182134		SampType: MBLK		Units mg/L							
SampID: MBLK-182134											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	09/23/2021	
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	09/23/2021	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	09/23/2021	
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	09/23/2021	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	09/23/2021	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	09/23/2021	

Batch 182134		SampType: LCS		Units mg/L							
SampID: LCS-182134											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.47	2.500	0	98.8	85	115	09/23/2021	
Iron		0.0400		1.93	2.00	0	96.3	85	115	09/23/2021	
Magnesium		0.0500		2.48	2.500	0	99.4	85	115	09/23/2021	
Manganese		0.0070		0.499	0.500	0	99.9	85	115	09/23/2021	
Potassium		0.100		2.54	2.500	0	101.8	85	115	09/23/2021	
Sodium		0.0500		2.46	2.500	0	98.2	85	115	09/23/2021	

Batch 182134		SampType: MS		Units mg/L							
SampID: 21081645-018BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100	S	78.6	2.500	79.54	-38.0	75	125	09/23/2021	
Magnesium		0.050	S	31.7	2.500	30.80	36.3	75	125	09/23/2021	
Potassium		0.100		5.92	2.500	3.652	90.5	75	125	09/23/2021	
Sodium		0.050	S	221	2.500	227.2	-258.0	75	125	09/23/2021	



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 182134		SampType: MSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampID: 21081645-018BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	77.9	2.500	79.54	-65.2	78.59	0.87	09/23/2021	
Magnesium		0.050	S	31.4	2.500	30.80	25.0	31.71	0.89	09/23/2021	
Potassium		0.100		5.89	2.500	3.652	89.3	5.915	0.50	09/23/2021	
Sodium		0.050	S	220	2.500	227.2	-279.6	220.8	0.24	09/23/2021	

Batch 182141		SampType: MBLK		Units mg/L				Low Limit		High Limit	Date Analyzed
SampID: MBLK-182141											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	09/23/2021	
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	09/23/2021	
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	09/23/2021	
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	09/23/2021	
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	09/23/2021	
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	09/23/2021	

Batch 182141		SampType: LCS		Units mg/L				Low Limit		High Limit	Date Analyzed
SampID: LCS-182141											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		2.58	2.500	0	103.4	85	115	09/23/2021	
Iron		0.0400		1.98	2.00	0	99.2	85	115	09/23/2021	
Magnesium		0.0500		2.71	2.500	0	108.6	85	115	09/23/2021	
Manganese		0.0070		0.516	0.500	0	103.2	85	115	09/23/2021	
Potassium		0.100		2.63	2.500	0	105.1	85	115	09/23/2021	
Sodium		0.0500		2.37	2.500	0	94.9	85	115	09/23/2021	

Batch 182141		SampType: MS		Units mg/L				Low Limit		High Limit	Date Analyzed
SampID: 21081645-013CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Calcium		0.100		27.6	2.500	25.09	101.6	75	125	09/23/2021	
Iron		0.0400		2.74	2.00	0.837	95.0	75	125	09/23/2021	
Magnesium		0.050		6.74	2.500	4.382	94.5	75	125	09/23/2021	
Manganese		0.0070		0.512	0.500	0.0101	100.4	75	125	09/23/2021	
Potassium		0.100		7.98	2.500	5.525	98.3	75	125	09/23/2021	
Sodium		0.050		76.5	2.500	74.30	88.8	75	125	09/23/2021	



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Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 182141		SampType: MSD		Units mg/L			RPD Limit: 20				
SampID: 21081645-013CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	28.4	2.500	25.09	132.0	27.63	2.71	09/23/2021	
Iron		0.0400		2.79	2.00	0.837	97.7	2.74	1.92	09/23/2021	
Magnesium		0.050		6.90	2.500	4.382	100.7	6.744	2.29	09/23/2021	
Manganese		0.0070		0.517	0.500	0.0101	101.5	0.512	1.05	09/23/2021	
Potassium		0.100		8.16	2.500	5.525	105.3	7.982	2.17	09/23/2021	
Sodium		0.050	S	79.0	2.500	74.30	189.6	76.52	3.24	09/23/2021	

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 181947		SampType: MBLK		Units mg/L							
SampID: MBLK-181947											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	09/21/2021	
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	09/21/2021	
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	09/21/2021	
Boron		0.0250		< 0.0250	0.0092	0	0	-100	100	09/21/2021	
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	09/21/2021	
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	09/21/2021	
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	09/21/2021	
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	09/21/2021	
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	09/21/2021	
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	09/21/2021	
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	09/23/2021	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 181947 SampType: LCS Units mg/L
 SampID: LCS-181947

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.528	0.500	0	105.7	80	120	09/21/2021
Arsenic		0.0010		0.519	0.500	0	103.7	80	120	09/21/2021
Barium		0.0010		2.20	2.00	0	110.2	80	120	09/21/2021
Boron		0.0250		0.460	0.500	0	92.0	80	120	09/21/2021
Chromium		0.0015		0.193	0.200	0	96.6	80	120	09/21/2021
Cobalt		0.0010		0.496	0.500	0	99.2	80	120	09/21/2021
Lead		0.0010		0.534	0.500	0	106.9	80	120	09/21/2021
Lithium	*	0.0030		0.471	0.500	0	94.1	80	120	09/21/2021
Molybdenum		0.0015		0.511	0.500	0	102.1	80	120	09/21/2021
Selenium		0.0010		0.490	0.500	0	98.0	80	120	09/21/2021
Thallium		0.0020		0.257	0.250	0	102.8	80	120	09/23/2021

Batch 181947 SampType: MS Units mg/L
 SampID: 21081645-012CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.470	0.500	0.0008	93.8	75	125	09/30/2021
Arsenic		0.0010		0.524	0.500	0.0007	104.6	75	125	09/30/2021
Barium		0.0010		3.14	2.00	1.04	104.9	75	125	09/30/2021
Boron		0.0250		0.484	0.500	0.0177	93.3	75	125	09/21/2021
Chromium		0.0015		0.227	0.200	0.0271	100.0	75	125	09/21/2021
Cobalt		0.0010		0.520	0.500	0.0035	103.4	75	125	09/21/2021
Lead		0.0010		0.512	0.500	0.0052	101.3	75	125	09/21/2021
Lithium	*	0.0030		0.548	0.500	0.0584	97.9	75	125	09/21/2021
Molybdenum		0.0015		0.520	0.500	0.0086	102.3	75	125	09/30/2021
Selenium		0.0010		0.492	0.500	0	98.5	75	125	09/30/2021
Thallium		0.0020		0.263	0.250	0	105.1	75	125	09/24/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 181947		SampType: MSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampID: 21081645-012CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010		0.469	0.500	0.0008	93.6	0.470	0.18	09/30/2021	
Arsenic		0.0010		0.518	0.500	0.0007	103.4	0.524	1.19	09/30/2021	
Barium		0.0010		3.10	2.00	1.04	102.9	3.14	1.30	09/30/2021	
Boron		0.0250		0.494	0.500	0.0177	95.2	0.484	1.85	09/21/2021	
Chromium		0.0015		0.223	0.200	0.0271	97.9	0.227	1.90	09/21/2021	
Cobalt		0.0010		0.501	0.500	0.0035	99.5	0.520	3.78	09/21/2021	
Lead		0.0010		0.516	0.500	0.0052	102.2	0.512	0.85	09/21/2021	
Lithium	*	0.0030		0.548	0.500	0.0584	97.9	0.548	0.02	09/21/2021	
Molybdenum		0.0015		0.515	0.500	0.0086	101.2	0.520	1.03	09/30/2021	
Selenium		0.0010		0.491	0.500	0	98.2	0.492	0.30	09/30/2021	
Thallium		0.0020		0.264	0.250	0	105.7	0.263	0.53	09/24/2021	

Batch 182135		SampType: MBLK		Units mg/L						Date Analyzed
SampID: MBLK-182135										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	09/28/2021
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	09/25/2021
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	09/28/2021
Boron		0.0250		< 0.0250	0.0092	0	0	-100	100	09/27/2021
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	09/28/2021
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	09/28/2021
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	09/28/2021
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	09/28/2021
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	09/28/2021
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	09/25/2021
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	09/28/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 182135 SampType: LCS Units mg/L

SampID: LCS-182135

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.502	0.500	0	100.3	80	120	09/28/2021
Arsenic		0.0010		0.526	0.500	0	105.1	80	120	09/27/2021
Barium		0.0010		2.11	2.00	0	105.3	80	120	09/28/2021
Boron		0.0250		0.523	0.500	0	104.6	80	120	09/27/2021
Chromium		0.0015		0.206	0.200	0	102.8	80	120	09/28/2021
Lead		0.0010		0.513	0.500	0	102.7	80	120	09/28/2021
Lithium	*	0.0030		0.528	0.500	0	105.5	80	120	09/28/2021
Molybdenum		0.0015		0.534	0.500	0	106.8	80	120	09/28/2021
Selenium		0.0010		0.501	0.500	0	100.2	80	120	09/27/2021
Thallium		0.0020		0.255	0.250	0	102.0	80	120	09/28/2021

Batch 182135 SampType: MS Units mg/L

SampID: 21081645-018BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.505	0.500	0	101.1	75	125	09/28/2021
Arsenic		0.0010		0.533	0.500	0.0019	106.2	75	125	09/28/2021
Barium		0.0010		2.18	2.00	0.0691	105.6	75	125	09/28/2021
Boron		0.0250		1.17	0.500	0.647	105.4	75	125	09/28/2021
Chromium		0.0015		0.203	0.200	0	101.4	75	125	09/28/2021
Cobalt		0.0010		0.521	0.500	0.0004	104.0	75	125	09/28/2021
Lead		0.0010		0.519	0.500	0	103.8	75	125	09/28/2021
Lithium	*	0.0030		0.568	0.500	0.0247	108.6	75	125	09/28/2021
Molybdenum		0.0015		0.555	0.500	0.0060	109.8	75	125	09/28/2021
Selenium		0.0010		0.487	0.500	0	97.4	75	125	09/28/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 182135		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 21081645-018BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010		0.497	0.500	0	99.5	0.505	1.60	09/28/2021	
Arsenic		0.0010		0.530	0.500	0.0019	105.7	0.533	0.46	09/28/2021	
Barium		0.0010		2.15	2.00	0.0691	103.9	2.18	1.55	09/28/2021	
Boron		0.0250		1.16	0.500	0.647	103.5	1.17	0.81	09/28/2021	
Chromium		0.0015		0.202	0.200	0	101.0	0.203	0.36	09/28/2021	
Cobalt		0.0010		0.514	0.500	0.0004	102.7	0.521	1.29	09/28/2021	
Lead		0.0010		0.520	0.500	0	104.0	0.519	0.25	09/28/2021	
Lithium	*	0.0030		0.555	0.500	0.0247	106.1	0.568	2.26	09/28/2021	
Molybdenum		0.0015		0.548	0.500	0.0060	108.5	0.555	1.19	09/28/2021	
Selenium		0.0010		0.486	0.500	0	97.2	0.487	0.21	09/28/2021	

Batch 182143		SampType: MBLK		Units mg/L							
SampID: MBLK-182143											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	09/27/2021	
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	09/27/2021	
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	09/27/2021	
Boron		0.0250		< 0.0250	0.0092	0	0	-100	100	09/27/2021	
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	09/27/2021	
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	09/27/2021	
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	09/27/2021	
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	09/27/2021	
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	09/27/2021	
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	09/27/2021	
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	09/27/2021	



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 182143 SampType: LCS Units mg/L
 SampID: LCS-182143

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.503	0.500	0	100.6	80	120	09/27/2021
Arsenic		0.0010		0.541	0.500	0	108.2	80	120	09/27/2021
Barium		0.0010		2.17	2.00	0	108.5	80	120	09/27/2021
Boron		0.0250		0.518	0.500	0	103.6	80	120	09/27/2021
Chromium		0.0015		0.216	0.200	0	108.2	80	120	09/27/2021
Cobalt		0.0010		0.553	0.500	0	110.6	80	120	09/27/2021
Lead		0.0010		0.535	0.500	0	107.0	80	120	09/27/2021
Lithium	*	0.0030		0.537	0.500	0	107.4	80	120	09/27/2021
Molybdenum		0.0015		0.558	0.500	0	111.6	80	120	09/27/2021
Selenium		0.0010		0.503	0.500	0	100.7	80	120	09/27/2021
Thallium		0.0020		0.263	0.250	0	105.3	80	120	09/27/2021

Batch 182143 SampType: MS Units mg/L
 SampID: 21081645-013CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.499	0.500	0.0026	99.2	75	125	09/27/2021
Arsenic		0.0010		0.527	0.500	0.0007	105.3	75	125	09/27/2021
Barium		0.0010		2.28	2.00	0.179	104.9	75	125	09/27/2021
Boron		0.0250		1.12	0.500	0.622	100.0	75	125	09/27/2021
Chromium		0.0015		0.207	0.200	0.0021	102.2	75	125	09/27/2021
Cobalt		0.0010		0.529	0.500	0.0003	105.7	75	125	09/27/2021
Lead		0.0010		0.528	0.500	0.0027	105.0	75	125	09/27/2021
Lithium	*	0.0030		0.611	0.500	0.0834	105.5	75	125	09/27/2021
Molybdenum		0.0015		0.549	0.500	0.0043	108.9	75	125	09/27/2021
Selenium		0.0010		0.470	0.500	0	94.0	75	125	09/27/2021
Thallium		0.0020		0.260	0.250	0.0012	103.5	75	125	09/27/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21081645

Client Project: Baldwin Groundwater Q3 2021

Report Date: 10-Feb-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 182143		SampType: MSD		Units mg/L				RPD Limit: 20		
SampID: 21081645-013CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0010		0.504	0.500	0.0026	100.3	0.499	1.09	09/28/2021
Arsenic		0.0010		0.531	0.500	0.0007	106.0	0.527	0.72	09/28/2021
Barium		0.0010		2.31	2.00	0.179	106.4	2.28	1.25	09/28/2021
Boron		0.0250		1.16	0.500	0.622	108.5	1.12	3.71	09/28/2021
Chromium		0.0015		0.209	0.200	0.0021	103.7	0.207	1.35	09/28/2021
Cobalt		0.0010		0.534	0.500	0.0003	106.8	0.529	1.04	09/28/2021
Lead		0.0010		0.528	0.500	0.0027	105.0	0.528	0.02	09/28/2021
Lithium	*	0.0030		0.625	0.500	0.0834	108.4	0.611	2.36	09/28/2021
Molybdenum		0.0015		0.553	0.500	0.0043	109.7	0.549	0.72	09/28/2021
Selenium		0.0010		0.473	0.500	0	94.6	0.470	0.59	09/28/2021
Thallium		0.0020		0.262	0.250	0.0012	104.3	0.260	0.81	09/28/2021



Receiving Check List

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: 21081645

Client Project: **Baldwin Groundwater Q3 2021**

Report Date: 10-Feb-22

Carrier: Joseph Riley

Received By: PWR

Completed by:

Reviewed by:

On:

16-Sep-21

Ellie Hopkins

17-Sep-21

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 3.0 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

150, 151, 152, 252, 304, 350, 352, 375, 377, 383, 384, 391, 104DR, 104SR, 304 DUP and Field Blank were received on 09/14/2021 at 1830 (on ice 1.2C - LTG# 1). - ERH 9/15/21

pH strip #77366 - ERH 9/15/21 and PR 9/16/21

Additional nitric acid (78366) was needed in 304, 375, 383, 384, 391, 104SR, and 304 DUP upon arrival at the laboratory. - ERH 9/15/21 and PR 9/16/21

The limited volume of 154 was split, filtered, and preserved with nitric acid (78366) upon arrival at the laboratory. - PR/EAH 9/16/21

306 was filtered and preserved with nitric acid (78366) for the dissolved parameters upon arrival at the laboratory. - ERH/ehurley - 9/17/2021 7:46:43 AM

CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 21081645

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Vistra Energy</u> Address: <u>1500 Eastport Plaza Drive</u> City/State/Zip: <u>Collinsville, IL 62234</u> Contact: <u>Brian Voelker</u> Phone: <u>(217) 412-6605</u> Email: <u>brian.voelker@vistraenergy.com</u> Fax:				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>32</u> °C LTG# <u>1</u> Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>77366</u> FOR LAB USE ONLY LAB NOTES: <u>Added HNO3 (75%) 9-16-21</u> <u>Filter in LAB split 154 PR 9-16-21</u>																		
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Client Comments: Metals selection per program requirements. 6 program reports: IEPA, 601, 605, 605 Closure, 605 Operating, and NPDES.																		
PROJECT NAME/NUMBER <u>Baldwin Groundwater Q3 2021</u>		SAMPLE COLLECTOR'S NAME <u>J. RILEY J. WILSON</u>		# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other		INDICATE ANALYSIS REQUESTED Field Tests Bicab/Carb Cl, SO4, F- TDS Nitrate Diss. Cl, SO4 Diss. TDS Metals Diss. Metals																
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS <u>PO# 1054243</u>																				
Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field Tests	Bicab/Carb	Cl, SO4, F-	TDS	Nitrate	Diss. Cl, SO4	Diss. TDS	Metals	Diss. Metals	
<u>1081145 - 001</u>	<u>150</u>	<u>9/14/21 1525</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>002</u>	<u>151</u>	<u>9/14/21 1340</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>003</u>	<u>152</u>	<u>9/14/21 1099</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>004</u>	<u>153</u>	<u>9/16/21 110</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>005</u>	<u>154</u>	<u>9/16/21 1200</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>006</u>	<u>155</u>	<u>9/16/21 110</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>007</u>	<u>156</u>	<u>9/18/21 1417</u>	<u>Groundwater</u>										<input checked="" type="checkbox"/>									
<u>008</u>	<u>157</u>	<u>9/15/21 1215</u>	<u>Groundwater</u>										<input checked="" type="checkbox"/>									
<u>009</u>	<u>252</u>	<u>9/19/21 1132</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>010</u>	<u>253</u>	<u>9/16/21 1000</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>									
<u>011</u>	<u>304</u>	<u>9/16/21 0948</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Relinquished By <u>[Signature]</u>			Date/Time <u>9/14/21 1830</u> <u>9/16/21 1350</u>		Received By <u>[Signature]</u> <u>[Signature]</u>			Date/Time <u>9/14/21 1800</u> <u>9/16/21 1330</u>														

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

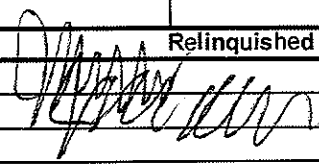
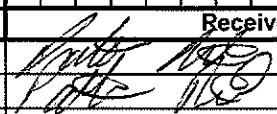
Client: <u>Vistra Energy</u> Address: <u>1500 Eastport Plaza Drive</u> City/State/Zip: <u>Collinsville, IL 62234</u> Contact: <u>Brian Voelker</u> Phone: <u>(217) 412-6605</u> Email: <u>brian.voelker@vistraenergy.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>3.0 °C</u> LTG# <u>1</u> Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>77366</u> FOR LAB USE ONLY LAB NOTES: <u>(Added HNO3 (28366) PR 9/16)</u>																	
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Client Comments: Metals selection per program requirements. 6 program reports: IEPA, 601, 605, 605 Closure, 605 Operating, and NPDES.																	
PROJECT NAME/NUMBER <u>Baldwin Groundwater Q3 2021</u>		SAMPLE COLLECTOR'S NAME _____		# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other		INDICATE ANALYSIS REQUESTED Field Tests Bicarb/Carb Cl, SO4, F- TDS Nitrate Diss. Cl, SO4 Diss. TDS Metals Diss. Metals															
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)				BILLING INSTRUCTIONS _____																	
Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field Tests	Bicarb/Carb	Cl, SO4, F-	TDS	Nitrate	Diss. Cl, SO4	Diss. TDS	Metals	Diss. Metals
21081645-012	306	9/16/21 1231	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓
013	350	9/14/21 1353	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓
014	352	9/14/21 1144	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓
015	355	9/16/21 1129	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓
016	356	9/15/21 1406	Groundwater	1	1								✓	✓	✓	✓	✓	✓	✓	✓	✓
017	366	9/15/21 0905	Groundwater	1	1								✓	✓	✓	✓	✓	✓	✓	✓	✓
018	369	9/15/21 1241	Groundwater	1	1								✓	✓	✓	✓	✓	✓	✓	✓	✓
019	370	9/15/21 1135	Groundwater	1	1								✓	✓	✓	✓	✓	✓	✓	✓	✓
020	375	9/14/21 1447	Groundwater	1	1								✓	✓	✓	✓	✓	✓	✓	✓	✓
021	377	9/14/21 1404	Groundwater	1	1								✓	✓	✓	✓	✓	✓	✓	✓	✓
022	382	9/15/21 1026	Groundwater	1	1								✓	✓	✓	✓	✓	✓	✓	✓	✓
Relinquished By 		Date/Time 9/14/21 1830 9/16/21 1350		Received By 		Date/Time 9/16/21 1830 9/16/21 1350															

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CHAIN OF CUSTODY

Pg 3 of 3 Workorder # 21081645

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Vistra Energy</u> Address: <u>1500 Eastport Plaza Drive</u> City/State/Zip: <u>Collinsville, IL 62234</u> Contact: <u>Brian Voelker</u> Phone: <u>(217) 412-6605</u> Email: <u>brian.voelker@vistraenergy.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>30</u> °C LTG# <u>1</u> Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>77366</u> FOR LAB USE ONLY LAB NOTES: <u>Added HNO3 (78366)</u> <u>PK-9-16-21</u>																	
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Client Comments: Metals selection per program requirements. 6 program reports: IEPA, 601, 605, 605 Closure, 605 Operating, and NPDES.																	
PROJECT NAME/NUMBER <u>Baldwin Groundwater Q3 2021</u>		SAMPLE COLLECTOR'S NAME _____		# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NAHSO4 TSP Other		INDICATE ANALYSIS REQUESTED Field Tests Bicarb/Carb Cl, SO4, F- TDS Nitrate Diss. Cl, SO4 Diss. TDS Metals Diss. Metals															
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS _____		Matrix UNP HNO3 NaOH H2SO4 HCL MeOH NAHSO4 TSP Other		Matrix Field Tests Bicarb/Carb Cl, SO4, F- TDS Nitrate Diss. Cl, SO4 Diss. TDS Metals Diss. Metals															
Lab Use Only <u>21081645-023</u> <u>024</u> <u>025</u> <u>026</u> <u>027</u> <u>028</u> <u>029</u> <u>030</u> <u>031</u>	Sample ID <u>383</u> <u>384</u> <u>390</u> <u>391</u> <u>104DR</u> <u>104SR</u> <u>304 DUP</u> <u>BA_601_TPZ-164_Source Water</u> <u>Field Blank</u>	Date/Time Sampled <u>9/13/21 1624</u> <u>9/13/21 1555</u> <u>9/13/21 1521</u> <u>9/14/21 1652</u> <u>9/14/21 0932</u> <u>9/14/21 0915</u> <u>9/14/21 0846</u> <u>9/14/21 1015</u>	Matrix Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater	UNP 1 1 1 1 2 2 2 1 2 2	HNO3 1 1 1 1 1 1 1 1 1 1	NaOH 1 1 1 1 1 1 1 1 1 1	H2SO4 1 1 1 1 1 1 1 1 1 1	HCL 1 1 1 1 1 1 1 1 1 1	MeOH 1 1 1 1 1 1 1 1 1 1	NAHSO4 1 1 1 1 1 1 1 1 1 1	TSP 1 1 1 1 1 1 1 1 1 1	Other 1 1 1 1 1 1 1 1 1 1	Field Tests 1 1 1 1 1 1 1 1 1 1 1	Bicarb/Carb 1 1 1 1 1 1 1 1 1 1	Cl, SO4, F- 1 1 1 1 1 1 1 1 1 1	TDS 1 1 1 1 1 1 1 1 1 1	Nitrate 1 1 1 1 1 1 1 1 1 1	Diss. Cl, SO4 1 1 1 1 1 1 1 1 1 1	Diss. TDS 1 1 1 1 1 1 1 1 1 1	Metals 1 1 1 1 1 1 1 1 1 1	Diss. Metals 1 1 1 1 1 1 1 1 1 1
Relinquished By 		Date/Time <u>9/14/21 1530</u> <u>9/16/21 1350</u>		Received By 		Date/Time <u>9/16/21 1350</u> <u>9/16/21 1350</u>															

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TEKLAD INC. 5445 Hawthorn Lake Road, Collierville, TN 37034 Phone (615) 344-1004 Fax (615) 344-1005

CHAIN OF CUSTODY

Page 1 of 2 Worksheet # 27021545

Client: Vistra Energy
 Address: 1500 Eastport Plaza Drive
 City/State/Zip: Collierville, TN 37234
 Contact: Brian Voelker Phone: (615) 412-8605
 Email: brian.voelker@vistraenergy.com Fax:

Sample type: ICE BULKICE NOISE L.C. to L.C.M.
 Prepared by: LAB FIELD **FOR LAB USE ONLY**
 LAB NOTES: 773000 HNO₃ (783000) added to 304, 375, 383, 384, 391, 104SR, 304 D2P EH 9/15/21

Are these samples known to be involved in litigation? If yes, a surcharge will apply Yes No
 Are these samples known to be hazardous? Yes No
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comments section Yes No

Client Comments:
 Method numbers per program requirements
 Program code: ICPA, 621, 605, 605 Custom, 605 Operating, and NPDES

PROJECT NAME/NUMBER: Baldwin Groundwater Q3 2021
 SAMPLE COLLECTOR'S NAME:

RESULTS REQUESTED: Standard 1-2 Day (100% Surcharge) Other
 3 Day (50% Surcharge)
 BILLING INSTRUCTIONS: PIA 1154243

# and Type of Containers		INDICATE ANALYSIS REQUESTED													
LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY	LAB USE ONLY
ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA	ICPA
2	2														
2	2														
2	2														
2	2														
2	2														
2	2														
2	2														
2	2														
2	2														
2	2														
2	2														

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
150	150	9/14/21 1325	Groundwater
151	151	9/14/21 1340	Groundwater
152	152	9/14/21 0939	Groundwater
153	153		Groundwater
154	154		Groundwater
155	155		Groundwater
156	156		Groundwater
157	157		Groundwater
252	252	9/19/21 1132	Groundwater
253	253		Groundwater
304	304	9/14/21 0936	Groundwater

Relinquished By: [Signature] Date/Time: 9/14/21 1830

Received By: [Signature] Date/Time: 9/14/21 1830

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EH
9/15/21

CHAIN OF CUSTODY

Pg 2 of 3 Worksheet # 11081645

LAB INC. 5445 Horseshoe Lane Road, Coltraville, IL 62234 Phone (918) 344-1024 Fax (918) 344-1005

Client: Vidtra Energy
Address: 1505 Eastport Plaza Drive
City/State/Zip: Coltraville, IL 62234
Contact: Brian Voelker **Phone:** (217) 412-6655
Email: brian.voelker@vidtraenergy.com **Fax:**

Sample in ICE BLUE ICE NO ICE °C LTSM
 Preserved in LAB FIELD **FOR LAB USE ONLY**
LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply. Yes No
 Are these samples known to be hazardous? Yes No
 Are there any regulated reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section. Yes No

Client Comments:
 Metals selection per program requirements.
 Program reports: EPA 821, 805, 805 Closure, 805 Operating, and NPDES

PROJECT NAME/NUMBER: Baldwin Groundwater Q3 2021
SAMPLE COLLECTOR'S NAME:

Sample and Type of Containers		INDICATE ANALYSIS REQUESTED													
LAB	FIELD	TOX	HEAVY	LEAD	COB	AMMONIA	AMMONIA	TRIP	PHENOL	PHENOL	PHENOL	PHENOL	PHENOL	PHENOL	PHENOL

RESULTS REQUESTED:
 Standard 1-2 Day (100% Exchange)
 Other 3 Day (50% Exchange)

BILLING INSTRUCTIONS:

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	TOX	HEAVY	LEAD	COB	AMMONIA	AMMONIA	TRIP	PHENOL	PHENOL	PHENOL	PHENOL	PHENOL
306	306	9/19/21 1553	Groundwater	2	2										
350	350	9/19/21 1553	Groundwater	2	2										
352	352	9/19/21 1544	Groundwater	2	2										
355	355		Groundwater	2	2										
356	356		Groundwater	1	1										
366	366		Groundwater	1	1										
369	369		Groundwater	1	1										
370	370		Groundwater	1	1										
375	375	9/19/21 1447	Groundwater	1	1										
377	377	9/19/21 1431	Groundwater	1	1										
382	382		Groundwater	1	1										

Relinquished By: *[Signature]* **Date/Time:** 9/19/21 1850
Received By: *[Signature]* **Date/Time:** 9/19/21 1830

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.labinc.com for terms and conditions.

CHAIN OF CUSTODY

Pg. 1 of 1 Worksheet # 71021545

TEST LAB, INC. 5445 Horseshoe Lake Road, Collinsville, IL 62224 Phone (618) 344-1004 Fax (618) 344-1005

Client: Vistra Energy
 Address: 1500 Eastport Plaza Drive
 City/State/Zip: Collinsville IL 62234
 Contact: Brian Vorkler Phone: (217) 412-6625
 Email: brian.vorkler@vistraenergy.com Fax:

Sample in: ICE BLUE ICE NO ICE 2.8 °C LTOR
 Preserved in: LAB FIELD **FOR LAB USE ONLY**
 LAB NOTES:

Are these samples known to be involved in litigation? If yes, a surcharge will apply. Yes No
 Are these samples known to be hazardous? Yes No
 Are there any regulated reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section. Yes No

Client Comments:
 Method selection per program requirements.
 If program reports: IEPA, 601, 602, 603, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

PROJECT NAME/NUMBER: Baldwin Groundwater Q3 2021
 SAMPLE COLLECTOR'S NAME:

RESULTS REQUESTED: Standard 1-2 Day (100% Surcharge) Other
 3 Day (50% Surcharge)

BILLING INSTRUCTIONS:

# and Type of Containers		INDICATE ANALYSIS REQUESTED									
LAB USE ONLY		ASBESTOS	BARITUM	COBALT	COD	COD CHL	COD CHL	COD CHL	COD CHL	COD CHL	COD CHL
1	1										
1	1										
1	1										
1	1										
2	2										
2	2										
2	2										
1	1										
2	2										

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
383	383	8/13/21 1624	Groundwater
384	384	8/13/21 1535	Groundwater
390	390	8/13/21 1535	Groundwater
391	391	8/13/21 1535	Groundwater
104DR	104DR	8/14/21 0932	Groundwater
104SR	104SR	8/14/21 0915	Groundwater
304 DUP	304 DUP	8/14/21 0945	Groundwater
6A, 6B, 102, 104, Source Water			Groundwater
Field Blank	Field Blank	8/14/21 1015	Groundwater

Relinquished By: [Signature] Date/Time: 8/14/21 8:13:30

Received By: [Signature] Date/Time: 8/14/21 18:30

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.tetatech.com for terms and conditions.

October 12, 2021

Steve Wiskes
Ramboll
234 W. Florida St.
5th Floor
Milwaukee, WI 53204
TEL: (414) 837-3614
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Groundwater Q3 2021

WorkOrder: 21081646

Dear Steve Wiskes:

TEKLAB, INC received 16 samples on 9/16/2021 1:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	14
Dates Report	15
Receiving Check List	16
Chain of Custody	Appended

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

Cooler Receipt Temp: 1.8 °C

An employee of Teklab, Inc. collected the sample(s).

BA_601_TPZ-164_Source Water was not collected; the location was not accessible. EAH 9/17/21

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

This report contains CCR 601 data. EAH 10/12/21

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

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Lenexa, KS 66214

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Email EHurley@teklabinc.com

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Address 1319 Butterfield Rd.
Downers Grove, IL 60515

Phone (630) 324-6855

Fax

Email arenner@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081646-001
Matrix: GROUNDWATER

Work Order: 21081646
Report Date: 12-Oct-21
Client Sample ID: 304
Collection Date: 09/14/2021 9:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895
Radium-228	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081646-002
Matrix: GROUNDWATER

Work Order: 21081646
Report Date: 12-Oct-21
Client Sample ID: 306
Collection Date: 09/16/2021 12:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895
Radium-228	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081646-004
Matrix: GROUNDWATER

Work Order: 21081646
Report Date: 12-Oct-21
Client Sample ID: 356
Collection Date: 09/15/2021 14:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895
Radium-228	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081646-006
Matrix: GROUNDWATER

Work Order: 21081646
Report Date: 12-Oct-21
Client Sample ID: 369
Collection Date: 09/15/2021 12:41

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895
Radium-228	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081646-007
Matrix: GROUNDWATER

Work Order: 21081646
Report Date: 12-Oct-21
Client Sample ID: 370
Collection Date: 09/15/2021 11:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895
Radium-228	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081646-010
Matrix: GROUNDWATER

Work Order: 21081646
Report Date: 12-Oct-21
Client Sample ID: 382
Collection Date: 09/15/2021 10:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895
Radium-228	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021
Lab ID: 21081646-015
Matrix: GROUNDWATER

Work Order: 21081646
Report Date: 12-Oct-21
Client Sample ID: 304 DUP
Collection Date: 09/14/2021 9:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895
Radium-228	*	0		See Attached	pci/L	1	09/30/2021 0:00	R300895



Sample Summary

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21081646-001	304	Groundwater	1	09/14/2021 9:48
21081646-002	306	Groundwater	1	09/16/2021 12:31
21081646-004	356	Groundwater	1	09/15/2021 14:06
21081646-006	369	Groundwater	1	09/15/2021 12:41
21081646-007	370	Groundwater	1	09/15/2021 11:35
21081646-010	382	Groundwater	1	09/15/2021 10:26
21081646-015	304 DUP	Groundwater	1	09/14/2021 9:48



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21081646-001A	304	09/14/2021 9:48	09/16/2021 13:50		
EPA 903.0/904.0, Radium 226/228		09/30/2021 0:00			
21081646-002A	306	09/16/2021 12:31	09/16/2021 13:50		
EPA 903.0/904.0, Radium 226/228		09/30/2021 0:00			
21081646-004A	356	09/15/2021 14:06	09/16/2021 13:50		
EPA 903.0/904.0, Radium 226/228		09/30/2021 0:00			
21081646-006A	369	09/15/2021 12:41	09/16/2021 13:50		
EPA 903.0/904.0, Radium 226/228		09/30/2021 0:00			
21081646-007A	370	09/15/2021 11:35	09/16/2021 13:50		
EPA 903.0/904.0, Radium 226/228		09/30/2021 0:00			
21081646-010A	382	09/15/2021 10:26	09/16/2021 13:50		
EPA 903.0/904.0, Radium 226/228		09/30/2021 0:00			
21081646-015A	304 DUP	09/14/2021 9:48	09/16/2021 13:50		
EPA 903.0/904.0, Radium 226/228		09/30/2021 0:00			



Receiving Check List

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21081646

Client Project: Baldwin Groundwater Q3 2021

Report Date: 12-Oct-21

Carrier: Joseph Riley

Received By: PWR

Completed by:

Reviewed by:

On:

17-Sep-21

Ellie Hopkins

17-Sep-21

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 1.8 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input type="checkbox"/> | Lab <input type="checkbox"/> | NA <input checked="" type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

304, 350, 375, 377, 383, 384, 391, and 304 DUP on 09/14/2021 at 1830 by Patrick Riley (on ice 2.8C - LTG# 1). ERH 9/17/21

pH strip #77366 - ERH 9/15/21 and PR 9/16/21

Additional nitric acid (78366) was needed in 304, 375, 383, 384, and 304 DUP upon arrival at the laboratory. - ERH 9/15/21 and PR 9/16/21

CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Ramboll / Vistra Energy</u> Address: <u>234 W. Florida St.</u> City/State/Zip: <u>Milwaukee, WI 53204</u> Contact: <u>Steve Wiskes</u> Phone: <u>(414) 837-3614</u> Email: <u>steve.wiskes@ramboll.com</u> Fax:				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>1.8</u> °C LTG# <u>1</u> Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>77366</u> FOR LAB USE ONLY LAB NOTES: <u>pk 9/16/21</u> <u>Added (FIN03179366) PK 9/16</u>																																																																																																																																																																																																																																																													
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Client Comments: Subcontract to Pace-National. Two programs reports: CCR 601 and CCR 605																																																																																																																																																																																																																																																													
PROJECT NAME/NUMBER <u>Baldwin Groundwater Q3 2021</u>		SAMPLE COLLECTOR'S NAME <u>J. RILEY J. RILSON</u>		# and Type of Containers <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>UNP</td> <td>HNO3</td> <td>NaOH</td> <td>H2SO4</td> <td>HCL</td> <td>MeOH</td> <td>NaHSO4</td> <td>TSP</td> <td>Other</td> <td>Radium 226</td> <td>Radium 228</td> <td>Combined Ra</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Radium 226	Radium 228	Combined Ra									INDICATE ANALYSIS REQUESTED																																																																																																																																																																																																																																							
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RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS <u>Vistra PO# 1054243</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Lab Use Only</th> <th>Sample ID</th> <th>Date/Time Sampled</th> <th>Matrix</th> <th>UNP</th> <th>HNO3</th> <th>NaOH</th> <th>H2SO4</th> <th>HCL</th> <th>MeOH</th> <th>NaHSO4</th> <th>TSP</th> <th>Other</th> <th>Radium 226</th> <th>Radium 228</th> <th>Combined Ra</th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>21081646-001</td> <td>304</td> <td>9/14/21 0948</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>002</td> <td>306</td> <td>9/16/21 1237</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>003</td> <td>350</td> <td>9/14/21 1553</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>004</td> <td>356</td> <td>9/15/21 1406</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>005</td> <td>366</td> <td>9/15/21 0905</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>006</td> <td>369</td> <td>9/15/21 1241</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>007</td> <td>370</td> <td>9/15/21 1135</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>008</td> <td>375</td> <td>9/14/21 1947</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>009</td> <td>377</td> <td>9/14/21 1904</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>010</td> <td>382</td> <td>9/15/21 1026</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>011</td> <td>383</td> <td>9/15/21 1627</td> <td>Groundwater</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Radium 226	Radium 228	Combined Ra							21081646-001	304	9/14/21 0948	Groundwater	2								✓	✓	✓							002	306	9/16/21 1237	Groundwater	2								✓	✓	✓							003	350	9/14/21 1553	Groundwater	2								✓	✓	✓							004	356	9/15/21 1406	Groundwater	2								✓	✓	✓							005	366	9/15/21 0905	Groundwater	2								✓	✓	✓							006	369	9/15/21 1241	Groundwater	2								✓	✓	✓							007	370	9/15/21 1135	Groundwater	2								✓	✓	✓							008	375	9/14/21 1947	Groundwater	2								✓	✓	✓							009	377	9/14/21 1904	Groundwater	2								✓	✓	✓							010	382	9/15/21 1026	Groundwater	2								✓	✓	✓							011	383	9/15/21 1627	Groundwater	2								✓	✓	✓					
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Relinquished By 		Date/Time <u>9/14/21 1830</u> <u>9/16/21 1330</u>		Received By 		Date/Time <u>9/16/21 1350</u> <u>9/16/21 1350</u>																																																																																																																																																																																																																																																											

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CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 21081646

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: Ramboll / Vistra Energy
 Address: 234 W. Florida St.
 City/State/Zip: Milwaukee, WI 53204
 Contact: Steve Wiskes Phone: (414) 837-3614
 Email: steve.wiskes@ramboll.com Fax:

Samples on: ICE BLUE ICE NO ICE 1.8 °C LTG# 0
 Preserved in: LAB FIELD 7736 FOR LAB USE ONLY
 LAB NOTES: PK 9-16-21
Added HNO3 (78366) PR 9/16

Are these samples known to be involved in litigation? If yes, a surcharge will apply: Yes No
 Are these samples known to be hazardous? Yes No
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: Yes No

Client Comments:
 Subcontract to Pace-National.
 Two programs reports: CCR 601 and CCR 605

PROJECT NAME/NUMBER: Baldwin Groundwater Q3 2021
 SAMPLE COLLECTOR'S NAME:

and Type of Containers | INDICATE ANALYSIS REQUESTED

RESULTS REQUESTED: Standard 1-2 Day (100% Surcharge) Other 3 Day (50% Surcharge)
 BILLING INSTRUCTIONS:

UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Radium 226	Radium 228	Combined Ra								
	2								✓	✓	✓								
	2								✓	✓	✓								
	2								✓	✓	✓								
	2								✓	✓	✓								
	2								✓	✓	✓								

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
<u>21081646-012</u>	<u>384</u>	<u>9/13/21 1655</u>	<u>Groundwater</u>
<u>013</u>	<u>390</u>	<u>9/15/21 0821</u>	<u>Groundwater</u>
<u>014</u>	<u>391</u>	<u>9/15/21 1652</u>	<u>Groundwater</u>
<u>015</u>	<u>304 DUP</u>	<u>9/15/21 0948</u>	<u>Groundwater</u>
<u>016</u>	<u>BA_601_TPZ-164_Source Water</u>	<u>N/A</u>	<u>Groundwater</u>
			<u>Groundwater</u>
			<u>Groundwater</u>
			<u>Groundwater</u>
			<u>Groundwater</u>
			<u>Groundwater</u>
	<u>383</u>		<u>Groundwater</u>

Relinquished By: [Signature] Date/Time: 9/14/21 1330
9/16/21 1350

Received By: [Signature] Date/Time: 9/14/21 1830
9/16/21 1350

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CHAIN OF CUSTODY

TEK-LAB, INC. 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: Ramboll Energy
 Address: 234 W. Florida St
 City/State/Zip: Madison, WI 53204
 Contact: Steve Wiskes Phone: (414) 837-3814
 Email: steve.wiskes@ramboll.com Fax:

Samples on: ICE BLUE ICE NO ICE 2.8 "5 LTSM
 Preserved in: LAB FIELD FOR LAB USE ONLY
 LAB NOTES: 77300 HNO₃(78340) added to 304, 375, 383, 384, 304 DUP EH 9/15/21

Are these samples known to be involved in litigation? If yes, a surcharge will apply. Yes No
 Are these samples known to be hazardous? Yes No
 Are there any required reporting limits to be met on the requested analyses? If yes, please provide limits in the attachment section. Yes No

Client Comments:
Subcontract to Pace-National
Two programs reports: CCR 601 and CCR 605

PROJECT NAME/NUMBER: Baldwin Groundwater Q3 2021
 SAMPLE COLLECTOR'S NAME:
 RESULTS REQUESTED: Standard 1-2 Day (100% Surcharge) Other 3 Day (50% Surcharge)
 BILLING INSTRUCTIONS: Vistra # 1034243

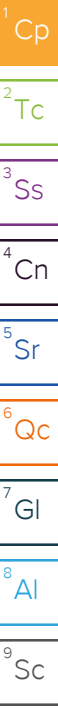
# and Type of Containers											INDICATE ANALYSIS REQUESTED		
LAB USE ONLY	CONC	HORN	HORN	HORN	MOI	HORN	HORN	TRIP	OTHER	OTHER	RADIUM 226	RADIUM 228	COTURNED Pb
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓
	2										✓	✓	✓

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
1037146-101	304	9/14/21 1447	Groundwater
1037146-102	306		Groundwater
1037146-103	350	9/15/21 1553	Groundwater
1037146-104	356		Groundwater
1037146-105	366		Groundwater
1037146-106	369		Groundwater
1037146-107	370		Groundwater
1037146-108	375	9/14/21 1447	Groundwater
1037146-109	377	9/14/21 1454	Groundwater
1037146-110	382		Groundwater
1037146-111	383	9/15/21 1624	Groundwater

Relinquished By: <u>[Signature]</u>	Date/Time: <u>9/15/21 1630</u>	Received By: <u>[Signature]</u>	Date/Time: <u>9/15/21 1630</u>
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EH
9/15/21



TEKLAB, Inc.

Sample Delivery Group: L1406345
Samples Received: 09/21/2021
Project Number: 21081646
Description:

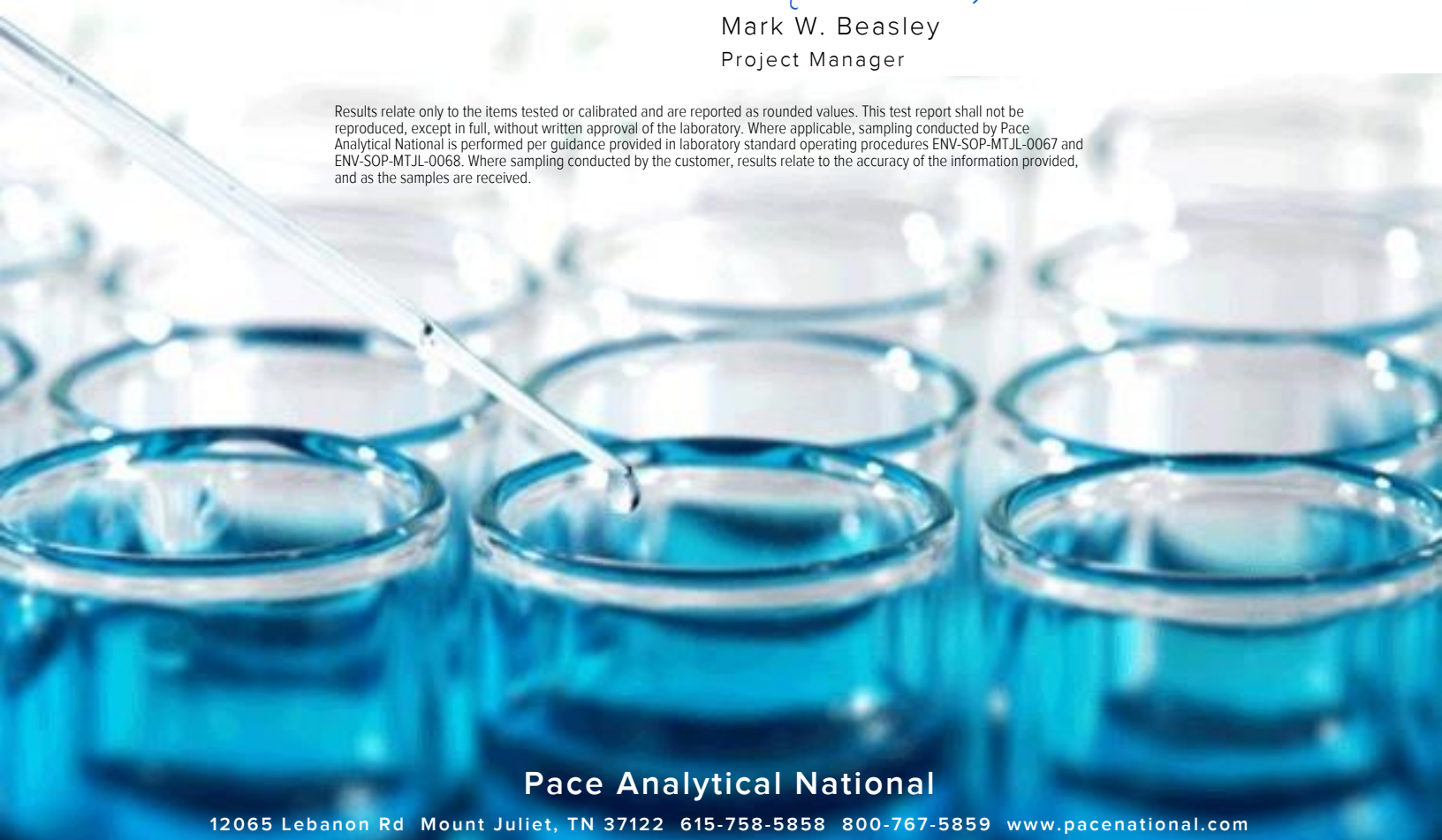
Report To: Elizabeth Hurley
5445 Horseshoe Lake Road
Collinsville, IL 62234

Entire Report Reviewed By:



Mark W. Beasley
Project Manager

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

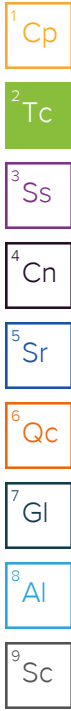


Pace Analytical National

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

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SAMPLE SUMMARY

21081646-001 L1406345-01 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/14/21 09:48
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

21081646-002 L1406345-02 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/16/21 12:31
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-003 L1406345-03 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/14/21 15:53
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-004 L1406345-04 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/15/21 14:06
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-005 L1406345-05 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/15/21 09:05
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-006 L1406345-06 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/15/21 12:41
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-007 L1406345-07 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/15/21 11:35
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

21081646-008 L1406345-08 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/14/21 14:47
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

21081646-009 L1406345-09 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/14/21 14:04
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-010 L1406345-10 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/15/21 10:26
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-011 L1406345-11 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/13/21 16:24
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-012 L1406345-12 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/13/21 16:55
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-013 L1406345-13 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/15/21 08:21
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

21081646-014 L1406345-14 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/14/21 16:52
09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

21081646-015 L1406345-15 Non-Potable Water

Collected by:
 Collected date/time: 09/14/21 09:58
 Received date/time: 09/21/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747254	1	09/30/21 10:55	10/01/21 23:09	RGT	Mt. Juliet, TN

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Sr
- ⁶Qc
- ⁷Gl
- ⁸Al
- ⁹Sc

CASE NARRATIVE

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



Mark W. Beasley
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.472	J	0.326	0.611	09/30/2021 12:25	WG1743819
(T) Barium	106			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	95.3			79.0-136	09/30/2021 12:25	WG1743819

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.744	J	0.589	0.932	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.272	J	0.263	0.321	10/01/2021 23:09	WG1747254
(T) Barium-133	90.5			30.0-143	10/01/2021 23:09	WG1747254

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.73		0.305	0.527	09/30/2021 12:25	WG1743819
(T) Barium	106			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	96.5			79.0-136	09/30/2021 12:25	WG1743819

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	8.20		1.43	0.888	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	6.48		1.12	0.361	10/01/2021 23:09	WG1747254
(T) Barium-133	96.6			30.0-143	10/01/2021 23:09	WG1747254

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.231	<u>U</u>	0.318	0.617	09/30/2021 12:25	WG1743819
(T) Barium	105			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	106			79.0-136	09/30/2021 12:25	WG1743819

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.940		0.756	0.889	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.940		0.438	0.272	10/01/2021 23:09	WG1747254
(T) Barium-133	93.3			30.0-143	10/01/2021 23:09	WG1747254

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0405	<u>U</u>	0.312	0.598	09/30/2021 12:25	WG1743819
(T) Barium	107			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	105			79.0-136	09/30/2021 12:25	WG1743819

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.336	<u>J</u>	0.586	0.873	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.336		0.274	0.275	10/01/2021 23:09	WG1747254
(T) Barium-133	92.7			30.0-143	10/01/2021 23:09	WG1747254

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.423	J	0.351	0.661	09/30/2021 12:25	WG1743819
(T) Barium	99.4			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	95.2			79.0-136	09/30/2021 12:25	WG1743819

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.478	J	0.551	1.02	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0558	U	0.200	0.359	10/01/2021 23:09	WG1747254
(T) Barium-133	92.4			30.0-143	10/01/2021 23:09	WG1747254

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.15		0.318	0.57	09/30/2021 12:25	WG1743819
(T) Barium	96.3			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	106			79.0-136	09/30/2021 12:25	WG1743819

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.28		0.490	0.809	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.131	J	0.172	0.239	10/01/2021 23:09	WG1747254
(T) Barium-133	89.2			30.0-143	10/01/2021 23:09	WG1747254

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-1.18	<u>U</u>	0.392	0.782	09/30/2021 12:25	WG1743819
(T) Barium	95.8			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	93.9			79.0-136	09/30/2021 12:25	WG1743819

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.248	<u>U</u>	0.624	1.05	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.248	<u>J</u>	0.232	0.264	10/01/2021 23:09	WG1747254
(T) Barium-133	92.8			30.0-143	10/01/2021 23:09	WG1747254

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.132	<u>U</u>	0.366	0.698	09/30/2021 12:25	WG1743819
(T) Barium	90.1			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	98.9			79.0-136	09/30/2021 12:25	WG1743819

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.132	<u>U</u>	0.413	0.912	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0130	<u>U</u>	0.0466	0.214	10/01/2021 23:09	WG1747254
(T) Barium-133	96.0			30.0-143	10/01/2021 23:09	WG1747254

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.715		0.330	0.61	09/30/2021 12:25	WG1743819
(T) Barium	95.9			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	94.7			79.0-136	09/30/2021 12:25	WG1743819

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.715	J	0.501	1.01	10/01/2021 23:09	WG1747254

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0717	U	0.171	0.4	10/01/2021 23:09	WG1747254
(T) Barium-133	99.6			30.0-143	10/01/2021 23:09	WG1747254

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.337	<u>U</u>	0.423	0.803	09/30/2021 12:25	WG1743819
(T) Barium	103			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	95.9			79.0-136	09/30/2021 12:25	WG1743819

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.921	<u>J</u>	0.723	0.975	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.584		0.300	0.172	10/01/2021 23:09	WG1747254
(T) Barium-133	105			30.0-143	10/01/2021 23:09	WG1747254

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.854		0.319	0.585	09/30/2021 12:25	WG1743819
(T) Barium	97.8			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	102			79.0-136	09/30/2021 12:25	WG1743819

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.968		0.458	0.759	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.114	J	0.139	0.174	10/01/2021 23:09	WG1747254
(T) Barium-133	105			30.0-143	10/01/2021 23:09	WG1747254

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.06		0.331	0.6	09/30/2021 12:25	WG1743819
(T) Barium	90.5			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	100			79.0-136	09/30/2021 12:25	WG1743819

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.15		0.490	0.854	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0945	<u>U</u>	0.159	0.254	10/01/2021 23:09	WG1747254
(T) Barium-133	105			30.0-143	10/01/2021 23:09	WG1747254

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.906		0.339	0.621	09/30/2021 12:25	WG1743819
(T) Barium	110			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	93.4			79.0-136	09/30/2021 12:25	WG1743819

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.08		0.546	0.905	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.170	J	0.207	0.284	10/01/2021 23:09	WG1747254
(T) Barium-133	104			30.0-143	10/01/2021 23:09	WG1747254

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.01		0.338	0.616	09/30/2021 12:25	WG1743819
(T) Barium	89.6			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	98.6			79.0-136	09/30/2021 12:25	WG1743819

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.32		0.602	0.896	10/01/2021 23:09	WG1747254

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.313		0.264	0.28	10/01/2021 23:09	WG1747254
(T) Barium-133	103			30.0-143	10/01/2021 23:09	WG1747254

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.291	<u>U</u>	0.301	0.588	09/30/2021 12:25	WG1743819
(T) Barium	99.4			62.0-143	09/30/2021 12:25	WG1743819
(T) Yttrium	97.5			79.0-136	09/30/2021 12:25	WG1743819

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0191	<u>U</u>	0.497	0.954	10/01/2021 23:09	WG1747254

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0191	<u>U</u>	0.196	0.366	10/01/2021 23:09	WG1747254
(T) Barium-133	105			30.0-143	10/01/2021 23:09	WG1747254

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3711278-1 09/30/21 12:25

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-228	0.0196	<u>U</u>	0.440
(T) Barium	104		
(T) Yttrium	96.4		

L1400301-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1400301-07 09/30/21 12:25 • (DUP) R3711278-5 09/30/21 12:25

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.778	-0.796	1	200	1.69	<u>U</u>	20	3
(T) Barium	109	104						
(T) Yttrium	92.7	98.1						

Laboratory Control Sample (LCS)

(LCS) R3711278-2 09/30/21 12:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.03	101	80.0-120	
(T) Barium			94.8		
(T) Yttrium			101		

L1400258-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1400258-01 09/30/21 12:25 • (MS) R3711278-3 09/30/21 12:25 • (MSD) R3711278-4 09/30/21 12:25

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.567	21.0	19.5	122	113	1	70.0-130			7.22		20
(T) Barium		105			145	129			<u>C1</u>				
(T) Yttrium		98.6			104	104							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3712672-1 10/01/21 23:09

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-226	-0.00409	<u>U</u>	0.0868
(T) Barium-133	95.1		

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1409188-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1409188-03 10/01/21 23:09 • (DUP) R3712672-5 10/01/21 23:09

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
Radium-226	0.0752	-0.0400	1	200	0.744	<u>U</u>	20	3
(T) Barium-133	105	90.1						

Laboratory Control Sample (LCS)

(LCS) R3712672-2 10/01/21 23:09

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	4.85	96.7	80.0-120	
(T) Barium-133			92.7		

L1406345-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1406345-01 10/01/21 23:09 • (MS) R3712672-3 10/01/21 23:09 • (MSD) R3712672-4 10/01/21 23:09

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.1	0.272	20.0	17.2	98.3	84.2	1	75.0-125			15.3		20
(T) Barium-133		90.5			85.3	98.3							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab FieldTeklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234Cooler Temp: Sampler: D. Wilson J. RileyQC Level: Comments: **Please Issue reports and invoices via email only**

Please analyze for Radium 22/228 per methods specified for Vistra/Ramboll projects.

IL site

Batch QC is required for all analyses requested.

Any changes to analysis/methods must be approved by Teklab, Inc.

Project# Contact: Email: Requested Due Date: Billing/PO: Phone:

11406345

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228													
-01	21081646 - 001	9/14/21 0948	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-02	21081646 - 002	9/16/21 1231	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-03	21081646 - 003	9/14/21 1553	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-04	21081646 - 004	9/15/21 1406	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-05	21081646 - 005	9/15/21 0905	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-06	21081646 - 006	9/15/21 1241	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-07	21081646 - 007	9/15/21 1135	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-08	21081646 - 008	9/14/21 1447	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-09	21081646 - 009	9/14/21 1404	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-10	21081646 - 010	9/15/21 1026	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-11	21081646 - 011	9/13/21 1624	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Relinquished By	Date/Time	Received By	Date/Time
<u>allie stiers</u>	<u>9/17/21 1600</u>		
		<u>Wendy Paul</u>	<u>9/20/21 9:30</u>

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
 5445 Horseshoe Lake Road
 Collinsville, IL 62234

Cooler Temp: Sampler: J. Wilson J. Riley QC Level:

Comments: **Please Issue reports and invoices via email only**
 Please analyze for Radium 22/228 per methods specified for Vistra/Ramboll projects.
 IL site
 Batch QC is required for all analyses requested.

Project#

Contact: Email:
 Requested Due Date: Billing/PO:

Any changes to analysis/methods must be approved by Teklab, Inc.
 Phone:

L1406345

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228									
-12	21081646 - 012	9/13/21 1655	HNO3	Groundwater	✓									
-13	21081646 - 013	9/15/21 0821	HNO3	Groundwater	✓									
-14	21081646 - 014	9/14/21 1652	HNO3	Groundwater	✓									
-15	21081646 - 015	9/14/21 0948	HNO3	Groundwater	✓									
			HNO3	Groundwater	✓									
			HNO3	Groundwater	✓									
			HNO3	Groundwater	✓									
			NO3	Groundwater	✓									
			NO3	Groundwater	✓									
			NO3	Groundwater	✓									
			NO3	Groundwater	✓									

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable
 COC Signed/Accurate: Y N VOA Zero Headspace: Y N
 Bottles arrive intact: Y N Pres. Correct/Check: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 RAD Screen <0.5 mR/hr: Y N

*Relinquished By	Date/Time	Received By	Date/Time
<u>Scott Horn</u>	<u>9/17/21 1600</u>		
		<u>[Signature]</u>	<u>9/20/21 9:30</u>

October 12, 2021

Steve Wiskes
Ramboll
234 W. Florida St.
5th Floor
Milwaukee, WI 53204
TEL: (414) 837-3614
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Groundwater Q3 2021 Resampling

WorkOrder: 21091242

Dear Steve Wiskes:

TEKLAB, INC received 1 sample on 9/21/2021 3:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	8
Dates Report	9
Receiving Check List	10
Chain of Custody	Appended

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

Cooler Receipt Temp: 3.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021 Resampling
Lab ID: 21091242-001
Matrix: AQUEOUS

Work Order: 21091242
Report Date: 12-Oct-21
Client Sample ID: BA_601_TPZ-164_Source Water
Collection Date: 09/21/2021 12:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/06/2021 0:00	R301046
Radium-228	*	0		See Attached	pci/L	1	10/06/2021 0:00	R301046



Sample Summary

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21091242-001	BA_601_TPZ-164_Source Water	Aqueous	1	09/21/2021 12:45



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
21091242-001A	BA_601_TPZ-164_Source Water	09/21/2021 12:45	09/21/2021 15:00		
	EPA 903.0/904.0, Radium 226/228				10/06/2021 0:00



Receiving Check List

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 21091242

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 12-Oct-21

Carrier: Joe Riley

Received By: PWR

Completed by:

Mary E. Kemp

Reviewed by:

Elizabeth A. Hurley

On:

21-Sep-21

Mary E. Kemp

On:

21-Sep-21

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 3.8 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input type="checkbox"/> | Lab <input type="checkbox"/> | NA <input checked="" type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

pH strip #77366. - ERH/MKemp - 9/21/2021 4:36:45 PM

Additional nitric acid (78366) was needed upon arrival at the laboratory. - ERH/MKemp - 9/21/2021 4:36:46 PM

TEKLAB, Inc.

Sample Delivery Group: L1408697

Samples Received: 09/24/2021

Project Number: 21091242

Description:

Report To: Elizabeth Hurley
5445 Horseshoe Lake Road
Collinsville, IL 62234

Entire Report Reviewed By:












Mark W. Beasley
Project Manager

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

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

21091242-001 L1408697-01 Non-Potable Water

Collected by: _____ Collected date/time: 09/21/21 12:45 Received date/time: 09/24/21 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method Calculation	WG1747258	1	10/04/21 15:15	10/06/21 13:20	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1747258	1	10/04/21 15:15	10/06/21 11:02	RGT	Mt. Juliet, TN

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Sr
- ⁶Qc
- ⁷Gl
- ⁸Al
- ⁹Sc

CASE NARRATIVE

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



Mark W. Beasley
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.724		0.279	0.519	10/06/2021 13:20	WG1747334
(T) Barium	105			62.0-143	10/06/2021 13:20	WG1747334
(T) Yttrium	104			79.0-136	10/06/2021 13:20	WG1747334

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.865		0.463	0.78	10/06/2021 13:20	WG1747258

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.140	J	0.184	0.261	10/06/2021 11:02	WG1747258
(T) Barium-133	98.0			30.0-143	10/06/2021 11:02	WG1747258

Method Blank (MB)

(MB) R3713537-1 10/06/21 13:20

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-228	0.412		0.409
(T) Barium	105		
(T) Yttrium	97.0		

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3713537-5 10/06/21 13:20

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	10.7	10.7	1	16.0	1.49		20	3
(T) Barium	160	160				C1		
(T) Yttrium	102	102						

Laboratory Control Sample (LCS)

(LCS) R3713537-2 10/06/21 13:20

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.63	92.6	80.0-120	
(T) Barium			102		
(T) Yttrium			105		

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3713537-3 10/06/21 13:20 • (MSD) R3713537-4 10/06/21 13:20

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	20.0	20.0	20.2	113	114	1	70.0-130			1.04		20
(T) Barium					106	105							
(T) Yttrium					98.5	103							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3713705-1 10/06/21 17:25

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-226	0.00657	<u>U</u>	0.0328
(T) Barium-133	116		

L1407782-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1407782-01 10/06/21 11:02 • (DUP) R3713705-5 10/06/21 17:25

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
Radium-226	0.0588	-0.0276	1	200	0.358	<u>U</u>	20	3
(T) Barium-133	101	117						

Laboratory Control Sample (LCS)

(LCS) R3713705-2 10/06/21 17:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	5.03	100	80.0-120	
(T) Barium-133			119		

L1408697-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408697-01 10/06/21 11:02 • (MS) R3713705-3 10/06/21 17:25 • (MSD) R3713705-4 10/06/21 17:25

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.1	0.140	19.3	17.6	95.2	86.6	1	75.0-125			9.34		20
(T) Barium-133		98.0			120	110							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

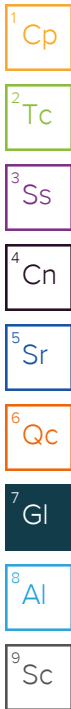
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

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

Qualifier	Description
C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

B149

Pg ___ of ___

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
 5445 Horseshoe Lake Road
 Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Comments: **Please issue reports and invoices via email only**
 Please analyze for Radium 22/228 per methods specified for Vistra/Ramboll projects.
 IL site
 Batch QC is required for all analyses requested.
 Any changes to analysis/methods must be approved by Teklab, Inc.
 Phone:

Project#

Contact: Email:
 Requested Due Date: Billing/PO:

L1408697

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix
-01	21091242-001	9/21/21 1245	HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			3	Groundwater
			3	Groundwater
			3	Groundwater
			3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater

Ra226/228																				
-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable
 COC Signed/Accurate: Y N VOA Zero Headspace: Y N
 Bottles arrive intact: Y N Pres. Correct/Check: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 RAD Screen <0.5 mR/hr: Y N

*Relinquished By	Date/Time	Received By	Date/Time
<i>Mary Kemp</i>	<i>9/22/21 1600</i>		
		<i>[Signature]</i>	<i>9/24/21 1545</i>

October 14, 2021

Brian Voelker
Vistra Energy
1500 Eastport Plaza Drive
Collinsville, IL 62234
TEL: (618) 343-7824
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Groundwater Q3 2021 Resampling

WorkOrder: 21091714

Dear Brian Voelker:

TEKLAB, INC received 1 sample on 9/29/2021 3:17:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	8
Dates Report	9
Quality Control Results	10
Receiving Check List	12
Chain of Custody	Appended

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

Qualifiers

- | | |
|---|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range |
| H - Holding times exceeded | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

Cooler Receipt Temp: 5.2 °C

An employee of Teklab, Inc. collected the sample(s).

This report contains CCR 601 data. EAH 10/14/21

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415

Phone (217) 698-1004

Fax (217) 698-1005

Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214

Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515

Phone (630) 324-6855

Fax

Email arenner@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
Client Project: Baldwin Groundwater Q3 2021 Resampling
Lab ID: 21091714-001
Matrix: GROUNDWATER

Work Order: 21091714
Report Date: 14-Oct-21
Client Sample ID: BA_601_TPZ-164_Source Water
Collection Date: 09/29/2021 11:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		4.05	ft	1	09/29/2021 11:53	R300977
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		2.0	NTU	1	09/29/2021 11:53	R300977
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-165	mV	1	09/29/2021 11:53	R300977
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		17.7	°C	1	09/29/2021 11:53	R300977
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.21	mg/L	1	09/29/2021 11:53	R300977
SW-846 9040B								
pH, Field	*	1.00		7.16		1	09/29/2021 11:53	R300977
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1250	µS/cm	1	09/29/2021 11:53	R300977
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20	B	544	mg/L	1	10/04/2021 15:24	R300870
<i>The QC check was outside of control limits at 122.4%. The acceptable range is 85 - 115 % recovery. Sample result exceeds 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>								
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		167	mg/L	10	09/30/2021 23:34	R299735



Sample Summary

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21091714-001	BA_601_TPZ-164_Source Water	Groundwater	1	09/29/2021 11:53



Dates Report

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
21091714-001A	BA_601_TPZ-164_Source Water	09/29/2021 11:53	09/29/2021 15:17		
	Field Elevation Measurements				09/29/2021 11:53
	Standard Methods 2130 B Field				09/29/2021 11:53
	Standard Methods 18th Ed. 2580 B Field				09/29/2021 11:53
	Standard Methods 2540 C (Total) 1997, 2011				10/04/2021 15:24
	Standard Methods 2550 B Field				09/29/2021 11:53
	Standard Methods 4500-O G Field				09/29/2021 11:53
	SW-846 9036 (Total)				09/30/2021 23:34
	SW-846 9040B				09/29/2021 11:53
	SW-846 9050A				09/29/2021 11:53



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

SW-846 9040B

Batch R300977		SampType: LCS		Units							Date Analyzed
SampID: LCS-R300977											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH, Field	*	1.00		7.04	7.000	0	100.6	98.57	101.4	09/29/2021	

SW-846 9050A

Batch R300977		SampType: LCS		Units µS/cm							Date Analyzed
SampID: LCS-R300977											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	1.00		1500	1412	0	106.3	90	110	09/29/2021	

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R300870		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids		20	S	38	16.00	0	237.5	-100	100	10/04/2021	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/04/2021	
Total Dissolved Solids		20	S	124	16.00	0	775.0	-100	100	10/04/2021	

Batch R300870		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		930	1000	0	93.0	90	110	10/04/2021	
Total Dissolved Solids		20	B	986	1000	0	98.6	90	110	10/04/2021	
Total Dissolved Solids		20	B	956	1000	0	95.6	90	110	10/04/2021	
Total Dissolved Solids		20		916	1000	0	91.6	90	110	10/04/2021	

Batch R300870		SampType: DUP		Units mg/L				RPD Limit: 5		Date Analyzed
SampID: 21091714-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		20	B	558				544.0	2.54	10/04/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091714

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 14-Oct-21

SW-846 9036 (TOTAL)

Batch R299735		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	09/30/2021	

Batch R299735		SampType: LCS		Units mg/L							
SampID: ICB/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		20	20.00	0	98.6	90	110	09/30/2021	

Batch R299735		SampType: MS		Units mg/L							
SampID: 21091714-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		354	200.0	166.8	93.4	85	115	09/30/2021	

Batch R299735		SampType: MSD		Units mg/L							
SampID: 21091714-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		359	200.0	166.8	96.2	353.6	1.53	09/30/2021	



Receiving Check List

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: 21091714

Client Project: **Baldwin Groundwater Q3 2021 Resampling**

Report Date: 14-Oct-21

Carrier: Joe Riley

Received By: ERH

Completed by:

Mary E. Kemp

Reviewed by:

Elizabeth A. Hurley

On:

29-Sep-21

Mary E. Kemp

On:

29-Sep-21

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 5.2 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

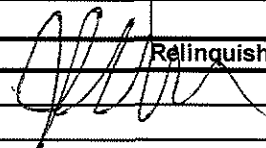
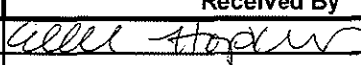
- | | | | |
|---|---|-----------------------------|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

CHAIN OF CUSTODY

Pg 1 of 3 Workorder # 21091714

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Vistra Energy (Ramboll project)</u> Address: <u>1500 Eastport Plaza Drive</u> City/State/Zip: <u>Collinsville, IL 62234</u> Contact: <u>Brian Voelker</u> Phone: <u>(217) 412-6605</u> Email: <u>brian.voelker@vistraenergy.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>5-2</u> °C LTG# <u>5</u> Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: _____			
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Client Comments: Field Tests: elevations, pH, Conductivity, Temp., DO, ORP, Turbidity 1 program report: 601			
PROJECT NAME/NUMBER <u>Baldwin Groundwater Q3 2021 Resampling</u>		SAMPLE COLLECTOR'S NAME <u>J. RILEY A. BRIDGES</u>		# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other		INDICATE ANALYSIS REQUESTED Field Tests Sulfate TDS	
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS PO# 1054243					
Lab Use Only <u>21091714-001</u>	Sample ID <u>BA_601_TPZ-164_Source Water</u>	Date/Time Sampled <u>9/29/21 1153</u>	Matrix Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater Groundwater	1	✓ ✓ ✓		
Relinquished By 		Date/Time <u>9/29/21 1517</u>		Received By 		Date/Time <u>9/29/21 1517</u>	

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

October 13, 2021

Brian Voelker
Vistra Energy
1500 Eastport Plaza Drive
Collinsville, IL 62234
TEL: (618) 343-7824
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Groundwater Q3 2021 Resampling

WorkOrder: 21091241

Dear Brian Voelker:

TEKLAB, INC received 2 samples on 9/21/2021 3:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

This reporting package includes the following:

Cover Letter	1
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Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	8
Dates Report	9
Quality Control Results	10
Receiving Check List	18
Chain of Custody	Appended

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

Qualifiers

- | | |
|---|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range |
| H - Holding times exceeded | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

Cooler Receipt Temp: 3.6 °C

An employee of Teklab, Inc. collected the sample(s).

Dissolved Cl, SO4, TDS, and metals and total metals will be reported for 154 due to a laboratory error/sample loss on WO# 21081645. (ehurley - 9/22/2021 5:39:00 PM)

Sulfate and TDS cannot be reported for BA_601_TPZ-164_Source Water due to laboratory error. The sample will be recollected. (ehurley - 9/29/2021 9:31:01 AM)

This report contains CCR 601 data. EAH 10/13/21

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Vistra Energy
 Client Project: Baldwin Groundwater Q3 2021 Resampling
 Lab ID: 21091241-002
 Matrix: GROUNDWATER

Work Order: 21091241
 Report Date: 13-Oct-21
 Client Sample ID: BA_601_TPZ-164_Source Water
 Collection Date: 09/21/2021 12:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		3.75	ft	1	09/21/2021 12:45	R299594
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		1.2	NTU	1	09/21/2021 12:45	R299594
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-176	mV	1	09/21/2021 12:45	R299594
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		17.7	°C	1	09/21/2021 12:45	R299594
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.22	mg/L	1	09/21/2021 12:45	R299594
SW-846 9040B								
pH, Field	*	1.00		7.09		1	09/21/2021 12:45	R299594
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1200	µS/cm	1	09/21/2021 12:45	R299594
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		260	mg/L	1	09/22/2021 8:33	R299233
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	09/22/2021 8:33	R299233
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.20	mg/L	1	09/22/2021 8:50	R299229
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		52	mg/L	10	09/23/2021 22:25	R299362
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100	S	70.8	mg/L	1	09/25/2021 15:39	182233
Magnesium	NELAP	0.050		29.1	mg/L	1	09/25/2021 15:39	182233
Potassium	NELAP	0.500		10.9	mg/L	5	09/28/2021 15:38	182233
Sodium	NELAP	0.050	S	87.4	mg/L	1	09/25/2021 15:39	182233
<i>Matrix spike control limits for Ca and Na are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/29/2021 14:11	182234
Arsenic	NELAP	0.0010		0.0015	mg/L	5	09/30/2021 20:24	182234
Barium	NELAP	0.0010		0.0681	mg/L	5	09/29/2021 14:11	182234
Boron	NELAP	0.0250		1.77	mg/L	5	10/04/2021 14:48	182234
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	09/29/2021 14:11	182234
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	09/29/2021 14:11	182234
Lead	NELAP	0.0010	J	0.0006	mg/L	5	09/30/2021 20:24	182234
Lithium	*	0.0030		0.0174	mg/L	5	10/04/2021 14:48	182234
Molybdenum	NELAP	0.0015		0.0219	mg/L	5	09/29/2021 14:11	182234
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/29/2021 14:11	182234



Sample Summary

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21091241-002	BA_601_TPZ-164_Source Water	Groundwater	2	09/21/2021 12:45



Dates Report

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21091241-002A	BA_601_TPZ-164_Source Water	09/21/2021 12:45	09/21/2021 15:00		
	Field Elevation Measurements				09/21/2021 12:45
	Standard Methods 2130 B Field				09/21/2021 12:45
	Standard Methods 18th Ed. 2580 B Field				09/21/2021 12:45
	Standard Methods 2320 B (Total) 1997, 2011				09/22/2021 8:33
	Standard Methods 2320 B 1997, 2011				09/22/2021 8:33
	Standard Methods 2550 B Field				09/21/2021 12:45
	Standard Methods 4500-O G Field				09/21/2021 12:45
	SW-846 9040B				09/21/2021 12:45
	SW-846 9050A				09/21/2021 12:45
	SW-846 9214 (Total)				09/22/2021 8:50
	SW-846 9251 (Total)				09/23/2021 22:25
21091241-002B	BA_601_TPZ-164_Source Water	09/21/2021 12:45	09/21/2021 15:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/24/2021 12:52	09/25/2021 15:39
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/24/2021 12:52	09/28/2021 15:38
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/24/2021 12:56	09/29/2021 14:11
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/24/2021 12:56	09/30/2021 20:24
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/24/2021 12:56	10/04/2021 14:48



Quality Control Results

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Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

SW-846 9040B

Batch R299594		SampType: LCS		Units							
SampID: LCS-R299594											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH, Field	*	1.00		7.04	7.000	0	100.6	98.57	101.4	09/21/2021	

SW-846 9050A

Batch R299594		SampType: LCS		Units µS/cm							
SampID: LCS-R299594											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	1.00		1420	1412	0	100.4	90	110	09/21/2021	

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R299553		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/27/2021	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/27/2021	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/27/2021	

Batch R299553		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		980	1000	0	98.0	90	110	09/27/2021	
Total Dissolved Solids		20		928	1000	0	92.8	90	110	09/27/2021	
Total Dissolved Solids		20		942	1000	0	94.2	90	110	09/27/2021	

Batch R299553		SampType: DUP		Units mg/L						RPD Limit: 5		Date Analyzed
SampID: 21091241-001ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		20		532				530.0	0.38	09/27/2021		

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R299179		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/20/2021	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/20/2021	



Quality Control Results

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Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R299179		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.25		1.62	1.520	0	106.9	90	110	09/20/2021	
Nitrogen, Nitrite (as N)		0.25		1.64	1.520	0	107.9	90	110	09/20/2021	

Batch R299179		SampType: MS		Units mg/L							
SampID: 21091241-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.54	0.5000	0.008000	106.0	85	115	09/21/2021	

Batch R299179		SampType: MSD		Units mg/L						RPD Limit: 10		Date Analyzed
SampID: 21091241-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Nitrogen, Nitrite (as N)		0.05		0.55	0.5000	0.008000	108.8	0.5380	2.57	09/21/2021		

SW-846 9036 (DISSOLVED)

Batch R299523		SampType: MBLK		Units mg/L							
SampID: MB-R299523											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	7.620	0	0	-100	100	09/27/2021	

Batch R299523		SampType: LCS		Units mg/L							
SampID: LCS-R299523											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	92.9	90	110	09/27/2021	

Batch R299523		SampType: MS		Units mg/L							
SampID: 21091241-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20		82	40.00	41.14	102.2	85	115	09/27/2021	

Batch R299523		SampType: MSD		Units mg/L						RPD Limit: 10		Date Analyzed
SampID: 21091241-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		20		84	40.00	41.14	107.6	82.00	2.64	09/27/2021		



Quality Control Results

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Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

SW-846 9214 (TOTAL)

Batch R299229		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	09/21/2021	

Batch R299229		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		0.95	1.000	0	94.8	90	110	09/21/2021	

Batch R299229		SampType: MS		Units mg/L							
SampID: 21091241-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.29	2.000	0.1970	104.5	75	125	09/22/2021	

Batch R299229		SampType: MSD		Units mg/L							
SampID: 21091241-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.32	2.000	0.1970	106.2	2.287	1.43	09/22/2021	

SW-846 9251 (DISSOLVED)

Batch R299362		SampType: MS		Units mg/L							
SampID: 21091241-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		39	20.00	19.51	95.0	85	115	09/23/2021	

Batch R299362		SampType: MSD		Units mg/L							
SampID: 21091241-001BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		1		38	20.00	19.51	94.6	38.52	0.23	09/23/2021	

SW-846 9251 (TOTAL)

Batch R299362		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		< 1	0.5000	0	0	-100	100	09/23/2021	



Quality Control Results

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Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

SW-846 9251 (TOTAL)

Batch R299362		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		20	20.00	0	99.7	90	110	09/23/2021

Batch R299362		SampType: MS		Units mg/L						
SampID: 21091241-002AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		10		251	200.0	52.01	99.3	85	115	09/23/2021

Batch R299362		SampType: MSD		Units mg/L						
SampID: 21091241-002AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		10		255	200.0	52.01	101.6	250.6	1.85	09/23/2021

Batch R299524		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		< 1	0.5000	0	0	-100	100	09/27/2021

Batch R299524		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		20	20.00	0	98.8	90	110	09/27/2021

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 182116		SampType: MBLK		Units mg/L						
SampID: MBLK-182116										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	09/22/2021
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	09/22/2021
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	09/22/2021

Batch 182116		SampType: LCS		Units mg/L						
SampID: LCS-182116										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0200		0.458	0.500	0	91.5	85	115	09/22/2021
Iron		0.0400		1.77	2.00	0	88.7	85	115	09/22/2021
Manganese		0.0070		0.465	0.500	0	93.0	85	115	09/22/2021



Quality Control Results

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Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)

Batch 182116		SampType: LCSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampID: LCSD-182116											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0200		0.472	0.500	0	94.5	0.458	3.14	09/22/2021	
Iron		0.0400		1.85	2.00	0	92.7	1.77	4.42	09/22/2021	
Manganese		0.0070		0.477	0.500	0	95.4	0.465	2.55	09/22/2021	

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 182214		SampType: MBLK		Units mg/L						Date Analyzed
SampID: MBLK-182214										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	09/24/2021
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	09/24/2021

Batch 182214		SampType: LCS		Units mg/L						Date Analyzed
SampID: LCS-182214										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Iron		0.0400		1.90	2.00	0	95.0	85	115	09/24/2021
Manganese		0.0070		0.498	0.500	0	99.7	85	115	09/24/2021

Batch 182214		SampType: LCSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampID: LCSD-182214											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Iron		0.0400		1.93	2.00	0	96.5	1.90	1.51	09/24/2021	
Manganese		0.0070		0.499	0.500	0	99.8	0.498	0.16	09/24/2021	

Batch 182233		SampType: MBLK		Units mg/L						Date Analyzed
SampID: MBLK-182233										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	09/25/2021
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	09/25/2021
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	09/25/2021
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	09/25/2021



Quality Control Results

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Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 182233		SampType: LCS		Units mg/L						
SampID: LCS-182233										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.60	2.500	0	103.8	85	115	09/25/2021
Magnesium		0.0500		2.68	2.500	0	107.1	85	115	09/25/2021
Potassium		0.100		2.46	2.500	0	98.3	85	115	09/25/2021
Sodium		0.0500		2.34	2.500	0	93.7	85	115	09/25/2021

Batch 182233		SampType: MS		Units mg/L						
SampID: 21091241-002BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		72.8	2.500	70.84	79.2	75	125	09/25/2021
Magnesium		0.050		31.4	2.500	29.08	92.8	75	125	09/25/2021
Potassium		0.500		13.5	2.500	10.94	102.2	75	125	09/28/2021
Sodium		0.050	S	89.0	2.500	87.37	64.0	75	125	09/25/2021

Batch 182233		SampType: MSD		Units mg/L							RPD Limit: 20
SampID: 21091241-002BMMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100	S	72.1	2.500	70.84	48.8	72.82	1.05	09/25/2021	
Magnesium		0.050		31.0	2.500	29.08	77.2	31.40	1.25	09/25/2021	
Potassium		0.500		13.4	2.500	10.94	99.6	13.50	0.48	09/28/2021	
Sodium		0.050	S	88.4	2.500	87.37	43.2	88.97	0.59	09/25/2021	

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 182234		SampType: MBLK		Units mg/L						
SampID: MBLK-182234										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	09/29/2021
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	09/30/2021
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	09/29/2021
Boron		0.0250		< 0.0250	0.0092	0	0	-100	100	10/04/2021
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	09/29/2021
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	09/29/2021
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	09/30/2021
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	09/29/2021
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	09/29/2021



Quality Control Results

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Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 182234 **SampType:** LCS **Units** mg/L
SampID: LCS-182234

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.460	0.500	0	92.0	80	120	09/29/2021
Arsenic		0.0010		0.486	0.500	0	97.2	80	120	09/30/2021
Barium		0.0010		1.99	2.00	0	99.3	80	120	09/29/2021
Boron		0.0250		0.545	0.500	0	109.1	80	120	10/04/2021
Chromium		0.0015		0.188	0.200	0	94.2	80	120	09/29/2021
Cobalt		0.0010		0.475	0.500	0	95.0	80	120	09/29/2021
Lead		0.0010		0.512	0.500	0	102.4	80	120	09/30/2021
Molybdenum		0.0015		0.462	0.500	0	92.5	80	120	09/29/2021
Selenium		0.0010		0.459	0.500	0	91.7	80	120	09/29/2021

Batch 182234 **SampType:** MS **Units** mg/L
SampID: 21091241-002BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.467	0.500	0	93.4	75	125	09/29/2021
Arsenic		0.0010		0.492	0.500	0.0015	98.1	75	125	09/30/2021
Barium		0.0010		2.05	2.00	0.0681	99.2	75	125	09/29/2021
Boron		0.0250		2.19	0.500	1.77	84.5	75	125	10/04/2021
Chromium		0.0015		0.185	0.200	0	92.6	75	125	09/29/2021
Cobalt		0.0010		0.464	0.500	0	92.8	75	125	09/29/2021
Lead		0.0010		0.531	0.500	0.0006	106.0	75	125	09/30/2021
Lithium	*	0.0030		0.602	0.500	0.0174	116.8	75	125	10/04/2021
Molybdenum		0.0015		0.490	0.500	0.0219	93.6	75	125	09/29/2021
Selenium		0.0010		0.454	0.500	0	90.8	75	125	09/29/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Vistra Energy

Work Order: 21091241

Client Project: Baldwin Groundwater Q3 2021 Resampling

Report Date: 13-Oct-21

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 182234		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 21091241-002BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010		0.451	0.500	0	90.2	0.467	3.50	09/29/2021	
Arsenic		0.0010		0.488	0.500	0.0015	97.3	0.492	0.84	09/30/2021	
Barium		0.0010		1.98	2.00	0.0681	95.5	2.05	3.70	09/29/2021	
Boron		0.0250		2.22	0.500	1.77	90.3	2.19	1.33	10/04/2021	
Chromium		0.0015		0.184	0.200	0	92.0	0.185	0.66	09/29/2021	
Cobalt		0.0010		0.459	0.500	0	91.9	0.464	1.06	09/29/2021	
Lead		0.0010		0.537	0.500	0.0006	107.2	0.531	1.16	09/30/2021	
Lithium	*	0.0030		0.612	0.500	0.0174	118.9	0.602	1.71	10/04/2021	
Molybdenum		0.0015		0.482	0.500	0.0219	92.1	0.490	1.59	09/29/2021	
Selenium		0.0010		0.451	0.500	0	90.3	0.454	0.56	09/29/2021	



Receiving Check List

<http://www.teklabinc.com/>

Client: **Vistra Energy**

Work Order: 21091241

Client Project: **Baldwin Groundwater Q3 2021 Resampling**

Report Date: 13-Oct-21

Carrier: Joe Riley

Received By: PWR

Completed by:

Mary E. Kemp

Reviewed by:

Elizabeth A. Hurley

On:

21-Sep-21

Mary E. Kemp

On:

21-Sep-21

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 3.6 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

pH strip #77366. - ERH/MKemp - 9/21/2021 4:30:11 PM

154 was split, filtered as needed, and preserved as needed with nitric acid (78366) upon arrival at the laboratory. - MEK/ehurley - 9/22/2021 5:29:00 PM

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 21091241

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Vistra Energy</u> Address: <u>1500 Eastport Plaza Drive</u> City/State/Zip: <u>Collinsville, IL 62234</u> Contact: <u>Brian Voelker</u> Phone: <u>(217) 412-6605</u> Email: <u>brian.voelker@vistraenergy.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>3.0°C</u> LTG# <u>5</u> Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: <u>Tribal EH 9/21/21</u>																
Are these samples known to be involved in litigation? If yes, a surcharge will apply. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Client Comments: Field Tests: Elevations, pH, Conductivity, Temp., DO, ORP, Turbidity Metals: Sb As B Ba Ca Co Cr Pb Li Mg Mo K Na Se																
PROJECT NAME/NUMBER <u>Baldwin Groundwater Q3 2021 Resampling</u>		SAMPLE COLLECTOR'S NAME <u>J. RILEY A. BRIDGES</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED														
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)			BILLING INSTRUCTIONS			UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field Tests	TDS	Nitrate	Bicarb/Carb	Cl, SO4, F-	Metals
Lab Use Only	Sample ID	Date/Time Sampled	Matrix																	
<u>21091241-001</u>	<u>154</u>	<u>9/21/21 1321</u>	Groundwater			1									✓	✓	✓			
<u>↓ 002</u>	<u>BA_601_TPZ-164_Source Water</u>	<u>9/21/21 1245</u>	Aqueous			1	1								✓	✓	✓	✓	✓	
			Aqueous																	
			Aqueous																	
			Aqueous																	
			Aqueous																	
			Aqueous																	
			Aqueous																	
			Aqueous																	
			Aqueous																	
			Aqueous																	
Relinquished By <u>[Signature]</u>		Date/Time <u>9/21/21 1500</u>		Received By <u>[Signature]</u>		Date/Time <u>9/21/21 1500</u>														

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

April 27, 2022

Eric Bauer
Ramboll
234 W. Florida St.
5th Floor
Milwaukee, WI 61704
TEL: (414) 837-3607
FAX: (414) 837-3608



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Q1 Groundwater

WorkOrder: 22031027

Dear Eric Bauer:

TEKLAB, INC received 31 samples on 3/30/2022 7:30:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

This reporting package includes the following:

Cover Letter	1
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Dates Report	25
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Receiving Check List	48
Chain of Custody	Appended

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Cooler Receipt Temp: 4.0 °C

An employee of Teklab, Inc. collected the sample(s).

Baldwin Bottom Ash Pond CCR 601 data are included in this report. EAH 4/27/22

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
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Fax (618) 344-1005
Email EHurley@teklabinc.com

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Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-013
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: MW-304
 Collection Date: 03/28/2022 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		9.50	ft	1	03/28/2022 10:41	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.78		1	03/28/2022 11:03	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		0.57	NTU	1	03/28/2022 11:03	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-21	mV	1	03/28/2022 11:03	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		3180	µS/cm	1	03/28/2022 11:03	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		13.4	°C	1	03/28/2022 11:03	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.55	mg/L	1	03/28/2022 11:03	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		843	mg/L	1	04/01/2022 14:54	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	04/01/2022 14:54	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1410	mg/L	1	04/02/2022 11:35	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		198	mg/L	5	04/04/2022 20:27	R309172
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		1.76	mg/L	1	03/31/2022 15:33	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		161	mg/L	5	04/04/2022 20:27	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		14.5	mg/L	1	03/31/2022 15:30	189142
Magnesium	NELAP	0.0500		6.11	mg/L	1	03/31/2022 15:30	189142
Potassium	NELAP	0.100		2.34	mg/L	1	03/31/2022 15:30	189142
Sodium	NELAP	0.0500		555	mg/L	1	03/31/2022 15:30	189142
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:21	189142
Arsenic	NELAP	0.0010		0.0021	mg/L	5	04/02/2022 15:21	189142
Barium	NELAP	0.0010		0.0194	mg/L	5	04/02/2022 15:21	189142
Beryllium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:21	189142
Boron	NELAP	0.0250		1.71	mg/L	5	04/02/2022 15:21	189142
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:21	189142
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 15:21	189142
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:21	189142
Lead	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:21	189142
Lithium	*	0.0030		0.0829	mg/L	5	04/02/2022 15:21	189142
Molybdenum	NELAP	0.0015	J	0.0012	mg/L	5	04/02/2022 15:21	189142
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:21	189142
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 15:21	189142



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031027-013
Matrix: GROUNDWATER

Work Order: 22031027
Report Date: 27-Apr-22
Client Sample ID: MW-304
Collection Date: 03/28/2022 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/31/2022 16:00	189205



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-014
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: MW-304 Duplicate
 Collection Date: 03/28/2022 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		9.50	ft	1	03/28/2022 10:41	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.78		1	03/28/2022 11:03	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		0.57	NTU	1	03/28/2022 11:03	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-21	mV	1	03/28/2022 11:03	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		3180	µS/cm	1	03/28/2022 11:03	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		13.4	°C	1	03/28/2022 11:03	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.55	mg/L	1	03/28/2022 11:03	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		847	mg/L	1	04/01/2022 15:02	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	04/01/2022 15:02	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1410	mg/L	1	04/02/2022 11:35	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		211	mg/L	5	04/04/2022 20:30	R309172
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		1.79	mg/L	1	03/31/2022 15:35	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		171	mg/L	5	04/04/2022 20:30	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		14.7	mg/L	1	03/31/2022 15:32	189142
Magnesium	NELAP	0.0500		6.13	mg/L	1	03/31/2022 15:32	189142
Potassium	NELAP	0.100		2.46	mg/L	1	03/31/2022 15:32	189142
Sodium	NELAP	0.0500		575	mg/L	1	03/31/2022 15:32	189142
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:28	189142
Arsenic	NELAP	0.0010		0.0023	mg/L	5	04/02/2022 15:28	189142
Barium	NELAP	0.0010		0.0201	mg/L	5	04/02/2022 15:28	189142
Beryllium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:28	189142
Boron	NELAP	0.0250		1.80	mg/L	5	04/02/2022 15:28	189142
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:28	189142
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 15:28	189142
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:28	189142
Lead	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:28	189142
Lithium	*	0.0030		0.0873	mg/L	5	04/02/2022 15:28	189142
Molybdenum	NELAP	0.0015	J	0.0012	mg/L	5	04/02/2022 15:28	189142
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 15:28	189142
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 15:28	189142



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031027-014
Matrix: GROUNDWATER

Work Order: 22031027
Report Date: 27-Apr-22
Client Sample ID: MW-304 Duplicate
Collection Date: 03/28/2022 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/31/2022 16:02	189205



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-015
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: MW-306
 Collection Date: 03/29/2022 16:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		17.19	ft	1	03/28/2022 16:15	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		10.9		1	03/29/2022 16:28	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		0.51	NTU	1	03/29/2022 16:28	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-146	mV	1	03/29/2022 16:28	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		984	µS/cm	1	03/29/2022 16:28	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		15.3	°C	1	03/29/2022 16:28	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.14	mg/L	1	03/29/2022 16:28	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		0	mg/L	1	04/01/2022 15:10	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		39	mg/L	1	04/01/2022 15:10	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		298	mg/L	1	04/02/2022 11:43	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		41	mg/L	2	04/04/2022 20:35	R309172
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.55	mg/L	1	03/31/2022 15:36	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		63	mg/L	2	04/04/2022 20:35	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		47.3	mg/L	1	03/31/2022 15:33	189142
Magnesium	NELAP	0.050	J	0.027	mg/L	1	03/31/2022 15:33	189142
Potassium	NELAP	0.100		1.46	mg/L	1	03/31/2022 15:33	189142
Sodium	NELAP	0.0500		57.4	mg/L	1	03/31/2022 15:33	189142
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 16:36	189142
Arsenic	NELAP	0.0010		0.0023	mg/L	5	04/02/2022 16:36	189142
Barium	NELAP	0.0010		0.0157	mg/L	5	04/02/2022 16:36	189142
Beryllium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 16:36	189142
Boron	NELAP	0.0250		0.120	mg/L	5	04/02/2022 16:36	189142
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 16:36	189142
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 16:36	189142
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 16:36	189142
Lead	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 16:36	189142
Lithium	*	0.0030		0.0122	mg/L	5	04/02/2022 16:36	189142
Molybdenum	NELAP	0.0015		0.0278	mg/L	5	04/02/2022 16:36	189142
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 16:36	189142
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 16:36	189142



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031027-015
Matrix: GROUNDWATER

Work Order: 22031027
Report Date: 27-Apr-22
Client Sample ID: MW-306
Collection Date: 03/29/2022 16:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/31/2022 16:05	189205



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-019
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: MW-356
 Collection Date: 03/29/2022 14:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		4.20	ft	1	03/28/2022 15:56	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.72		1	03/29/2022 14:10	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.1	NTU	1	03/29/2022 14:10	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-71	mV	1	03/29/2022 14:10	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		1700	µS/cm	1	03/29/2022 14:10	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		13.9	°C	1	03/29/2022 14:10	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.59	mg/L	1	03/29/2022 14:10	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		552	mg/L	1	04/01/2022 15:23	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	04/01/2022 15:23	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		710	mg/L	1	04/02/2022 11:46	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		51	mg/L	2	04/06/2022 14:05	R309284
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		2.30	mg/L	1	03/31/2022 15:40	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		41	mg/L	1	04/04/2022 20:40	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		11.7	mg/L	1	04/01/2022 16:17	189203
Magnesium	NELAP	0.0500		7.58	mg/L	1	04/01/2022 16:17	189203
Potassium	NELAP	0.100		2.82	mg/L	1	04/01/2022 16:17	189203
Sodium	NELAP	0.0500		275	mg/L	1	04/01/2022 16:17	189203
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:01	189203
Arsenic	NELAP	0.0010	J	0.0010	mg/L	5	04/02/2022 17:01	189203
Barium	NELAP	0.0010		0.0290	mg/L	5	04/05/2022 20:58	189203
Beryllium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:01	189203
Boron	NELAP	0.0250		1.85	mg/L	5	04/05/2022 20:58	189203
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:01	189203
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 17:01	189203
Cobalt	NELAP	0.0010	J	0.0003	mg/L	5	04/02/2022 17:01	189203
Lead	NELAP	0.0010		0.0010	mg/L	5	04/02/2022 17:01	189203
Lithium	*	0.0030		0.0717	mg/L	5	04/02/2022 17:01	189203
Molybdenum	NELAP	0.0015	J	0.0015	mg/L	5	04/02/2022 17:01	189203
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:01	189203
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 17:01	189203



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031027-019
Matrix: GROUNDWATER

Work Order: 22031027
Report Date: 27-Apr-22
Client Sample ID: MW-356
Collection Date: 03/29/2022 14:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/31/2022 16:09	189205



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-021
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: MW-369
 Collection Date: 03/29/2022 13:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		8.43	ft	1	03/28/2022 15:54	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		8.38		1	03/29/2022 13:30	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		4.1	NTU	1	03/29/2022 13:30	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-162	mV	1	03/29/2022 13:30	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		3540	µS/cm	1	03/29/2022 13:30	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		13.7	°C	1	03/29/2022 13:30	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.60	mg/L	1	03/29/2022 13:30	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		715	mg/L	1	04/01/2022 15:36	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		78	mg/L	1	04/01/2022 15:36	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1340	mg/L	1	04/02/2022 11:48	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		112	mg/L	10	04/04/2022 21:17	R309172
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		3.10	mg/L	1	03/31/2022 15:43	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		222	mg/L	10	04/04/2022 21:18	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		8.86	mg/L	1	04/01/2022 16:20	189203
Magnesium	NELAP	0.0500		4.00	mg/L	1	04/01/2022 16:20	189203
Potassium	NELAP	0.100		2.07	mg/L	1	04/01/2022 16:20	189203
Sodium	NELAP	0.0500		530	mg/L	1	04/01/2022 16:20	189203
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:13	189203
Arsenic	NELAP	0.0010		0.0071	mg/L	5	04/02/2022 17:13	189203
Barium	NELAP	0.0010		0.0102	mg/L	5	04/05/2022 21:40	189203
Beryllium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:13	189203
Boron	NELAP	0.0250		1.07	mg/L	5	04/05/2022 21:40	189203
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:13	189203
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 17:13	189203
Cobalt	NELAP	0.0010	J	0.0007	mg/L	5	04/02/2022 17:13	189203
Lead	NELAP	0.0010	J	0.0007	mg/L	5	04/02/2022 17:13	189203
Lithium	*	0.0030		0.0592	mg/L	5	04/02/2022 17:13	189203
Molybdenum	NELAP	0.0015		0.0095	mg/L	5	04/02/2022 17:13	189203
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:13	189203
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 17:13	189203



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Lab ID: 22031027-021

Client Sample ID: MW-369

Matrix: GROUNDWATER

Collection Date: 03/29/2022 13:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/31/2022 16:23	189205



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-022
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: MW-370
 Collection Date: 03/29/2022 12:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		17.54	ft	1	03/28/2022 15:53	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.55		1	03/29/2022 12:49	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		0.56	NTU	1	03/29/2022 12:49	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-10	mV	1	03/29/2022 12:49	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		8300	µS/cm	1	03/29/2022 12:49	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		14.2	°C	1	03/29/2022 12:49	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.96	mg/L	1	03/29/2022 12:49	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		391	mg/L	1	04/01/2022 15:43	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	04/01/2022 15:43	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		3240	mg/L	1	04/02/2022 11:48	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		270	mg/L	10	04/04/2022 21:25	R309172
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		3.15	mg/L	1	03/31/2022 15:44	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	50		1470	mg/L	50	04/06/2022 14:14	R309285
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		34.2	mg/L	1	04/01/2022 16:22	189203
Magnesium	NELAP	0.0500		21.0	mg/L	1	04/01/2022 16:22	189203
Potassium	NELAP	0.100		6.53	mg/L	1	04/01/2022 16:22	189203
Sodium	NELAP	0.0500		1470	mg/L	1	04/01/2022 16:22	189203
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:20	189203
Arsenic	NELAP	0.0010	J	0.0009	mg/L	5	04/02/2022 17:20	189203
Barium	NELAP	0.0010		0.0240	mg/L	5	04/05/2022 21:44	189203
Beryllium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:20	189203
Boron	NELAP	0.0250		1.61	mg/L	5	04/05/2022 21:44	189203
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:20	189203
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 17:20	189203
Cobalt	NELAP	0.0010	J	0.0005	mg/L	5	04/02/2022 17:20	189203
Lead	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:20	189203
Lithium	*	0.0030		0.223	mg/L	5	04/02/2022 17:20	189203
Molybdenum	NELAP	0.0015		0.0178	mg/L	5	04/02/2022 17:20	189203
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 17:20	189203
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 17:20	189203



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031027-022
Matrix: GROUNDWATER

Work Order: 22031027
Report Date: 27-Apr-22
Client Sample ID: MW-370
Collection Date: 03/29/2022 12:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/31/2022 16:25	189205



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-025
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: MW-382
 Collection Date: 03/29/2022 12:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		16.38	ft	1	03/28/2022 15:52	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.75		1	03/29/2022 12:03	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		130	NTU	1	03/29/2022 12:03	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-28	mV	1	03/29/2022 12:03	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		2360	µS/cm	1	03/29/2022 12:03	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		14.1	°C	1	03/29/2022 12:03	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		1.45	mg/L	1	03/29/2022 12:03	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		474	mg/L	1	04/01/2022 16:08	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	04/01/2022 16:08	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1120	mg/L	1	04/02/2022 12:25	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		395	mg/L	20	04/06/2022 14:17	R309284
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		3.01	mg/L	1	03/31/2022 15:58	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		43	mg/L	1	04/04/2022 22:11	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		27.9	mg/L	1	04/01/2022 16:27	189203
Magnesium	NELAP	0.0500		12.8	mg/L	1	04/01/2022 16:27	189203
Potassium	NELAP	0.100		5.42	mg/L	1	04/01/2022 16:27	189203
Sodium	NELAP	0.0500	S	412	mg/L	1	04/01/2022 16:27	189203
<i>Matrix spike control limits for Na are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/04/2022 22:16	189203
Arsenic	NELAP	0.0010		0.0027	mg/L	5	04/04/2022 22:16	189203
Barium	NELAP	0.0010		0.0320	mg/L	5	04/05/2022 22:01	189203
Beryllium	NELAP	0.0010	J	0.0004	mg/L	5	04/04/2022 22:16	189203
Boron	NELAP	0.0250	S	2.22	mg/L	5	04/05/2022 22:01	189203
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/04/2022 22:16	189203
Chromium	NELAP	0.0015		0.0123	mg/L	5	04/04/2022 22:16	189203
Cobalt	NELAP	0.0010		0.0036	mg/L	5	04/04/2022 22:16	189203
Lead	NELAP	0.0010		0.0040	mg/L	5	04/04/2022 22:16	189203
Lithium	*	0.0030		0.0638	mg/L	5	04/04/2022 22:16	189203
Molybdenum	NELAP	0.0015		0.0023	mg/L	5	04/04/2022 22:16	189203
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/04/2022 22:16	189203
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/04/2022 22:16	189203



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031027-025
Matrix: GROUNDWATER

Work Order: 22031027
Report Date: 27-Apr-22
Client Sample ID: MW-382
Collection Date: 03/29/2022 12:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
<i>Matrix spike did not recover for B within control limits due to matrix interference. Verified by bench spike.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	04/01/2022 15:36	189253



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-030
 Matrix: GROUNDWATER

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: TPZ-164
 Collection Date: 03/29/2022 14:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		3.96	ft	1	03/28/2022 16:01	R309360
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.31		1	03/29/2022 14:46	R309360
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		270	NTU	1	03/29/2022 14:46	R309360
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		-110	mV	1	03/29/2022 14:46	R309360
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		1070	µS/cm	1	03/29/2022 14:46	R309360
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		12.0	°C	1	03/29/2022 14:46	R309360
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		1.79	mg/L	1	03/29/2022 14:46	R309360
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		198	mg/L	1	04/01/2022 16:41	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	04/01/2022 16:41	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		472	mg/L	1	04/02/2022 12:28	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		227	mg/L	10	04/04/2022 23:12	R309172
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.26	mg/L	1	03/31/2022 16:07	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		50	mg/L	10	04/04/2022 23:12	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		55.4	mg/L	1	04/01/2022 16:48	189203
Magnesium	NELAP	0.0500		25.6	mg/L	1	04/01/2022 16:48	189203
Potassium	NELAP	1.00		11.5	mg/L	10	04/04/2022 18:36	189203
Sodium	NELAP	0.0500		79.8	mg/L	1	04/01/2022 16:48	189203
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 18:28	189203
Arsenic	NELAP	0.0010		0.0066	mg/L	5	04/02/2022 18:28	189203
Barium	NELAP	0.0010		0.113	mg/L	5	04/05/2022 22:46	189203
Beryllium	NELAP	0.0010	J	0.0003	mg/L	5	04/02/2022 18:28	189203
Boron	NELAP	0.0250		1.56	mg/L	5	04/02/2022 18:28	189203
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 18:28	189203
Chromium	NELAP	0.0015		0.0043	mg/L	5	04/02/2022 18:28	189203
Cobalt	NELAP	0.0010		0.0016	mg/L	5	04/02/2022 18:28	189203
Lead	NELAP	0.0010		0.0016	mg/L	5	04/02/2022 18:28	189203
Lithium	*	0.0030		0.0167	mg/L	5	04/02/2022 18:28	189203
Molybdenum	NELAP	0.0015		0.0337	mg/L	5	04/02/2022 18:28	189203
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 18:28	189203
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 18:28	189203



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031027-030
Matrix: GROUNDWATER

Work Order: 22031027
Report Date: 27-Apr-22
Client Sample ID: TPZ-164
Collection Date: 03/29/2022 14:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	04/01/2022 15:57	189253



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Q1 Groundwater
 Lab ID: 22031027-031
 Matrix: AQUEOUS

Work Order: 22031027
 Report Date: 27-Apr-22
 Client Sample ID: Field Blank
 Collection Date: 03/29/2022 12:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		2	mg/L	1	04/01/2022 16:46	R309070
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	04/01/2022 16:46	R309070
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		< 20	mg/L	1	04/02/2022 12:29	R309229
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	04/04/2022 23:15	R309172
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		< 0.10	mg/L	1	03/31/2022 16:17	R308988
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		< 1	mg/L	1	04/04/2022 23:15	R309173
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		< 0.100	mg/L	1	04/01/2022 16:49	189203
Magnesium	NELAP	0.0500		< 0.0500	mg/L	1	04/01/2022 16:49	189203
Potassium	NELAP	0.100		< 0.100	mg/L	1	04/01/2022 16:49	189203
Sodium	NELAP	0.0500		< 0.0500	mg/L	1	04/01/2022 16:49	189203
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	J	0.0005	mg/L	5	04/02/2022 20:14	189203
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 20:14	189203
Barium	NELAP	0.0010		< 0.0010	mg/L	5	04/05/2022 22:50	189203
Beryllium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 20:14	189203
Boron	NELAP	0.0250		< 0.0250	mg/L	5	04/02/2022 20:14	189203
Cadmium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 20:14	189203
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 20:14	189203
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 20:14	189203
Lead	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 20:14	189203
Lithium	*	0.0030		< 0.0030	mg/L	5	04/02/2022 20:14	189203
Molybdenum	NELAP	0.0015		< 0.0015	mg/L	5	04/02/2022 20:14	189203
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	04/02/2022 20:14	189203
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	04/02/2022 20:14	189203
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	04/01/2022 15:59	189253



Sample Summary

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
22031027-013	MW-304	Groundwater	4	03/28/2022 11:03
22031027-014	MW-304 Duplicate	Groundwater	4	03/28/2022 11:03
22031027-015	MW-306	Groundwater	4	03/29/2022 16:28
22031027-019	MW-356	Groundwater	2	03/29/2022 14:10
22031027-021	MW-369	Groundwater	2	03/29/2022 13:30
22031027-022	MW-370	Groundwater	2	03/29/2022 12:49
22031027-025	MW-382	Groundwater	2	03/29/2022 12:13
22031027-030	TPZ-164	Groundwater	2	03/29/2022 14:46
22031027-031	Field Blank	Aqueous	4	03/29/2022 12:55



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
22031027-013A	MW-304	03/28/2022 11:03	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Total)				03/30/2022 17:21
	Field Elevation Measurements				03/28/2022 10:41
	Standard Method 4500-H B 2001 Field				03/28/2022 11:03
	Standard Methods 2130 B Field				03/28/2022 11:03
	Standard Methods 18th Ed. 2580 B Field				03/28/2022 11:03
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 14:54
	Standard Methods 2320 B 1997, 2011				04/01/2022 14:54
	Standard Methods 2510 B Field				03/28/2022 11:03
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 11:35
	Standard Methods 2550 B Field				03/28/2022 11:03
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/30/2022 12:01
	Standard Methods 4500-O G Field				03/28/2022 11:03
	SW-846 9036 (Total)				04/04/2022 20:27
	SW-846 9214 (Total)				03/31/2022 15:33
	SW-846 9251 (Total)				04/04/2022 20:27
22031027-013B	MW-304	03/28/2022 11:03	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Dissolved)				03/30/2022 16:06
	Standard Methods 4500-NO2 B (Dissolved) 2000, 2011				03/30/2022 11:55
	SW-846 9036 (Dissolved)				04/04/2022 19:31
	SW-846 9251 (Dissolved)				04/04/2022 19:31
22031027-013C	MW-304	03/28/2022 11:03	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/30/2022 14:29	03/31/2022 15:30
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/30/2022 14:29	04/02/2022 15:21
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/30/2022 14:29	04/12/2022 21:24
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/30/2022 14:29	04/12/2022 22:08
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			04/18/2022 13:35	04/22/2022 20:32
	SW-846 7470A (Total)			03/31/2022 8:29	03/31/2022 16:00
22031027-013D	MW-304	03/28/2022 11:03	03/30/2022 7:30		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/30/2022 21:24	04/02/2022 21:48
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			04/19/2022 8:18	04/22/2022 21:09
22031027-014A	MW-304 Duplicate	03/28/2022 11:03	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Total)				03/30/2022 17:23
	Field Elevation Measurements				03/28/2022 10:41
	Standard Method 4500-H B 2001 Field				03/28/2022 11:03
	Standard Methods 2130 B Field				03/28/2022 11:03
	Standard Methods 18th Ed. 2580 B Field				03/28/2022 11:03



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 15:02
	Standard Methods 2320 B 1997, 2011				04/01/2022 15:02
	Standard Methods 2510 B Field				03/28/2022 11:03
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 11:35
	Standard Methods 2550 B Field				03/28/2022 11:03
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/30/2022 12:01
	Standard Methods 4500-O G Field				03/28/2022 11:03
	SW-846 9036 (Total)				04/04/2022 20:30
	SW-846 9214 (Total)				03/31/2022 15:35
	SW-846 9251 (Total)				04/04/2022 20:30
22031027-014B	MW-304 Duplicate	03/28/2022 11:03	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Dissolved)				03/30/2022 16:08
	Standard Methods 4500-NO2 B (Dissolved) 2000, 2011				03/30/2022 11:56
	SW-846 9036 (Dissolved)				04/04/2022 19:34
	SW-846 9251 (Dissolved)				04/04/2022 19:34
22031027-014C	MW-304 Duplicate	03/28/2022 11:03	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/30/2022 14:29	03/31/2022 15:32
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/30/2022 14:29	04/02/2022 15:28
	SW-846 7470A (Total)			03/31/2022 8:29	03/31/2022 16:02
22031027-014D	MW-304 Duplicate	03/28/2022 11:03	03/30/2022 7:30		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/30/2022 21:24	04/02/2022 21:54
22031027-015A	MW-306	03/29/2022 16:28	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Total)				03/30/2022 17:28
	Field Elevation Measurements				03/28/2022 16:15
	Standard Method 4500-H B 2001 Field				03/29/2022 16:28
	Standard Methods 2130 B Field				03/29/2022 16:28
	Standard Methods 18th Ed. 2580 B Field				03/29/2022 16:28
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 15:10
	Standard Methods 2320 B 1997, 2011				04/01/2022 15:10
	Standard Methods 2510 B Field				03/29/2022 16:28
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 11:43
	Standard Methods 2550 B Field				03/29/2022 16:28
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/30/2022 13:23
	Standard Methods 4500-O G Field				03/29/2022 16:28
	SW-846 9036 (Total)				04/04/2022 20:35
	SW-846 9214 (Total)				03/31/2022 15:36
	SW-846 9251 (Total)				04/04/2022 20:35



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
22031027-015B	MW-306	03/29/2022 16:28	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Dissolved)				03/30/2022 16:13
	Standard Methods 4500-NO2 B (Dissolved) 2000, 2011				03/30/2022 13:15
	SW-846 9036 (Dissolved)				04/04/2022 19:36
	SW-846 9251 (Dissolved)				04/04/2022 19:36
22031027-015C	MW-306	03/29/2022 16:28	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/30/2022 14:29	03/31/2022 15:33
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/30/2022 14:29	04/02/2022 16:36
	SW-846 7470A (Total)			03/31/2022 8:29	03/31/2022 16:05
22031027-015D	MW-306	03/29/2022 16:28	03/30/2022 7:30		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/30/2022 21:24	04/02/2022 22:00
22031027-019A	MW-356	03/29/2022 14:10	03/30/2022 7:30		
	Field Elevation Measurements				03/28/2022 15:56
	Standard Method 4500-H B 2001 Field				03/29/2022 14:10
	Standard Methods 2130 B Field				03/29/2022 14:10
	Standard Methods 18th Ed. 2580 B Field				03/29/2022 14:10
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 15:23
	Standard Methods 2320 B 1997, 2011				04/01/2022 15:23
	Standard Methods 2510 B Field				03/29/2022 14:10
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 11:46
	Standard Methods 2550 B Field				03/29/2022 14:10
	Standard Methods 4500-O G Field				03/29/2022 14:10
	SW-846 9036 (Total)				04/06/2022 14:05
	SW-846 9214 (Total)				03/31/2022 15:40
	SW-846 9251 (Total)				04/04/2022 20:40
22031027-019B	MW-356	03/29/2022 14:10	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/31/2022 8:59	04/01/2022 16:17
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/02/2022 17:01
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/05/2022 20:58
	SW-846 7470A (Total)			03/31/2022 8:29	03/31/2022 16:09
22031027-021A	MW-369	03/29/2022 13:30	03/30/2022 7:30		
	Field Elevation Measurements				03/28/2022 15:54
	Standard Method 4500-H B 2001 Field				03/29/2022 13:30
	Standard Methods 2130 B Field				03/29/2022 13:30
	Standard Methods 18th Ed. 2580 B Field				03/29/2022 13:30
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 15:36
	Standard Methods 2320 B 1997, 2011				04/01/2022 15:36



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Standard Methods 2510 B Field				03/29/2022 13:30
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 11:48
	Standard Methods 2550 B Field				03/29/2022 13:30
	Standard Methods 4500-O G Field				03/29/2022 13:30
	SW-846 9036 (Total)				04/04/2022 21:17
	SW-846 9214 (Total)				03/31/2022 15:43
	SW-846 9251 (Total)				04/04/2022 21:18
22031027-021B	MW-369	03/29/2022 13:30	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/31/2022 8:59	04/01/2022 16:20
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/02/2022 17:13
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/05/2022 21:40
	SW-846 7470A (Total)			03/31/2022 8:29	03/31/2022 16:23
22031027-022A	MW-370	03/29/2022 12:49	03/30/2022 7:30		
	Field Elevation Measurements				03/28/2022 15:53
	Standard Method 4500-H B 2001 Field				03/29/2022 12:49
	Standard Methods 2130 B Field				03/29/2022 12:49
	Standard Methods 18th Ed. 2580 B Field				03/29/2022 12:49
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 15:43
	Standard Methods 2320 B 1997, 2011				04/01/2022 15:43
	Standard Methods 2510 B Field				03/29/2022 12:49
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 11:48
	Standard Methods 2550 B Field				03/29/2022 12:49
	Standard Methods 4500-O G Field				03/29/2022 12:49
	SW-846 9036 (Total)				04/04/2022 21:25
	SW-846 9214 (Total)				03/31/2022 15:44
	SW-846 9251 (Total)				04/06/2022 14:14
22031027-022B	MW-370	03/29/2022 12:49	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/31/2022 8:59	04/01/2022 16:22
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/02/2022 17:20
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/05/2022 21:44
	SW-846 7470A (Total)			03/31/2022 8:29	03/31/2022 16:25
22031027-025A	MW-382	03/29/2022 12:13	03/30/2022 7:30		
	Field Elevation Measurements				03/28/2022 15:52
	Standard Method 4500-H B 2001 Field				03/29/2022 12:03
	Standard Methods 2130 B Field				03/29/2022 12:03
	Standard Methods 18th Ed. 2580 B Field				03/29/2022 12:03
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 16:08



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Standard Methods 2320 B 1997, 2011				04/01/2022 16:08
	Standard Methods 2510 B Field				03/29/2022 12:03
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 12:25
	Standard Methods 2550 B Field				03/29/2022 12:03
	Standard Methods 4500-O G Field				03/29/2022 12:03
	SW-846 9036 (Total)				04/06/2022 14:17
	SW-846 9214 (Total)				03/31/2022 15:58
	SW-846 9251 (Total)				04/04/2022 22:11
22031027-025B	MW-382	03/29/2022 12:13	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/31/2022 8:59	04/01/2022 16:27
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/02/2022 18:34
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/04/2022 22:16
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/05/2022 22:01
	SW-846 7470A (Total)			04/01/2022 7:20	04/01/2022 15:36
22031027-030A	TPZ-164	03/29/2022 14:46	03/30/2022 7:30		
	Field Elevation Measurements				03/28/2022 16:01
	Standard Method 4500-H B 2001 Field				03/29/2022 14:46
	Standard Methods 2130 B Field				03/29/2022 14:46
	Standard Methods 18th Ed. 2580 B Field				03/29/2022 14:46
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 16:41
	Standard Methods 2320 B 1997, 2011				04/01/2022 16:41
	Standard Methods 2510 B Field				03/29/2022 14:46
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 12:28
	Standard Methods 2550 B Field				03/29/2022 14:46
	Standard Methods 4500-O G Field				03/29/2022 14:46
	SW-846 9036 (Total)				04/04/2022 23:12
	SW-846 9214 (Total)				03/31/2022 16:07
	SW-846 9251 (Total)				04/04/2022 23:12
22031027-030B	TPZ-164	03/29/2022 14:46	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/31/2022 8:59	04/01/2022 16:48
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/31/2022 8:59	04/04/2022 18:36
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/02/2022 18:28
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/05/2022 22:46
	SW-846 7470A (Total)			04/01/2022 7:20	04/01/2022 15:57
22031027-031A	Field Blank	03/29/2022 12:55	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Total)				03/30/2022 17:43
	Standard Methods 2320 B (Total) 1997, 2011				04/01/2022 16:46



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
	Standard Methods 2320 B 1997, 2011				04/01/2022 16:46
	Standard Methods 2540 C (Total) 1997, 2011				04/02/2022 12:29
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/30/2022 13:25
	SW-846 9036 (Total)				04/04/2022 23:15
	SW-846 9214 (Total)				03/31/2022 16:17
	SW-846 9251 (Total)				04/04/2022 23:15
22031027-031B	Field Blank	03/29/2022 12:55	03/30/2022 7:30		
	EPA 600 353.2 R2.0 (Dissolved)				03/30/2022 16:39
	Standard Methods 4500-NO2 B (Dissolved) 2000, 2011				03/30/2022 13:16
	SW-846 9036 (Dissolved)				04/04/2022 20:24
	SW-846 9251 (Dissolved)				04/04/2022 20:25
22031027-031C	Field Blank	03/29/2022 12:55	03/30/2022 7:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/31/2022 8:59	04/01/2022 16:49
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/02/2022 20:14
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/31/2022 8:59	04/05/2022 22:50
	SW-846 7470A (Total)			04/01/2022 7:20	04/01/2022 15:59
22031027-031D	Field Blank	03/29/2022 12:55	03/30/2022 7:30		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/30/2022 21:24	04/02/2022 22:56



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

STANDARD METHOD 4500-H B 2001 FIELD

Batch R309360		SampType: LCS		Units							Date Analyzed
SampID: LCS-R309360											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.05	7.000	0	100.7	98.57	101.4	03/28/2022	
pH	*	1.00		7.02	7.000	0	100.3	98.57	101.4	03/29/2022	

STANDARD METHODS 2510 B FIELD

Batch R309360		SampType: LCS		Units $\mu\text{S/cm}$							Date Analyzed
SampID: LCS-R309360											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1390	1409	0	98.5	90	110	03/29/2022	
Spec. Conductance, Field	*	0		1470	1409	0	104.0	90	110	03/28/2022	

EPA 600 353.2 R2.0 (DISSOLVED)

Batch R308937		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-007BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.311	0.2500	0.05200	103.6	90	110	03/30/2022	

Batch R308937		SampType: MSD		Units mg/L				RPD Limit: 10		Date Analyzed
SampID: 22031027-007BMDS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.294	0.2500	0.05200	96.8	0.3110	5.62	03/30/2022

Batch R308937		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-018BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250		4.78	1.250	3.458	106.1	90	110	03/30/2022	

Batch R308937		SampType: MSD		Units mg/L				RPD Limit: 10		Date Analyzed
SampID: 22031027-018BMDS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.250		4.65	1.250	3.458	95.6	4.784	2.78	03/30/2022

EPA 600 353.2 R2.0 (TOTAL)

Batch R308937		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		< 0.050	0.0090	0	0	-100	100	03/30/2022	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

EPA 600 353.2 R2.0 (TOTAL)

Batch R308937		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.496	0.5000	0	99.2	90	110	03/30/2022

Batch R308937		SampType: MS		Units mg/L						
SampID: 22031027-007AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.268	0.2500	0.03200	94.4	90	110	03/30/2022

Batch R308937		SampType: MSD		Units mg/L							RPD Limit: 10
SampID: 22031027-007AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.270	0.2500	0.03200	95.2	0.2680	0.74	03/30/2022	

Batch R308937		SampType: MS		Units mg/L						
SampID: 22031027-018AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.250		3.96	1.250	2.775	94.9	90	110	03/30/2022

Batch R308937		SampType: MSD		Units mg/L							RPD Limit: 10
SampID: 22031027-018AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.250		4.08	1.250	2.775	104.6	3.961	3.03	03/30/2022	

Batch R309534		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		< 0.050	0.0090	0	0	-100	100	04/12/2022

Batch R309534		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.495	0.5000	0	99.0	90	110	04/12/2022



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R309229		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	04/02/2022	
Total Dissolved Solids	*	20		< 20	16.00	0	0	-100	100	04/02/2022	

Batch R309229		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids	*	20		946	1000	0	94.6	90	110	04/02/2022	
Total Dissolved Solids	*	20		992	1000	0	99.2	90	110	04/02/2022	

Batch R309229		SampType: DUP		Units mg/L							
SampID: 22031027-001ADUP											
											RPD Limit: 5
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids	*	20		638				620.0	2.86	04/02/2022	

Batch R309229		SampType: DUP		Units mg/L							
SampID: 22031027-012ADUP											
											RPD Limit: 5
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids	*	20		718				720.0	0.28	04/02/2022	

Batch R309229		SampType: DUP		Units mg/L							
SampID: 22031027-021ADUP											
											RPD Limit: 5
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids	*	20		1360				1344	1.33	04/02/2022	

STANDARD METHODS 4500-NO2 B (DISSOLVED) 2000, 2011

Batch R308939		SampType: MS		Units mg/L							
SampID: 22031027-006BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	103.4	85	115	03/30/2022	

Batch R308939		SampType: MSD		Units mg/L							
SampID: 22031027-006BMDS											
											RPD Limit: 10
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	102.6	0.5170	0.78	03/30/2022	



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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

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STANDARD METHODS 4500-NO2 B (DISSOLVED) 2000, 2011

Batch R308939		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-007BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	103.4	85	115	03/30/2022	

Batch R308939		SampType: MSD		Units mg/L		RPD Limit: 10					Date Analyzed
SampID: 22031027-007BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	103.8	0.5170	0.39	03/30/2022	

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R308939		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	03/30/2022	

Batch R308939		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Nitrogen, Nitrite (as N)		0.25		1.52	1.460	0	104.1	90	110	03/30/2022	

Batch R308939		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	102.4	85	115	03/30/2022	

Batch R308939		SampType: MSD		Units mg/L		RPD Limit: 10					Date Analyzed
SampID: 22031027-006AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	104.0	0.5120	1.55	03/30/2022	

Batch R308939		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-007AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	104.6	85	115	03/30/2022	



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R308939		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 22031027-007AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	104.0	0.5230	0.58	03/30/2022	

SW-846 9036 (DISSOLVED)

Batch R309284		SampType: MS		Units mg/L							
SampID: 22031027-004BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50		163	100.0	71.95	90.7	85	115	04/06/2022	

Batch R309284		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 22031027-004BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		50		174	100.0	71.95	102.5	162.7	6.98	04/06/2022	

Batch R309284		SampType: MS		Units mg/L							
SampID: 22031027-016BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50		171	100.0	80.92	89.9	85	115	04/06/2022	

Batch R309284		SampType: MSD		Units mg/L				RPD Limit: 10			
SampID: 22031027-016BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		50		175	100.0	80.92	93.9	170.8	2.29	04/06/2022	

SW-846 9036 (TOTAL)

Batch R309172		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	04/04/2022	

Batch R309172		SampType: MBLK		Units mg/L							
SampID: MBLK 220331											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate	*	10		< 10	7.620	0	0	-100	100	04/05/2022	



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 9036 (TOTAL)

Batch R309172		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		21	20.00	0	103.5	90	110	04/04/2022	

Batch R309172		SampType: MS		Units mg/L							
SampID: 22031027-023AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		338	200.0	160.3	89.1	85	115	04/04/2022	

Batch R309172		SampType: MSD		Units mg/L							
SampID: 22031027-023AMSD											
										RPD Limit: 10	
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		350	200.0	160.3	94.8	338.5	3.33	04/04/2022	

Batch R309284		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	04/06/2022	

Batch R309284		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	95.3	90	110	04/06/2022	

SW-846 9214 (TOTAL)

Batch R308988		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	03/31/2022	

Batch R308988		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		0.99	1.000	0	99.0	90	110	03/31/2022	



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 9214 (TOTAL)

Batch R308988		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-022AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		5.46	2.000	3.146	115.6	75	125	03/31/2022	

Batch R308988		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 22031027-022AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		5.42	2.000	3.146	113.7	5.458	0.70	03/31/2022	

Batch R308988		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-030AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		2.40	2.000	0.2600	106.8	75	125	03/31/2022	

Batch R308988		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 22031027-030AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		2.38	2.000	0.2600	106.2	2.396	0.54	03/31/2022	

SW-846 9251 (DISSOLVED)

Batch R309173		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-004BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		2		70	40.00	35.31	88.0	85	115	04/04/2022	

Batch R309173		SampType: MSD		Units mg/L		RPD Limit: 15					Date Analyzed
SampID: 22031027-004BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Chloride		2		70	40.00	35.31	87.4	70.50	0.30	04/04/2022	

Batch R309285		SampType: MS		Units mg/L							Date Analyzed
SampID: 22031027-016BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		5		153	100.0	61.18	92.0	85	115	04/06/2022	



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 9251 (DISSOLVED)

Batch R309285		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 22031027-016BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		5		152	100.0	61.18	90.4	153.2	1.03	04/06/2022	

SW-846 9251 (TOTAL)

Batch R309173		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		< 1	0.5000	0	0	-100	100	04/04/2022	

Batch R309173		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		21	20.00	0	104.7	90	110	04/04/2022	

Batch R309173		SampType: MS		Units mg/L							
SampID: 22031027-023AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		10		282	200.0	106.2	88.0	85	115	04/04/2022	

Batch R309173		SampType: MSD		Units mg/L				RPD Limit: 15			
SampID: 22031027-023AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		10		291	200.0	106.2	92.4	282.2	3.08	04/04/2022	

Batch R309285		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		< 1	0.5000	0	0	-100	100	04/06/2022	

Batch R309285		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		1		19	20.00	0	97.3	90	110	04/06/2022	



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 189142 **SampType: MBLK** Units mg/L

SampID: MBLK-189142

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/31/2022
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	04/01/2022
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/31/2022
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	04/01/2022
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/31/2022
Sodium		0.0500		< 0.0500	0.0280	0	0	-100	100	03/31/2022
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	04/01/2022

Batch 189142 **SampType: LCS** Units mg/L

SampID: LCS-189142

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.46	2.500	0	98.4	85	115	03/31/2022
Calcium		0.100		2.68	2.500	0	107.4	85	115	04/01/2022
Magnesium		0.0500		2.77	2.500	0	110.9	85	115	04/01/2022
Magnesium		0.0500		2.70	2.500	0	107.8	85	115	03/31/2022
Potassium		0.100		2.65	2.500	0	106.0	85	115	03/31/2022
Sodium		0.0500		2.47	2.500	0	99.0	85	115	04/01/2022
Sodium		0.0500		2.44	2.500	0	97.5	85	115	03/31/2022

Batch 189203 **SampType: MBLK** Units mg/L

SampID: MBLK-189203

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	04/01/2022
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	04/01/2022
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	04/01/2022
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	04/01/2022

Batch 189203 **SampType: LCS** Units mg/L

SampID: LCS-189203

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.52	2.500	0	100.7	85	115	04/01/2022
Magnesium		0.0500		2.62	2.500	0	104.7	85	115	04/01/2022
Potassium		0.100		2.66	2.500	0	106.4	85	115	04/01/2022
Sodium		0.0500		2.55	2.500	0	102.2	85	115	04/01/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 189203		SampType: MS		Units mg/L						
SampID: 22031027-025BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		30.1	2.500	27.90	88.0	75	125	04/01/2022
Magnesium		0.0500		15.4	2.500	12.84	101.7	75	125	04/01/2022
Potassium		0.100		8.06	2.500	5.425	105.6	75	125	04/01/2022
Sodium		0.0500	S	421	2.500	411.8	362.8	75	125	04/01/2022

Batch 189203		SampType: MSD		Units mg/L							RPD Limit: 20
SampID: 22031027-025BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Calcium		0.100		30.4	2.500	27.90	101.2	30.10	1.09	04/01/2022	
Magnesium		0.0500		15.6	2.500	12.84	108.9	15.38	1.16	04/01/2022	
Potassium		0.100		8.07	2.500	5.425	105.7	8.064	0.05	04/01/2022	
Sodium		0.0500	S	421	2.500	411.8	380.8	420.9	0.11	04/01/2022	

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 189199		SampType: MBLK		Units mg/L						
SampID: MBLK-189199										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	04/02/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	04/02/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	04/02/2022

Batch 189199		SampType: LCS		Units mg/L						
SampID: LCS-189199										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		0.450	0.5000	0	90.1	80	120	04/02/2022
Iron		0.0250		1.74	2.000	0	87.0	80	120	04/02/2022
Manganese		0.0020		0.459	0.5000	0	91.8	80	120	04/02/2022

Batch 189199		SampType: MS		Units mg/L						
SampID: 22031027-017DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		2.33	0.5000	1.750	116.1	75	125	04/06/2022
Iron		0.0250		1.92	2.000	0.2220	84.9	75	125	04/02/2022
Manganese		0.0020		0.458	0.5000	0.008738	89.8	75	125	04/02/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 189199		SampType: MSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampleID: 22031027-017DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0250		2.36	0.5000	1.750	122.0	2.331	1.25	04/06/2022	
Iron		0.0250		1.90	2.000	0.2220	84.1	1.920	0.81	04/02/2022	
Manganese		0.0020		0.455	0.5000	0.008738	89.3	0.4579	0.62	04/02/2022	

Batch 189199		SampType: MS		Units mg/L				RPD Limit: 20		Date Analyzed
SampleID: 22031027-018DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		0.481	0.5000	0.01877	92.4	75	125	04/02/2022
Iron		0.0250		1.77	2.000	0.08322	84.3	75	125	04/02/2022
Manganese		0.0020		0.451	0.5000	0.002391	89.6	75	125	04/02/2022

Batch 189199		SampType: MSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampleID: 22031027-018DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0250		0.547	0.5000	0.01877	105.7	0.4809	12.92	04/02/2022	
Iron		0.0250		2.02	2.000	0.08322	96.8	1.769	13.19	04/02/2022	
Manganese		0.0020		0.513	0.5000	0.002391	102.2	0.4506	12.99	04/02/2022	

Batch 190778		SampType: LCS		Units mg/L				RPD Limit: 20		Date Analyzed
SampleID: LCS-190778										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		0.450	0.5000	0	90.1	80	120	04/22/2022
Iron		0.0250		1.86	2.000	0	92.8	80	120	04/22/2022
Manganese		0.0020		0.467	0.5000	0	93.4	80	120	04/22/2022

Batch 190778		SampType: MS		Units mg/L				RPD Limit: 20		Date Analyzed
SampleID: 22031027-002DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Manganese		0.0020	E	5.04	5.000	0.9404	82.0	75	125	04/25/2022

Batch 190778		SampType: MSD		Units mg/L				RPD Limit: 20			Date Analyzed
SampleID: 22031027-002DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Manganese		0.0020		4.97	5.000	0.9404	80.6	5.038	1.35	04/25/2022	



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 189142 SampType: MBLK Units mg/L
 SampID: MBLK-189142

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	04/02/2022
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	04/02/2022
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	04/02/2022
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	04/02/2022
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	04/02/2022
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	04/02/2022
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	04/02/2022
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	04/02/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	04/02/2022
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	04/02/2022
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	04/02/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	04/02/2022
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	04/02/2022
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	04/02/2022
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	04/02/2022

Batch 189142 SampType: LCS Units mg/L
 SampID: LCS-189142

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.511	0.5000	0	102.1	80	120	04/02/2022
Arsenic		0.0010		0.523	0.5000	0	104.7	80	120	04/02/2022
Barium		0.0010		2.06	2.000	0	102.8	80	120	04/02/2022
Beryllium		0.0010		0.0511	0.0500	0	102.2	80	120	04/02/2022
Boron		0.0250		0.519	0.5000	0	103.9	80	120	04/02/2022
Cadmium		0.0010		0.0505	0.0500	0	101.0	80	120	04/02/2022
Chromium		0.0015		0.207	0.2000	0	103.4	80	120	04/02/2022
Cobalt		0.0010		0.524	0.5000	0	104.7	80	120	04/02/2022
Iron		0.0250		1.94	2.000	0	96.8	80	120	04/02/2022
Lead		0.0010		0.526	0.5000	0	105.2	80	120	04/02/2022
Lithium	*	0.0030		0.558	0.5000	0	111.6	80	120	04/02/2022
Manganese		0.0020		0.509	0.5000	0	101.8	80	120	04/02/2022
Molybdenum		0.0015		0.511	0.5000	0	102.2	80	120	04/02/2022
Selenium		0.0010		0.479	0.5000	0	95.8	80	120	04/02/2022
Thallium		0.0020		0.256	0.2500	0	102.4	80	120	04/02/2022



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 189142		SampType: MS		Units mg/L						
SampID: 22031027-011CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Iron		0.0250		2.52	2.000	0.4930	101.6	75	125	04/02/2022
Manganese		0.0020		0.657	0.5000	0.1735	96.7	75	125	04/02/2022

Batch 189142		SampType: MSD		Units mg/L						
SampID: 22031027-011CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Iron		0.0250		2.57	2.000	0.4930	103.8	2.525	1.73	04/02/2022
Manganese		0.0020		0.673	0.5000	0.1735	99.9	0.6569	2.46	04/02/2022

Batch 189203		SampType: MBLK		Units mg/L						
SampID: MBLK-189203										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	04/02/2022
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	04/02/2022
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	04/05/2022
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	04/02/2022
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	04/02/2022
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	04/02/2022
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	04/02/2022
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	04/02/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	04/05/2022
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	04/02/2022
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	04/02/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	04/02/2022
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	04/02/2022
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	04/02/2022
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	04/02/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 189203 SampType: LCS Units mg/L
 SampID: LCS-189203

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.460	0.5000	0	92.0	80	120	04/04/2022
Arsenic		0.0010		0.485	0.5000	0	97.0	80	120	04/04/2022
Barium		0.0010		2.15	2.000	0	107.3	80	120	04/05/2022
Beryllium		0.0010		0.0468	0.0500	0	93.7	80	120	04/04/2022
Boron		0.0250		0.550	0.5000	0	110.0	80	120	04/05/2022
Cadmium		0.0010		0.0459	0.0500	0	91.8	80	120	04/04/2022
Chromium		0.0015		0.191	0.2000	0	95.5	80	120	04/04/2022
Iron		0.0250		2.11	2.000	0	105.7	80	120	04/05/2022
Lead		0.0010		0.484	0.5000	0	96.8	80	120	04/04/2022
Lithium	*	0.0030		0.518	0.5000	0	103.5	80	120	04/04/2022
Manganese		0.0020		0.479	0.5000	0	95.8	80	120	04/04/2022
Molybdenum		0.0015		0.469	0.5000	0	93.8	80	120	04/04/2022
Selenium		0.0010		0.442	0.5000	0	88.5	80	120	04/04/2022
Thallium		0.0020		0.234	0.2500	0	93.5	80	120	04/04/2022

Batch 189203 SampType: MS Units mg/L
 SampID: 22031027-025BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.409	0.5000	0	81.8	75	125	04/04/2022
Arsenic		0.0010		0.488	0.5000	0.002719	97.0	75	125	04/04/2022
Barium		0.0010		2.06	2.000	0.03197	101.4	75	125	04/05/2022
Beryllium		0.0010		0.0451	0.0500	0.0004046	89.4	75	125	04/04/2022
Boron		0.0250	S	2.40	0.5000	2.219	36.6	75	125	04/05/2022
Cadmium		0.0010		0.0460	0.0500	0	91.9	75	125	04/04/2022
Chromium		0.0015		0.196	0.2000	0.01226	91.8	75	125	04/04/2022
Cobalt		0.0010		0.480	0.5000	0.003594	95.3	75	125	04/04/2022
Lead		0.0010		0.494	0.5000	0.004001	98.0	75	125	04/04/2022
Lithium	*	0.0030		0.577	0.5000	0.06378	102.6	75	125	04/04/2022
Molybdenum		0.0015		0.483	0.5000	0.002309	96.0	75	125	04/04/2022
Selenium		0.0010		0.440	0.5000	0	88.0	75	125	04/04/2022
Thallium		0.0020		0.237	0.2500	0	94.7	75	125	04/04/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 189203		SampType: MSD		Units mg/L			RPD Limit: 20			
SampID: 22031027-025BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0010		0.439	0.5000	0	87.8	0.4089	7.12	04/04/2022
Arsenic		0.0010		0.514	0.5000	0.002719	102.3	0.4876	5.32	04/04/2022
Barium		0.0010		2.08	2.000	0.03197	102.6	2.061	1.16	04/05/2022
Beryllium		0.0010		0.0507	0.0500	0.0004046	100.6	0.04508	11.75	04/04/2022
Boron		0.0250	S	2.40	0.5000	2.219	36.4	2.402	0.03	04/05/2022
Cadmium		0.0010		0.0493	0.0500	0	98.6	0.04597	7.03	04/04/2022
Chromium		0.0015		0.211	0.2000	0.01226	99.3	0.1959	7.34	04/04/2022
Cobalt		0.0010		0.519	0.5000	0.003594	103.0	0.4803	7.68	04/04/2022
Lead		0.0010		0.530	0.5000	0.004001	105.2	0.4940	7.02	04/04/2022
Lithium	*	0.0030		0.625	0.5000	0.06378	112.3	0.5770	8.04	04/04/2022
Molybdenum		0.0015		0.522	0.5000	0.002309	104.0	0.4825	7.92	04/04/2022
Selenium		0.0010		0.462	0.5000	0	92.3	0.4398	4.84	04/04/2022
Thallium		0.0020		0.254	0.2500	0	101.8	0.2367	7.20	04/04/2022

Batch 190743		SampType: MBLK		Units mg/L						
SampID: MBLK-190743										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	04/24/2022
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	04/24/2022
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	04/22/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	04/22/2022
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	04/24/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	04/22/2022
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	04/24/2022
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	04/24/2022



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 190743		SampType: LCS		Units mg/L						
SampID: LCS-190743										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.532	0.5000	0	106.5	85	115	04/24/2022
Arsenic		0.0010		0.528	0.5000	0	105.7	85	115	04/24/2022
Boron		0.0250		0.484	0.5000	0	96.8	80	120	04/22/2022
Iron		0.0250		1.95	2.000	0	97.4	80	120	04/22/2022
Lead		0.0010		0.532	0.5000	0	106.4	85	115	04/24/2022
Manganese		0.0020		0.493	0.5000	0	98.7	80	120	04/22/2022
Selenium		0.0010		0.505	0.5000	0	101.0	85	115	04/24/2022
Thallium		0.0020		0.268	0.2500	0	107.3	85	115	04/24/2022

Batch 190778 SampType: MBLK Units mg/L

SampID: MBLK-190778										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	04/26/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	04/26/2022

SW-846 7470A (TOTAL)

Batch 189205		SampType: MBLK		Units mg/L						
SampID: MBLK-189205										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	03/31/2022

Batch 189205 SampType: LCS Units mg/L

SampID: LCS-189205										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00489	0.0050	0	97.8	85	115	03/31/2022

Batch 189205 SampType: MS Units mg/L

SampID: 22031027-019BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00488	0.0050	0	97.6	75	125	03/31/2022

Batch 189205 SampType: MSD Units mg/L

SampID: 22031027-019BMMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00482	0.0050	0	96.5	0.004878	1.13	03/31/2022



Quality Control Results

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Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

SW-846 7470A (TOTAL)

Batch 189253		SampType: MBLK		Units mg/L						
SampID: MBLK-189253										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	04/01/2022

Batch 189253		SampType: LCS		Units mg/L						
SampID: LCS-189253										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00498	0.0050	0	99.7	85	115	04/01/2022

Batch 189253		SampType: MS		Units mg/L						
SampID: 22031027-026BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00478	0.0050	0	95.6	75	125	04/01/2022

Batch 189253		SampType: MSD		Units mg/L						
SampID: 22031027-026BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00486	0.0050	0	97.1	0.004780	1.60	04/01/2022



Receiving Check List

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031027

Client Project: Baldwin Q1 Groundwater

Report Date: 27-Apr-22

Carrier: Joe Riley

Received By: PWR

Completed by:

Mary E. Kemp

Reviewed by:

Elizabeth A. Hurley

On:

30-Mar-22

Mary E. Kemp

On:

30-Mar-22

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 4.0 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

pH strip #78011. - PRY/MKemp - 3/30/2022 10:08:20 AM

Additional nitric acid (80810) was needed in MW-356, MW-377, and MW-391 upon arrival at the laboratory. - PRY/MKemp - 3/30/2022 10:08:22 AM

MW-154, MW-252, and Field Blank were filtered and preserved with nitric acid (80810) for the dissolved parameters upon arrival at the laboratory. - MKemp - 3/30/2022 10:09:05 AM

CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Ramboll / Vistra</u> Address: <u>234 W. Florida St.</u> City/State/Zip: <u>Milwaukee, WI 53204</u> Contact: <u>Eric Bauer</u> Phone: <u>(414) 837-3607</u> Email: <u>eric.bauer@ramboll.com</u> Fax: _____	Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>4.0</u> °C LTG# <u>3</u> Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD FOR LAB USE ONLY LAB NOTES: <u>PAV 78011, Added HNO3 80810 to samples 356/377/396, PAV 3/30/22</u> Client Comments: <u>ⓧ Filter in Lab</u> Field Tests = pH, DO, ORP, Conductivity, Temp., Turbidity, DTW Six program reports. Metals selection per program requirements.
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

PROJECT NAME/NUMBER Baldwin Q1 Groundwater	SAMPLE COLLECTOR'S NAME <u>J. BRIDGES</u>	RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)	BILLING INSTRUCTIONS Vistra PO#s
--	---	---	--

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers										INDICATE ANALYSIS REQUESTED						
				UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field Tests	T - Cl/SO4/F-	TDS	Bicarb./Carb.	T - Nitrate	D - Cl/SO4	D - Nitrate	T - Metals
	<u>22031027-001</u>	<u>03/28/22 1044</u>	Groundwater	2	2															
	<u>002</u>	<u>03/28/22 1023</u>	Groundwater	2	2															
	<u>003</u>	<u>03/28/22 956</u>	Groundwater	2	2															
	<u>004</u>	<u>03/28/22 307</u>	Groundwater	2	2															
	<u>005</u>	<u>03/28/22 212</u>	Groundwater	2	2															
	<u>006</u>	<u>03/29/22 131</u>	Groundwater	2	2															
	<u>007</u>	<u>03/29/22 1845</u>	Groundwater	2	2															
	<u>008</u>	<u>03/29/22 1806</u>	Groundwater	2	2															
	<u>009</u>	<u>03/29/22 1427</u>	Groundwater	1																
	<u>010</u>	<u>03/29/22 1142</u>	Groundwater	1																
	<u>011</u>	<u>03/29/22 135</u>	Groundwater	2	2															

Relinquished By: <u>[Signature]</u>	Date/Time: <u>03/30/22 0130</u>	Received By: <u>[Signature]</u>	Date/Time: <u>3/30/22 0130</u>

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

3/30/22 Rev C Aug 2020

CHAIN OF CUSTODY

Pg 2 of 3 Workorder # 22031027

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: Ramboll / Vistra
 Address: 234 W. Florida St.
 City/State/Zip: Milwaukee, WI 53204
 Contact: Eric Bauer Phone: (414) 837-3607
 Email: eric.bauer@ramboll.com Fax: _____

Samples on: ICE BLUE ICE NO ICE _____ °C LTG# _____
 Preserved in: LAB FIELD **FOR LAB USE ONLY**
 LAB NOTES: _____

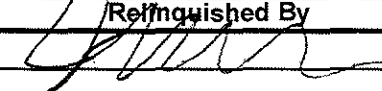
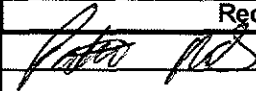
Are these samples known to be involved in litigation? If yes, a surcharge will apply: Yes No
 Are these samples known to be hazardous? Yes No
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: Yes No

Client Comments:
 Field Tests = pH, DO, ORP, Conductivity, Temp., Turbidity, DTW
 Six program reports. Metals selection per program requirements.

PROJECT NAME/NUMBER: Baldwin Q1 Groundwater
 SAMPLE COLLECTOR'S NAME: _____
 RESULTS REQUESTED: Standard 1-2 Day (100% Surcharge) Other 3 Day (50% Surcharge)
 BILLING INSTRUCTIONS: Vistra PO#s

and Type of Containers INDICATE ANALYSIS REQUESTED

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field Tests	T - Cl/SO4/F-	TDS	Bicarb./Carb.	T - Nitrate	D - Cl/SO4	D - Nitrate	T - Metals	D - Metals
	22031027-012	MW-253	03/29/22 1106	Groundwater	2	2							✓	✓	✓	✓	✓	✓	✓	✓	✓
	013	MW-304	03/29/22 1103	Groundwater	2	2							✓	✓	✓	✓	✓	✓	✓	✓	✓
	014	MW-304 Duplicate	03/29/22 1103	Groundwater	2	2							✓	✓	✓	✓	✓	✓	✓	✓	✓
	015	MW-306	03/29/22 1026	Groundwater	2	2							✓	✓	✓	✓	✓	✓	✓	✓	✓
	016	MW-350	03/29/22 1529	Groundwater	2	2							✓	✓	✓	✓	✓	✓	✓	✓	✓
	017	MW-352	03/29/22 1239	Groundwater	2	2							✓	✗	✓	✗	✓	✓	✓	✓	✓
	018	MW-355	03/29/22 1923	Groundwater	2	2							✓	✗	✓	✗	✓	✓	✓	✓	✓
	019	MW-356	03/29/22 1910	Groundwater	1	1							✓	✓	✓	✓	✓	✓	✓	✓	✓
	020	MW-366	03/29/22 1056	Groundwater	1	1							✓	✓	✓	✓	✓	✓	✓	✓	✓
	021	MW-369	03/29/22 1330	Groundwater	1	1							✓	✓	✓	✓	✓	✓	✓	✓	✓
	022	MW-370	03/29/22 1249	Groundwater	1	1							✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By: 	Date/Time: <u>03/30/22 0730</u>	Received By: 	Date/Time: <u>3/30/22 0730</u>

CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Ramboll / Vistra</u> Address: <u>234 W. Florida St.</u> City/State/Zip: <u>Milwaukee, WI 53204</u> Contact: <u>Eric Bauer</u> Phone: <u>(414) 837-3607</u> Email: <u>eric.bauer@ramboll.com</u> Fax: _____	Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C LTG# _____ Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: _____ Client Comments: _____
---	---

Are these samples known to be involved in litigation? If yes, a surcharge will apply: Yes No
 Are these samples known to be hazardous? Yes No
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: Yes No

Field Tests = pH, DO, ORP, Conductivity, Temp., Turbidity, DTW
 Six program reports. Metals selection per program requirements.

PROJECT NAME/NUMBER <u>Baldwin Q1 Groundwater</u>	SAMPLE COLLECTOR'S NAME _____	# and Type of Containers	INDICATE ANALYSIS REQUESTED
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS <u>Vistra PO#s</u>	

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field Tests	T - Cl/SO4/F-	TDS	Bicarb./Carb.	T - Nitrate	D - Cl/SO4	D - Nitrate	T - Metals	D - Metals
	<u>22031027-023</u>	<u>03/24/22 1425</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>024</u>	<u>03/24/22 1357</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>025</u>	<u>03/24/22 1203</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>026</u>	<u>03/20/22 1542</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>027</u>	<u>03/29/22 1505</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>028</u>	<u>03/29/22 1112</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>029</u>	<u>03/29/22 0957</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>030</u>	<u>03/29/22 1416</u>	<u>Groundwater</u>	<u>1</u>	<u>1</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	<u>031</u>	<u>03/29/22 1255</u>	<u>Groundwater</u> <u>Ag.</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Relinquished By <u>[Signature]</u>	Date/Time <u>03/30/22 0730</u>	Received By <u>[Signature]</u>	Date/Time <u>3/30/22 0730</u>
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*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

April 25, 2022

Eric Bauer
Ramboll
234 W. Florida St.
5th Floor
Milwaukee, WI 53204
TEL: (414) 837-3614
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Q1 Groundwater

WorkOrder: 22031028

Dear Eric Bauer:

TEKLAB, INC received 17 samples on 3/30/2022 7:30:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Project Manager
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	16
Dates Report	17
Receiving Check List	18
Chain of Custody	Appended

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

Cooler Receipt Temp: 4.0 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

Bottom Ash Pond CCR 601 data are included in this report. EAH 4/25/22

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-001
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: MW-304
Collection Date: 03/28/2022 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-002
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: MW-304 Duplicate
Collection Date: 03/28/2022 11:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-003
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: MW-306
Collection Date: 03/29/2022 16:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-005
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: MW-356
Collection Date: 03/29/2022 14:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-007
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: MW-369
Collection Date: 03/29/2022 13:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-008
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: MW-370
Collection Date: 03/29/2022 12:49

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-011
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: MW-382
Collection Date: 03/29/2022 12:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-016
Matrix: GROUNDWATER

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: TPZ-164
Collection Date: 03/29/2022 14:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Q1 Groundwater
Lab ID: 22031028-017
Matrix: AQUEOUS

Work Order: 22031028
Report Date: 25-Apr-22
Client Sample ID: Field Blank
Collection Date: 03/29/2022 12:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924
Radium-228	*	0		See Attached	pci/L	1	04/12/2022 0:00	R309924



Sample Summary

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
22031028-001	MW-304	Groundwater	1	03/28/2022 11:03
22031028-002	MW-304 Duplicate	Groundwater	1	03/28/2022 11:03
22031028-003	MW-306	Groundwater	1	03/29/2022 16:28
22031028-005	MW-356	Groundwater	1	03/29/2022 14:10
22031028-007	MW-369	Groundwater	1	03/29/2022 13:30
22031028-008	MW-370	Groundwater	1	03/29/2022 12:49
22031028-011	MW-382	Groundwater	1	03/29/2022 12:13
22031028-016	TPZ-164	Groundwater	1	03/29/2022 14:46
22031028-017	Field Blank	Aqueous	1	03/29/2022 12:55



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
22031028-001A	MW-304	03/28/2022 11:03	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-002A	MW-304 Duplicate	03/28/2022 11:03	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-003A	MW-306	03/29/2022 16:28	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-005A	MW-356	03/29/2022 14:10	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-007A	MW-369	03/29/2022 13:30	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-008A	MW-370	03/29/2022 12:49	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-011A	MW-382	03/29/2022 12:13	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-016A	TPZ-164	03/29/2022 14:46	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			
22031028-017A	Field Blank	03/29/2022 12:55	03/30/2022 7:30		
EPA 903.0/904.0, Radium 226/228		04/12/2022 0:00			



Receiving Check List

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22031028

Client Project: Baldwin Q1 Groundwater

Report Date: 25-Apr-22

Carrier: Joe Riley

Received By: PWR

Completed by: *Mary E. Kemp*
On: 30-Mar-22
Mary E. Kemp

Reviewed by: *Elizabeth A. Hurley*
On: 30-Mar-22
Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 4.0 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input type="checkbox"/> | Lab <input type="checkbox"/> | NA <input checked="" type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

pH strip #78011. - MKemp - 3/30/2022 1:13:12 PM

Additional nitric acid (80810) was needed in MW-304, MW-304DUP, MW-356, MW-370, MW-375, MW-382, MW-383, MW-390 and MW-391 upon arrival at the laboratory. - MKemp - 3/30/2022 1:13:13 PM

CHAIN OF CUSTODY

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344/1004 Fax (618) 344-1005

Client: Ramboll / Vistra
Address: 234 W. Florida St.
City/State/Zip: Milwaukee, WI 53204
Contact: Eric Bauer Phone: (414) 837-3607
Email: eric.bauer@ramboll.com Fax:

Samples on: [X] ICE [] BLUE ICE [] NO ICE 4°C LTG# 3
Preserved in: [] LAB [] FIELD FOR LAB USE ONLY
LAB NOTES: 78011, additional HNO3 (80810) 304, 304dup, 356, 370
375, 382, 383, 390 + 391

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [] Yes [X] No
Are these samples known to be hazardous? [] Yes [X] No
Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: [] Yes [X] No

Client Comments:
Subcontract to Pace-National.
Two program reports.

PROJECT NAME/NUMBER: Baldwin Q1 Groundwater
SAMPLE COLLECTOR'S NAME: J. R. BLY A. BRINE

RESULTS REQUESTED: [X] Standard [] 1-2 Day (100% Surcharge) [] Other [] 3 Day (50% Surcharge)
BILLING INSTRUCTIONS: Vistra PO#s

and Type of Containers INDICATE ANALYSIS REQUESTED

Table with columns: Lab Use Only, Sample ID, Date/Time Sampled, Matrix, UNP, HNO3, NaOH, H2SO4, HCL, MeOH, NaHSO4, TSP, Other, Ra226/228, and 11 empty columns for analysis requests. Rows include samples MW-304, MW-304 Duplicate, MW-306, MW-350, MW-356, MW-366, MW-369, MW-370, MW-375, MW-377, and MW-382.

Relinquished By: [Signature] Date/Time: 03/30/22 0730
Received By: [Signature] Date/Time: 3/30/22 0730

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 22031028

TEKLAB INC, 5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Client: <u>Ramboll / Vistra</u> Address: <u>234 W. Florida St.</u> City/State/Zip: <u>Milwaukee, WI 53204</u> Contact: <u>Eric Bauer</u> Phone: <u>(414) 837-3607</u> Email: <u>eric.bauer@ramboll.com</u> Fax: _____				Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C LTG# _____ Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: _____															
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Client Comments: Subcontract to Pace-National. Two program reports.															
PROJECT NAME/NUMBER <u>Baldwin Q1 Groundwater</u>		SAMPLE COLLECTOR'S NAME _____		# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other		INDICATE ANALYSIS REQUESTED Ra226/228													
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)			BILLING INSTRUCTIONS Vistra PO#s																
Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Ra226/228						
<u>22031028-012</u>	<u>MW-383</u>	<u>03/29/22 1512</u>	Groundwater	2									<input checked="" type="checkbox"/>						
<u>013</u>	<u>MW-384</u>	<u>03/29/22 1509</u>	Groundwater	2									<input checked="" type="checkbox"/>						
<u>014</u>	<u>MW-390</u>	<u>03/29/22 1112</u>	Groundwater	2									<input checked="" type="checkbox"/>						
<u>015</u>	<u>MW-391</u>	<u>03/29/22 0949</u>	Groundwater	2									<input checked="" type="checkbox"/>						
<u>016</u>	<u>TPZ-164</u>	<u>03/29/22 1446</u>	Groundwater	2									<input checked="" type="checkbox"/>						
<u>017</u>	<u>Field Blank</u>	<u>03/29/22 1255</u>	Groundwater <i>Ag.</i>	2									<input checked="" type="checkbox"/>						
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
			Groundwater																
Relinquished By <i>[Signature]</i>			Date/Time <u>03/30/22 0130</u>			Received By <i>[Signature]</i>			Date/Time <u>3/30/22 0730</u>										

*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

TEKLAB, Inc.

Sample Delivery Group: L1477565
Samples Received: 04/01/2022
Project Number: 22031028
Description:

Report To: Elizabeth Hurley
5445 Horseshoe Lake Road
Collinsville, IL 62234

Entire Report Reviewed By:



Mark W. Beasley
Project Manager

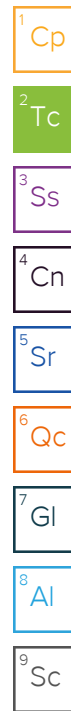
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory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

Pace Analytical National

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

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SAMPLE SUMMARY

22031028-001A L1477565-01 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/28/22 11:03 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844279	1	04/08/22 11:21	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 11:53	RGT	Mt. Juliet, TN



22031028-002A L1477565-02 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/28/22 11:03 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844279	1	04/08/22 11:21	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 11:53	RGT	Mt. Juliet, TN

22031028-003A L1477565-03 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 16:28 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844279	1	04/08/22 11:21	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 11:53	RGT	Mt. Juliet, TN

22031028-004A L1477565-04 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/28/22 15:27 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844279	1	04/08/22 11:21	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 11:45	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

22031028-005A L1477565-05 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 14:10 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

22031028-006A L1477565-06 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/28/22 10:18 Received date/time 04/01/22 09:30

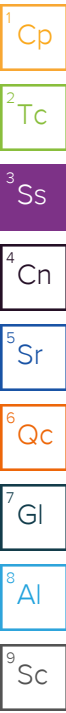
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

22031028-007A L1477565-07 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 13:30 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN



22031028-008A L1477565-08 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 12:49 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/14/22 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

22031028-009A L1477565-09 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/28/22 14:25 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

22031028-010A L1477565-10 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/28/22 13:57 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

22031028-011A L1477565-11 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 12:13 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

22031028-012A L1477565-12 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 15:42 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

22031028-013A L1477565-13 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 15:05 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

22031028-014A L1477565-14 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 11:12 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

⁴Cn

⁵Sr

⁶Qc

22031028-015A L1477565-15 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 09:44 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

⁷Gl

⁸Al

⁹Sc

22031028-016A L1477565-16 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 14:46 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 12:03	RGT	Mt. Juliet, TN

22031028-017A L1477565-17 Non-Potable Water

Collected by J Riley/ A Bridges Collected date/time 03/29/22 12:55 Received date/time 04/01/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1844284	1	04/11/22 10:45	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1846342	1	04/11/22 15:42	04/15/22 12:10	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1846342	1	04/11/22 15:42	04/12/22 11:53	RGT	Mt. Juliet, TN

CASE NARRATIVE

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



Mark W. Beasley
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.939		0.305	0.544	04/14/2022 11:45	WG1844279
(T) Barium	89.5			62.0-143	04/14/2022 11:45	WG1844279
(T) Yttrium	108			79.0-136	04/14/2022 11:45	WG1844279

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.968		0.344	0.628	04/14/2022 11:45	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0288	<u>U</u>	0.159	0.314	04/12/2022 11:53	WG1846342
(T) Barium-133	96.4			30.0-143	04/12/2022 11:53	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.375	J	0.305	0.567	04/14/2022 11:45	WG1844279
(T) Barium	84.7			62.0-143	04/14/2022 11:45	WG1844279
(T) Yttrium	103			79.0-136	04/14/2022 11:45	WG1844279

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.481	J	0.347	0.622	04/14/2022 11:45	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.107	J	0.165	0.255	04/12/2022 11:53	WG1846342
(T) Barium-133	100			30.0-143	04/12/2022 11:53	WG1846342

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.534	J	0.299	0.549	04/14/2022 11:45	WG1844279
(T) Barium	84.4			62.0-143	04/14/2022 11:45	WG1844279
(T) Yttrium	106			79.0-136	04/14/2022 11:45	WG1844279

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.566	J	0.331	0.615	04/14/2022 11:45	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0323	U	0.141	0.277	04/12/2022 11:53	WG1846342
(T) Barium-133	103			30.0-143	04/12/2022 11:53	WG1846342

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.869		0.302	0.541	04/14/2022 11:45	WG1844279
(T) Barium	94.8			62.0-143	04/14/2022 11:45	WG1844279
(T) Yttrium	106			79.0-136	04/14/2022 11:45	WG1844279

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.71		0.488	0.575	04/14/2022 11:45	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.843		0.383	0.195	04/12/2022 12:03	WG1846342
(T) Barium-133	100			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.375	J	0.296	0.565	04/14/2022 16:25	WG1844284
(T) Barium	91.3			62.0-143	04/14/2022 16:25	WG1844284
(T) Yttrium	100			79.0-136	04/14/2022 16:25	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.422	J	0.321	0.610	04/14/2022 16:25	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0472	U	0.123	0.229	04/12/2022 12:03	WG1846342
(T) Barium-133	97.5			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.491	J	0.288	0.546	04/14/2022 16:25	WG1844284
(T) Barium	84.6			62.0-143	04/14/2022 16:25	WG1844284
(T) Yttrium	104			79.0-136	04/14/2022 16:25	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.567	J	0.312	0.575	04/14/2022 16:25	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0767	J	0.119	0.181	04/12/2022 12:03	WG1846342
(T) Barium-133	95.1			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0598	<u>U</u>	0.308	0.603	04/14/2022 16:25	WG1844284
(T) Barium	92.2			62.0-143	04/14/2022 16:25	WG1844284
(T) Yttrium	99.1			79.0-136	04/14/2022 16:25	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.323	<u>J</u>	0.402	0.661	04/14/2022 16:25	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.323		0.258	0.270	04/12/2022 12:03	WG1846342
(T) Barium-133	104			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.285	J	0.300	0.578	04/14/2022 16:25	WG1844284
(T) Barium	88.7			62.0-143	04/14/2022 16:25	WG1844284
(T) Yttrium	94.4			79.0-136	04/14/2022 16:25	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.883		0.427	0.620	04/14/2022 16:25	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.598		0.304	0.223	04/12/2022 12:03	WG1846342
(T) Barium-133	99.4			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.248	J	0.244	0.481	04/15/2022 12:10	WG1844284
(T) Barium	102			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	99.8			79.0-136	04/15/2022 12:10	WG1844284

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.248	U	0.250	0.529	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0186	U	0.0542	0.221	04/12/2022 12:03	WG1846342
(T) Barium-133	103			30.0-143	04/12/2022 12:03	WG1846342

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.637		0.278	0.533	04/15/2022 12:10	WG1844284
(T) Barium	96.4			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	99.7			79.0-136	04/15/2022 12:10	WG1844284

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.702		0.307	0.579	04/15/2022 12:10	WG1846342

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0657	<u>U</u>	0.130	0.227	04/12/2022 12:03	WG1846342
(T) Barium-133	103			30.0-143	04/12/2022 12:03	WG1846342

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.206	<u>U</u>	0.394	0.782	04/15/2022 12:10	WG1844284
(T) Barium	92.7			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	103			79.0-136	04/15/2022 12:10	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.274	<u>U</u>	0.423	0.830	04/15/2022 12:10	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0678	<u>U</u>	0.153	0.278	04/12/2022 12:03	WG1846342
(T) Barium-133	108			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.488		0.240	0.464	04/15/2022 12:10	WG1844284
(T) Barium	103			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	101			79.0-136	04/15/2022 12:10	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.488	J	0.245	0.521	04/15/2022 12:10	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0144	U	0.0515	0.237	04/12/2022 12:03	WG1846342
(T) Barium-133	105			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0964	<u>U</u>	0.272	0.546	04/15/2022 12:10	WG1844284
(T) Barium	92.9			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	102			79.0-136	04/15/2022 12:10	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.254	<u>U</u>	0.342	0.620	04/15/2022 12:10	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.157	<u>J</u>	0.207	0.293	04/12/2022 12:03	WG1846342
(T) Barium-133	98.5			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.950		0.268	0.501	04/15/2022 12:10	WG1844284
(T) Barium	103			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	99.6			79.0-136	04/15/2022 12:10	WG1844284

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.20		0.364	0.589	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.247	J	0.247	0.310	04/12/2022 12:03	WG1846342
(T) Barium-133	99.5			30.0-143	04/12/2022 12:03	WG1846342

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.858		0.296	0.561	04/15/2022 12:10	WG1844284
(T) Barium	86.2			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	90.8			79.0-136	04/15/2022 12:10	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.889		0.306	0.584	04/15/2022 12:10	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0312	<u>U</u>	0.0773	0.161	04/12/2022 12:03	WG1846342
(T) Barium-133	101			30.0-143	04/12/2022 12:03	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.546	J	0.423	0.830	04/15/2022 12:10	WG1844284
(T) Barium	99.0			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	102			79.0-136	04/15/2022 12:10	WG1844284

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.694	J	0.457	0.860	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.148	J	0.172	0.224	04/12/2022 12:03	WG1846342
(T) Barium-133	97.8			30.0-143	04/12/2022 12:03	WG1846342

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0602	<u>U</u>	0.289	0.577	04/15/2022 12:10	WG1844284
(T) Barium	93.3			62.0-143	04/15/2022 12:10	WG1844284
(T) Yttrium	99.5			79.0-136	04/15/2022 12:10	WG1844284

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0602	<u>U</u>	0.326	0.676	04/15/2022 12:10	WG1846342

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0478	<u>U</u>	0.150	0.353	04/12/2022 11:53	WG1846342
(T) Barium-133	103			30.0-143	04/12/2022 11:53	WG1846342

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3781239-1 04/13/22 14:55

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.201	<u>U</u>	0.228	0.436
(T) Barium	95.1		95.1	
(T) Yttrium	103		103	

L1472862-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1472862-04 04/13/22 14:55 • (DUP) R3781239-5 04/13/22 14:55

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0639	0.293	0.553	0.240	0.587	0.553	1	116	0.268	<u>U</u>	20	3
(T) Barium	97.6			88.6	88.6							
(T) Yttrium	95.4			95.3	95.3							

Laboratory Control Sample (LCS)

(LCS) R3781239-2 04/13/22 14:55

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.53	111	80.0-120	
(T) Barium			99.8		
(T) Yttrium			103		

L1472862-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472862-01 04/13/22 14:55 • (MS) R3781239-3 04/13/22 14:55 • (MSD) R3781239-4 04/13/22 14:55

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.396	11.9	13.3	115	129	1	70.0-130			10.7		20
(T) Barium		97.4			90.6	89.0							
(T) Yttrium		104			95.6	97.4							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3782545-1 04/14/22 16:25

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	0.568		0.228	0.426
(T) Barium	98.6		98.6	
(T) Yttrium	90.6		90.6	

L1473918-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1473918-02 04/14/22 16:25 • (DUP) R3782545-5 04/14/22 16:25

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.718	0.267	0.460	0.196	0.540	0.460	1	114	0.867	<u>U</u>	20	3
(T) Barium	101			97.5	97.5							
(T) Yttrium	99.7			92.0	92.0							

Laboratory Control Sample (LCS)

(LCS) R3782545-2 04/14/22 16:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.14	103	80.0-120	
(T) Barium			103		
(T) Yttrium			102		

L1473918-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473918-01 04/14/22 16:25 • (MS) R3782545-3 04/14/22 16:25 • (MSD) R3782545-4 04/14/22 16:25

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.669	12.2	12.0	116	113	1	70.0-130			1.73		20
(T) Barium		105			96.3	94.7							
(T) Yttrium		98.1			103	101							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3781210-1 04/12/22 11:53

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	-0.00750	<u>U</u>	0.0170	0.0606
(T) Barium-133	109		109	

L1478438-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1478438-01 04/12/22 11:53 • (DUP) R3781210-5 04/12/22 11:53

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-226	0.419	0.266	0.186	0.285	0.237	0.186	1	38.3	0.378		20	3
(T) Barium-133	105			101	101							

Laboratory Control Sample (LCS)

(LCS) R3781210-2 04/12/22 11:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.02	4.11	81.9	80.0-120	
(T) Barium-133			105		

L1477565-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1477565-01 04/12/22 11:53 • (MS) R3781210-3 04/12/22 11:53 • (MSD) R3781210-4 04/12/22 11:53

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.0288	18.8	17.6	94.0	87.9	1	75.0-125			6.70		20
(T) Barium-133		96.4			104	102							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Project#

Contact: Email:
Requested Due Date: Billing/PO:

Phone:

Comments:

4477565

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately. Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228														
-01	22031028-001A	3/28/22 1103	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-02	22031028-002A	3/28/22 1103	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-03	22031028-003A	3/29/22 1628	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-04	22031028-004A	3/28/22 1527	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-05	22031028-005A	3/29/22 1410	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-06	22031028-006A	3/28/22 1018	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-07	22031028-007A	3/29/22 1330	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-08	22031028-008A	3/29/22 1249	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-09	22031028-009A	3/28/22 1425	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-10	22031028-010A	3/29/22 1357	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-11	22031028-011A	3/29/22 1213	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp		<i>[Signature]</i>	4/1/22 0930

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

10.761317 PLAB
13.961317
SUBC&R&A
3/2/2016

November 15, 2022

Eric Bauer
Ramboll
234 W. Florida St.
5th Floor
Milwaukee, WI 61704
TEL: (414) 837-3607
FAX: (414) 837-3608



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Groundwater Q3 2022

WorkOrder: 22082027

Dear Eric Bauer:

TEKLAB, INC received 9 samples on 10/3/2022 10:50:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Director of Customer Service
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	16
Dates Report	17
Quality Control Results	23
Receiving Check List	36
Chain of Custody	Appended

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022

Work Order: 22082027
Report Date: 15-Nov-22

Cooler Receipt Temp: 5.2 °C

An employee of Teklab, Inc. collected the sample(s).

MW-154 and MW-155 could not be collected; the wells were dry.

This report was revised on November 10, 2022 per Eric Bauer's request. The reason for the revision is to correct the report contact and the collection time for OW-156. Please replace report dated November 1, 2022 with this report. EAH 11/10/22

BAL_257_601 data is included in this report. EAH 11/15/22

Locations

Collinsville

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Accreditations

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-011
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: MW-304
 Collection Date: 09/29/2022 9:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		10.28	ft	1	09/29/2022 9:58	R319899
Elevation of groundwater surface	*	0		434.04	ft	1	09/29/2022 9:58	R319899
Measuring Point Elevation	*	0		444.32	ft	1	09/29/2022 9:58	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.72		1	09/29/2022 9:58	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	09/29/2022 9:58	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		86	mV	1	09/29/2022 9:58	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		3070	µS/cm	1	09/29/2022 9:58	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		16.5	°C	1	09/29/2022 9:58	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.66	mg/L	1	09/29/2022 9:58	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		826	mg/L	1	10/10/2022 10:55	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		10	mg/L	1	10/10/2022 10:55	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1470	mg/L	1	10/04/2022 10:49	R319035
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		199	mg/L	5	10/06/2022 17:15	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		1.70	mg/L	1	10/10/2022 11:42	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		174	mg/L	5	10/06/2022 17:15	R319121
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		10.2	mg/L	1	10/06/2022 14:03	198315
Magnesium	NELAP	0.0500		4.42	mg/L	1	10/06/2022 14:03	198315
Potassium	NELAP	0.100		2.20	mg/L	1	10/06/2022 14:03	198315
Sodium	NELAP	0.0500		570	mg/L	1	10/06/2022 14:03	198315
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		0.0027	mg/L	5	10/05/2022 20:59	198315
Barium	NELAP	0.0010		0.0183	mg/L	5	10/05/2022 20:59	198315
Boron	NELAP	0.0250		1.75	mg/L	5	10/05/2022 20:59	198315
Chromium	NELAP	0.0015	J	0.0013	mg/L	5	10/06/2022 21:31	198315
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	10/05/2022 20:59	198315
Lead	NELAP	0.0010		< 0.0010	mg/L	5	10/05/2022 20:59	198315
Lithium	*	0.0030		0.0861	mg/L	5	10/06/2022 21:31	198315
Molybdenum	NELAP	0.0015	J	0.0008	mg/L	5	10/05/2022 20:59	198315

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-012
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: MW-306
 Collection Date: 09/29/2022 18:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		17.96	ft	1	09/29/2022 18:18	R319899
Elevation of groundwater surface	*	0		382.00	ft	1	09/29/2022 18:18	R319899
Measuring Point Elevation	*	0		399.96	ft	1	09/29/2022 18:18	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		11.3		1	09/29/2022 18:18	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	09/29/2022 18:18	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		4	mV	1	09/29/2022 18:18	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		675	µS/cm	1	09/29/2022 18:18	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		14.9	°C	1	09/29/2022 18:18	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		1.47	mg/L	1	09/29/2022 18:18	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		0	mg/L	1	10/10/2022 11:04	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		50	mg/L	1	10/10/2022 11:04	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		300	mg/L	1	10/04/2022 10:49	R319035
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		41	mg/L	2	10/06/2022 17:52	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.49	mg/L	1	10/10/2022 11:44	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		68	mg/L	5	10/11/2022 11:12	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		39.8	mg/L	1	10/06/2022 14:06	198315
Magnesium	NELAP	0.050	J	0.036	mg/L	1	10/06/2022 14:06	198315
Potassium	NELAP	0.100		1.40	mg/L	1	10/06/2022 14:06	198315
Sodium	NELAP	0.0500		53.8	mg/L	1	10/06/2022 14:06	198315
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		0.0014	mg/L	5	10/05/2022 21:05	198315
Barium	NELAP	0.0010		0.0121	mg/L	5	10/05/2022 21:05	198315
Boron	NELAP	0.0250		0.110	mg/L	5	10/05/2022 21:05	198315
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	10/06/2022 21:37	198315
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	10/05/2022 21:05	198315
Lead	NELAP	0.0010		< 0.0010	mg/L	5	10/05/2022 21:05	198315
Lithium	*	0.0030		0.0113	mg/L	5	10/06/2022 21:37	198315
Molybdenum	NELAP	0.0015		0.0224	mg/L	5	10/05/2022 21:05	198315



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-016
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: MW-356
 Collection Date: 09/30/2022 14:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		4.32	ft	1	09/30/2022 14:51	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.76		1	09/30/2022 14:51	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	09/30/2022 14:51	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		90	mV	1	09/30/2022 14:51	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		1260	µS/cm	1	09/30/2022 14:51	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		17.8	°C	1	09/30/2022 14:51	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.58	mg/L	1	09/30/2022 14:51	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		545	mg/L	1	10/10/2022 11:20	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	10/10/2022 11:20	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		698	mg/L	1	10/06/2022 10:04	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		50	mg/L	2	10/06/2022 18:16	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		2.06	mg/L	1	10/10/2022 11:48	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		36	mg/L	1	10/06/2022 18:11	R319121
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		12.6	mg/L	1	10/06/2022 17:18	198316
Magnesium	NELAP	0.0500		7.76	mg/L	1	10/06/2022 17:18	198316
Potassium	NELAP	0.100		2.75	mg/L	1	10/06/2022 17:18	198316
Sodium	NELAP	0.0500		254	mg/L	1	10/06/2022 17:18	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010	J	0.0006	mg/L	5	10/04/2022 18:06	198316
Barium	NELAP	0.0010		0.0450	mg/L	5	10/04/2022 18:06	198316
Boron	NELAP	0.0250		2.92	mg/L	5	10/04/2022 18:06	198316
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	10/08/2022 4:16	198316
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 18:06	198316
Lead	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 18:06	198316
Lithium	*	0.0030		0.0840	mg/L	5	10/04/2022 18:06	198316
Molybdenum	NELAP	0.0015		0.0019	mg/L	5	10/04/2022 18:06	198316



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-018
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: MW-369
 Collection Date: 09/30/2022 7:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		14.55	ft	1	09/30/2022 7:08	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		8.52		1	09/30/2022 7:08	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		5.5	NTU	1	09/30/2022 7:08	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		88	mV	1	09/30/2022 7:08	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		2310	µS/cm	1	09/30/2022 7:08	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		15.1	°C	1	09/30/2022 7:08	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.40	mg/L	1	09/30/2022 7:08	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		511	mg/L	1	10/10/2022 11:33	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	10/10/2022 11:33	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		754	mg/L	1	10/06/2022 10:04	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		96	mg/L	5	10/06/2022 18:43	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.68	mg/L	1	10/10/2022 11:51	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		87	mg/L	5	10/06/2022 18:43	R319121
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		110	mg/L	1	10/06/2022 17:25	198316
Magnesium	NELAP	0.0500		39.4	mg/L	1	10/06/2022 17:25	198316
Potassium	NELAP	0.100		4.31	mg/L	1	10/06/2022 17:25	198316
Sodium	NELAP	0.0500		138	mg/L	1	10/06/2022 17:25	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		0.0011	mg/L	5	10/04/2022 18:18	198316
Barium	NELAP	0.0010		0.123	mg/L	5	10/04/2022 18:18	198316
Boron	NELAP	0.0250		0.592	mg/L	5	10/04/2022 18:18	198316
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	10/08/2022 4:29	198316
Cobalt	NELAP	0.0010	J	0.0003	mg/L	5	10/04/2022 18:18	198316
Lead	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 18:18	198316
Lithium	*	0.0030		0.0232	mg/L	5	10/04/2022 18:18	198316
Molybdenum	NELAP	0.0015		0.0066	mg/L	5	10/04/2022 18:18	198316



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-019
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: MW-370
 Collection Date: 09/30/2022 7:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		18.90	ft	1	09/30/2022 7:58	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.64		1	09/30/2022 7:58	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	09/30/2022 7:58	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		138	mV	1	09/30/2022 7:58	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		6210	µS/cm	1	09/30/2022 7:58	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		15.1	°C	1	09/30/2022 7:58	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		1.03	mg/L	1	09/30/2022 7:58	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		403	mg/L	1	10/10/2022 11:40	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	10/10/2022 11:40	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		3320	mg/L	1	10/06/2022 10:04	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		273	mg/L	10	10/06/2022 18:51	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		2.98	mg/L	1	10/10/2022 11:54	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	50		1520	mg/L	50	10/06/2022 18:56	R319121
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		51.4	mg/L	1	10/06/2022 17:29	198316
Magnesium	NELAP	0.0500		28.4	mg/L	1	10/06/2022 17:29	198316
Potassium	NELAP	0.100		6.68	mg/L	1	10/06/2022 17:29	198316
Sodium	NELAP	0.0500		1090	mg/L	1	10/06/2022 17:29	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010	J	0.0009	mg/L	5	10/04/2022 19:10	198316
Barium	NELAP	0.0010		0.0589	mg/L	5	10/04/2022 19:10	198316
Boron	NELAP	0.0250		2.67	mg/L	5	10/04/2022 19:10	198316
Chromium	NELAP	0.0015	J	0.0010	mg/L	5	10/08/2022 4:35	198316
Cobalt	NELAP	0.0010	J	0.0003	mg/L	5	10/04/2022 19:10	198316
Lead	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 19:10	198316
Lithium	*	0.0030		0.210	mg/L	5	10/04/2022 19:10	198316
Molybdenum	NELAP	0.0015		0.0165	mg/L	5	10/04/2022 19:10	198316



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-022
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: MW-382
 Collection Date: 09/30/2022 9:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		16.90	ft	1	09/30/2022 9:06	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.83		1	09/30/2022 9:06	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		120	NTU	1	09/30/2022 9:06	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		67	mV	1	09/30/2022 9:06	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		1790	µS/cm	1	09/30/2022 9:06	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		15.9	°C	1	09/30/2022 9:06	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		1.18	mg/L	1	09/30/2022 9:06	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		486	mg/L	1	10/10/2022 12:19	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	10/10/2022 12:19	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		1080	mg/L	2.5	10/06/2022 10:05	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		449	mg/L	20	10/11/2022 11:52	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		2.70	mg/L	1	10/10/2022 12:08	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		37	mg/L	1	10/11/2022 11:46	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		29.1	mg/L	1	10/07/2022 16:03	198316
Magnesium	NELAP	0.0500		12.4	mg/L	1	10/07/2022 16:03	198316
Potassium	NELAP	0.100		5.83	mg/L	1	10/06/2022 17:55	198316
Sodium	NELAP	0.0500		367	mg/L	1	10/07/2022 16:03	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		0.0023	mg/L	5	10/04/2022 19:29	198316
Barium	NELAP	0.0010		0.0271	mg/L	5	10/04/2022 19:29	198316
Boron	NELAP	0.0250		1.69	mg/L	5	10/04/2022 19:29	198316
Chromium	NELAP	0.0015		0.0131	mg/L	5	10/08/2022 5:38	198316
Cobalt	NELAP	0.0010		0.0033	mg/L	5	10/04/2022 19:29	198316
Lead	NELAP	0.0010		0.0039	mg/L	5	10/04/2022 19:29	198316
Lithium	*	0.0030		0.0621	mg/L	5	10/04/2022 19:29	198316
Molybdenum	NELAP	0.0015		0.0028	mg/L	5	10/04/2022 19:29	198316



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-029
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: TPZ-164
 Collection Date: 09/30/2022 16:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		5.05	ft	1	09/30/2022 16:02	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.14		1	09/30/2022 16:02	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		73	NTU	1	09/30/2022 16:02	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		100	mV	1	09/30/2022 16:02	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		987	µS/cm	1	09/30/2022 16:02	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		18.3	°C	1	09/30/2022 16:02	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		4.64	mg/L	1	09/30/2022 16:02	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		206	mg/L	1	10/10/2022 13:04	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	10/10/2022 13:04	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	50		465	mg/L	2.5	10/06/2022 10:06	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		150	mg/L	5	10/11/2022 12:40	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.24	mg/L	1	10/10/2022 12:16	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		52	mg/L	5	10/11/2022 12:40	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.500		68.5	mg/L	5	10/07/2022 16:22	198316
Magnesium	NELAP	0.250		27.9	mg/L	5	10/07/2022 16:22	198316
Potassium	NELAP	0.500		10.6	mg/L	5	10/07/2022 16:22	198316
Sodium	NELAP	0.250		75.6	mg/L	5	10/07/2022 16:22	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		0.0032	mg/L	5	10/04/2022 20:01	198316
Barium	NELAP	0.0010		0.166	mg/L	5	10/04/2022 20:01	198316
Boron	NELAP	0.0250		2.04	mg/L	5	10/04/2022 20:01	198316
Chromium	NELAP	0.0015		0.0029	mg/L	5	10/08/2022 6:09	198316
Cobalt	NELAP	0.0010		0.0017	mg/L	5	10/04/2022 20:01	198316
Lead	NELAP	0.0010		0.0022	mg/L	5	10/04/2022 20:01	198316
Lithium	*	0.0030		0.0243	mg/L	5	10/04/2022 20:01	198316
Molybdenum	NELAP	0.0015		0.0316	mg/L	5	10/04/2022 20:01	198316

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-030
 Matrix: GROUNDWATER

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: MW-304 Duplicate
 Collection Date: 09/29/2022 9:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		10.28	ft	1	09/29/2022 9:58	R319899
Elevation of groundwater surface	*	0		434.04	ft	1	09/29/2022 9:58	R319899
Measuring Point Elevation	*	0		444.32	ft	1	09/29/2022 9:58	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		7.72		1	09/29/2022 9:58	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	09/29/2022 9:58	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		86	mV	1	09/29/2022 9:58	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		3070	µS/cm	1	09/29/2022 9:58	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		16.5	°C	1	09/29/2022 9:58	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		0.66	mg/L	1	09/29/2022 9:58	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		818	mg/L	1	10/10/2022 13:10	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		16	mg/L	1	10/10/2022 13:10	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1490	mg/L	1	10/06/2022 8:45	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		239	mg/L	5	10/11/2022 12:48	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		1.57	mg/L	1	10/10/2022 12:18	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		185	mg/L	5	10/11/2022 12:48	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		9.79	mg/L	1	10/07/2022 16:48	198316
Magnesium	NELAP	0.0500		4.50	mg/L	1	10/06/2022 18:17	198316
Potassium	NELAP	0.100		2.25	mg/L	1	10/06/2022 18:17	198316
Sodium	NELAP	0.0500		570	mg/L	1	10/07/2022 16:48	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		0.0045	mg/L	5	10/04/2022 20:07	198316
Barium	NELAP	0.0010		0.0279	mg/L	5	10/04/2022 20:07	198316
Boron	NELAP	0.0250		2.58	mg/L	5	10/04/2022 20:07	198316
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	10/08/2022 6:16	198316
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 20:07	198316
Lead	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 20:07	198316
Lithium	*	0.0030		0.126	mg/L	5	10/04/2022 20:07	198316
Molybdenum	NELAP	0.0015		0.0016	mg/L	5	10/04/2022 20:07	198316



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
 Client Project: Baldwin Groundwater Q3 2022
 Lab ID: 22082027-031
 Matrix: AQUEOUS

Work Order: 22082027
 Report Date: 15-Nov-22
 Client Sample ID: Field Blank
 Collection Date: 09/30/2022 15:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO ₃)	NELAP	0		1	mg/L	1	10/10/2022 13:19	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO ₃)	NELAP	0		0	mg/L	1	10/10/2022 13:19	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		< 20	mg/L	1	10/06/2022 10:06	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	10/11/2022 12:58	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		< 0.10	mg/L	1	10/10/2022 12:28	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		< 4	mg/L	1	10/11/2022 12:58	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		< 0.100	mg/L	1	10/06/2022 18:21	198316
Magnesium	NELAP	0.0500		< 0.0500	mg/L	1	10/06/2022 18:21	198316
Potassium	NELAP	0.100		< 0.100	mg/L	1	10/06/2022 18:21	198316
Sodium	NELAP	0.050	J	0.021	mg/L	1	10/06/2022 18:21	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Arsenic	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 21:05	198316
Barium	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 21:05	198316
Boron	NELAP	0.0250		< 0.0250	mg/L	5	10/04/2022 21:05	198316
Chromium	NELAP	0.0015		< 0.0015	mg/L	5	10/08/2022 6:22	198316
Cobalt	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 21:05	198316
Lead	NELAP	0.0010		< 0.0010	mg/L	5	10/04/2022 21:05	198316
Lithium	*	0.0030		< 0.0030	mg/L	5	10/04/2022 21:05	198316
Molybdenum	NELAP	0.0015		< 0.0015	mg/L	5	10/04/2022 21:05	198316



Sample Summary

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
22082027-011	MW-304	Groundwater	4	09/29/2022 9:58
22082027-012	MW-306	Groundwater	4	09/29/2022 18:18
22082027-016	MW-356	Groundwater	2	09/30/2022 14:51
22082027-018	MW-369	Groundwater	2	09/30/2022 7:08
22082027-019	MW-370	Groundwater	2	09/30/2022 7:58
22082027-022	MW-382	Groundwater	2	09/30/2022 9:06
22082027-029	TPZ-164	Groundwater	2	09/30/2022 16:02
22082027-030	MW-304 Duplicate	Groundwater	4	09/29/2022 9:58
22082027-031	Field Blank	Aqueous	4	09/30/2022 15:00



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
22082027-011A	MW-304	09/29/2022 9:58	10/03/2022 10:50		
	EPA 600 353.2 R2.0 (Total)				09/30/2022 17:35
	Field Elevation Measurements				09/29/2022 9:58
	Standard Method 4500-H B 2001 Field				09/29/2022 9:58
	Standard Methods 2130 B Field				09/29/2022 9:58
	Standard Methods 18th Ed. 2580 B Field				09/29/2022 9:58
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 10:55
	Standard Methods 2320 B 1997, 2011				10/10/2022 10:55
	Standard Methods 2510 B Field				09/29/2022 9:58
	Standard Methods 2540 C (Total) 1997, 2011				10/04/2022 10:49
	Standard Methods 2550 B Field				09/29/2022 9:58
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/30/2022 12:41
	Standard Methods 4500-O G Field				09/29/2022 9:58
	SW-846 9036 (Total)				10/06/2022 17:15
	SW-846 9214 (Total)				10/10/2022 11:42
	SW-846 9251 (Total)				10/06/2022 17:15
22082027-011B	MW-304	09/29/2022 9:58	10/03/2022 10:50		
	SW-846 9036 (Dissolved)				10/06/2022 14:16
	SW-846 9251 (Dissolved)				10/06/2022 14:11
22082027-011C	MW-304	09/29/2022 9:58	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:38	10/06/2022 14:03
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:38	10/05/2022 3:06
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:38	10/05/2022 20:59
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:38	10/06/2022 21:31
22082027-011D	MW-304	09/29/2022 9:58	10/03/2022 10:50		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/04/2022 9:10	10/05/2022 15:38
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/04/2022 9:10	10/06/2022 16:36
22082027-012A	MW-306	09/29/2022 18:18	10/03/2022 10:50		
	EPA 600 353.2 R2.0 (Total)				09/30/2022 17:37
	Field Elevation Measurements				09/29/2022 18:18
	Standard Method 4500-H B 2001 Field				09/29/2022 18:18
	Standard Methods 2130 B Field				09/29/2022 18:18
	Standard Methods 18th Ed. 2580 B Field				09/29/2022 18:18
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:04
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:04
	Standard Methods 2510 B Field				09/29/2022 18:18
	Standard Methods 2540 C (Total) 1997, 2011				10/04/2022 10:49



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Standard Methods 2550 B Field				09/29/2022 18:18
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/30/2022 12:41
	Standard Methods 4500-O G Field				09/29/2022 18:18
	SW-846 9036 (Total)				10/06/2022 17:52
	SW-846 9214 (Total)				10/10/2022 11:44
	SW-846 9251 (Total)				10/11/2022 11:12
22082027-012B	MW-306	09/29/2022 18:18	10/03/2022 10:50		
	SW-846 9036 (Dissolved)				10/06/2022 14:24
	SW-846 9251 (Dissolved)				10/06/2022 14:24
22082027-012C	MW-306	09/29/2022 18:18	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:38	10/06/2022 14:06
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:38	10/05/2022 3:12
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:38	10/05/2022 21:05
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:38	10/06/2022 21:37
22082027-012D	MW-306	09/29/2022 18:18	10/03/2022 10:50		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/04/2022 9:10	10/05/2022 15:45
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/04/2022 9:10	10/06/2022 16:42
22082027-016A	MW-356	09/30/2022 14:51	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 14:51
	Standard Method 4500-H B 2001 Field				09/30/2022 14:51
	Standard Methods 2130 B Field				09/30/2022 14:51
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 14:51
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:20
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:20
	Standard Methods 2510 B Field				09/30/2022 14:51
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:04
	Standard Methods 2550 B Field				09/30/2022 14:51
	Standard Methods 4500-O G Field				09/30/2022 14:51
	SW-846 9036 (Total)				10/06/2022 18:16
	SW-846 9214 (Total)				10/10/2022 11:48
	SW-846 9251 (Total)				10/06/2022 18:11
22082027-016B	MW-356	09/30/2022 14:51	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 18:06
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 13:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 4:16
22082027-018A	MW-369	09/30/2022 7:08	10/03/2022 10:50		



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
	Field Elevation Measurements				09/30/2022 7:08
	Standard Method 4500-H B 2001 Field				09/30/2022 7:08
	Standard Methods 2130 B Field				09/30/2022 7:08
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 7:08
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:33
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:33
	Standard Methods 2510 B Field				09/30/2022 7:08
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:04
	Standard Methods 2550 B Field				09/30/2022 7:08
	Standard Methods 4500-O G Field				09/30/2022 7:08
	SW-846 9036 (Total)				10/06/2022 18:43
	SW-846 9214 (Total)				10/10/2022 11:51
	SW-846 9251 (Total)				10/06/2022 18:43
22082027-018B	MW-369	09/30/2022 7:08	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:25
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 18:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 13:27
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 4:29
22082027-019A	MW-370	09/30/2022 7:58	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 7:58
	Standard Method 4500-H B 2001 Field				09/30/2022 7:58
	Standard Methods 2130 B Field				09/30/2022 7:58
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 7:58
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:40
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:40
	Standard Methods 2510 B Field				09/30/2022 7:58
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:04
	Standard Methods 2550 B Field				09/30/2022 7:58
	Standard Methods 4500-O G Field				09/30/2022 7:58
	SW-846 9036 (Total)				10/06/2022 18:51
	SW-846 9214 (Total)				10/10/2022 11:54
	SW-846 9251 (Total)				10/06/2022 18:56
22082027-019B	MW-370	09/30/2022 7:58	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:29
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:10
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 13:32
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 4:35



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
22082027-022A	MW-382	09/30/2022 9:06	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 9:06
	Standard Method 4500-H B 2001 Field				09/30/2022 9:06
	Standard Methods 2130 B Field				09/30/2022 9:06
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 9:06
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 12:19
	Standard Methods 2320 B 1997, 2011				10/10/2022 12:19
	Standard Methods 2510 B Field				09/30/2022 9:06
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:05
	Standard Methods 2550 B Field				09/30/2022 9:06
	Standard Methods 4500-O G Field				09/30/2022 9:06
	SW-846 9036 (Total)				10/11/2022 11:52
	SW-846 9214 (Total)				10/10/2022 12:08
	SW-846 9251 (Total)				10/11/2022 11:46
22082027-022B	MW-382	09/30/2022 9:06	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:55
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 16:03
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:29
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 13:46
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 5:38
22082027-029A	TPZ-164	09/30/2022 16:02	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 16:02
	Standard Method 4500-H B 2001 Field				09/30/2022 16:02
	Standard Methods 2130 B Field				09/30/2022 16:02
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 16:02
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 13:04
	Standard Methods 2320 B 1997, 2011				10/10/2022 13:04
	Standard Methods 2510 B Field				09/30/2022 16:02
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:06
	Standard Methods 2550 B Field				09/30/2022 16:02
	Standard Methods 4500-O G Field				09/30/2022 16:02
	SW-846 9036 (Total)				10/11/2022 12:40
	SW-846 9214 (Total)				10/10/2022 12:16
	SW-846 9251 (Total)				10/11/2022 12:40
22082027-029B	TPZ-164	09/30/2022 16:02	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 16:22
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 20:01



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 14:52
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 6:09
22082027-030A	MW-304 Duplicate	09/29/2022 9:58	10/03/2022 10:50		
	EPA 600 353.2 R2.0 (Total)				09/30/2022 17:50
	Field Elevation Measurements				09/29/2022 9:58
	Standard Method 4500-H B 2001 Field				09/29/2022 9:58
	Standard Methods 2130 B Field				09/29/2022 9:58
	Standard Methods 18th Ed. 2580 B Field				09/29/2022 9:58
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 13:10
	Standard Methods 2320 B 1997, 2011				10/10/2022 13:10
	Standard Methods 2510 B Field				09/29/2022 9:58
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 8:45
	Standard Methods 2550 B Field				09/29/2022 9:58
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/30/2022 14:16
	Standard Methods 4500-O G Field				09/29/2022 9:58
	SW-846 9036 (Total)				10/11/2022 12:48
	SW-846 9214 (Total)				10/10/2022 12:18
	SW-846 9251 (Total)				10/11/2022 12:48
22082027-030B	MW-304 Duplicate	09/29/2022 9:58	10/03/2022 10:50		
	SW-846 9036 (Dissolved)				10/06/2022 15:12
	SW-846 9251 (Dissolved)				10/06/2022 15:07
22082027-030C	MW-304 Duplicate	09/29/2022 9:58	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 18:17
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 16:48
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 20:07
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 14:56
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 6:16
22082027-030D	MW-304 Duplicate	09/29/2022 9:58	10/03/2022 10:50		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/06/2022 14:02	10/07/2022 15:15
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/06/2022 14:02	10/13/2022 3:37
22082027-031A	Field Blank	09/30/2022 15:00	10/03/2022 10:50		
	EPA 600 353.2 R2.0 (Total)				09/30/2022 18:30
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 13:19
	Standard Methods 2320 B 1997, 2011				10/10/2022 13:19
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:06
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/30/2022 16:01
	SW-846 9036 (Total)				10/11/2022 12:58



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
	SW-846 9214 (Total)				10/10/2022 12:28
	SW-846 9251 (Total)				10/11/2022 12:58
22082027-031B	Field Blank	09/30/2022 15:00	10/03/2022 10:50		
	SW-846 9036 (Dissolved)				10/06/2022 15:18
	SW-846 9251 (Dissolved)				10/06/2022 15:18
22082027-031C	Field Blank	09/30/2022 15:00	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 18:21
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 21:05
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 15:06
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 6:22
22082027-031D	Field Blank	09/30/2022 15:00	10/03/2022 10:50		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/06/2022 14:02	10/07/2022 14:37



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

STANDARD METHOD 4500-H B 2001 FIELD

Batch R319899		SampType: LCS		Units							Date Analyzed
SampID: LCS-R319899											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.07	7.000	0	101.0	98.57	101.4	09/29/2022	
pH	*	1.00		6.99	7.000	0	99.9	98.57	101.4	09/30/2022	

STANDARD METHODS 2510 B FIELD

Batch R319899		SampType: LCS		Units µS/cm							Date Analyzed
SampID: LCS-R319899											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		1500	1409	0	106.7	90	110	09/30/2022	
Spec. Conductance, Field	*	0		1450	1409	0	103.2	90	110	09/29/2022	

EPA 600 353.2 R2.0 (TOTAL)

Batch R318832		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate (as N)		0.050		< 0.050						09/30/2022	

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R319035		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/04/2022	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/04/2022	

Batch R319035		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		980	1000	0	98.0	90	110	10/04/2022	
Total Dissolved Solids		20		980	1000	0	98.0	90	110	10/04/2022	

Batch R319035		SampType: DUP		Units mg/L					RPD Limit: 5		Date Analyzed
SampID: 22082027-001ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		718				724.0	0.83	10/04/2022	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R319035		SampType: DUP		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: 22082027-006ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		378				374.0	1.06	10/04/2022	

Batch R319177		SampType: MBLK		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/06/2022	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	10/06/2022	

Batch R319177		SampType: LCS		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		968	1000	0	96.8	90	110	10/06/2022	
Total Dissolved Solids		20		972	1000	0	97.2	90	110	10/06/2022	

Batch R319177		SampType: DUP		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: 22082027-016ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		706				698.0	1.14	10/06/2022	

Batch R319177		SampType: DUP		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: 22082027-019ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		3330				3320	0.30	10/06/2022	

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R318816		SampType: MBLK		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/30/2022	

Batch R318816		SampType: LCS		Units mg/L				RPD Limit: 5			Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.25		1.07	1.100	0	97.3	90	110	09/30/2022	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R318816		SampType: MS		Units mg/L							
SampID: 22082027-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	103.8	85	115	09/30/2022	

Batch R318816		SampType: MSD		Units mg/L							
SampID: 22082027-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	104.0	0.5190	0.19	09/30/2022	

Batch R318816		SampType: MS		Units mg/L							
SampID: 22082027-005AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	101.4	85	115	09/30/2022	

Batch R318816		SampType: MSD		Units mg/L							
SampID: 22082027-005AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Nitrogen, Nitrite (as N)		0.05		0.51	0.5000	0	101.8	0.5070	0.39	09/30/2022	

SW-846 9036 (DISSOLVED)

Batch R319319		SampType: MS		Units mg/L							
SampID: 22082027-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		305	200.0	123.3	91.0	85	115	10/11/2022	

Batch R319319		SampType: MSD		Units mg/L							
SampID: 22082027-002BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		314	200.0	123.3	95.3	305.4	2.74	10/11/2022	

Batch R319319		SampType: MS		Units mg/L							
SampID: 22082027-010BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		340	200.0	155.0	92.3	85	115	10/11/2022	



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 9036 (DISSOLVED)

Batch R319319		SampType: MSD		Units mg/L				RPD Limit: 10			Date Analyzed
SampID: 22082027-010BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		335	200.0	155.0	90.0	339.6	1.35	10/11/2022	

SW-846 9036 (TOTAL)

Batch R319116		SampType: MBLK		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICB/MBLK												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		10		< 10	6.140	0	0	-100	100	10/06/2022		

Batch R319116		SampType: LCS		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICV/LCS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		10		20	20.00	0	102.0	90	110	10/06/2022		

Batch R319116		SampType: MS		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: 22082027-012AMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		20	E	81	40.00	41.31	99.0	85	115	10/06/2022		

Batch R319116		SampType: MSD		Units mg/L				RPD Limit: 10			Date Analyzed
SampID: 22082027-012AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		20	E	82	40.00	41.31	101.5	80.91	1.23	10/06/2022	

Batch R319319		SampType: MBLK		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICB/MBLK												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		10		< 10	6.140	0	0	-100	100	10/11/2022		

Batch R319319		SampType: LCS		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICV/LCS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Sulfate		10		20	20.00	0	101.0	90	110	10/11/2022		



Quality Control Results

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Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 9214 (TOTAL)

Batch R319255		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	10/10/2022	

Batch R319255		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		0.98	1.000	0	98.4	90	110	10/10/2022	

Batch R319255		SampType: MS		Units mg/L							
SampID: 22082027-020AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		4.45	2.000	2.351	105.1	75	125	10/10/2022	

Batch R319255		SampType: MSD		Units mg/L							
SampID: 22082027-020AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		4.50	2.000	2.351	107.2	4.453	0.94	10/10/2022	

Batch R319255		SampType: MS		Units mg/L							
SampID: 22082027-030AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		3.71	2.000	1.569	107.1	75	125	10/10/2022	

Batch R319255		SampType: MSD		Units mg/L							
SampID: 22082027-030AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		3.68	2.000	1.569	105.7	3.711	0.76	10/10/2022	

Batch R319255		SampType: MS		Units mg/L							
SampID: 22082027-031AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		1.97	2.000	0	98.3	75	125	10/10/2022	

Batch R319255		SampType: MSD		Units mg/L							
SampID: 22082027-031AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		1.95	2.000	0	97.6	1.966	0.77	10/10/2022	



Quality Control Results

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Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 9251 (DISSOLVED)

Batch R319121		SampType: MS		Units mg/L						
SampID: 22082027-002BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		35	20.00	16.56	93.5	85	115	10/06/2022

Batch R319121		SampType: MSD		Units mg/L						
SampID: 22082027-002BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		1		35	20.00	16.56	93.2	35.26	0.20	10/06/2022

Batch R319121		SampType: MS		Units mg/L						
SampID: 22082027-010BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		40	20.00	22.25	89.5	85	115	10/06/2022

Batch R319121		SampType: MSD		Units mg/L						
SampID: 22082027-010BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		1		40	20.00	22.25	88.0	40.15	0.78	10/06/2022

SW-846 9251 (TOTAL)

Batch R319121		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		< 1	0.5000	0	0	-100	100	10/06/2022

Batch R319121		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		1		20	20.00	0	100.6	90	110	10/06/2022

Batch R319323		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		< 4	0.5000	0	0	-100	100	10/11/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 9251 (TOTAL)

Batch R319323		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		20	20.00	0	101.6	90	110	10/11/2022

Batch R319323		SampType: MS		Units mg/L						
SampID: 22082027-012AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		20		162	100.0	68.42	93.4	85	115	10/11/2022

Batch R319323		SampType: MSD		Units mg/L							RPD Limit: 15
SampID: 22082027-012AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		20		163	100.0	68.42	94.8	161.9	0.83	10/11/2022	

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 198315		SampType: MBLK		Units mg/L						
SampID: MBLK-198315										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	10/04/2022
Barium		0.0025		< 0.0025	0.0007	0	0	-100	100	10/04/2022
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	10/04/2022
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/04/2022
Chromium		0.0050		< 0.0050	0.0028	0	0	-100	100	10/04/2022
Cobalt		0.0050		< 0.0050	0.0020	0	0	-100	100	10/04/2022
Iron		0.0400		< 0.0400	0.0200	0	0	-100	100	10/04/2022
Lead		0.0150		< 0.0150	0.0014	0	0	-100	100	10/04/2022
Lithium		0.0050		< 0.0050	0.0019	0	0	-100	100	10/04/2022
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/04/2022
Manganese		0.0070		< 0.0070	0.0025	0	0	-100	100	10/04/2022
Molybdenum		0.0100		< 0.0100	0.0037	0	0	-100	100	10/04/2022
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/04/2022
Selenium		0.0400		< 0.0400	0.0170	0	0	-100	100	10/04/2022
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/04/2022
Thallium		0.0500		< 0.0500	0.0111	0	0	-100	100	10/04/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 198315 SampType: LCS Units mg/L
 SampID: LCS-198315

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.0250		0.508	0.5000	0	101.6	85	115	10/04/2022
Barium		0.0025		1.98	2.000	0	98.8	85	115	10/04/2022
Boron		0.0200		0.500	0.5000	0	100.0	85	115	10/04/2022
Calcium		0.100		2.46	2.500	0	98.6	85	115	10/04/2022
Chromium		0.0050		0.198	0.2000	0	98.8	85	115	10/04/2022
Cobalt		0.0050		0.496	0.5000	0	99.2	85	115	10/04/2022
Iron		0.0400		1.98	2.000	0	98.8	85	115	10/04/2022
Lead		0.0150		0.497	0.5000	0	99.4	85	115	10/04/2022
Lithium		0.0050		0.506	0.5000	0	101.2	85	115	10/04/2022
Magnesium		0.0500		2.50	2.500	0	99.9	85	115	10/04/2022
Manganese		0.0070		0.490	0.5000	0	98.0	85	115	10/04/2022
Molybdenum		0.0100		0.485	0.5000	0	97.1	85	115	10/04/2022
Potassium		0.100		2.66	2.500	0	106.4	85	115	10/04/2022
Selenium		0.0400		0.490	0.5000	0	98.0	85	115	10/04/2022
Sodium		0.0500		2.22	2.500	0	89.0	85	115	10/04/2022
Thallium		0.0500		0.237	0.2500	0	94.9	85	115	10/04/2022

Batch 198316 SampType: MBLK Units mg/L
 SampID: MBLK-198316

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	10/06/2022
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	10/06/2022
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	10/06/2022
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	10/06/2022

Batch 198316 SampType: LCS Units mg/L
 SampID: LCS-198316

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium		0.100		2.72	2.500	0	108.6	85	115	10/06/2022
Magnesium		0.0500		2.67	2.500	0	107.0	85	115	10/06/2022
Potassium		0.100		2.60	2.500	0	104.0	85	115	10/06/2022
Sodium		0.0500		2.48	2.500	0	99.0	85	115	10/06/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 198332		SampType: MBLK		Units mg/L						
SampID: MBLK-198332										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/04/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/04/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/05/2022

Batch 198332		SampType: LCS		Units mg/L						
SampID: LCS-198332										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		0.444	0.5000	0	88.8	85	115	10/05/2022
Iron		0.0250		1.83	2.000	0	91.3	85	115	10/06/2022
Manganese		0.0020		0.440	0.5000	0	88.1	85	115	10/05/2022

Batch 198332		SampType: MS		Units mg/L						
SampID: 22082027-002DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		0.575	0.5000	0.1168	91.6	75	125	10/05/2022
Iron		0.0250		3.72	2.000	1.860	93.0	75	125	10/07/2022
Manganese		0.0020		2.02	0.5000	1.496	104.2	75	125	10/05/2022

Batch 198332		SampType: MSD		Units mg/L					RPD Limit: 20		Date Analyzed
SampID: 22082027-002DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Boron		0.0250		0.550	0.5000	0.1168	86.7	0.5750	4.40	10/05/2022	
Iron		0.0250		3.50	2.000	1.860	81.8	3.720	6.23	10/07/2022	
Manganese		0.0020		1.93	0.5000	1.496	86.4	2.017	4.50	10/05/2022	

Batch 198443		SampType: MBLK		Units mg/L						
SampID: MBLK-198443										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/07/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/07/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/07/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 3005A, 6020A, METALS BY ICPMS (DISSOLVED)

Batch 198443		SampType: LCS		Units mg/L						
SampID: LCS-198443										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		0.446	0.5000	0	89.2	85	115	10/07/2022
Iron		0.0250		1.73	2.000	0	86.6	85	115	10/07/2022
Manganese		0.0020		0.433	0.5000	0	86.5	85	115	10/07/2022

Batch 198443		SampType: MS		Units mg/L						
SampID: 22082027-030DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0250		2.14	0.5000	1.604	107.9	75	125	10/13/2022
Iron		0.0250		1.74	2.000	0	86.9	75	125	10/07/2022
Manganese		0.0020		0.415	0.5000	0.002678	82.4	75	125	10/07/2022

Batch 198443		SampType: MSD		Units mg/L							RPD Limit: 20	
SampID: 22082027-030DMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Boron		0.0250		2.06	0.5000	1.604	90.3	2.144	4.17	10/13/2022		
Iron		0.0250		1.83	2.000	0	91.4	1.737	5.03	10/07/2022		
Manganese		0.0020		0.456	0.5000	0.002678	90.8	0.4146	9.62	10/07/2022		

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 198315		SampType: MBLK		Units mg/L						
SampID: MBLK-198315										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0005	0	0	-100	100	10/04/2022
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	10/04/2022
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	10/04/2022
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/04/2022
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	10/04/2022
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	10/05/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/06/2022
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	10/04/2022
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	10/04/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/05/2022
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	10/04/2022
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	10/05/2022
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	10/04/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 198315 **SampType: LCS** Units mg/L
 SampID: LCS-198315

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.476	0.5000	0	95.2	80	120	10/05/2022
Arsenic		0.0010		0.471	0.5000	0	94.1	80	120	10/05/2022
Barium		0.0010		1.88	2.000	0	94.0	80	120	10/05/2022
Boron		0.0250		0.497	0.5000	0	99.3	80	120	10/05/2022
Chromium		0.0015		0.197	0.2000	0	98.4	80	120	10/06/2022
Cobalt		0.0010		0.466	0.5000	0	93.2	80	120	10/05/2022
Iron		0.0250		1.82	2.000	0	91.0	80	120	10/06/2022
Lead		0.0010		0.483	0.5000	0	96.7	80	120	10/05/2022
Lithium	*	0.0030		0.517	0.5000	0	103.3	80	120	10/05/2022
Manganese		0.0020		0.463	0.5000	0	92.7	80	120	10/05/2022
Molybdenum		0.0015		0.463	0.5000	0	92.7	80	120	10/05/2022
Selenium		0.0010		0.459	0.5000	0	91.8	80	120	10/05/2022
Thallium		0.0020		0.223	0.2500	0	89.2	80	120	10/05/2022

Batch 198315 **SampType: MS** Units mg/L
 SampID: 22082027-006CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Manganese		0.0020		0.454	0.5000	0.02350	86.0	75	125	10/05/2022

Batch 198315 **SampType: MSD** Units mg/L
 SampID: 22082027-006CMSD

RPD Limit: 20

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Manganese		0.0020		0.457	0.5000	0.02350	86.8	0.4537	0.79	10/05/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 198316 SampType: MBLK Units mg/L
 SampID: MBLK-198316

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	10/04/2022
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	10/04/2022
Barium		0.0010		< 0.0010	0.0007	0	0	-100	100	10/04/2022
Boron		0.0250		< 0.0250	0.0093	0	0	-100	100	10/04/2022
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	10/04/2022
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	10/04/2022
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/14/2022
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	10/04/2022
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	10/04/2022
Manganese		0.0020		< 0.0020	0.0008	0	0	-100	100	10/04/2022
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	10/04/2022
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	10/04/2022
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	10/04/2022

Batch 198316 SampType: LCS Units mg/L
 SampID: LCS-198316

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.482	0.5000	0	96.4	80	120	10/04/2022
Arsenic		0.0010		0.489	0.5000	0	97.7	80	120	10/04/2022
Barium		0.0010		1.62	2.000	0	80.8	80	120	10/04/2022
Boron		0.0250		0.477	0.5000	0	95.3	80	120	10/04/2022
Chromium		0.0015		0.199	0.2000	0	99.3	80	120	10/08/2022
Cobalt		0.0010		0.477	0.5000	0	95.5	80	120	10/04/2022
Iron		0.0250		2.01	2.000	0	100.5	80	120	10/08/2022
Lead		0.0010		0.472	0.5000	0	94.4	80	120	10/04/2022
Lithium	*	0.0030		0.494	0.5000	0	98.8	80	120	10/04/2022
Manganese		0.0020		0.491	0.5000	0	98.3	80	120	10/08/2022
Molybdenum		0.0015		0.475	0.5000	0	94.9	80	120	10/04/2022
Selenium		0.0010		0.449	0.5000	0	89.8	80	120	10/04/2022
Thallium		0.0020		0.235	0.2500	0	94.1	80	120	10/04/2022

Batch 198316 SampType: MS Units mg/L
 SampID: 22082027-015CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Iron		0.0250		1.91	2.000	0.1255	89.1	75	125	10/08/2022
Manganese		0.0020		0.457	0.5000	0.01209	89.0	75	125	10/08/2022



Quality Control Results

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 198316		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 22082027-015CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Iron		0.0250		1.81	2.000	0.1255	84.1	1.908	5.35	10/08/2022	
Manganese		0.0020		0.436	0.5000	0.01209	84.8	0.4573	4.73	10/08/2022	

Batch 198576		SampType: MBLK		Units mg/L							
SampID: MBLK-198576											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Iron		0.0250		< 0.0250	0.0115	0	0	-100	100	10/11/2022	

Batch 198576		SampType: LCS		Units mg/L							
SampID: LCS-198576											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Iron		0.0250		1.99	2.000	0	99.5	80	120	10/11/2022	

Batch 198576		SampType: MS		Units mg/L							
SampID: 22082027-006CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Iron		0.0250		4.23	4.000	0.4692	94.0	75	125	10/11/2022	

Batch 198576		SampType: MSD		Units mg/L				RPD Limit: 20			
SampID: 22082027-006CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Iron		0.0250		5.02	4.000	0.4692	113.7	4.229	17.05	10/11/2022	



Receiving Check List

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082027

Client Project: Baldwin Groundwater Q3 2022

Report Date: 15-Nov-22

Carrier: Joe Riley

Received By: ANC

Completed by:

Reviewed by:

On:

On:

03-Oct-22

03-Oct-22

Payton Yoch

Marvin L. Darling

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **5.2**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- 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
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

pH strip 83856 - CET/pyoch - 10/3/2022 1:37:16 PM

22100038

22082027

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp	
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A	
Phone: (217) 753-8911	Fax:	Project Name:		Quote Reference:	
Requested Due Date/TAT: standard		Project Number: 2285		Project Manager:	
				Profile #:	

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location	IL	
STATE:		

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / .-) Sample IDs MUST BE UNIQUE * Well D24	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WPE WP AIR AP OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test Y/N	Requested Analysis Filtered (Y/N)						Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		BAL_257_601	BAL_257_605	BAL_CLOSURE_605	BAL_NPDES_600	BAL_WPCP_605	Quarterly GW		
1	22082027-001	MW-104DR			09/29/22	0935	4	2	2															22082027-001	
2	002	MW-104SR			09/29/22	0914	4	2	2																002
3	003	MW-150			09/29/22	1456	4	2	2																003
4	004	MW-151			09/29/22	1527	4	2	2																004
5	005	MW-152			09/29/22	1124	4	2	2																005
6	006	MW-153			9/29/22	1627	4	2	2																006
7	007	MW-154	*				4	2	2																007
8	008	MW-155	*				4	2	2																008
9	009	MW-252			09/29/22	1157	4	2	2																009
10	010	MW-253			9/29/22	1653	4	2	2																010
11	011	MW-304			09/29/22	0958	4	2	2																011
12	012	MW-306			9/29/22	1818	4	2	2																012
13	013	MW-350			9/29/22	1527	4	2	2																013
14	014	MW-352			9/29/22	1930	4	2	2																014
15	015	MW-355			9/29/22	1732	4	2	2																015
16	016	MW-356			09/29/22	1457	2	1	1																016

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BAL-Q3-2022	<i>[Signature]</i>	10/1/22	1035	<i>[Signature]</i>	10/3/22	10:50	

MW-152 collection time per field file. EAH 10/28/22

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	<i>Joe Ritz</i>	DATE Signed (MM/DD/YY):	09/30/22
SIGNATURE of SAMPLER:	<i>[Signature]</i>		

Temp: 5.2 LTGib ULE
Phv83856. CBS 10-3-22.

22100038
22082027

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 2 of 2	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A		NPDES GROUND WATER DRINKING WATER	
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:		UST RCRA OTHER	
Requested Due Date/TAT: standard		Project Number: 2285		Project Manager:		Site Location	
				Profile #:		STATE: IL	

ITEM #	Section O Required Client Information		Valid Matrix Codes MATRIX CODE		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test Y/N	Residual Chlorine (Y/N)	Project No./ Lab I.D.				
	SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE	Matrix Code	DATE	TIME			Unpreserved	H ₂ SO ₄			HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	BAL_257_601	BAL_257_605				BAL_CLOSURE_605	BAL_NPDES_600	BAL_WPCP_605	Baldwin Quarterly GW
1	017	MW-366	09/30/22	1219					2										22082027-017						
2	018	MW-369	09/30/22	0908					2										018						
3	019	MW-370	09/30/22	0758					2										019						
4	020	MW-375	09/30/22	0758					2										020						
5	021	MW-377	09/30/22	1414					2										021						
6	022	MW-382	09/30/22	0906					2										022						
7	023	MW-383	09/30/22	1056					2										023						
8	024	MW-384	09/30/22	1014					2										024						
9	025	MW-390	09/30/22	1257					2										025						
10	026	MW-391	09/30/22	1146					2										026						
11	027	OW-156	09/30/22	1502					1										027						
12	028	OW-157	09/30/22	1518					1										028						
13	029	TPZ-164	09/30/22	1602					2										029						
14	030	MW-304 Duplicate *	09/30/22	0958					4										030						
15	031	Field Blank *	09/30/22	1500					4										031						

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS			
BAL-Q3-2022		<i>[Signature]</i>		10/1/22		1035		Allison Coleri		10/3/22		10:50					
* per Baldwin Quarterly GW project. EAH 8/31/22																	
SAMPLER NAME AND SIGNATURE										Temp in °C		Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)			
PRINT Name of SAMPLER: <i>Joe R. [Signature]</i>																	
SIGNATURE of SAMPLER: <i>[Signature]</i>										DATE Signed (MM/DD/YY): 09/30/22							

November 10, 2022

Eric Bauer
Ramboll
234 W. Florida St.
5th Floor
Milwaukee, WI 53204
TEL: (414) 837-3614
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Baldwin Groundwater Q3 2022

WorkOrder: 22082028

Dear Eric Bauer:

TEKLAB, INC received 17 samples on 10/3/2022 10:50:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley
Director of Customer Service
(618)344-1004 ex 33
ehurley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	24
Dates Report	25
Receiving Check List	26
Chain of Custody	Appended

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

Cooler Receipt Temp: 5.2 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

This report was revised on November 10, 2022 per Eric Bauer's request. The reason for the revision is to correct report contact and the collection times of MW-350 and MW-304 Duplicate. Please replace report dated November 3, 2022 with this report. EAH 11/10/22

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-001
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-304
Collection Date: 09/29/2022 9:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-002
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-306
Collection Date: 09/29/2022 18:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-003
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-350
Collection Date: 09/29/2022 10:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-004
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-356
Collection Date: 09/30/2022 14:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-005
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-366
Collection Date: 09/30/2022 12:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-006
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-369
Collection Date: 09/30/2022 7:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-007
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-370
Collection Date: 09/30/2022 7:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-008
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-375
Collection Date: 09/30/2022 13:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-009
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-377
Collection Date: 09/30/2022 14:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-010
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-382
Collection Date: 09/30/2022 9:06

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-011
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-383
Collection Date: 09/30/2022 10:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-012
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-384
Collection Date: 09/30/2022 10:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-013
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-390
Collection Date: 09/30/2022 12:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-014
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-391
Collection Date: 09/30/2022 11:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-015
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: TPZ-164
Collection Date: 09/30/2022 16:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-016
Matrix: GROUNDWATER

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: MW-304 Duplicate
Collection Date: 09/29/2022 9:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Laboratory Results

<http://www.teklabinc.com/>

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2022
Lab ID: 22082028-017
Matrix: AQUEOUS

Work Order: 22082028
Report Date: 10-Nov-22
Client Sample ID: Field Blank
Collection Date: 09/30/2022 15:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507
Radium-228	*	0		See Attached	pci/L	1	10/18/2022 0:00	R320507



Sample Summary

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
22082028-001	MW-304	Groundwater	1	09/29/2022 9:58
22082028-002	MW-306	Groundwater	1	09/29/2022 18:18
22082028-003	MW-350	Groundwater	1	09/29/2022 10:27
22082028-004	MW-356	Groundwater	1	09/30/2022 14:51
22082028-005	MW-366	Groundwater	1	09/30/2022 12:19
22082028-006	MW-369	Groundwater	1	09/30/2022 7:08
22082028-007	MW-370	Groundwater	1	09/30/2022 7:58
22082028-008	MW-375	Groundwater	1	09/30/2022 13:30
22082028-009	MW-377	Groundwater	1	09/30/2022 14:14
22082028-010	MW-382	Groundwater	1	09/30/2022 9:06
22082028-011	MW-383	Groundwater	1	09/30/2022 10:56
22082028-012	MW-384	Groundwater	1	09/30/2022 10:14
22082028-013	MW-390	Groundwater	1	09/30/2022 12:57
22082028-014	MW-391	Groundwater	1	09/30/2022 11:46
22082028-015	TPZ-164	Groundwater	1	09/30/2022 16:02
22082028-016	MW-304 Duplicate	Groundwater	1	09/29/2022 9:50
22082028-017	Field Blank	Aqueous	1	09/30/2022 15:00



Dates Report

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
22082028-001A	MW-304	09/29/2022 9:58	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-002A	MW-306	09/29/2022 18:18	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-003A	MW-350	09/29/2022 10:27	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-004A	MW-356	09/30/2022 14:51	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-005A	MW-366	09/30/2022 12:19	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-006A	MW-369	09/30/2022 7:08	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-007A	MW-370	09/30/2022 7:58	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-008A	MW-375	09/30/2022 13:30	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-009A	MW-377	09/30/2022 14:14	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-010A	MW-382	09/30/2022 9:06	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-011A	MW-383	09/30/2022 10:56	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-012A	MW-384	09/30/2022 10:14	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-013A	MW-390	09/30/2022 12:57	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-014A	MW-391	09/30/2022 11:46	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-015A	TPZ-164	09/30/2022 16:02	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-016A	MW-304 Duplicate	09/29/2022 9:50	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			
22082028-017A	Field Blank	09/30/2022 15:00	10/03/2022 10:50		
EPA 903.0/904.0, Radium 226/228		10/18/2022 0:00			



Receiving Check List

<http://www.teklabinc.com/>

Client: Ramboll

Work Order: 22082028

Client Project: Baldwin Groundwater Q3 2022

Report Date: 10-Nov-22

Carrier: Joe Riley

Received By: ANC

Completed by:

Reviewed by:

On:

On:

03-Oct-22

03-Oct-22

Payton Yoch

Marvin L. Darling

Pages to follow: Chain of custody

Extra pages included

- | | | | | |
|---|---|---|--|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 5.2 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/> | Dry Ice <input type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Reported field parameters measured: | Field <input type="checkbox"/> | Lab <input type="checkbox"/> | NA <input checked="" type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- | | | | |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/> |
| Water - TOX containers have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Any No responses must be detailed below or on the COC.

pH strip 83856 - CET/pyoch - 10/3/2022 2:00:41 PM

Additional Nitric Acid (83726) was needed in MW-356, MW-375, MW-383, MW-384, and MW-391 upon arrival at the laboratory. - CET/pyoch - 10/3/2022 2:01:48 PM

CHAIN-OF-CUSTODY / Analytical Request Document

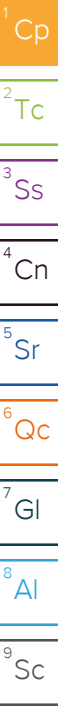
2282028

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		REGULATORY AGENCY			
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey				NPDES GROUND WATER DRINKING WATER	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp				UST RCRA OTHER	
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A				Site Location	
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:				STATE: IL	
Requested Due Date/TAT: standard		Project Number: 2285		Project Manager:					
				Profile #:					

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (S=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Project No./ Lab I.D.					
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other					BAL_257_601	BAL_257_605	BAL_CLOSURE_605	BAL_NPDES_600	BAL_WPDP_605
1	017 Field Blank				09/30/22	1300		1												2282028-017					
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BAL-Q3-2022 <i>DUP and FB for project history. 2/28/22</i>	<i>[Signature]</i>	10/1/22	1035	<i>Alman Cole</i>	10/2/22	1030	
SAMPLER NAME AND SIGNATURE							Temp in °C
PRINT Name of SAMPLER: <i>Joe Riley</i>							
SIGNATURE of SAMPLER: <i>[Signature]</i>							
DATE Signed (MM/DD/YY): <i>09/30/22</i>							Received on ice (Y/N)
							Custody Sealed Cooler (Y/N)
							Samples Intact (Y/N)



TEKLAB, Inc.

Sample Delivery Group: L1543671
Samples Received: 10/06/2022
Project Number: 22082028
Description:

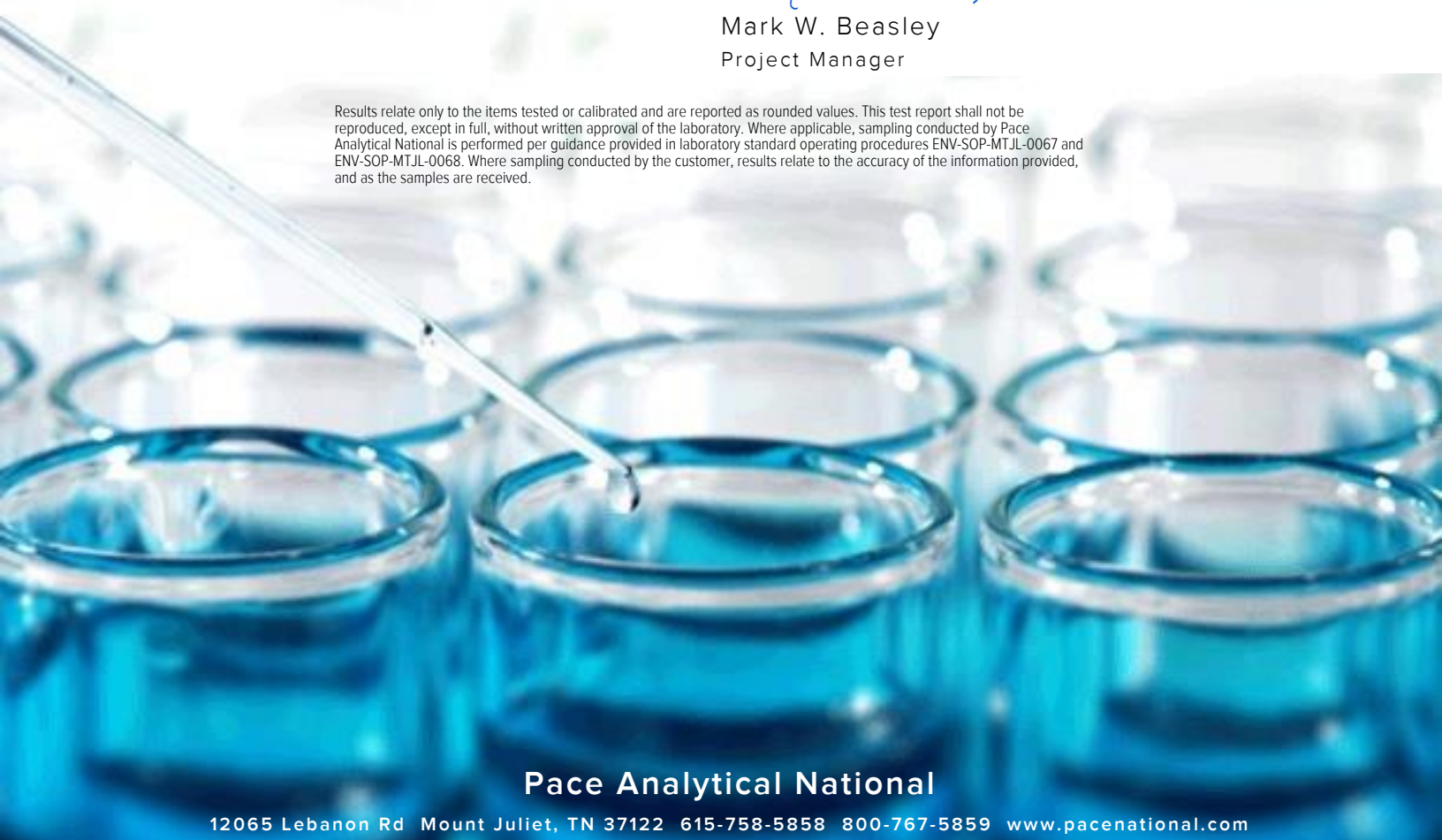
Report To: Elizabeth Hurley
5445 Horseshoe Lake Road
Collinsville, IL 62234

Entire Report Reviewed By:



Mark W. Beasley
Project Manager

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

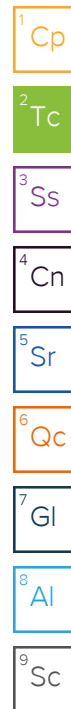


Pace Analytical National

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

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SAMPLE SUMMARY

22082028-001 L1543671-01 Non-Potable Water

Collected by _____ Collected date/time 09/29/22 09:58 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN



22082028-002 L1543671-02 Non-Potable Water

Collected by _____ Collected date/time 09/29/22 18:18 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-003 L1543671-03 Non-Potable Water

Collected by _____ Collected date/time 09/29/22 15:27 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-004 L1543671-04 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 14:51 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-005 L1543671-05 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 12:19 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-006 L1543671-06 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 07:08 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

22082028-007 L1543671-07 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 07:58 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN



22082028-008 L1543671-08 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 13:30 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-009 L1543671-09 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 14:14 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-010 L1543671-10 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 09:06 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-011 L1543671-11 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 10:56 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-012 L1543671-12 Non-Potable Water

Collected by _____ Collected date/time 09/30/22 10:14 Received date/time 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

22082028-013 L1543671-13 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/30/22 12:57 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

22082028-014 L1543671-14 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/30/22 11:46 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-015 L1543671-15 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/30/22 16:02 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-016 L1543671-16 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/29/22 09:58 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

22082028-017 L1543671-17 Non-Potable Water

Collected by
Collected date/time
Received date/time

09/30/22 15:00 10/06/22 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1942141	1	10/13/22 14:02	10/18/22 11:22	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1940112	1	10/14/22 15:54	10/18/22 16:54	RGT	Mt. Juliet, TN

CASE NARRATIVE

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



Mark W. Beasley
Project Manager

Report Revision History

Level II Report - Version 1: 10/31/22 17:10
Level II Report - Version 2: 11/02/22 22:17

Project Narrative

Revised sample ID and times

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.307	J	0.187	0.342	10/18/2022 11:22	WG1942141
(T) Barium	92.4			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	104			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.616		0.341	0.498	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.309	J	0.285	0.362	10/18/2022 16:54	WG1940112
(T) Barium-133	87.9			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.197	J	0.161	0.298	10/18/2022 11:22	WG1942141
(T) Barium	101			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	101			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.241	J	0.200	0.374	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0436	U	0.119	0.226	10/18/2022 16:54	WG1940112
(T) Barium-133	91.6			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.622		0.182	0.319	10/18/2022 11:22	WG1942141
(T) Barium	99.8			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	102			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.43		0.389	0.412	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.805		0.344	0.261	10/18/2022 16:54	WG1940112
(T) Barium-133	91.2			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.250	<u>U</u>	0.174	0.339	10/18/2022 11:22	WG1942141
(T) Barium	101			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	109			30.0-136	10/18/2022 11:22	WG1942141

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.350	<u>J</u>	0.301	0.401	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.350		0.245	0.215	10/18/2022 16:54	WG1940112
(T) Barium-133	82.2			30.0-143	10/18/2022 16:54	WG1940112

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.378		0.173	0.312	10/18/2022 11:22	WG1942141
(T) Barium	96.3			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	107			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.485		0.234	0.392	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.107	J	0.158	0.237	10/18/2022 16:54	WG1940112
(T) Barium-133	87.8			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.177	J	0.184	0.340	10/18/2022 11:22	WG1942141
(T) Barium	92.1			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	108			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.393		0.259	0.392	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.216		0.182	0.196	10/18/2022 16:54	WG1940112
(T) Barium-133	88.3			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.673		0.169	0.291	10/18/2022 11:22	WG1942141
(T) Barium	101			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	105			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.07		0.308	0.378	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.401		0.258	0.241	10/18/2022 16:54	WG1940112
(T) Barium-133	90.8			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.129	<u>U</u>	0.172	0.320	10/18/2022 11:22	WG1942141
(T) Barium	99.3			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	101			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.389		0.250	0.358	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.261		0.182	0.160	10/18/2022 16:54	WG1940112
(T) Barium-133	90.3			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.395	<u>U</u>	0.315	0.600	10/18/2022 11:22	WG1942141
(T) Barium	80.2			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	94.6			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.250	<u>U</u>	0.382	0.652	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.250	<u>J</u>	0.216	0.256	10/18/2022 16:54	WG1940112
(T) Barium-133	90.4			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.728		0.354	0.635	10/18/2022 11:22	WG1942141
(T) Barium	62.4			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	105			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.07		0.420	0.663	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.343		0.226	0.189	10/18/2022 16:54	WG1940112
(T) Barium-133	88.5			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.437	J	0.244	0.440	10/18/2022 11:22	WG1942141
(T) Barium	94.2			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	110			30.0-136	10/18/2022 11:22	WG1942141

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.437	J	0.294	0.555	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.000	U	0.164	0.338	10/18/2022 16:54	WG1940112
(T) Barium-133	86.7			30.0-143	10/18/2022 16:54	WG1940112

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0933	<u>U</u>	0.235	0.435	10/18/2022 11:22	WG1942141
(T) Barium	91.7			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	103			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.266	<u>J</u>	0.325	0.541	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.173	<u>J</u>	0.225	0.322	10/18/2022 16:54	WG1940112
(T) Barium-133	87.3			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.514	J	0.311	0.563	10/18/2022 11:22	WG1942141
(T) Barium	95.6			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	84.5			30.0-136	10/18/2022 11:22	WG1942141

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.827		0.405	0.637	10/18/2022 16:54	WG1940112

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.312		0.260	0.299	10/18/2022 16:54	WG1940112
(T) Barium-133	86.6			30.0-143	10/18/2022 16:54	WG1940112

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.667		0.281	0.502	10/18/2022 11:22	WG1942141
(T) Barium	92.6			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	105			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.01		0.373	0.565	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.342		0.246	0.259	10/18/2022 16:54	WG1940112
(T) Barium-133	90.1			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0403	<u>U</u>	0.260	0.488	10/18/2022 11:22	WG1942141
(T) Barium	84.7			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	102			30.0-136	10/18/2022 11:22	WG1942141

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.161	<u>U</u>	0.324	0.556	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.161	<u>J</u>	0.193	0.266	10/18/2022 16:54	WG1940112
(T) Barium-133	87.6			30.0-143	10/18/2022 16:54	WG1940112

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.136	<u>U</u>	0.217	0.401	10/18/2022 11:22	WG1942141
(T) Barium	97.3			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	107			30.0-136	10/18/2022 11:22	WG1942141

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.142	<u>U</u>	0.267	0.500	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.00661	<u>U</u>	0.156	0.298	10/18/2022 16:54	WG1940112
(T) Barium-133	92.7			30.0-143	10/18/2022 16:54	WG1940112

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.307	J	0.231	0.421	10/18/2022 11:22	WG1942141
(T) Barium	101			30.0-143	10/18/2022 11:22	WG1942141
(T) Yttrium	106			30.0-136	10/18/2022 11:22	WG1942141

¹Cp

²Tc

³Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.381	J	0.258	0.457	10/18/2022 16:54	WG1940112

⁴Cn

⁵Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0738	J	0.114	0.178	10/18/2022 16:54	WG1940112
(T) Barium-133	90.1			30.0-143	10/18/2022 16:54	WG1940112

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3850543-1 10/18/22 11:22

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	-0.232	<u>U</u>	0.155	0.300
(T) Barium	85.5		85.5	
(T) Yttrium	103		103	

L1536453-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1536453-29 10/18/22 11:22 • (DUP) R3850543-5 10/18/22 11:22

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-228	1.16	0.185	0.303	1.10	0.286	0.303	1	5.76	0.191		20	3
(T) Barium	98.1			90.3	90.3							
(T) Yttrium	111			104	104							

Laboratory Control Sample (LCS)

(LCS) R3850543-2 10/18/22 11:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	4.72	94.3	80.0-120	
(T) Barium			89.8		
(T) Yttrium			102		

L1536453-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1536453-28 10/18/22 11:22 • (MS) R3850543-3 10/18/22 11:22 • (MSD) R3850543-4 10/18/22 11:22

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-228	16.7	2.84	14.6	15.5	70.4	75.7	1	70.0-130			5.85		20
(T) Barium		97.2			100	104							
(T) Yttrium		105			108	109							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3854855-1 10/18/22 16:54

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.00568	<u>U</u>	0.0342	0.0687
(T) Barium-133	91.3		91.3	

L1543671-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1543671-01 10/18/22 16:54 • (DUP) R3854855-5 10/18/22 16:54

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-226	0.309	0.285	0.362	0.318	0.255	0.362	1	2.87	0.0235		20	3
(T) Barium-133	87.9			89.9	89.9							

Laboratory Control Sample (LCS)

(LCS) R3854855-2 10/18/22 16:54

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.02	5.15	103	80.0-120	
(T) Barium-133			93.5		

L1543676-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1543676-02 10/18/22 16:54 • (MS) R3854855-3 10/18/22 16:54 • (MSD) R3854855-4 10/18/22 16:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.195	20.3	20.2	101	100	1	75.0-125			0.493		20
(T) Barium-133		87.1			87.6	91.9							

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

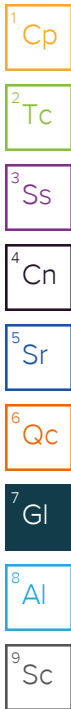
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

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

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



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Project#

Comments:
 Please analyze for Radium 226/228 on your standard turn around time.
 Samples collected from an MO site.
 Batch QC is required for all analyses requested. EDD requested..

Contact: Email:
 Requested Due Date: Billing/PO:

Phone:

L1543671

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately. Any changes to analysis/methods must be approved by Teklab, Inc.

Ra226/228																			
-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix
-01	22082028 - 001	9-29-22 0958	HNO3	Groundwater
-02	22082028 - 002	9-29-22 1815	HNO3	Groundwater
-03	22082028 - 002	9-29-22 1027	HNO3	Groundwater
-04	22082028 - 004	9-29-22 1451	HNO3	Groundwater
-05	22082028 - 005	9-30-22 1219	HNO3	Groundwater
-06	22082028 - 006	9-30-22 0708	HNO3	Groundwater
-07	22082028 - 007	9-30-22 0755	HNO3	Groundwater
-08	22082028 - 008	9-30-22 1330	HNO3	Groundwater
-09	22082028 - 009	9-30-22 1414	HNO3	Groundwater
-10	22082028 - 010	9-30-22 0906	HNO3	Groundwater
-11	22082028 - 011	9-30-22 1056	HNO3	Groundwater

*Relinquished By	Date/Time	Received By	Date/Time
		<i>Zac P...</i>	10-06-22 09:00 10:30 AM
H019			

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Project#

Comments:
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an MO site.
Batch QC is required for all analyses requested. EDD requested..

Contact: Email:
Requested Due Date: Billing/PO:

Phone:

LFH3671

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately. Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228												
-12	22082028 - 012	9-30-22 1014	HNO3	Groundwater	✓												
-13	22082028 - 013	9-30-22 1257	HNO3	Groundwater	✓												
-14	22082028 - 014	9-30-22 1146	HNO3	Groundwater	✓												
-15	22082028 - 015	9-30-22 1602	HNO3	Groundwater	✓												
-16	22082028 - 016	9-29-22 0950	HNO3	Groundwater	✓												
-17	22082028 - 017	9-30-22 1500	HNO3	Groundwater	✓												

Sample Receipt Checklist

GOC Seal Present/Intact: Y N If Applicable: Y N
 GOC Signed/Accurate: Y N VOA Zero Headspace: Y N
 Bottles arrive intact: Y N Pres. Correct/Check: Y N
 Correct bottles used: Y N HNO3 Groundwater
 Sufficient volume sent: Y N Groundwater
 RAD Screen <0.5 mR/hr: Y N Groundwater

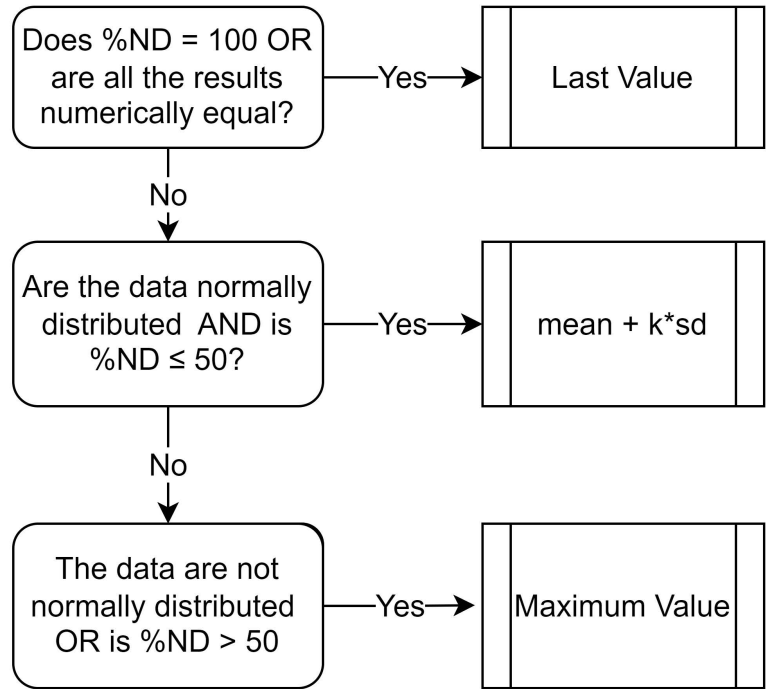
*Relinquished By	Date/Time	Received By	Date/Time
		<i>Joe P...</i>	10-06-22 10:30

1643671

<u>Tracking Numbers</u>		<u>Temperature</u>
S 821 5898 1537		18.4 +0 = 18.4 GBA6
5821 5898 1548		20.1 +0 = 20.1 GBA6
5821 5898 1559		17.5 +0 = 17.5 GBA6
5821 5898 1581		19.6 +0 = 19.6 GBA6
5821 5898 1570		15.0 +0 = 15.0 GBA6
5821 5898 1560		19.3 +0 = 19.3 GBA6

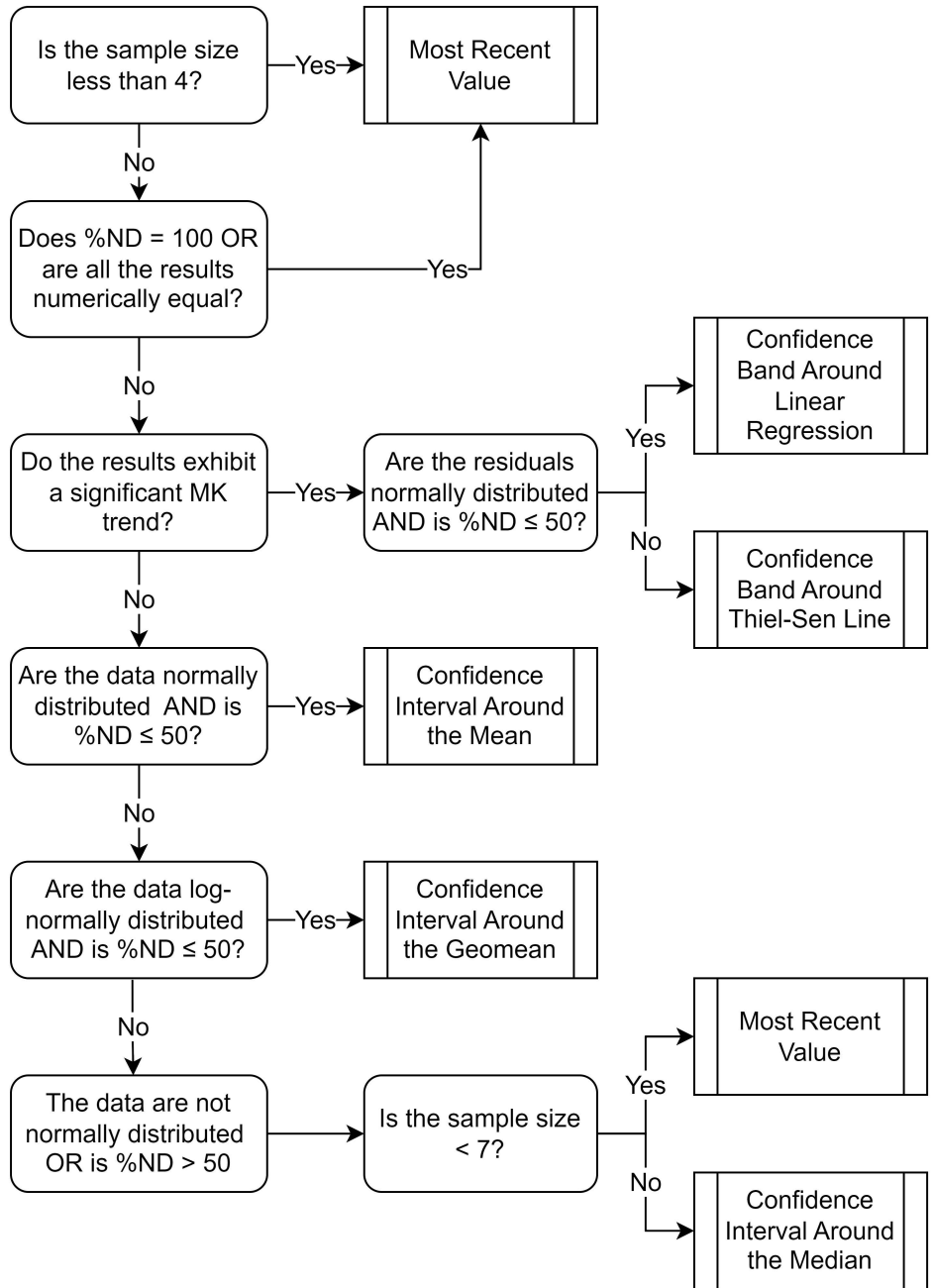
**APPENDIX B
STATISTICAL METHODOLOGY FOR DETERMINATION OF
BACKGROUND VALUES**

Notes
%ND = Percent non-detected samples
sd = standard deviation
k = kappa for tolerance limit (95% confidence/95% coverage)



**APPENDIX C
STATISTICAL METHODOLOGY FOR DETERMINATION OF
STATISTICALLY SIGNIFICANT LEVELS**

Notes
%ND = Percent non-detected samples
Future Median = Median of most recent 3 samples
MK = Mann-Kendall Trend Test
<u>Alpha Levels</u>
Normality = 0.01
MK Trend = 0.01
Residuals = 0.01
Confidence Interval = 0.01



APPENDIX D
ALTERNATE SOURCE DEMONSTRATIONS

Intended for
Dynegy Midwest Generation, LLC

Date
April 11, 2022

Project No.
1940102203-001

**40 C.F.R. § 257.95(g)(3)(ii):
ALTERNATE SOURCE DEMONSTRATION
BALDWIN POWER PLANT
BOTTOM ASH POND
CCR UNIT 601**

CERTIFICATIONS

I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Brian G. Hennings
Professional Geologist
196.001482
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: April 11, 2022



I, Anne Frances Ackerman, a qualified professional engineer in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Anne Frances Ackerman
Qualified Professional Engineer
062-060586
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: April 11, 2022



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1.	Introduction	3
2.	Alternate Source Demonstration: Lines of Evidence	4
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2.2	LOE #2: The BAP Porewater has a Different Ionic Composition Than Groundwater.	5
3.	Conclusions	7
4.	References	8

TABLES (IN TEXT)

Table A	Summary Statistics for Lithium in Groundwater and BAP Porewater (December 2015 to September 2021).
---------	--

FIGURES (IN TEXT)

Figure A	Stiff Diagram Showing Ionic Composition of Samples of BAP Background (Brown) and Compliance Groundwater (Blue) and BAP Porewater (Green).
----------	---

FIGURES (ATTACHED)

Figure 1	Sampling Location Map
----------	-----------------------

ACRONYMS AND ABBREVIATIONS

40 C.F.R.	Title 40 of the Code of Federal Regulations
A4D	Assessment Monitoring Sampling Event A4D
ASD	Alternate Source Demonstration
BAP	Bottom Ash Pond
CCR	coal combustion residuals
DMG	Dynegy Midwest Generation, LLC
GWPS	Groundwater Protection Standard
LOE	line(s) of evidence
mg/L	milligrams per liter
NRT/OBG	Natural Resource Technology, an OBG Company
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SSI	Statistically Significant Increase
SSL	Statistically Significant Level

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.95(g)(3)(ii) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of Statistically Significant Levels (SSLs) over Groundwater Protection Standards (GWPSs) of groundwater constituents listed in Appendix IV of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSL(s), or that the SSL(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (Alternate Source Demonstration [ASD]).

This ASD has been prepared on behalf of Dynegy Midwest Generation, LLC (DMG), by Ramboll Americas Engineering Solutions, Inc. (Ramboll), to provide pertinent information pursuant to 40 C.F.R. § 257.95(g)(3)(ii) for the Baldwin Power Plant Bottom Ash Pond (BAP) located near Baldwin, Illinois.

The most recent Assessment Monitoring sampling event (A4D) was completed on September 13, 2021 and analytical data was received on October 13, 2021. Analytical data from all sampling events, from December 2015 through A4D, were evaluated in accordance with the Statistical Analysis Plan (Natural Resource Technology, an OBG Company [NRT/OBG], 2017) to determine any Statistically Significant Increases (SSIs) of Appendix III parameters over background concentrations or SSLs of Appendix IV parameters over GWPSs. That evaluation identified one SSL at a compliance monitoring well as follows:

- Lithium at well MW-370

Pursuant to 40 C.F.R. § 257.95(g)(3)(ii), the following lines of evidence (LOE) demonstrate that sources other than the BAP were the cause of the lithium SSL listed above. This ASD was completed by April 11, 2022 within 90 days of determination of the SSLs (January 11, 2022), as required by 40 C.F.R. § 257.95(g)(3)(ii).

2. ALTERNATE SOURCE DEMONSTRATION: LINES OF EVIDENCE

This ASD is based on the following LOE:

1. The median lithium concentration in the BAP porewater is lower than median concentrations observed in background and compliance groundwater.
2. The BAP porewater has a different ionic composition than groundwater.

These LOE are described and supported in greater detail below. Monitoring wells and the BAP porewater sample locations are shown in Figure 1.

2.1 LOE #1: The Median Lithium Concentration in the BAP Porewater is Lower Than Median Concentrations Observed in Background and Compliance Groundwater.

The table below (Table A) provides summary statistics for groundwater lithium concentrations and BAP porewater lithium concentrations collected from TPZ-164 bottom ash porewater well.

Table A. Summary Statistics for Lithium in Groundwater and BAP Porewater (December 2015 to September 2021).

Sample Location	Lithium (milligrams per liter [mg/L])		
	Minimum	Maximum	Median
Background Groundwater ¹	0.011	0.096	0.055
Compliance Groundwater ²	0.018	0.18	0.058
BAP Porewater ³	0.010	0.018	0.015

Notes:

¹Background groundwater was collected at monitoring wells MW-304 and MW-306.

²Compliance groundwater was collected at monitoring wells MW-356, MW-369, MW-370, and MW-382.

³BAP porewater was collected at TPZ-164.

The following observations can be made from Table A above:

- Concentrations of lithium in background wells ranged from 0.011 to 0.096 mg/L, with a median concentration of 0.055 mg/L.
- Concentrations of lithium in compliance wells ranged from 0.018 to 0.18 mg/L, with a median concentration of 0.058 mg/L.
- Concentrations of lithium in BAP porewater ranged from 0.010 to 0.018 mg/L, with a median concentration of 0.015 mg/L. The median lithium concentration observed in porewater is below the median lithium concentrations observed in both background and compliance groundwater monitoring wells.

If the BAP was the source of lithium in downgradient groundwater, BAP porewater concentrations of lithium would be expected to be higher than the groundwater concentrations. Therefore, the BAP is not the source of lithium in the downgradient groundwater, including at MW-370.

Background lithium concentrations were also shown to be higher than BAP porewater, suggesting that lithium concentrations are either naturally occurring due to geochemical variations within the Uppermost Aquifer or from upgradient anthropogenic sources.

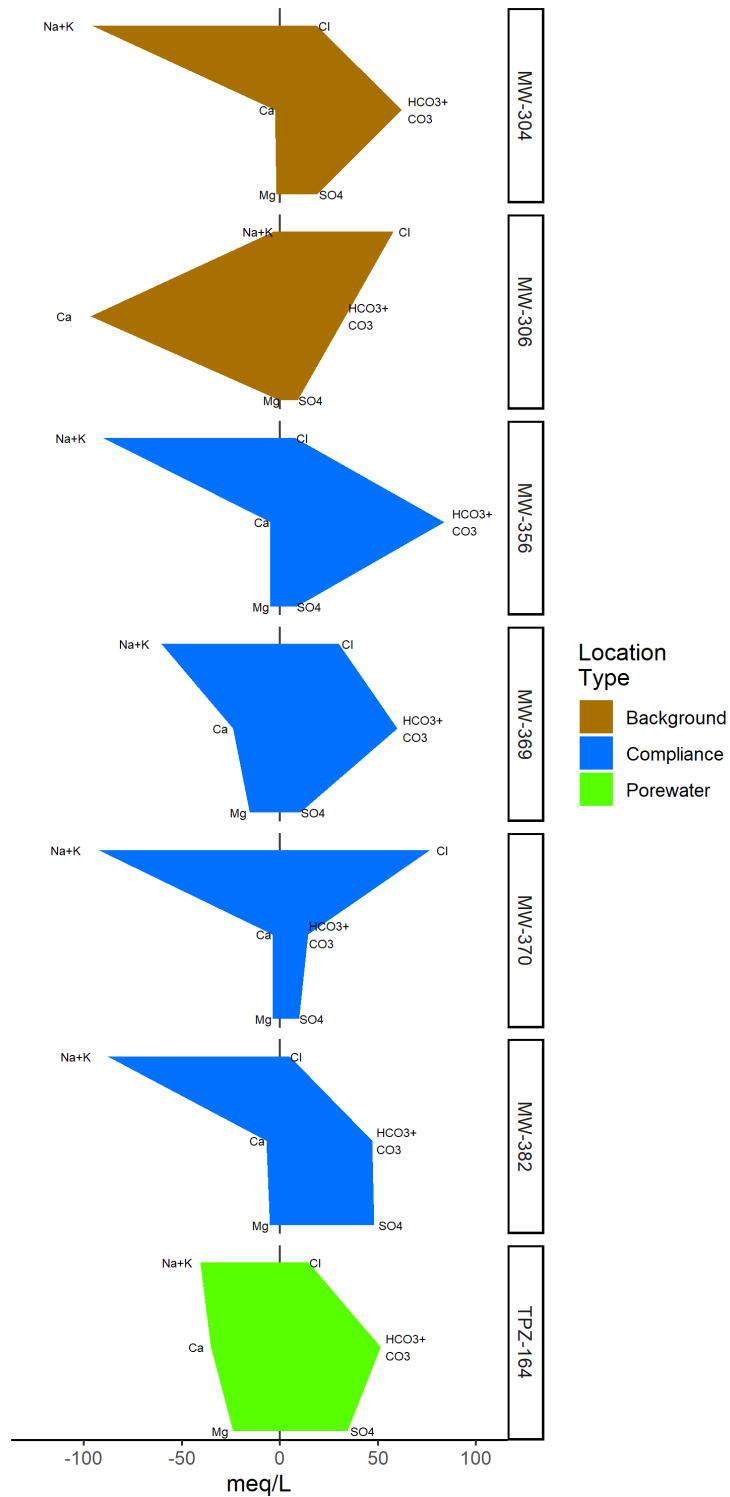
2.2 LOE #2: The BAP Porewater has a Different Ionic Composition Than Groundwater.

Stiff diagrams graphically represent ionic composition of aqueous solutions. Figure A on the following page shows a series of Stiff diagrams that display the ionic compositions of groundwater from background monitoring wells (brown), compliance monitoring wells (blue), and the BAP porewater (green). Polygons with similar shapes indicate solutions with similar ionic compositions, whereas polygons with different shapes indicate solutions with dissimilar ionic compositions. The larger the area of the polygon, the greater the concentration of the various ions.

The ionic compositions of the groundwater and BAP porewater represented by Figure A are discussed in more detail below.

- The ionic composition of the groundwater in compliance monitoring wells is similar to that in background monitoring well MW-304, with one exception, as represented by the similarity of the Stiff diagram sizes and shapes.
 - The dominant cations in compliance monitoring wells and background monitoring well MW-304 are sodium-potassium and the dominant anions are bicarbonate-carbonate. The exception is MW-370, which has chloride as the dominant anion.
- The BAP porewater sample has no dominant cation and the dominant anion is bicarbonate-carbonate.

The ionic composition of the BAP porewater is different than the ionic composition of the groundwater, thus the groundwater at MW-370 is not influenced by the BAP.



Note: A poor ionic balance was determined for background well MW-306

Figure A. Stiff Diagram Showing Ionic Composition of Samples of BAP Background (Brown) and Compliance Groundwater (Blue) and BAP Porewater (Green).

3. CONCLUSIONS

Based on the following two LOE, it has been demonstrated that the lithium SSL at MW-370 is not due to the BAP but is from a source other than the CCR unit being monitored:

1. The median lithium concentration in the BAP porewater is lower than the median concentrations observed in background and compliance groundwater.
2. The BAP porewater has a different ionic composition than groundwater.

This information serves as the written ASD prepared in accordance with 40 C.F.R. § 257.95(g)(3)(ii) that the SSL observed during the A4D sampling event was not due to the BAP. Therefore, a corrective measures assessment is not required, and the BAP will remain in assessment monitoring.

4. REFERENCES

Natural Resource Technology, an OBG Company (NRT/OBG), 2017, Statistical Analysis Plan, Baldwin Energy Complex, Havana Power Station, Hennepin Power Station, Wood River Power Station, Dynegy Midwest Generation, LLC, October 17, 2017.

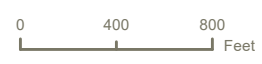
United States Environmental Protection Agency, 2020. Disposal of Coal Combustion Residuals from Electric Utilities, 40 C.F.R. § 257 Subpart D, published April 17, 2015, updated 2020. Accessed from URL <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257/subpart-D#page-top>

FIGURES



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- BACKGROUND WELL
- COMPLIANCE WELL
- PORE WATER WELL
- PART 257 REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY



SAMPLING LOCATION MAP

ALTERNATE SOURCE DEMONSTRATION
BOTTOM ASH POND (UNIT: 601)
 BALDWIN POWER PLANT
 BALDWIN, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.



Intended for
Dynegy Midwest Generation, LLC

Date
November 8, 2022

Project No.
1940102203-001

**40 C.F.R. § 257.95(g)(3)(ii):
ALTERNATE SOURCE DEMONSTRATION
BALDWIN POWER PLANT
BOTTOM ASH POND
CCR UNIT 601**

CERTIFICATIONS

I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Brian G. Hennings
Professional Geologist
196.001482
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: November 8, 2022



I, Anne Frances Ackerman, a qualified professional engineer in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.



Anne Frances Ackerman
Qualified Professional Engineer
062-060586
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: November 8, 2022



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2.2	Groundwater Monitoring	4
2.3	Site Hydrogeology and Stratigraphy	4
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3.1	LOE #1: The Median Lithium Concentration in the BAP Porewater is Lower Than Median Concentrations Observed in Background and Compliance Groundwater.	6
3.2	LOE #2: The BAP Porewater has a Different Ionic Composition Than Groundwater.	7
4.	Conclusions	9
5.	References	10

TABLES (IN TEXT)

Table A	Summary Statistics for Lithium in Groundwater and BAP Porewater (December 2015 to March 2022).
---------	--

FIGURES (IN TEXT)

Figure A	Stiff Diagram Showing Ionic Composition of Samples of BAP Background (Brown), Compliance Groundwater (Blue), and BAP Porewater (Green).
----------	---

FIGURES (ATTACHED)

Figure 1	Sampling Location Map
Figure 2	Potentiometric Surface Map – March 28, 2022

ACRONYMS AND ABBREVIATIONS

40 C.F.R.	Title 40 of the Code of Federal Regulations
A5	Assessment Monitoring Sampling Event A5
ASD	Alternate Source Demonstration
BAP	Bottom Ash Pond
BPP	Baldwin Power Plant
CCR	coal combustion residuals
GWPS	groundwater protection standard
LOE(s)	line(s) of evidence
mg/L	milligrams per liter
NRT	Natural Resource Technology, Inc.
NRT/OBG	Natural Resource Technology, an OBG Company
PMP	potential migration pathways
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SSI	statistically significant increase
SSL	statistically significant level
USEPA	United States Environmental Protection Agency

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.95(g)(3)(ii) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of statistically significant levels (SSLs) over groundwater protection standards (GWPS) of groundwater constituents listed in Appendix IV of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSL(s) (Alternate Source Demonstration [ASD]), or that the SSL(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

This ASD has been prepared on behalf of Dynegy Midwest Generation, LLC, by Ramboll Americas Engineering Solutions, Inc. (Ramboll), to provide pertinent information pursuant to 40 C.F.R. § 257.95(g)(3)(ii) for the Baldwin Power Plant (BPP) Bottom Ash Pond (BAP) located near Baldwin, Illinois.

The most recent Assessment Monitoring sampling event (A5) was completed on March 29, 2022 and analytical data was received on May 12, 2022. Analytical data from all sampling events, from December 2015 through A5, were evaluated in accordance with the Statistical Analysis Plan (Natural Resource Technology, an OBG Company [NRT/OBG], 2017a) to determine any statistically significant increases (SSIs) of Appendix III parameters over background concentrations or SSLs of Appendix IV parameters over GWPSs. That evaluation identified one SSL at a compliance monitoring well as follows:

- Lithium at well MW-370

Pursuant to 40 C.F.R. § 257.95(g)(3)(ii), the following lines of evidence (LOEs) demonstrate that sources other than the BAP were the cause of the lithium SSL listed above. This ASD was completed by November 8, 2022 within 90 days of determination of the SSLs (August 10, 2022), as required by 40 C.F.R. § 257.95(g)(3)(ii).

2. BACKGROUND

2.1 Site Location and Description

The BPP is located in southwest Illinois in Randolph and St. Clair Counties. The Randolph County portion of the BPP is located within Sections 2, 3, 4, 9, 10, 11, 14, 15, and 16 of Township 4 South and Range 7 West. The St. Clair County portion of the property is located within Sections 33, 34, and 35 of Township 3 South and Range 7 West. The BAP is approximately one-half mile west-northwest of the Village of Baldwin.

The BPP property is bordered to the west by the Kaskaskia River; to the east by Baldwin Road, farmland, and strip mining areas; to the southeast by the village of Baldwin; to the south by the Illinois Central Gulf railroad tracks, scattered residences, and State Route 154; and to the north by farmland. The St. Clair/Randolph County Line crosses east-west at approximately the midpoint of Baldwin Lake (Cooling Pond). **Figure 1** shows the location of the BAP, as well as the Fly Ash Pond System (FAPS), Secondary Pond, Tertiary Pond, and Cooling Pond. The BAP is adjacent to the FAPS, which was approved for closure by IEPA on August 16, 2016.

2.2 Groundwater Monitoring

The BAP groundwater monitoring system for compliance with the CCR Rule consists of two background monitoring wells (MW-304 and MW-306) and four compliance monitoring wells (MW-356, MW-369, MW-370, and MW-382). A map showing the groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. **Figure 1** also shows porewater location TPZ-164.

Groundwater samples are collected and analyzed in accordance with the *Sampling and Analysis Plan* prepared for the BAP (NRT/OBG, 2017b). Statistical evaluation of analytical data is performed in accordance with the *Statistical Analysis Plan* (NRT/OBG, 2017a).

2.3 Site Hydrogeology and Stratigraphy

Three hydrostratigraphic units are present at the Site, including CCR, an upper groundwater unit, and a bedrock unit. These units are described in detail in the *Supplemental Hydrogeologic Site Characterization and Groundwater Monitoring Plan* (Natural Resources Technology, Inc. [NRT], 2016) and the *Hydrogeologic Site Characterization Report* (Ramboll, 2021); and are summarized below.

- **CCR:** CCR, consisting primarily of fly ash, bottom ash, and boiler slag. Also includes earthen fill deposits of predominantly clay and silt materials from on-site excavations that were used to construct berms and roads surrounding the various impoundments across the Site.
- **Upper Groundwater Unit:** Predominantly clay with some silt and minor sand, silt layers, and occasional sand lenses. Includes the lithologic layers identified as the Cahokia Alluvium, Peoria Loess, Equality Formation, and Vandalia Till Member. This unit is composed of unlithified natural geologic materials and extends from the water table to the bedrock. Thin sand seams and the interface (contact) between the upper groundwater unit and bedrock have been identified as potential migration pathways (PMPs).
- **Bedrock Unit:** This unit is considered the Uppermost Aquifer and is composed of interbedded shale and limestone bedrock, which underlies and is continuous across the entire site. Water

quality in the Uppermost Aquifer (*i.e.*, Pennsylvanian and Mississippian-aged bedrock) degrades with increasing depth as water becomes increasingly mineralized.

Groundwater occurs within both the unlithified materials and bedrock and flows to the west and southwest toward a current and historic drainage feature and bedrock valley as indicated in the bedrock (Uppermost Aquifer) potentiometric surface map (**Figure 2**).

3. ALTERNATE SOURCE DEMONSTRATION: LINES OF EVIDENCE

This ASD is based on the following LOEs:

1. The median lithium concentration in the BAP porewater is lower than median concentrations observed in background and compliance groundwater.
2. The BAP porewater has a different ionic composition than groundwater.

These LOEs are described and supported in greater detail below. Monitoring wells and the BAP porewater sample locations are shown in **Figure 1**.

3.1 LOE #1: The Median Lithium Concentration in the BAP Porewater is Lower Than Median Concentrations Observed in Background and Compliance Groundwater.

Table A below provides summary statistics for groundwater lithium concentrations and BAP porewater lithium concentrations collected from TPZ-164 bottom ash porewater well.

Table A. Summary Statistics for Lithium in Groundwater and BAP Porewater (December 2015 to March 2022).

Sample Location	Lithium (milligrams per liter [mg/L])		
	Minimum	Maximum	Median
Background Groundwater ¹	0.013	0.096	0.046
Compliance Groundwater ²	0.018	0.22	0.058
BAP Porewater ³	0.010	0.018	0.016

Notes:

¹Background groundwater was collected at monitoring wells MW-304 and MW-306.

²Compliance groundwater was collected at monitoring wells MW-356, MW-369, MW-370, and MW-382.

³BAP porewater was collected at TPZ-164.

The following observations can be made from **Table A** above:

- Concentrations of lithium in background wells ranged from 0.013 to 0.096 mg/L, with a median concentration of 0.046 mg/L.
- Concentrations of lithium in compliance wells ranged from 0.018 to 0.22 mg/L, with a median concentration of 0.058 mg/L.
- Concentrations of lithium in BAP porewater ranged from 0.010 to 0.018 mg/L, with a median concentration of 0.016 mg/L.
- The median lithium concentration observed in porewater is below the median lithium concentrations observed in both background and compliance groundwater monitoring wells.

If the BAP was the source of lithium in downgradient groundwater, BAP porewater concentrations of lithium would be expected to be higher than the groundwater concentrations. Therefore, the BAP is not the source of lithium in the downgradient groundwater, including at MW-370.

Background lithium concentrations were also shown to be higher than BAP porewater, suggesting that lithium concentrations are not related to the BAP.

3.2 LOE #2: The BAP Porewater has a Different Ionic Composition Than Groundwater.

Stiff diagrams graphically represent ionic composition of aqueous solutions. **Figure A** on the following page shows a series of Stiff diagrams that display the ionic compositions of groundwater from background monitoring wells (brown), compliance monitoring wells (blue), and the BAP porewater (green). Polygons with similar shapes indicate solutions with similar ionic compositions, whereas polygons with different shapes indicate solutions with dissimilar ionic compositions. The larger the area of the polygon, the greater the concentration of the various ions.

The ionic compositions of the groundwater and BAP porewater represented by **Figure A** are discussed in more detail below.

- The ionic composition of the groundwater in compliance monitoring wells is similar to that in background monitoring well MW-304, with one exception, as represented by the similarity of the Stiff diagram sizes and shapes.
 - The dominant cations in compliance monitoring wells and background monitoring well MW-304 are sodium-potassium and the dominant anions are bicarbonate-carbonate. The exception is MW-370, which has chloride as the dominant anion and substantially higher prevalence of sodium plus potassium (Na+K).
- The BAP porewater sample has no dominant cation and the dominant anion is sulfate.

The ionic composition of the BAP porewater is different than the ionic composition of the groundwater. It is possible that the ionic composition of source water could be altered upon mixing with groundwater and interacting with aquifer solids (*e.g.*, cation exchange). However, groundwater at MW-370 has an order of magnitude higher concentrations of not only Na+K but also Cl, which would not be displaced from aquifer solids during cation exchange and is therefore inconsistent with porewater reacting within the aquifer. Thus, the difference between the BAP porewater ionic composition and the ionic composition of groundwater at MW-370 indicates that MW-370 is not influenced by the BAP.

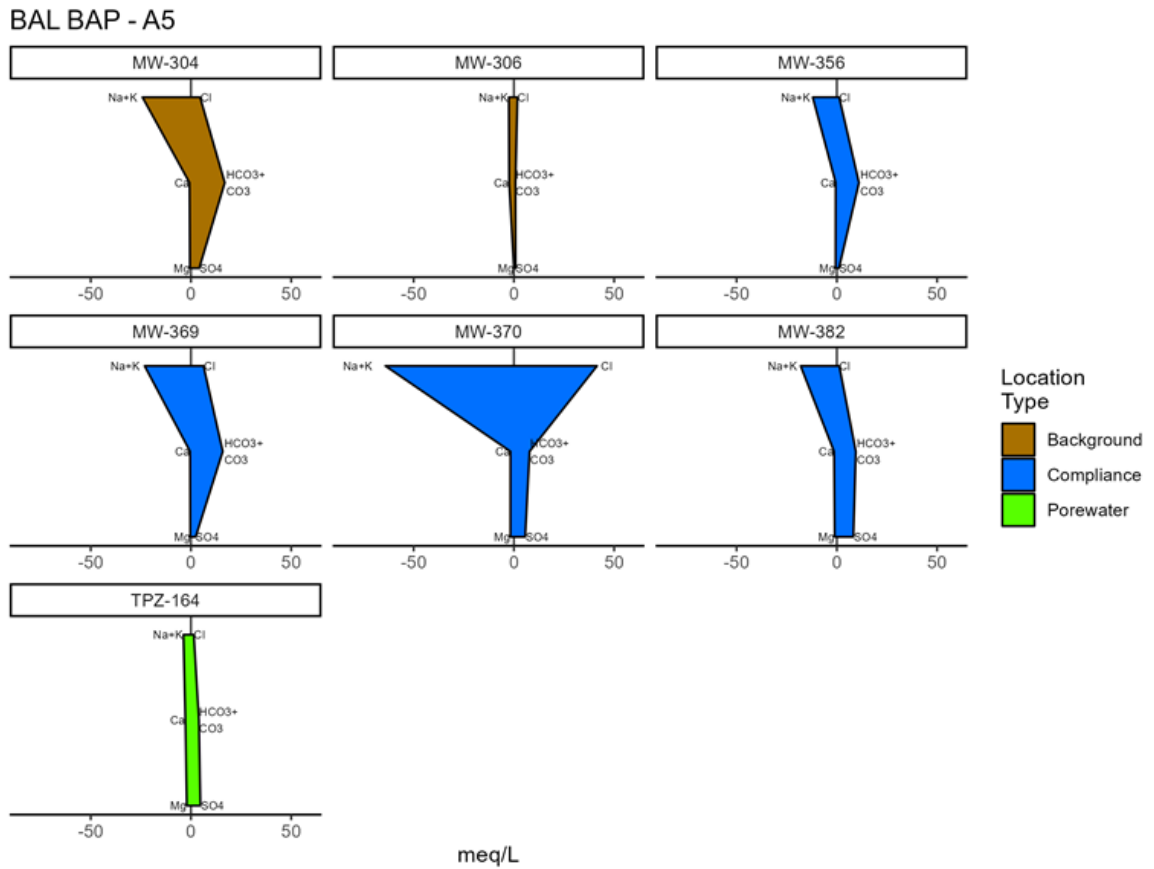


Figure A. Stiff Diagram Showing Ionic Composition of Samples of BAP Background (Brown), Compliance Groundwater (Blue), and BAP Porewater (Green).

4. CONCLUSIONS

Based on the following two LOEs, it has been demonstrated that the lithium SSL at MW-370 is not due to the BAP:

1. The median lithium concentration in the BAP porewater is lower than the median concentrations observed in background and compliance groundwater.
2. The BAP porewater has a different ionic composition than groundwater.

This information serves as the written ASD prepared in accordance with 40 C.F.R. § 257.95(g)(3)(ii) that the SSL observed during the A5 sampling event was not due to the BAP. Therefore, a corrective measures assessment is not required, and the BAP will remain in assessment monitoring. Additional data is being collected to identify the source of the SSLs.

5. REFERENCES

Natural Resource Technology, Inc. (NRT), 2016. *Supplemental Hydrogeologic Site Characterization and Groundwater Monitoring Plan. Baldwin Fly Ash Pond System. Baldwin Energy Complex, Baldwin, IL.*

Natural Resource Technology, an OBG Company (NRT/OBG), 2017a. *Statistical Analysis Plan, Baldwin Energy Complex, Havana Power Station, Hennepin Power Station, Wood River Power Station, Dynegy Midwest Generation, LLC.* October 17, 2017.

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Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Hydrogeologic Site Characterization Report. Baldwin Bottom Ash Pond. Baldwin Power Plant. Baldwin, Illinois.*

United States Environmental Protection Agency, 2020. Disposal of Coal Combustion Residuals from Electric Utilities, 40 C.F.R. § 257 Subpart D, published April 17, 2015, updated 2020. Accessed from URL <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257/subpart-D#page-top>

FIGURES



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- BACKGROUND WELL
- PART 257 REGULATED UNIT (SUBJECT UNIT)
- COMPLIANCE WELL
- PROPERTY BOUNDARY
- PORE WATER WELL



SAMPLING LOCATION MAP

**ALTERNATE SOURCE DEMONSTRATION
 BOTTOM ASH POND (UNIT: 601)
 BALDWIN POWER PLANT
 BALDWIN, ILLINOIS**

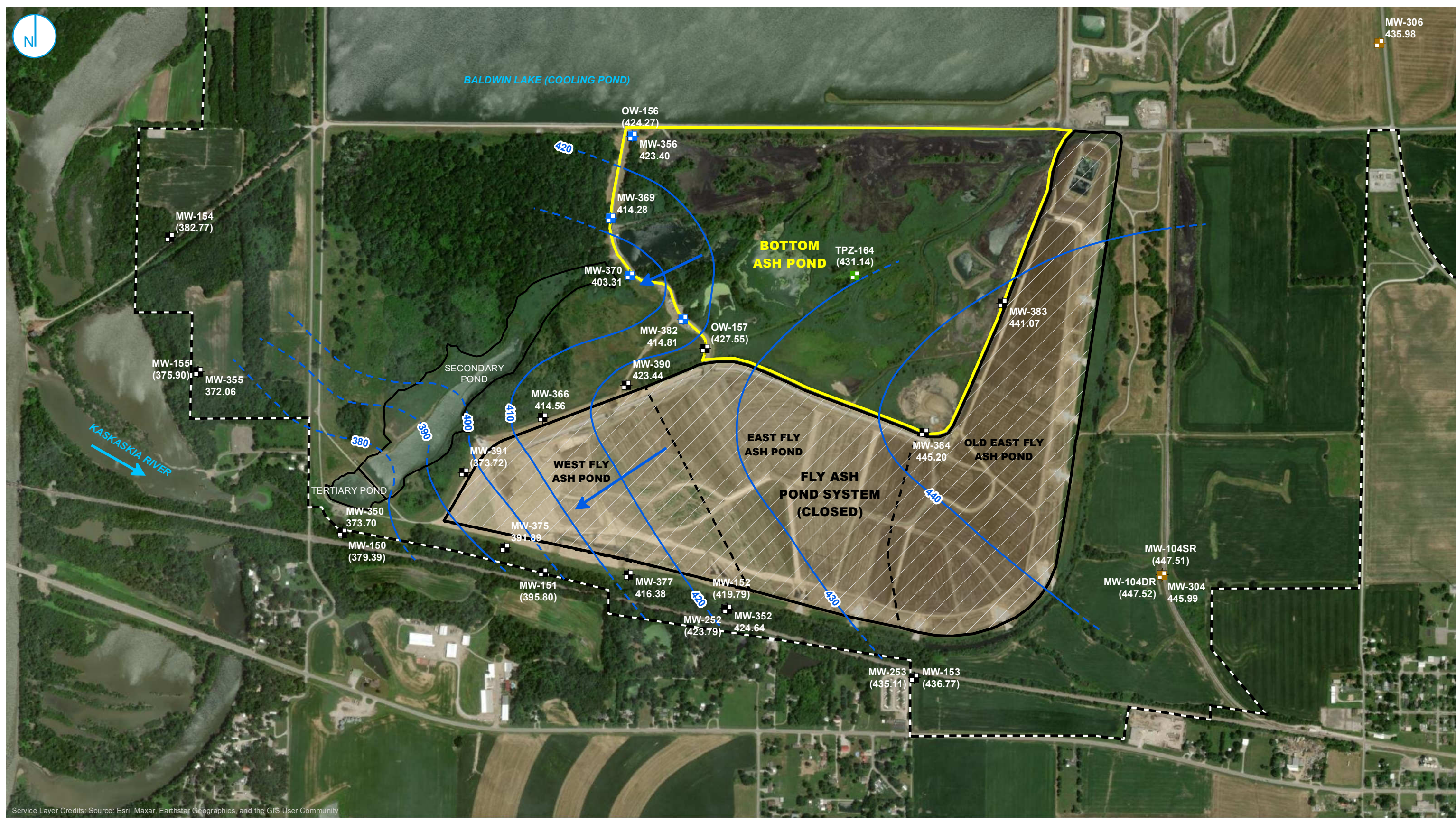
FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.



Y:\Mapping\Projects\22\2285\MXD\Alt_Source_Dem\Baldwin_API\Figure 2_BAL_BAP 601 Pot Surface 20220328.mxd

PROJECT: 16900XXXXX | DATED: 10/26/2022 | DESIGNER: galarnc



- BACKGROUND WELL
- COMPLIANCE WELL
- PORE WATER WELL
- MONITORING WELL

- GROUNDWATER ELEVATION CONTOUR (10-FT CONTOUR INTERVAL, NAVD88)
- - - INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

- PART 257 REGULATED UNIT (SUBJECT UNIT)
- FLY ASH POND SYSTEM (CLOSED)
- SITE FEATURE
- CAPPED AREA
- PROPERTY BOUNDARY

NOTES:
 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



POTENTIOMETRIC SURFACE MAP MARCH 28, 2022

ALTERNATE SOURCE DEMONSTRATION
 BOTTOM ASH POND
 BALDWIN POWER PLANT
 BALDWIN, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community