Prepared for
Dynegy Midwest Generation, LLC

Date
January 31, 2023

Project No.
1940102203-002

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

FLY ASH POND SYSTEM

BALDWIN POWER PLANT

BALDWIN, ILLINOIS

CCR UNIT 605

RAMBOLL Bright ideas. Sustainable change.

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT FLY ASH POND SYSTEM

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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
BPP	Baldwin Power Plant
CCR	coal combustion residuals
CMA	Corrective Measures Assessment
FAPS	Fly Ash Pond System
GWPS	groundwater protection standard
IEPA	Illinois Environmental Protection Agency
NA	not applicable
NRT/OBG	Natural Resource Technology, an OBG Company
OBG	OBG, Part of Ramboll
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	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 Fly Ash Pond System (FAPS) located at the Baldwin Power Plant (BPP) near Baldwin, Illinois.

Groundwater is being monitored at the FAPS in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95. Assessment Monitoring was initiated at the FAPS 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.

No Statistically Significant Levels (SSLs) of 40 C.F.R. § 257 Appendix IV parameters were determined. Consequently, further evaluation of total lithium for corrective action is not warranted for the FAPS and the FAPS remains in the Assessment Monitoring Program.

As required by 40 C.F.R. § 257.95(g)(3)(i), a Corrective Measures Assessment (CMA) (OBG, Part of Ramboll [OBG], 2019) following the requirements of 40 C.F.R. § 257.96 was initiated on May 8, 2019 and completed on September 5, 2019.

A public meeting was held on December 2, 2019 at the the Red Bud High School Gymnasium in Red Bud, Illinois to discuss the results of the CMA in accordance with 40 C.F.R. § 257.96(e).

The CMA was revised on November 30, 2020 (Ramboll Americas Engineering Solutions, Inc. [Ramboll], 2020) to address SSLs based on the 2020 assessment monitoring results, include additional information related to site geology/hydrogeology, and focus on application of the evaluation factors identified in 40 C.F.R. § 257.96(c) to potential groundwater corrective measures.

Remedy selection will take into consideration compliance with both 40 C.F.R. § 257 and 35 I.A.C. § 845, the latter of which cannot be completed until IEPA approves the groundwater monitoring program and issues an operating permit. In accordance with 40 C.F.R. § 257.97, remedy selection is to be completed as soon as feasible following completion of the corrective measures assessment. As required by 35 I.A.C. § 845.670, a corrective action plan that identifies the selected remedy must be submitted to IEPA within one year after completing the assessment of corrective measures. It is anticipated that these activities related to 35 I.A.C. § 845 compliance will occur in 2023 with submittal of a corrective action plan in 2024 that meets both 40 C.F.R. § 257 and 35 I.A.C. Part 845.

1. INTRODUCTION

This report has been prepared by Ramboll on behalf of Dynegy Midwest Generation, LLC, to provide the information required by 40 C.F.R. § 257.90(e) for the FAPS 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 FAPS for calendar year 2022.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

Groundwater is being monitored at the FAPS in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95. Assessment monitoring was initiated on April 9, 2018. SSLs were determined for the FAPS and alternate source evaluations were inconclusive for one or more SSLs. In accordance with 40 C.F.R. § 257.95(g)(5), a CMA following the requirements of 40 C.F.R. § 257.96 was initiated on May 8, 2019 and completed on September 5, 2019.

A public meeting was held on December 2, 2019 at the the Red Bud High School Gymnasium in Red Bud, Illinois to discuss the results of the CMA in accordance with 40 C.F.R. § 257.96(e).

The CMA was revised on November 30, 2020 to address SSLs based on the 2020 assessment monitoring results, include additional information related to site geology/hydrogeology, and focus on application of the evaluation factors identified in 40 C.F.R. § 257.96(c) to potential groundwater corrective measures. No Statistically Significant Levels (SSLs) of 40 C.F.R. § 257 Appendix IV parameters were determined in 2022. Consequently, further evaluation of total lithium for corrective action is not warranted for the FAPS and the FAPS remains in the Assessment Monitoring Program.

Remedy selection will take into consideration compliance with both 40 C.F.R. § 257 and 35 I.A.C. § 845, the latter of which cannot be completed until IEPA approves the groundwater monitoring program and issues an operating permit. In accordance with 40 C.F.R. § 257.97, remedy selection is to be completed as soon as feasible following completion of the corrective measures assessment. As required by 35 I.A.C. § 845.670, a corrective action plan that identifies the selected remedy must be submitted to IEPA within one year after completing the assessment of corrective measures. It is anticipated that these activities related to 35 I.A.C. § 845 compliance will occur in 2023 with submittal of a corrective action plan in 2024 that meets both 40 C.F.R. § 257 and 35 I.A.C. Part 845.

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 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 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 in included in **Table 6**. A flow chart showing the statistical methodology for determination of SSLs is included as **Appendix C**.

No Statistically Significant Levels (SSLs) of 40 C.F.R. § 257 Appendix IV parameters were determined. Consequently, further evaluation of total lithium for corrective action is not warranted for the FAPS and the FAPS remains in the Assessment Monitoring Program. Semiannual remedy selection reports required by 40 C.F.R. § 257.97(a) were completed in March and September of 2022.

Table A. 2021-2022 Assessment Monitoring Program Summary

Sampling Dates	Analytical Data Receipt Date	Parameters Collected	SSL(s)	SSL(s) Determination Date	CMA Initiated
September 13-16, 2021	October 13, 2021	Appendix III Appendix IV Detected [1]	None	January 11, 2022	NA
March 28-29, 2022	May 12, 2022	Appendix III Appendix IV	None	August 10, 2022	NA
September 29-30, 2022	November 15, 2022	Appendix III Appendix IV Detected [1]	None	January 30, 2023	NA

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 using GWPSs has occurred.
- Remedy selection will take into consideration compliance with both 40 C.F.R. § 257 and 35 I.A.C. § 845; semiannual progress reports required by 40 C.F.R. § 257.97(a) will continue to be completed and posted to the publicly accessible website as required by 40 C.F.R. § 257.107(h)(9).

6. REFERENCES

Natural Resource Technology, an OBG Company (NRT/OBG), 2017a, Sampling and Analysis Plan, Baldwin Fly Ash Pond System, 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.

OBG, Part of Ramboll (OBG), 2019. Corrective Measures Assessment, Baldwin Fly Ash Pond System (FAPS), Baldwin Energy Complex, 10901 Baldwin Road, Baldwin, Illinois, Dynegy Midwest Generation, LLC, September 5, 2019.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2020. Corrective Measures Assessment Revision 2, Baldwin Fly Ash Pond System (FAPS), Baldwin Energy Complex, 10901 Baldwin Road, Baldwin, Illinois, Dynegy Midwest Generation, LLC, November 30, 2020.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. Hydrogeological Site Characterization Report, the Fly Ash Pond System, 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 Fly Ash Pond System, Baldwin Power Plant, Baldwin, Illinois. December 28, 2022.

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
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

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BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
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	Compliance	38.18942	-89.87848	09/13/2021	23.38	373.42
MW-350	UA	41.6 - 46.2	Compliance	38.18942	-89.87848	03/28/2022	23.10	373.70
MW-350	UA	41.6 - 46.2	Compliance	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	Water Level Only	38.19896	-89.86958	09/13/2021	3.99	423.61
MW-356	UA	56 - 66	Water Level Only	38.19896	-89.86958	03/28/2022	4.20	423.40
MW-356	UA	56 - 66	Water Level Only	38.19896	-89.86958	09/30/2022	4.32	423.28
MW-366	UA	42 - 52	Compliance	38.19219	-89.87234	09/13/2021	17.19	407.89
MW-366	UA	42 - 52	Compliance	38.19219	-89.87234	03/28/2022	10.52	414.56
MW-366	UA	42 - 52	Compliance	38.19219	-89.87234	09/30/2022	17.91	407.17
MW-369	UA	56 - 66	Water Level Only	38.19699	-89.87026	09/13/2021	13.80	408.91
MW-369	UA	56 - 66	Water Level Only	38.19699	-89.87026	03/28/2022	8.43	414.28
MW-369	UA	56 - 66	Water Level Only	38.19699	-89.87026	09/30/2022	14.55	408.16
MW-370	UA	53 - 63	Water Level Only	38.19560	-89.86967	09/13/2021	18.99	401.86
MW-370	UA	53 - 63	Water Level Only	38.19560	-89.86967	03/28/2022	17.54	403.31
MW-370	UA	53 - 63	Water Level Only	38.19560	-89.86967	09/30/2022	18.90	401.95
MW-375	UA	57 - 67	Compliance	38.18905	-89.87351	09/13/2021	32.04	391.01
MW-375	UA	57 - 67	Compliance	38.18905	-89.87351	03/28/2022	31.16	391.89
MW-375	UA	57 - 67	Compliance	38.18905	-89.87351	09/30/2022	33.25	389.80
MW-377	UA	46 - 56	Compliance	38.18839	-89.86974	09/13/2021	5.25	416.11
MW-377	UA	46 - 56	Compliance	38.18839	-89.86974	03/28/2022	4.98	416.38
MW-377	UA	46 - 56	Compliance	38.18839	-89.86974	09/30/2022	6.09	415.27
MW-382	UA	56 - 66	Water Level Only	38.19454	-89.86804	09/13/2021	16.59	414.60
MW-382	UA	56 - 66	Water Level Only	38.19454	-89.86804	03/28/2022	16.38	414.81
MW-382	UA	56 - 66	Water Level Only	38.19454	-89.86804	09/30/2022	16.90	414.29
MW-383	UA	58 - 68	Compliance	38.19491	-89.85829	09/13/2021	18.51	440.98
MW-383	UA	58 - 68	Compliance	38.19491	-89.85829	03/28/2022	18.42	441.07
MW-383	UA	58 - 68	Compliance	38.19491	-89.85829	09/30/2022	18.96	440.53

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605 - FLY ASH POND SYSTEM
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-384	UA	60.5 - 70.5	Compliance	38.19179	-89.86070	09/13/2021	13.58	445.37
MW-384	UA	60.5 - 70.5	Compliance	38.19179	-89.86070	03/28/2022	13.75	445.20
MW-384	UA	60.5 - 70.5	Compliance	38.19179	-89.86070	09/30/2022	14.40	444.55
MW-390	UA	50 - 65	Compliance	38.19296	-89.86979	09/13/2021	8.01	420.05
MW-390	UA	50 - 65	Compliance	38.19296	-89.86979	03/28/2022	4.62	423.44
MW-390	UA	50 - 65	Compliance	38.19296	-89.86979	09/30/2022	8.91	419.15
MW-391	UA	55 - 70	Compliance	38.19087	-89.87476	09/13/2021	50.18	376.45
MW-391	UA	55 - 70	Compliance	38.19087	-89.87476	03/28/2022	52.91	373.72
MW-391	UA	55 - 70	Compliance	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
605 - FLY ASH POND SYSTEM
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)
Background Value(s)	--	--	--	*1.84*	*69.0*	*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-350	Compliance	09/14/2021	A4D	0.622	25.1	29.0	0.150	8.0	99.0	402
MW-350	Compliance	03/28/2022	A5	0.900	124	58.0	0.220	11.6	74.0	494
MW-350	Compliance	09/29/2022	A5D	0.669	72.0	65.0	0.170	11.6	113	382
MW-366	Compliance	09/15/2021	A4D	1.67	181	47.0	0.460	6.8	597	1,140
MW-366	Compliance	03/29/2022	A5	1.87	186	46.0	0.580	6.8	583	1,230
MW-366	Compliance	09/30/2022	A5D	2.70	227	56.0	0.360	6.8	700	1,350
MW-375	Compliance	09/14/2021	A4D	1.33	11.8	114	2.38	7.8	176	976
MW-375	Compliance	03/28/2022	A5	1.54	11.0	106	2.54	7.8	160	1,020
MW-375	Compliance	09/30/2022	A5D	1.75	12.7	118	2.35	7.8	160	1,030
MW-377	Compliance	09/14/2021	A4D	1.77	55.2	100	1.15	7.1	38.0	580
MW-377	Compliance	03/28/2022	A5	1.69	56.0	92.0	1.21	7.2	39.0	642
MW-377	Compliance	09/30/2022	A5D	1.71	57.3	99.0	1.11	7.1	39.0	622
MW-383	Compliance	09/13/2021	A4D	1.34	17.1	45.0	0.700	7.6	168	864
MW-383	Compliance	03/29/2022	A5	1.56	17.9	50.0	0.830	7.5	159	896
MW-383	Compliance	09/30/2022	A5D	1.52	19.4	42.0	0.660	7.6	169	906
MW-384	Compliance	09/13/2021	A4D	1.54	20.0	501	3.82	8.0	40.0	1,440
MW-384	Compliance	03/29/2022	A5	2.26	6.83	466	4.43	8.0	34.0	1,520
MW-384	Compliance	09/30/2022	A5D	1.91	19.4	531	4.12	8.1	35.0	1,600

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
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)
MW-390	Compliance	09/15/2021	A4D	0.308	90.2	62.0	1.26	7.1	152	682
MW-390	Compliance	03/29/2022	A5	0.546	88.1	80.0	0.890	7.1	142	742
MW-390	Compliance	09/30/2022	A5D	0.384	100	115	1.13	7.2	180	826
MW-391	Compliance	09/14/2021	A4D	2.84	8.95	116	3.10	7.7	668	1,620
MW-391	Compliance	03/29/2022	A5	3.24	6.63	110	3.66	7.9	499	1,510
MW-391	Compliance	09/30/2022	A5D	3.25	8.06	147	3.55	8.2	426	1,660

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
605 - FLY ASH POND SYSTEM
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-350	Compliance	09/14/2021	0.00260	0.001 U	0.179	--	--	0.00210	0.001 U	0.150	0.00270	0.0834	--	0.00430	0.940	0.001 U	0.002 U
MW-350	Compliance	03/28/2022	0.00110	0.00100	0.329	0.001 U	0.001 U	0.0015 U	0.001 U	0.220	0.00100	0.0806	0.0002 U	0.00560	1.71 JB	0.001 U	0.002 U
MW-350	Compliance	09/29/2022	0.0009 J	0.0008 J	0.296	--	--	0.0011 J	0.0002 J	0.170	0.00160	0.0830	--	0.00360	1.43	0.0006 U	0.001 U
MW-366	Compliance	09/15/2021	0.001 U	0.001 U	0.0507	--	--	0.0015 U	0.001 U	0.460	0.001 U	0.0146	--	0.00390	0.478	0.001 U	0.002 U
MW-366	Compliance	03/29/2022	0.001 U	0.001 U	0.0753	0.001 U	0.001 U	0.0015 U	0.001 U	0.580	0.001 U	0.0293	0.0002 U	0.00470	0.567 JB	0.001 U	0.002 U
MW-366	Compliance	09/30/2022	0.0004 U	0.0005 J	0.0607	--	--	0.0007 U	0.0002 J	0.360	0.0006 U	0.0177	--	0.00490	0.485	0.0006 U	0.001 U
MW-375	Compliance	09/14/2021	0.001 U	0.00170	0.0230	--	--	0.0015 U	0.001 U	2.38	0.001 U	0.0765	--	0.0241	0.132	0.001 U	0.002 U
MW-375	Compliance	03/28/2022	0.00100	0.00130	0.0226	0.001 U	0.001 U	0.0015 U	0.001 U	2.54	0.001 U	0.0843	0.0002 U	0.0252	0.248	0.001 U	0.002 U
MW-375	Compliance	09/30/2022	0.0009 J	0.00190	0.0312	--	--	0.0007 U	0.0001 U	2.35	0.0006 U	0.0958	--	0.0341	0.389	0.0006 U	0.001 U
MW-377	Compliance	09/14/2021	0.001 U	0.001 U	0.0630	--	--	0.0015 U	0.001 U	1.15	0.001 U	0.0647	--	0.0015 U	0.715	0.001 U	0.002 U
MW-377	Compliance	03/28/2022	0.001 U	0.001 U	0.0554	0.001 U	0.001 U	0.0015 U	0.001 U	1.21	0.001 U	0.0835	0.0002 U	0.0015 U	0.702	0.001 U	0.002 U
MW-377	Compliance	09/30/2022	0.0004 U	0.0004 U	0.0589	--	--	0.0007 U	0.0001 U	1.11	0.0006 U	0.0621	--	0.0006 U	0.250	0.0006 U	0.001 U
MW-383	Compliance	09/13/2021	0.001 U	0.001 U	0.0443	--	--	0.0015 U	0.001 U	0.700	0.001 U	0.0389	--	0.00880	0.968	0.001 U	0.002 U
MW-383	Compliance	03/29/2022	0.001 U	0.001 U	0.0617	0.001 U	0.001 U	0.0015 U	0.001 U	0.830	0.001 U	0.0464	0.0002 U	0.0202	0.488	0.001 U	0.002 U
MW-383	Compliance	09/30/2022	0.0004 U	0.0006 J	0.0481	--	--	0.0007 U	0.0001 U	0.660	0.0006 U	0.0411	--	0.0132	0.437	0.0006 U	0.001 U
MW-384	Compliance	09/13/2021	0.001 U	0.001 U	0.0521	--	--	0.0015 U	0.001 U	3.82	0.001 U	0.0488	--	0.0450	1.15	0.001 U	0.002 U
MW-384	Compliance	03/29/2022	0.001 U	0.001 U	0.0285	0.001 U	0.001 U	0.0015 U	0.001 U	4.43	0.001 U	0.0705	0.0002 U	0.0323	0.254	0.001 U	0.002 U
MW-384	Compliance	09/30/2022	0.0004 U	0.0004 J	0.0666	--	--	0.00150 J	0.0003 J	4.12	0.0006 U	0.0594	--	0.0352	0.266	0.0006 U	0.001 U
MW-390	Compliance	09/15/2021	0.001 U	0.00150	0.0695	--	--	0.0015 U	0.001 U	1.26	0.001 U	0.0163	--	0.00330	1.08	0.001 U	0.002 U
MW-390	Compliance	03/29/2022	0.001 U	0.00180	0.0552	0.001 U	0.001 U	0.0015 U	0.001 U	0.890	0.001 U	0.0290	0.0002 U	0.00490	1.20 J	0.001 U	0.002 U
MW-390	Compliance	09/30/2022	0.0004 U	0.00170	0.105	--	--	0.0007 U	0.0002 J	1.13	0.0006 U	0.0276	--	0.00510	0.827	0.0006 U	0.001 U
MW-391	Compliance	09/14/2021	0.00190	0.00340	0.0165	--	--	0.0015 U	0.001 U	3.10	0.001 U	0.0707	--	0.0298	1.32	0.00120	0.002 U
MW-391	Compliance	03/29/2022	0.00240	0.00550	0.0135	0.001 U	0.001 U	0.0015 U	0.001 U	3.66	0.001 U	0.0892	0.0002 U	0.0461	0.889	0.00130	0.002 U

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS
2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
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-391	Compliance	09/30/2022	0.00220	0.00510	0.0222	--	--	0.00190	0.0007 J	3.55	0.0006 U	0.120	--	0.0594	1.01	0.00200	0.001 U

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. 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.
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
605 - FLY ASH POND SYSTEM
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	69.0
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
605 - FLY ASH POND SYSTEM
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
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-350	Antimony, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	0	CI around mean	0.000862	0.006	MCL/HBL
MW-350	Antimony, total	mg/L	A5	03/26/2020 - 03/28/2022	5	0	CI around mean	0.000647	0.006	MCL/HBL
MW-350	Antimony, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	17	CI around mean	0.000790	0.006	MCL/HBL
MW-350	Arsenic, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	100	All ND - Last	0.001	0.010	MCL/HBL
MW-350	Arsenic, total	mg/L	A5	03/26/2020 - 03/28/2022	5	80	Most recent sample	0.001	0.010	MCL/HBL
MW-350	Arsenic, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	83	Most recent sample	0.0008	0.010	MCL/HBL
MW-350	Barium, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	0	CI around mean	0.105	2	MCL/HBL
MW-350	Barium, total	mg/L	A5	03/26/2020 - 03/28/2022	5	0	CI around mean	0.0995	2	MCL/HBL
MW-350	Barium, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	0	CI around mean	0.133	2	MCL/HBL
MW-350	Beryllium, total	mg/L	A5	03/26/2020 - 03/28/2022	4	100	All ND - Last	0.001	0.004	MCL/HBL
MW-350	Cadmium, total	mg/L	A5	03/26/2020 - 03/28/2022	4	100	All ND - Last	0.001	0.005	MCL/HBL
MW-350	Chromium, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	75	CI around median	0.00210	0.1	MCL/HBL
MW-350	Chromium, total	mg/L	A5	03/26/2020 - 03/28/2022	5	80	CI around median	0.00150	0.1	MCL/HBL
MW-350	Chromium, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	83	CI around median	0.00110	0.1	MCL/HBL
MW-350	Cobalt, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	100	All ND - Last	0.001	0.006	MCL/HBL
MW-350	Cobalt, total	mg/L	A5	03/26/2020 - 03/28/2022	5	100	All ND - Last	0.001	0.006	MCL/HBL
MW-350	Cobalt, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	100	All ND - Last	0.0002	0.006	MCL/HBL
MW-350	Fluoride, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	0	CI around mean	0.112	4.0	MCL/HBL
MW-350	Fluoride, total	mg/L	A5	03/26/2020 - 03/28/2022	5	0	CI around mean	0.112	4.0	MCL/HBL
MW-350	Fluoride, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	0	CI around mean	0.127	4.0	MCL/HBL
MW-350	Lead, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	50	CI around geomean	0.000438	0.015	MCL/HBL
MW-350	Lead, total	mg/L	A5	03/26/2020 - 03/28/2022	5	40	CI around median	0.00100	0.015	MCL/HBL
MW-350	Lead, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	33	CI around geomean	0.000762	0.015	MCL/HBL
MW-350	Lithium, total	mg/L	A4D	03/26/2020 - 09/14/2021	5	0	Future median	0.0834	0.0958	Background
MW-350	Lithium, total	mg/L	A5	03/26/2020 - 03/28/2022	6	0	Future median	0.0819	0.0958	Background
MW-350	Lithium, total	mg/L	A5D	03/26/2020 - 09/29/2022	7	0	CI around mean	0.0774	0.0958	Background
MW-350	Mercury, total	mg/L	A5	03/26/2020 - 03/28/2022	4	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-350	Molybdenum, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	0	CI around mean	-0.00142	0.1	MCL/HBL
MW-350	Molybdenum, total	mg/L	A5	03/26/2020 - 03/28/2022	5	0	CI around mean	0.000547	0.1	MCL/HBL
MW-350	Molybdenum, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	0	CI around mean	0.00140	0.1	MCL/HBL

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

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-350	Radium 226 + Radium 228, total	pCi/L	A4D	03/26/2020 - 09/14/2021	4	0	CI around mean	0.774	5	MCL/HBL
MW-350	Radium 226 + Radium 228, total	pCi/L	A5	03/26/2020 - 03/28/2022	5	0	CI around geomean	0.631	5	MCL/HBL
MW-350	Radium 226 + Radium 228, total	pCi/L	A5D	03/26/2020 - 09/29/2022	6	0	CI around mean	0.636	5	MCL/HBL
MW-350	Selenium, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	100	All ND - Last	0.001	0.05	MCL/HBL
MW-350	Selenium, total	mg/L	A5	03/26/2020 - 03/28/2022	5	100	All ND - Last	0.001	0.05	MCL/HBL
MW-350	Selenium, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	100	All ND - Last	0.0006	0.05	MCL/HBL
MW-350	Thallium, total	mg/L	A4D	03/26/2020 - 09/14/2021	4	100	All ND - Last	0.002	0.002	MCL/HBL
MW-350	Thallium, total	mg/L	A5	03/26/2020 - 03/28/2022	5	100	All ND - Last	0.002	0.002	MCL/HBL
MW-350	Thallium, total	mg/L	A5D	03/26/2020 - 09/29/2022	6	100	All ND - Last	0.001	0.002	MCL/HBL
MW-366	Antimony, total	mg/L	A4D	01/20/2016 - 09/15/2021	16	100	All ND - Last	0.001	0.006	MCL/HBL
MW-366	Antimony, total	mg/L	A5	01/20/2016 - 03/29/2022	17	100	All ND - Last	0.001	0.006	MCL/HBL
MW-366	Antimony, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	100	All ND - Last	0.0004	0.006	MCL/HBL
MW-366	Arsenic, total	mg/L	A4D	01/20/2016 - 09/15/2021	16	94	CI around median	0.00100	0.010	MCL/HBL
MW-366	Arsenic, total	mg/L	A5	01/20/2016 - 03/29/2022	17	94	CI around median	0.00100	0.010	MCL/HBL
MW-366	Arsenic, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	94	CI around median	0.00100	0.010	MCL/HBL
MW-366	Barium, total	mg/L	A4D	01/20/2016 - 09/15/2021	16	0	CB around linear reg	0.0122	2	MCL/HBL
MW-366	Barium, total	mg/L	A5	01/20/2016 - 03/29/2022	17	0	CB around linear reg	0.0152	2	MCL/HBL
MW-366	Barium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	0	CB around linear reg	0.0181	2	MCL/HBL
MW-366	Beryllium, total	mg/L	A5	01/20/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-366	Cadmium, total	mg/L	A5	01/20/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-366	Chromium, total	mg/L	A4D	01/20/2016 - 09/15/2021	16	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-366	Chromium, total	mg/L	A5	01/20/2016 - 03/29/2022	17	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-366	Chromium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	100	All ND - Last	0.0007	0.1	MCL/HBL
MW-366	Cobalt, total	mg/L	A4D	01/20/2016 - 09/15/2021	14	79	CI around median	0.00100	0.006	MCL/HBL
MW-366	Cobalt, total	mg/L	A5	01/20/2016 - 03/29/2022	15	80	CI around median	0.00100	0.006	MCL/HBL
MW-366	Cobalt, total	mg/L	A5D	01/20/2016 - 09/30/2022	16	81	CI around median	0.00100	0.006	MCL/HBL
MW-366	Fluoride, total	mg/L	A4D	01/20/2016 - 09/15/2021	17	0	CB around linear reg	0.0992	4.0	MCL/HBL
MW-366	Fluoride, total	mg/L	A5	01/20/2016 - 03/29/2022	18	0	CB around linear reg	0.100	4.0	MCL/HBL
MW-366	Fluoride, total	mg/L	A5D	01/20/2016 - 09/30/2022	19	0	CB around linear reg	0.0781	4.0	MCL/HBL

TABLE 6
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2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-366	Lead, total	mg/L	A4D	01/20/2016 - 09/15/2021	13	100	All ND - Last	0.001	0.015	MCL/HBL
MW-366	Lead, total	mg/L	A5	01/20/2016 - 03/29/2022	14	100	All ND - Last	0.001	0.015	MCL/HBL
MW-366	Lead, total	mg/L	A5D	01/20/2016 - 09/30/2022	15	100	All ND - Last	0.0006	0.015	MCL/HBL
MW-366	Lithium, total	mg/L	A4D	01/20/2016 - 09/15/2021	16	0	CB around linear reg	-0.00129	0.0958	Background
MW-366	Lithium, total	mg/L	A5	01/20/2016 - 03/29/2022	17	0	Future median	0.0146	0.0958	Background
MW-366	Lithium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	0	CI around median	0.0121	0.0958	Background
MW-366	Mercury, total	mg/L	A5	01/20/2016 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-366	Molybdenum, total	mg/L	A4D	01/20/2016 - 09/15/2021	16	0	CI around mean	0.00241	0.1	MCL/HBL
MW-366	Molybdenum, total	mg/L	A5	01/20/2016 - 03/29/2022	17	0	CI around mean	0.00255	0.1	MCL/HBL
MW-366	Molybdenum, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	0	CI around mean	0.00268	0.1	MCL/HBL
MW-366	Radium 226 + Radium 228, total	pCi/L	A4D	01/20/2016 - 09/15/2021	16	0	CI around geomean	0.425	5	MCL/HBL
MW-366	Radium 226 + Radium 228, total	pCi/L	A5	01/20/2016 - 03/29/2022	17	0	CI around geomean	0.434	5	MCL/HBL
MW-366	Radium 226 + Radium 228, total	pCi/L	A5D	01/20/2016 - 09/30/2022	18	0	CI around geomean	0.437	5	MCL/HBL
MW-366	Selenium, total	mg/L	A4D	01/20/2016 - 09/15/2021	16	94	CI around median	0.00100	0.05	MCL/HBL
MW-366	Selenium, total	mg/L	A5	01/20/2016 - 03/29/2022	17	94	CI around median	0.00100	0.05	MCL/HBL
MW-366	Selenium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	94	CI around median	0.00100	0.05	MCL/HBL
MW-366	Thallium, total	mg/L	A4D	01/20/2016 - 09/15/2021	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-366	Thallium, total	mg/L	A5	01/20/2016 - 03/29/2022	14	100	All ND - Last	0.002	0.002	MCL/HBL
MW-366	Thallium, total	mg/L	A5D	01/20/2016 - 09/30/2022	15	100	All ND - Last	0.001	0.002	MCL/HBL
MW-375	Antimony, total	mg/L	A4D	01/20/2016 - 09/14/2021	16	12	CB around T-S line	-0.000632	0.006	MCL/HBL
MW-375	Antimony, total	mg/L	A5	01/20/2016 - 03/28/2022	17	12	CB around T-S line	-0.00116	0.006	MCL/HBL
MW-375	Antimony, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	17	CB around T-S line	-0.000577	0.006	MCL/HBL
MW-375	Arsenic, total	mg/L	A4D	01/20/2016 - 09/14/2021	16	0	CI around mean	0.00155	0.010	MCL/HBL
MW-375	Arsenic, total	mg/L	A5	01/20/2016 - 03/28/2022	17	0	CI around mean	0.00152	0.010	MCL/HBL
MW-375	Arsenic, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	0	CI around mean	0.00154	0.010	MCL/HBL
MW-375	Barium, total	mg/L	A4D	01/20/2016 - 09/14/2021	16	0	CI around median	0.0239	2	MCL/HBL
MW-375	Barium, total	mg/L	A5	01/20/2016 - 03/28/2022	17	0	CI around median	0.0238	2	MCL/HBL
MW-375	Barium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	0	CI around geomean	0.0243	2	MCL/HBL
MW-375	Beryllium, total	mg/L	A5	01/20/2016 - 03/28/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL

TABLE 6
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BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-375	Cadmium, total	mg/L	A5	01/20/2016 - 03/28/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-375	Chromium, total	mg/L	A4D	01/20/2016 - 09/14/2021	16	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-375	Chromium, total	mg/L	A5	01/20/2016 - 03/28/2022	17	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-375	Chromium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	100	All ND - Last	0.0007	0.1	MCL/HBL
MW-375	Cobalt, total	mg/L	A4D	01/20/2016 - 09/14/2021	14	100	All ND - Last	0.001	0.006	MCL/HBL
MW-375	Cobalt, total	mg/L	A5	01/20/2016 - 03/28/2022	15	100	All ND - Last	0.001	0.006	MCL/HBL
MW-375	Cobalt, total	mg/L	A5D	01/20/2016 - 09/30/2022	16	100	All ND - Last	0.0001	0.006	MCL/HBL
MW-375	Fluoride, total	mg/L	A4D	01/20/2016 - 09/14/2021	17	0	CI around mean	2.17	4.0	MCL/HBL
MW-375	Fluoride, total	mg/L	A5	01/20/2016 - 03/28/2022	18	0	CB around linear reg	2.31	4.0	MCL/HBL
MW-375	Fluoride, total	mg/L	A5D	01/20/2016 - 09/30/2022	19	0	CI around mean	2.20	4.0	MCL/HBL
MW-375	Lead, total	mg/L	A4D	01/20/2016 - 09/14/2021	13	100	All ND - Last	0.001	0.015	MCL/HBL
MW-375	Lead, total	mg/L	A5	01/20/2016 - 03/28/2022	14	100	All ND - Last	0.001	0.015	MCL/HBL
MW-375	Lead, total	mg/L	A5D	01/20/2016 - 09/30/2022	15	100	All ND - Last	0.0006	0.015	MCL/HBL
MW-375	Lithium, total	mg/L	A4D	01/20/2016 - 09/14/2021	16	0	CB around linear reg	0.0782	0.0958	Background
MW-375	Lithium, total	mg/L	A5	01/20/2016 - 03/28/2022	17	0	CB around linear reg	0.0799	0.0958	Background
MW-375	Lithium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	0	CB around linear reg	0.0842	0.0958	Background
MW-375	Mercury, total	mg/L	A5	01/20/2016 - 03/28/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-375	Molybdenum, total	mg/L	A4D	01/20/2016 - 09/14/2021	16	0	CI around mean	0.0234	0.1	MCL/HBL
MW-375	Molybdenum, total	mg/L	A5	01/20/2016 - 03/28/2022	17	0	CI around mean	0.0235	0.1	MCL/HBL
MW-375	Molybdenum, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	0	CI around mean	0.0240	0.1	MCL/HBL
MW-375	Radium 226 + Radium 228, total	pCi/L	A4D	01/20/2016 - 09/14/2021	16	0	CI around mean	0.215	5	MCL/HBL
MW-375	Radium 226 + Radium 228, total	pCi/L	A5	01/20/2016 - 03/28/2022	17	0	CI around median	0.132	5	MCL/HBL
MW-375	Radium 226 + Radium 228, total	pCi/L	A5D	01/20/2016 - 09/30/2022	18	0	CI around median	0.230	5	MCL/HBL
MW-375	Selenium, total	mg/L	A4D	01/20/2016 - 09/14/2021	16	88	CI around median	0.00100	0.05	MCL/HBL
MW-375	Selenium, total	mg/L	A5	01/20/2016 - 03/28/2022	17	88	CI around median	0.00100	0.05	MCL/HBL
MW-375	Selenium, total	mg/L	A5D	01/20/2016 - 09/30/2022	18	89	CI around median	0.00100	0.05	MCL/HBL
MW-375	Thallium, total	mg/L	A4D	01/20/2016 - 09/14/2021	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-375	Thallium, total	mg/L	A5	01/20/2016 - 03/28/2022	14	100	All ND - Last	0.002	0.002	MCL/HBL
MW-375	Thallium, total	mg/L	A5D	01/20/2016 - 09/30/2022	15	100	All ND - Last	0.001	0.002	MCL/HBL

TABLE 6
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2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-377	Antimony, total	mg/L	A4D	01/19/2016 - 09/14/2021	16	100	All ND - Last	0.001	0.006	MCL/HBL
MW-377	Antimony, total	mg/L	A5	01/19/2016 - 03/28/2022	17	100	All ND - Last	0.001	0.006	MCL/HBL
MW-377	Antimony, total	mg/L	A5D	01/19/2016 - 09/30/2022	18	100	All ND - Last	0.0004	0.006	MCL/HBL
MW-377	Arsenic, total	mg/L	A4D	01/19/2016 - 09/14/2021	16	75	CB around linear reg	0.000439	0.010	MCL/HBL
MW-377	Arsenic, total	mg/L	A5	01/19/2016 - 03/28/2022	17	76	CB around linear reg	0.000463	0.010	MCL/HBL
MW-377	Arsenic, total	mg/L	A5D	01/19/2016 - 09/30/2022	18	78	CB around T-S line	-0.0000677	0.010	MCL/HBL
MW-377	Barium, total	mg/L	A4D	01/19/2016 - 09/14/2021	16	0	CI around mean	0.0609	2	MCL/HBL
MW-377	Barium, total	mg/L	A5	01/19/2016 - 03/28/2022	17	0	CI around mean	0.0603	2	MCL/HBL
MW-377	Barium, total	mg/L	A5D	01/19/2016 - 09/30/2022	18	0	CI around mean	0.0602	2	MCL/HBL
MW-377	Beryllium, total	mg/L	A5	01/19/2016 - 03/28/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-377	Cadmium, total	mg/L	A5	01/19/2016 - 03/28/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-377	Chromium, total	mg/L	A4D	01/19/2016 - 09/14/2021	16	94	CB around T-S line	0.00100	0.1	MCL/HBL
MW-377	Chromium, total	mg/L	A5	01/19/2016 - 03/28/2022	17	94	CB around T-S line	0.00100	0.1	MCL/HBL
MW-377	Chromium, total	mg/L	A5D	01/19/2016 - 09/30/2022	18	94	CB around T-S line	0.00100	0.1	MCL/HBL
MW-377	Cobalt, total	mg/L	A4D	01/19/2016 - 09/14/2021	14	100	All ND - Last	0.001	0.006	MCL/HBL
MW-377	Cobalt, total	mg/L	A5	01/19/2016 - 03/28/2022	15	100	All ND - Last	0.001	0.006	MCL/HBL
MW-377	Cobalt, total	mg/L	A5D	01/19/2016 - 09/30/2022	16	100	All ND - Last	0.0001	0.006	MCL/HBL
MW-377	Fluoride, total	mg/L	A4D	01/19/2016 - 09/14/2021	17	0	CB around linear reg	1.15	4.0	MCL/HBL
MW-377	Fluoride, total	mg/L	A5	01/19/2016 - 03/28/2022	18	0	CB around linear reg	1.16	4.0	MCL/HBL
MW-377	Fluoride, total	mg/L	A5D	01/19/2016 - 09/30/2022	19	0	CI around mean	1.10	4.0	MCL/HBL
MW-377	Lead, total	mg/L	A4D	01/19/2016 - 09/14/2021	13	100	All ND - Last	0.001	0.015	MCL/HBL
MW-377	Lead, total	mg/L	A5	01/19/2016 - 03/28/2022	14	100	All ND - Last	0.001	0.015	MCL/HBL
MW-377	Lead, total	mg/L	A5D	01/19/2016 - 09/30/2022	15	100	All ND - Last	0.0006	0.015	MCL/HBL
MW-377	Lithium, total	mg/L	A4D	01/19/2016 - 09/14/2021	16	0	CB around linear reg	0.0600	0.0958	Background
MW-377	Lithium, total	mg/L	A5	01/19/2016 - 03/28/2022	17	0	CB around linear reg	0.0642	0.0958	Background
MW-377	Lithium, total	mg/L	A5D	01/19/2016 - 09/30/2022	18	0	CB around linear reg	0.0630	0.0958	Background
MW-377	Mercury, total	mg/L	A5	01/19/2016 - 03/28/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-377	Molybdenum, total	mg/L	A4D	01/19/2016 - 09/14/2021	16	50	CB around linear reg	0.000577	0.1	MCL/HBL
MW-377	Molybdenum, total	mg/L	A5	01/19/2016 - 03/28/2022	17	53	CB around linear reg	0.000607	0.1	MCL/HBL
MW-377	Molybdenum, total	mg/L	A5D	01/19/2016 - 09/30/2022	18	56	CB around T-S line	-0.0000888	0.1	MCL/HBL

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BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-377	Radium 226 + Radium 228, total	pCi/L	A4D	01/19/2016 - 09/14/2021	16	0	CI around mean	0.280	5	MCL/HBL
MW-377	Radium 226 + Radium 228, total	pCi/L	A5	01/19/2016 - 03/28/2022	17	0	CI around mean	0.305	5	MCL/HBL
MW-377	Radium 226 + Radium 228, total	pCi/L	A5D	01/19/2016 - 09/30/2022	18	0	CI around mean	0.300	5	MCL/HBL
MW-377	Selenium, total	mg/L	A4D	01/19/2016 - 09/14/2021	16	100	All ND - Last	0.001	0.05	MCL/HBL
MW-377	Selenium, total	mg/L	A5	01/19/2016 - 03/28/2022	17	100	All ND - Last	0.001	0.05	MCL/HBL
MW-377	Selenium, total	mg/L	A5D	01/19/2016 - 09/30/2022	18	100	All ND - Last	0.0006	0.05	MCL/HBL
MW-377	Thallium, total	mg/L	A4D	01/19/2016 - 09/14/2021	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-377	Thallium, total	mg/L	A5	01/19/2016 - 03/28/2022	14	100	All ND - Last	0.002	0.002	MCL/HBL
MW-377	Thallium, total	mg/L	A5D	01/19/2016 - 09/30/2022	15	100	All ND - Last	0.001	0.002	MCL/HBL
MW-383	Antimony, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	81	CB around linear reg	0.000735	0.006	MCL/HBL
MW-383	Antimony, total	mg/L	A5	01/21/2016 - 03/29/2022	17	82	CB around linear reg	0.000748	0.006	MCL/HBL
MW-383	Antimony, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	83	CB around T-S line	0.000369	0.006	MCL/HBL
MW-383	Arsenic, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	69	CI around median	0.00100	0.010	MCL/HBL
MW-383	Arsenic, total	mg/L	A5	01/21/2016 - 03/29/2022	17	71	CI around median	0.00100	0.010	MCL/HBL
MW-383	Arsenic, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	72	CI around median	0.00100	0.010	MCL/HBL
MW-383	Barium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	0	CB around linear reg	0.0417	2	MCL/HBL
MW-383	Barium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	0	CB around linear reg	0.0442	2	MCL/HBL
MW-383	Barium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	0	CB around T-S line	0.0445	2	MCL/HBL
MW-383	Beryllium, total	mg/L	A5	01/21/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-383	Cadmium, total	mg/L	A5	01/21/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-383	Chromium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	94	CB around T-S line	0.00100	0.1	MCL/HBL
MW-383	Chromium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	94	CB around T-S line	0.00100	0.1	MCL/HBL
MW-383	Chromium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	94	CB around T-S line	0.00100	0.1	MCL/HBL
MW-383	Cobalt, total	mg/L	A4D	01/21/2016 - 09/13/2021	14	100	All ND - Last	0.001	0.006	MCL/HBL
MW-383	Cobalt, total	mg/L	A5	01/21/2016 - 03/29/2022	15	100	All ND - Last	0.001	0.006	MCL/HBL
MW-383	Cobalt, total	mg/L	A5D	01/21/2016 - 09/30/2022	16	100	All ND - Last	0.0001	0.006	MCL/HBL
MW-383	Fluoride, total	mg/L	A4D	01/21/2016 - 09/13/2021	17	0	CB around linear reg	0.651	4.0	MCL/HBL
MW-383	Fluoride, total	mg/L	A5	01/21/2016 - 03/29/2022	18	0	CB around linear reg	0.659	4.0	MCL/HBL
MW-383	Fluoride, total	mg/L	A5D	01/21/2016 - 09/30/2022	19	0	CB around linear reg	0.640	4.0	MCL/HBL

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

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-383	Lead, total	mg/L	A4D	01/21/2016 - 09/13/2021	13	100	All ND - Last	0.001	0.015	MCL/HBL
MW-383	Lead, total	mg/L	A5	01/21/2016 - 03/29/2022	14	100	All ND - Last	0.001	0.015	MCL/HBL
MW-383	Lead, total	mg/L	A5D	01/21/2016 - 09/30/2022	15	100	All ND - Last	0.0006	0.015	MCL/HBL
MW-383	Lithium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	0	CB around linear reg	0.0359	0.0958	Background
MW-383	Lithium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	0	CB around linear reg	0.0379	0.0958	Background
MW-383	Lithium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	0	CB around linear reg	0.0383	0.0958	Background
MW-383	Mercury, total	mg/L	A5	01/21/2016 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-383	Molybdenum, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	0	CB around T-S line	0.00454	0.1	MCL/HBL
MW-383	Molybdenum, total	mg/L	A5	01/21/2016 - 03/29/2022	17	0	CB around T-S line	0.00420	0.1	MCL/HBL
MW-383	Molybdenum, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	0	CI around mean	0.0102	0.1	MCL/HBL
MW-383	Radium 226 + Radium 228, total	pCi/L	A4D	01/21/2016 - 09/13/2021	16	0	CI around mean	0.329	5	MCL/HBL
MW-383	Radium 226 + Radium 228, total	pCi/L	A5	01/21/2016 - 03/29/2022	17	0	CI around mean	0.340	5	MCL/HBL
MW-383	Radium 226 + Radium 228, total	pCi/L	A5D	01/21/2016 - 09/30/2022	18	0	CI around mean	0.346	5	MCL/HBL
MW-383	Selenium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	94	CI around median	0.00100	0.05	MCL/HBL
MW-383	Selenium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	94	CI around median	0.00100	0.05	MCL/HBL
MW-383	Selenium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	94	CI around median	0.00100	0.05	MCL/HBL
MW-383	Thallium, total	mg/L	A4D	01/21/2016 - 09/13/2021	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-383	Thallium, total	mg/L	A5	01/21/2016 - 03/29/2022	14	100	All ND - Last	0.002	0.002	MCL/HBL
MW-383	Thallium, total	mg/L	A5D	01/21/2016 - 09/30/2022	15	100	All ND - Last	0.001	0.002	MCL/HBL
MW-384	Antimony, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	100	All ND - Last	0.001	0.006	MCL/HBL
MW-384	Antimony, total	mg/L	A5	01/21/2016 - 03/29/2022	17	100	All ND - Last	0.001	0.006	MCL/HBL
MW-384	Antimony, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	100	All ND - Last	0.0004	0.006	MCL/HBL
MW-384	Arsenic, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	100	All ND - Last	0.001	0.010	MCL/HBL
MW-384	Arsenic, total	mg/L	A5	01/21/2016 - 03/29/2022	17	100	All ND - Last	0.001	0.010	MCL/HBL
MW-384	Arsenic, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	100	All ND - Last	0.0004	0.010	MCL/HBL
MW-384	Barium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	0	CB around linear reg	0.0378	2	MCL/HBL
MW-384	Barium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	0	CB around linear reg	0.0334	2	MCL/HBL
MW-384	Barium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	0	CB around linear reg	0.0379	2	MCL/HBL
MW-384	Beryllium, total	mg/L	A5	01/21/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL

TABLE 6
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2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-384	Cadmium, total	mg/L	A5	01/21/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-384	Chromium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-384	Chromium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-384	Chromium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	94	CB around T-S line	0.00100	0.1	MCL/HBL
MW-384	Cobalt, total	mg/L	A4D	01/21/2016 - 09/13/2021	14	100	All ND - Last	0.001	0.006	MCL/HBL
MW-384	Cobalt, total	mg/L	A5	01/21/2016 - 03/29/2022	15	100	All ND - Last	0.001	0.006	MCL/HBL
MW-384	Cobalt, total	mg/L	A5D	01/21/2016 - 09/30/2022	16	100	All ND - Last	0.0003	0.006	MCL/HBL
MW-384	Fluoride, total	mg/L	A4D	01/21/2016 - 09/13/2021	17	0	CB around linear reg	2.55	4.0	MCL/HBL
MW-384	Fluoride, total	mg/L	A5	01/21/2016 - 03/29/2022	18	0	CB around linear reg	2.98	4.0	MCL/HBL
MW-384	Fluoride, total	mg/L	A5D	01/21/2016 - 09/30/2022	19	0	CB around linear reg	3.28	4.0	MCL/HBL
MW-384	Lead, total	mg/L	A4D	01/21/2016 - 09/13/2021	13	100	All ND - Last	0.001	0.015	MCL/HBL
MW-384	Lead, total	mg/L	A5	01/21/2016 - 03/29/2022	14	100	All ND - Last	0.001	0.015	MCL/HBL
MW-384	Lead, total	mg/L	A5D	01/21/2016 - 09/30/2022	15	100	All ND - Last	0.0006	0.015	MCL/HBL
MW-384	Lithium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	0	CB around linear reg	0.0435	0.0958	Background
MW-384	Lithium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	0	CB around linear reg	0.0473	0.0958	Background
MW-384	Lithium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	0	CB around linear reg	0.0500	0.0958	Background
MW-384	Mercury, total	mg/L	A5	01/21/2016 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-384	Molybdenum, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	0	CB around linear reg	0.0316	0.1	MCL/HBL
MW-384	Molybdenum, total	mg/L	A5	01/21/2016 - 03/29/2022	17	0	CB around linear reg	0.0306	0.1	MCL/HBL
MW-384	Molybdenum, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	0	CB around linear reg	0.0309	0.1	MCL/HBL
MW-384	Radium 226 + Radium 228, total	pCi/L	A4D	01/21/2016 - 09/13/2021	16	0	CI around geomean	0.347	5	MCL/HBL
MW-384	Radium 226 + Radium 228, total	pCi/L	A5	01/21/2016 - 03/29/2022	17	0	CI around geomean	0.337	5	MCL/HBL
MW-384	Radium 226 + Radium 228, total	pCi/L	A5D	01/21/2016 - 09/30/2022	18	0	CI around geomean	0.330	5	MCL/HBL
MW-384	Selenium, total	mg/L	A4D	01/21/2016 - 09/13/2021	16	100	All ND - Last	0.001	0.05	MCL/HBL
MW-384	Selenium, total	mg/L	A5	01/21/2016 - 03/29/2022	17	100	All ND - Last	0.001	0.05	MCL/HBL
MW-384	Selenium, total	mg/L	A5D	01/21/2016 - 09/30/2022	18	100	All ND - Last	0.0006	0.05	MCL/HBL
MW-384	Thallium, total	mg/L	A4D	01/21/2016 - 09/13/2021	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-384	Thallium, total	mg/L	A5	01/21/2016 - 03/29/2022	14	100	All ND - Last	0.002	0.002	MCL/HBL
MW-384	Thallium, total	mg/L	A5D	01/21/2016 - 09/30/2022	15	100	All ND - Last	0.001	0.002	MCL/HBL

TABLE 6
DETERMINATION OF STATISTICALLY SIGNIFICANT LEVELS
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BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-390	Antimony, total	mg/L	A4D	03/22/2016 - 09/15/2021	16	94	CI around median	0.00100	0.006	MCL/HBL
MW-390	Antimony, total	mg/L	A5	03/22/2016 - 03/29/2022	17	94	CI around median	0.00100	0.006	MCL/HBL
MW-390	Antimony, total	mg/L	A5D	03/22/2016 - 09/30/2022	18	94	CI around median	0.00100	0.006	MCL/HBL
MW-390	Arsenic, total	mg/L	A4D	03/22/2016 - 09/15/2021	16	6	CI around mean	0.00129	0.010	MCL/HBL
MW-390	Arsenic, total	mg/L	A5	03/22/2016 - 03/29/2022	17	6	CI around mean	0.00132	0.010	MCL/HBL
MW-390	Arsenic, total	mg/L	A5D	03/22/2016 - 09/30/2022	18	6	CI around mean	0.00135	0.010	MCL/HBL
MW-390	Barium, total	mg/L	A4D	03/22/2016 - 09/15/2021	16	0	CB around linear reg	0.0705	2	MCL/HBL
MW-390	Barium, total	mg/L	A5	03/22/2016 - 03/29/2022	17	0	CI around mean	0.0422	2	MCL/HBL
MW-390	Barium, total	mg/L	A5D	03/22/2016 - 09/30/2022	18	0	CB around linear reg	0.0698	2	MCL/HBL
MW-390	Beryllium, total	mg/L	A5	03/22/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.004	MCL/HBL
MW-390	Cadmium, total	mg/L	A5	03/22/2016 - 03/29/2022	13	100	All ND - Last	0.001	0.005	MCL/HBL
MW-390	Chromium, total	mg/L	A4D	03/22/2016 - 09/15/2021	16	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-390	Chromium, total	mg/L	A5	03/22/2016 - 03/29/2022	17	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-390	Chromium, total	mg/L	A5D	03/22/2016 - 09/30/2022	18	100	All ND - Last	0.0007	0.1	MCL/HBL
MW-390	Cobalt, total	mg/L	A4D	03/22/2016 - 09/15/2021	14	64	CB around linear reg	0.000226	0.006	MCL/HBL
MW-390	Cobalt, total	mg/L	A5	03/22/2016 - 03/29/2022	15	67	CB around linear reg	0.000283	0.006	MCL/HBL
MW-390	Cobalt, total	mg/L	A5D	03/22/2016 - 09/30/2022	16	69	CB around T-S line	-0.000723	0.006	MCL/HBL
MW-390	Fluoride, total	mg/L	A4D	03/22/2016 - 09/15/2021	17	0	CI around mean	0.776	4.0	MCL/HBL
MW-390	Fluoride, total	mg/L	A5	03/22/2016 - 03/29/2022	18	0	CI around mean	0.783	4.0	MCL/HBL
MW-390	Fluoride, total	mg/L	A5D	03/22/2016 - 09/30/2022	19	0	CI around mean	0.803	4.0	MCL/HBL
MW-390	Lead, total	mg/L	A4D	03/22/2016 - 09/15/2021	13	92	CI around median	0.00100	0.015	MCL/HBL
MW-390	Lead, total	mg/L	A5	03/22/2016 - 03/29/2022	14	93	CI around median	0.00100	0.015	MCL/HBL
MW-390	Lead, total	mg/L	A5D	03/22/2016 - 09/30/2022	15	93	CI around median	0.00100	0.015	MCL/HBL
MW-390	Lithium, total	mg/L	A4D	03/22/2016 - 09/15/2021	16	0	Future median	0.0174	0.0958	Background
MW-390	Lithium, total	mg/L	A5	03/22/2016 - 03/29/2022	17	0	Future median	0.0189	0.0958	Background
MW-390	Lithium, total	mg/L	A5D	03/22/2016 - 09/30/2022	18	0	CI around mean	0.0210	0.0958	Background
MW-390	Mercury, total	mg/L	A5	03/22/2016 - 03/29/2022	13	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-390	Molybdenum, total	mg/L	A4D	03/22/2016 - 09/15/2021	16	0	CI around geomean	0.00289	0.1	MCL/HBL
MW-390	Molybdenum, total	mg/L	A5	03/22/2016 - 03/29/2022	17	0	CI around geomean	0.00298	0.1	MCL/HBL
MW-390	Molybdenum, total	mg/L	A5D	03/22/2016 - 09/30/2022	18	0	CI around geomean	0.00308	0.1	MCL/HBL

TABLE 6
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BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-390	Radium 226 + Radium 228, total	pCi/L	A4D	03/22/2016 - 09/15/2021	16	0	CI around mean	0.589	5	MCL/HBL
MW-390	Radium 226 + Radium 228, total	pCi/L	A5	03/22/2016 - 03/29/2022	17	0	CI around mean	0.622	5	MCL/HBL
MW-390	Radium 226 + Radium 228, total	pCi/L	A5D	03/22/2016 - 09/30/2022	18	0	CI around mean	0.636	5	MCL/HBL
MW-390	Selenium, total	mg/L	A4D	03/22/2016 - 09/15/2021	16	88	CI around median	0.00100	0.05	MCL/HBL
MW-390	Selenium, total	mg/L	A5	03/22/2016 - 03/29/2022	17	88	CI around median	0.00100	0.05	MCL/HBL
MW-390	Selenium, total	mg/L	A5D	03/22/2016 - 09/30/2022	18	89	CI around median	0.00100	0.05	MCL/HBL
MW-390	Thallium, total	mg/L	A4D	03/22/2016 - 09/15/2021	13	100	All ND - Last	0.002	0.002	MCL/HBL
MW-390	Thallium, total	mg/L	A5	03/22/2016 - 03/29/2022	14	100	All ND - Last	0.002	0.002	MCL/HBL
MW-390	Thallium, total	mg/L	A5D	03/22/2016 - 09/30/2022	15	100	All ND - Last	0.001	0.002	MCL/HBL
MW-391	Antimony, total	mg/L	A4D	12/22/2016 - 09/14/2021	11	0	CI around mean	0.00143	0.006	MCL/HBL
MW-391	Antimony, total	mg/L	A5	12/22/2016 - 03/29/2022	12	0	CI around mean	0.00145	0.006	MCL/HBL
MW-391	Antimony, total	mg/L	A5D	12/22/2016 - 09/30/2022	13	0	CI around mean	0.00149	0.006	MCL/HBL
MW-391	Arsenic, total	mg/L	A4D	12/22/2016 - 09/14/2021	11	0	CI around geomean	0.00129	0.010	MCL/HBL
MW-391	Arsenic, total	mg/L	A5	12/22/2016 - 03/29/2022	12	0	CI around geomean	0.00134	0.010	MCL/HBL
MW-391	Arsenic, total	mg/L	A5D	12/22/2016 - 09/30/2022	13	0	CB around linear reg	0.00279	0.010	MCL/HBL
MW-391	Barium, total	mg/L	A4D	12/22/2016 - 09/14/2021	11	0	CI around mean	0.0233	2	MCL/HBL
MW-391	Barium, total	mg/L	A5	12/22/2016 - 03/29/2022	12	0	CB around linear reg	0.00432	2	MCL/HBL
MW-391	Barium, total	mg/L	A5D	12/22/2016 - 09/30/2022	13	0	CB around linear reg	0.00497	2	MCL/HBL
MW-391	Beryllium, total	mg/L	A5	12/22/2016 - 03/29/2022	8	100	All ND - Last	0.001	0.004	MCL/HBL
MW-391	Cadmium, total	mg/L	A5	12/22/2016 - 03/29/2022	8	100	All ND - Last	0.001	0.005	MCL/HBL
MW-391	Chromium, total	mg/L	A4D	12/22/2016 - 09/14/2021	11	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-391	Chromium, total	mg/L	A5	12/22/2016 - 03/29/2022	12	100	All ND - Last	0.0015	0.1	MCL/HBL
MW-391	Chromium, total	mg/L	A5D	12/22/2016 - 09/30/2022	13	92	CB around T-S line	0.00150	0.1	MCL/HBL
MW-391	Cobalt, total	mg/L	A4D	12/22/2016 - 09/14/2021	9	100	All ND - Last	0.001	0.006	MCL/HBL
MW-391	Cobalt, total	mg/L	A5	12/22/2016 - 03/29/2022	10	100	All ND - Last	0.001	0.006	MCL/HBL
MW-391	Cobalt, total	mg/L	A5D	12/22/2016 - 09/30/2022	11	100	All ND - Last	0.0007	0.006	MCL/HBL
MW-391	Fluoride, total	mg/L	A4D	12/22/2016 - 09/14/2021	11	0	CI around mean	2.26	4.0	MCL/HBL
MW-391	Fluoride, total	mg/L	A5	12/22/2016 - 03/29/2022	12	0	CB around linear reg	2.41	4.0	MCL/HBL
MW-391	Fluoride, total	mg/L	A5D	12/22/2016 - 09/30/2022	13	0	CB around linear reg	2.64	4.0	MCL/HBL

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BALDWIN POWER PLANT
605 - FLY ASH POND SYSTEM
BALDWIN, IL

Sample Location	Constituent	Result Unit	Event	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Result	GWPS	GWPS Source
MW-391	Lead, total	mg/L	A4D	12/22/2016 - 09/14/2021	8	100	All ND - Last	0.001	0.015	MCL/HBL
MW-391	Lead, total	mg/L	A5	12/22/2016 - 03/29/2022	9	100	All ND - Last	0.001	0.015	MCL/HBL
MW-391	Lead, total	mg/L	A5D	12/22/2016 - 09/30/2022	10	100	All ND - Last	0.0006	0.015	MCL/HBL
MW-391	Lithium, total	mg/L	A4D	12/22/2016 - 09/14/2021	12	0	Future median	0.0707	0.0958	Background
MW-391	Lithium, total	mg/L	A5	12/22/2016 - 03/29/2022	13	0	Future median	0.0735	0.0958	Background
MW-391	Lithium, total	mg/L	A5D	12/22/2016 - 09/30/2022	14	0	CI around mean	0.0660	0.0958	Background
MW-391	Mercury, total	mg/L	A5	12/22/2016 - 03/29/2022	8	100	All ND - Last	0.0002	0.002	MCL/HBL
MW-391	Molybdenum, total	mg/L	A4D	12/22/2016 - 09/14/2021	11	0	CB around linear reg	-0.00541	0.1	MCL/HBL
MW-391	Molybdenum, total	mg/L	A5	12/22/2016 - 03/29/2022	12	0	CI around geomean	0.0317	0.1	MCL/HBL
MW-391	Molybdenum, total	mg/L	A5D	12/22/2016 - 09/30/2022	13	0	CI around mean	0.0329	0.1	MCL/HBL
MW-391	Radium 226 + Radium 228, total	pCi/L	A4D	12/22/2016 - 09/14/2021	11	0	CI around mean	0.584	5	MCL/HBL
MW-391	Radium 226 + Radium 228, total	pCi/L	A5	12/22/2016 - 03/29/2022	12	0	CI around mean	0.615	5	MCL/HBL
MW-391	Radium 226 + Radium 228, total	pCi/L	A5D	12/22/2016 - 09/30/2022	13	0	CI around mean	0.650	5	MCL/HBL
MW-391	Selenium, total	mg/L	A4D	12/22/2016 - 09/14/2021	11	0	CB around linear reg	-0.00826	0.05	MCL/HBL
MW-391	Selenium, total	mg/L	A5	12/22/2016 - 03/29/2022	12	0	CB around linear reg	-0.00846	0.05	MCL/HBL
MW-391	Selenium, total	mg/L	A5D	12/22/2016 - 09/30/2022	13	0	CB around linear reg	-0.00831	0.05	MCL/HBL
MW-391	Thallium, total	mg/L	A4D	12/22/2016 - 09/14/2021	9	89	CI around mean	0.00116	0.002	MCL/HBL
MW-391	Thallium, total	mg/L	A5	12/22/2016 - 03/29/2022	10	90	CI around median	0.00100	0.002	MCL/HBL
MW-391	Thallium, total	mg/L	A5D	12/22/2016 - 09/30/2022	11	91	CI around median	0.00100	0.002	MCL/HBL

Notes:
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

BACKGROUND WELL
COMPLIANCE WELL
40 C.F.R. § 257 REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
CAPPED AREA
PROPERTY BOUNDARY

0 400 800 Feet

MONITORING WELL LOCATION MAP

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

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

- 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)
- SITE FEATURE
- CAPPED AREA
- PROPERTY BOUNDARY

0 400 800 Feet

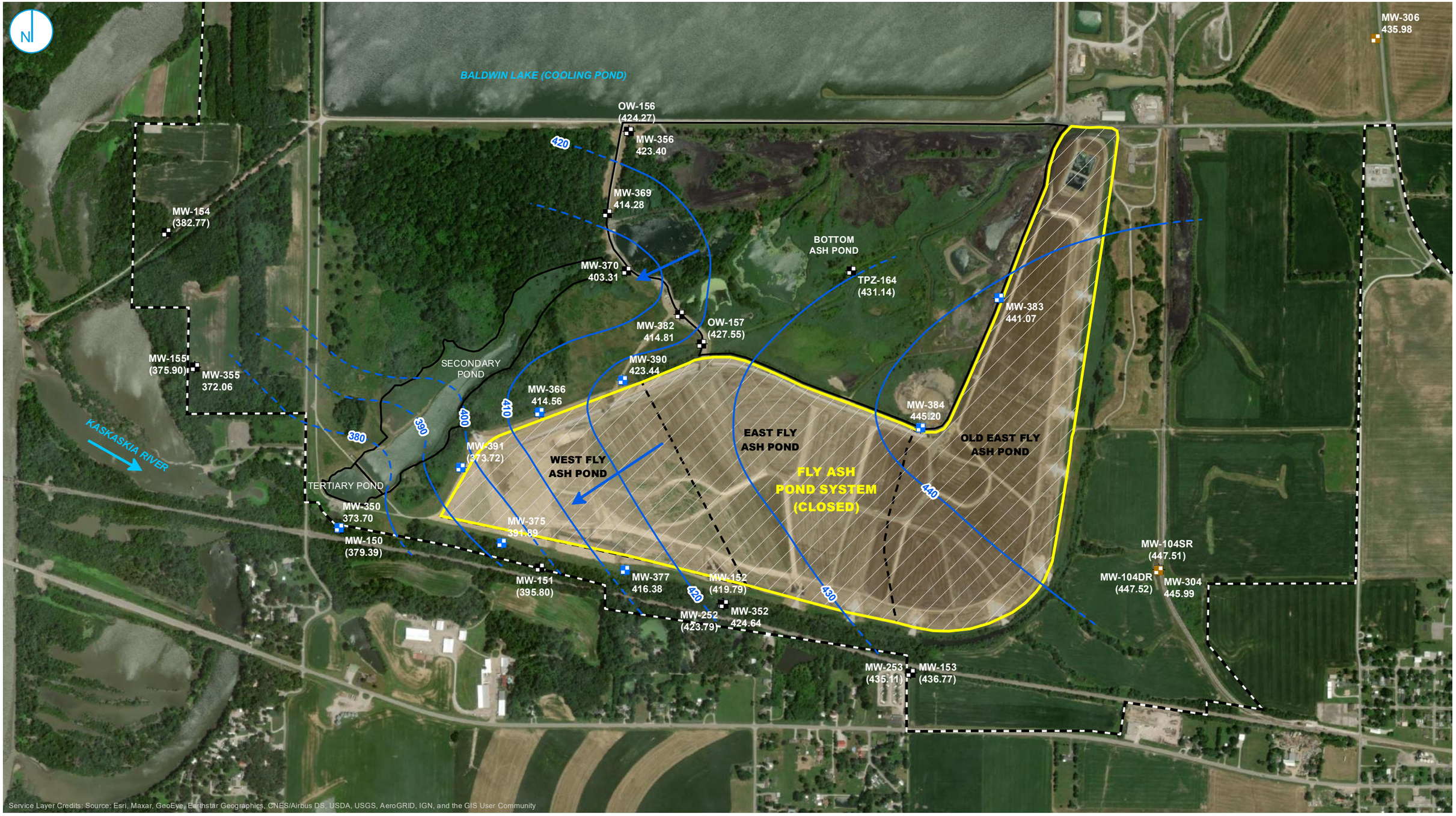
POTENTIOMETRIC SURFACE MAP
SEPTEMBER 13, 2021

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

FIGURE 2

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



- 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)
- SITE FEATURE
- CAPPED AREA
- PROPERTY BOUNDARY

0 400 800 Feet

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

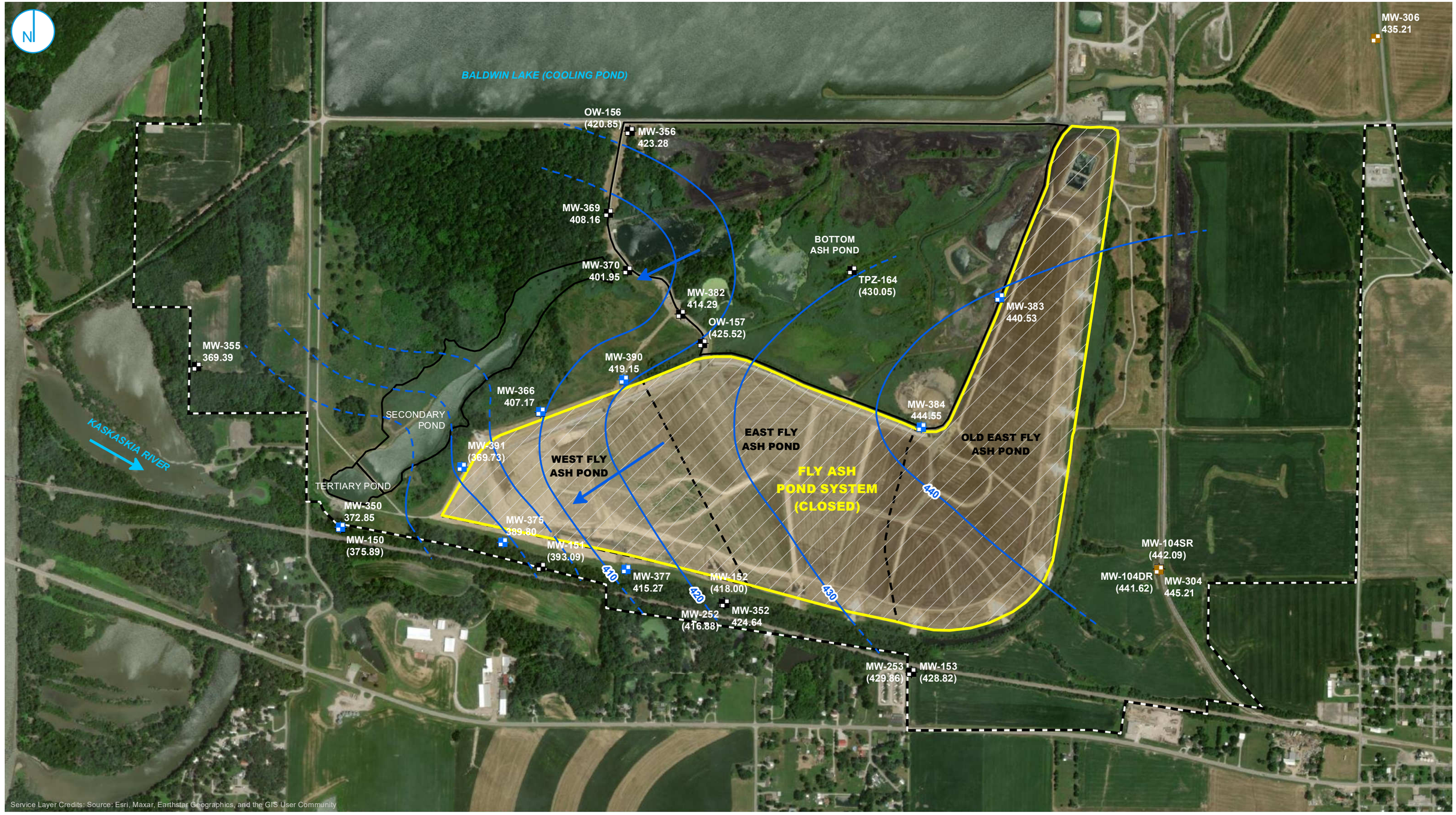
POTENTIOMETRIC SURFACE MAP MARCH 28, 2022

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

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



PROJECT: 169000XXXX | DATED: 12/19/2022 | DESIGNER: galarnmc

Y:\Mapping\Projects\2202285\MXD\GW_Contours\Round_2022\Baldwin\FAPS_605\BAL FAPS 605 Pot Surface 20220929.mxd

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)
SITE FEATURE
CAPPED AREA
PROPERTY BOUNDARY

0 400 800 Feet

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
FLY ASH POND SYSTEM
BALDWIN POWER PLANT
BALDWIN, ILLINOIS

FIGURE 4

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

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

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

Client: Vistra Energy
Client Project: Baldwin Groundwater Q3 2021

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

This reporting package includes the following:

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

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
Client Project: Baldwin Groundwater Q3 2021

Work Order: 21081645
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 605 data. EAH 2/10/22

Locations

Collinsville

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

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

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

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-011 **Client Sample ID:** 304

Matrix: GROUNDWATER **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
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/24/2021 1:02	181947

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-012 **Client Sample ID:** 306

Matrix: GROUNDWATER **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 CaCO3)	NELAP	0		**0**	mg/L	1	09/17/2021 11:39	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	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
RPD for MS/MSD was outside control limits due to matrix interference.								
Elevated reporting limit due to matrix interference.								
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
Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.								
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

Client: Vistra Energy
Work Order: 21081645
Client Project: Baldwin Groundwater Q3 2021
Report Date: 10-Feb-22
Lab ID: 21081645-012
Client Sample ID: 306
Matrix: GROUNDWATER
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
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/24/2021 1:11	181947

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-013 **Client Sample ID:** 350

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 15:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water	*	-5.00		**23.38**	ft	1	09/14/2021 15:53	R299488
Depth to water from measuring point	*	0		**23.38**	ft	1	09/14/2021 15:53	R299488
Elevation of groundwater surface	*	0		**373.42**	ft	1	09/14/2021 15:53	R299488
Measuring Point Elevation	*	0		**396.80**	ft	1	09/14/2021 15:53	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**8.5**	NTU	1	09/14/2021 15:53	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-253**	mV	1	09/14/2021 15:53	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**858**	µS/cm	1	09/14/2021 15:53	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**16.8**	°C	1	09/14/2021 15:53	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.34**	mg/L	1	09/14/2021 15:53	R299488
SW-846 9040B								
pH, Field	*	1.00		**8.01**		1	09/14/2021 15:53	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**231**	mg/L	1	09/15/2021 14:00	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/15/2021 14:00	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**402**	mg/L	1	09/17/2021 15:03	R299150
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**99**	mg/L	5	09/20/2021 17:16	R299276
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.15**	mg/L	1	09/15/2021 13:45	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		**29**	mg/L	2	09/16/2021 21:46	R299090
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100	S	**25.1**	mg/L	1	09/23/2021 13:35	182141
Magnesium	NELAP	0.050		**4.38**	mg/L	1	09/23/2021 13:35	182141
Potassium	NELAP	0.100		**5.52**	mg/L	1	09/23/2021 13:35	182141
Sodium	NELAP	0.050	S	**74.3**	mg/L	1	09/23/2021 13:35	182141
Matrix spike control limits for Ca and Na are not applicable due to high sample/spike ratio.								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0026**	mg/L	5	09/27/2021 23:44	182143
Arsenic	NELAP	0.0010	J	**0.0007**	mg/L	5	09/27/2021 23:44	182143
Barium	NELAP	0.0010		**0.179**	mg/L	5	09/27/2021 23:44	182143
Boron	NELAP	0.0250		**0.622**	mg/L	5	09/27/2021 23:44	182143
Chromium	NELAP	0.0015		**0.0021**	mg/L	5	09/27/2021 23:44	182143
Cobalt	NELAP	0.0010	J	**0.0003**	mg/L	5	09/27/2021 23:44	182143
Lead	NELAP	0.0010		**0.0027**	mg/L	5	09/27/2021 23:44	182143
Lithium	*	0.0030		**0.0834**	mg/L	5	09/27/2021 23:44	182143
Molybdenum	NELAP	0.0015		**0.0043**	mg/L	5	09/27/2021 23:44	182143
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/27/2021 23:44	182143

Client: Vistra Energy
Work Order: 21081645
Client Project: Baldwin Groundwater Q3 2021
Report Date: 10-Feb-22
Lab ID: 21081645-013
Client Sample ID: 350
Matrix: GROUNDWATER
Collection Date: 09/14/2021 15:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Thallium	NELAP	0.0020	J	**0.0012**	mg/L	5	09/27/2021 23:44	182143

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-017 **Client Sample ID:** 366

Matrix: GROUNDWATER **Collection Date:** 09/15/2021 9:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**17.19**	ft	1	09/15/2021 9:05	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.0**	NTU	1	09/15/2021 9:05	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-17**	mV	1	09/15/2021 9:05	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1940**	µS/cm	1	09/15/2021 9:05	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**16.6**	°C	1	09/15/2021 9:05	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**1.22**	mg/L	1	09/15/2021 9:05	R299488
SW-846 9040B								
pH, Field	*	1.00		**6.77**		1	09/15/2021 9:05	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**313**	mg/L	1	09/17/2021 8:33	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/17/2021 8:33	R299047
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**1140**	mg/L	1	09/21/2021 14:48	R299280
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**597**	mg/L	20	09/23/2021 16:04	R299361
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.46**	mg/L	1	09/17/2021 9:44	R299066
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**47**	mg/L	1	09/20/2021 22:54	R299278
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**181**	mg/L	1	09/23/2021 19:03	182134
Magnesium	NELAP	0.050		**81.6**	mg/L	1	09/23/2021 19:03	182134
Potassium	NELAP	0.100		**4.39**	mg/L	1	09/23/2021 19:03	182134
Sodium	NELAP	0.050		**63.3**	mg/L	1	09/23/2021 19:03	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 1:11	182135
Arsenic	NELAP	0.0010	J	**0.0006**	mg/L	5	09/28/2021 1:11	182135
Barium	NELAP	0.0010		**0.0507**	mg/L	5	09/28/2021 1:11	182135
Boron	NELAP	0.0250		**1.67**	mg/L	5	09/28/2021 1:11	182135
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	09/28/2021 1:11	182135
Cobalt	NELAP	0.0010	J	**0.0002**	mg/L	5	09/28/2021 1:11	182135
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 1:11	182135
Lithium	*	0.0030		**0.0146**	mg/L	5	09/28/2021 1:11	182135
Molybdenum	NELAP	0.0015		**0.0039**	mg/L	5	09/28/2021 1:11	182135
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 1:11	182135
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 1:11	182135

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-020 **Client Sample ID:** 375

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 14:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**32.04**	ft	1	09/14/2021 14:47	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.3**	NTU	1	09/14/2021 14:47	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-106**	mV	1	09/14/2021 14:47	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**2070**	µS/cm	1	09/14/2021 14:47	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**16.2**	°C	1	09/14/2021 14:47	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.41**	mg/L	1	09/14/2021 14:47	R299488
SW-846 9040B								
pH, Field	*	1.00		**7.76**		1	09/14/2021 14:47	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**585**	mg/L	1	09/15/2021 14:05	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/15/2021 14:05	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**976**	mg/L	1	09/17/2021 15:25	R299150
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**176**	mg/L	10	09/16/2021 21:53	R299089
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**2.38**	mg/L	1	09/15/2021 13:48	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		**114**	mg/L	10	09/16/2021 21:53	R299090
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**11.8**	mg/L	1	09/23/2021 19:20	182134
Magnesium	NELAP	0.050		**6.09**	mg/L	1	09/23/2021 19:20	182134
Potassium	NELAP	0.100		**2.57**	mg/L	1	09/23/2021 19:20	182134
Sodium	NELAP	0.050		**330**	mg/L	1	09/23/2021 19:20	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	J	**0.0007**	mg/L	5	09/28/2021 1:54	182135
Arsenic	NELAP	0.0010		**0.0017**	mg/L	5	09/28/2021 1:54	182135
Barium	NELAP	0.0010		**0.0230**	mg/L	5	09/28/2021 1:54	182135
Boron	NELAP	0.0250		**1.33**	mg/L	5	09/28/2021 1:54	182135
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	09/28/2021 1:54	182135
Cobalt	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 1:54	182135
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 1:54	182135
Lithium	*	0.0030		**0.0765**	mg/L	5	09/28/2021 1:54	182135
Molybdenum	NELAP	0.0015		**0.0241**	mg/L	5	09/28/2021 1:54	182135
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 1:54	182135
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 1:54	182135

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-021 **Client Sample ID:** 377

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 14:04

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**5.25**	ft	1	09/14/2021 14:04	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.8**	NTU	1	09/14/2021 14:04	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-2**	mV	1	09/14/2021 14:04	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1330**	µS/cm	1	09/14/2021 14:04	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**21.3**	°C	1	09/14/2021 14:04	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.61**	mg/L	1	09/14/2021 14:04	R299488
SW-846 9040B								
pH, Field	*	1.00		**7.13**		1	09/14/2021 14:04	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**437**	mg/L	1	09/15/2021 14:13	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/15/2021 14:13	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**580**	mg/L	1	09/17/2021 15:25	R299150
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**38**	mg/L	1	09/16/2021 21:56	R299089
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**1.15**	mg/L	1	09/15/2021 13:49	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		**100**	mg/L	10	09/16/2021 22:01	R299090
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**55.2**	mg/L	1	09/23/2021 19:21	182134
Magnesium	NELAP	0.050		**37.2**	mg/L	1	09/23/2021 19:21	182134
Potassium	NELAP	0.100		**3.28**	mg/L	1	09/23/2021 19:21	182134
Sodium	NELAP	0.050		**123**	mg/L	1	09/23/2021 19:21	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:03	182135
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:03	182135
Barium	NELAP	0.0010		**0.0630**	mg/L	5	09/28/2021 2:03	182135
Boron	NELAP	0.0250		**1.77**	mg/L	5	09/28/2021 2:03	182135
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	09/28/2021 2:03	182135
Cobalt	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:03	182135
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:03	182135
Lithium	*	0.0030		**0.0647**	mg/L	5	09/28/2021 2:03	182135
Molybdenum	NELAP	0.0015		**< 0.0015**	mg/L	5	09/28/2021 2:03	182135
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:03	182135
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 2:03	182135

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-023 **Client Sample ID:** 383

Matrix: GROUNDWATER **Collection Date:** 09/13/2021 16:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**18.51**	ft	1	09/13/2021 16:24	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**5.6**	NTU	1	09/13/2021 16:24	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-5**	mV	1	09/13/2021 16:24	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1670**	µS/cm	1	09/13/2021 16:24	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**22.3**	°C	1	09/13/2021 16:24	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.77**	mg/L	1	09/13/2021 16:24	R299488
SW-846 9040B								
pH, Field	*	1.00		**7.59**		1	09/13/2021 16:24	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**581**	mg/L	1	09/15/2021 14:20	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/15/2021 14:20	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**864**	mg/L	1	09/17/2021 15:25	R299150
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**168**	mg/L	10	09/16/2021 22:09	R299089
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.70**	mg/L	1	09/15/2021 13:51	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		**45**	mg/L	1	09/16/2021 22:04	R299090
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**17.1**	mg/L	1	09/23/2021 19:25	182134
Magnesium	NELAP	0.050		**6.52**	mg/L	1	09/23/2021 19:25	182134
Potassium	NELAP	0.100		**1.95**	mg/L	1	09/23/2021 19:25	182134
Sodium	NELAP	0.050		**302**	mg/L	1	09/23/2021 19:25	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:55	182135
Arsenic	NELAP	0.0010	J	**0.0006**	mg/L	5	09/28/2021 2:55	182135
Barium	NELAP	0.0010		**0.0443**	mg/L	5	09/28/2021 2:55	182135
Boron	NELAP	0.0250		**1.34**	mg/L	5	09/28/2021 2:55	182135
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	09/28/2021 2:55	182135
Cobalt	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:55	182135
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:55	182135
Lithium	*	0.0030		**0.0389**	mg/L	5	09/28/2021 2:55	182135
Molybdenum	NELAP	0.0015		**0.0088**	mg/L	5	09/28/2021 2:55	182135
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 2:55	182135
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 2:55	182135

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-024 **Client Sample ID:** 384

Matrix: GROUNDWATER **Collection Date:** 09/13/2021 15:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**13.58**	ft	1	09/13/2021 15:55	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**7.2**	NTU	1	09/13/2021 15:55	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-93**	mV	1	09/13/2021 15:55	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**3040**	µS/cm	1	09/13/2021 15:55	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**20.7**	°C	1	09/13/2021 15:55	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.42**	mg/L	1	09/13/2021 15:55	R299488
SW-846 9040B								
pH, Field	*	1.00		**8.00**		1	09/13/2021 15:55	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**632**	mg/L	1	09/15/2021 14:28	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/15/2021 14:28	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**1440**	mg/L	1	09/17/2021 15:26	R299150
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**40**	mg/L	1	09/16/2021 22:28	R299089
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**3.82**	mg/L	1	09/15/2021 13:53	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**501**	mg/L	20	09/20/2021 18:07	R299278
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**20.0**	mg/L	1	09/23/2021 19:26	182134
Magnesium	NELAP	0.050		**7.86**	mg/L	1	09/23/2021 19:26	182134
Potassium	NELAP	0.100		**2.47**	mg/L	1	09/23/2021 19:26	182134
Sodium	NELAP	0.050		**553**	mg/L	1	09/23/2021 19:26	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 3:04	182135
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 3:04	182135
Barium	NELAP	0.0010		**0.0521**	mg/L	5	09/28/2021 3:04	182135
Boron	NELAP	0.0250		**1.54**	mg/L	5	09/28/2021 3:04	182135
Chromium	NELAP	0.0015	J	**0.0015**	mg/L	5	09/28/2021 3:04	182135
Cobalt	NELAP	0.0010	J	**0.0003**	mg/L	5	09/28/2021 3:04	182135
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 3:04	182135
Lithium	*	0.0030		**0.0488**	mg/L	5	09/28/2021 3:04	182135
Molybdenum	NELAP	0.0015		**0.0450**	mg/L	5	09/28/2021 3:04	182135
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 3:04	182135
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 3:04	182135

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-025 **Client Sample ID:** 390

Matrix: GROUNDWATER **Collection Date:** 09/15/2021 8:21

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**8.01**	ft	1	09/15/2021 8:21	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.7**	NTU	1	09/15/2021 8:21	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-98**	mV	1	09/15/2021 8:21	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**2200**	µS/cm	1	09/15/2021 8:21	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**18.4**	°C	1	09/15/2021 8:21	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.51**	mg/L	1	09/15/2021 8:21	R299488
SW-846 9040B								
pH, Field	*	1.00		**7.06**		1	09/15/2021 8:21	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**416**	mg/L	1	09/17/2021 9:02	R299047
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/17/2021 9:02	R299047
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**682**	mg/L	1	09/21/2021 15:42	R299280
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**152**	mg/L	10	09/20/2021 23:47	R299276
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**1.26**	mg/L	1	09/17/2021 9:51	R299066
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		**62**	mg/L	10	09/20/2021 23:47	R299278
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**90.2**	mg/L	1	09/23/2021 19:28	182134
Magnesium	NELAP	0.050		**38.6**	mg/L	1	09/23/2021 19:28	182134
Potassium	NELAP	0.100		**3.26**	mg/L	1	09/23/2021 19:28	182134
Sodium	NELAP	0.050		**68.4**	mg/L	1	09/23/2021 19:28	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 3:13	182135
Arsenic	NELAP	0.0010		**0.0015**	mg/L	5	09/28/2021 3:13	182135
Barium	NELAP	0.0010		**0.0695**	mg/L	5	09/28/2021 3:13	182135
Boron	NELAP	0.0250		**0.308**	mg/L	5	09/28/2021 3:13	182135
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	09/28/2021 3:13	182135
Cobalt	NELAP	0.0010	J	**0.0006**	mg/L	5	09/28/2021 3:13	182135
Lead	NELAP	0.0010	J	**0.0010**	mg/L	5	09/28/2021 3:13	182135
Lithium	*	0.0030		**0.0163**	mg/L	5	09/28/2021 3:13	182135
Molybdenum	NELAP	0.0015		**0.0033**	mg/L	5	09/28/2021 3:13	182135
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 3:13	182135
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 3:13	182135

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-026 **Client Sample ID:** 391

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 16:52

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**50.18**	ft	1	09/14/2021 16:52	R299488
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**6.0**	NTU	1	09/14/2021 16:52	R299488
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-4**	mV	1	09/14/2021 16:52	R299488
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**4460**	µS/cm	1	09/14/2021 16:52	R299488
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**20.4**	°C	1	09/14/2021 16:52	R299488
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**1.47**	mg/L	1	09/14/2021 16:52	R299488
SW-846 9040B								
pH, Field	*	1.00		**7.74**		1	09/14/2021 16:52	R299488
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**560**	mg/L	1	09/15/2021 14:36	R298991
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	09/15/2021 14:36	R298991
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		**1620**	mg/L	1	09/20/2021 16:40	R299208
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**668**	mg/L	20	09/20/2021 17:18	R299276
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**3.10**	mg/L	1	09/15/2021 13:55	R298993
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		**116**	mg/L	10	09/16/2021 22:41	R299090
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**8.95**	mg/L	1	09/23/2021 19:30	182134
Magnesium	NELAP	0.050		**4.55**	mg/L	1	09/23/2021 19:30	182134
Potassium	NELAP	0.100		**2.70**	mg/L	1	09/23/2021 19:30	182134
Sodium	NELAP	0.050		**527**	mg/L	1	09/23/2021 19:30	182134
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0019**	mg/L	5	09/28/2021 3:21	182135
Arsenic	NELAP	0.0010		**0.0034**	mg/L	5	09/28/2021 3:21	182135
Barium	NELAP	0.0010		**0.0165**	mg/L	5	09/28/2021 3:21	182135
Boron	NELAP	0.0250		**2.84**	mg/L	5	09/28/2021 3:21	182135
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	09/28/2021 3:21	182135
Cobalt	NELAP	0.0010	J	**0.0002**	mg/L	5	09/28/2021 3:21	182135
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	09/28/2021 3:21	182135
Lithium	*	0.0030		**0.0707**	mg/L	5	09/28/2021 3:21	182135
Molybdenum	NELAP	0.0015		**0.0298**	mg/L	5	09/28/2021 3:21	182135
Selenium	NELAP	0.0010		**0.0012**	mg/L	5	09/28/2021 3:21	182135
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 3:21	182135

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

Lab ID: 21081645-029 **Client Sample ID:** 304 DUP

Matrix: GROUNDWATER **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
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	09/28/2021 3:30	182135

Client: Vistra Energy
Client Project: Baldwin Groundwater Q3 2021

Work Order: 21081645
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
21081645-013	350	Groundwater	4	09/14/2021 15:53
21081645-017	366	Groundwater	2	09/15/2021 9:05
21081645-020	375	Groundwater	2	09/14/2021 14:47
21081645-021	377	Groundwater	2	09/14/2021 14:04
21081645-023	383	Groundwater	2	09/13/2021 16:24
21081645-024	384	Groundwater	2	09/13/2021 15:55
21081645-025	390	Groundwater	2	09/15/2021 8:21
21081645-026	391	Groundwater	2	09/14/2021 16:52
21081645-029	304 DUP	Groundwater	4	09/14/2021 9:45

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		
	Test Name			Prep Date/Time	Analysis Date/Time
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

Client: Vistra Energy
Client Project: Baldwin Groundwater Q3 2021

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

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	Standard Methods 4500-NO3 F (Total) 2000, 2011				09/17/2021 13:11
	Standard Methods 4500-O G Field				09/16/2021 12:31
	SW-846 9036 (Total)				09/23/2021 15:21
	SW-846 9040B				09/16/2021 12:31
	SW-846 9214 (Total)				09/17/2021 14:16
	SW-846 9251 (Total)				09/20/2021 22:09
21081645-012B	306	09/16/2021 12:31	09/16/2021 13:50		
	Standard Methods 2540 C (Dissolved) 1997, 2011				09/21/2021 14:14
	SW-846 9036 (Dissolved)				09/27/2021 16:56
	SW-846 9251 (Dissolved)				09/20/2021 21:56
21081645-012C	306	09/16/2021 12:31	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/17/2021 11:40	09/21/2021 1:48
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/17/2021 11:40	09/21/2021 1:48
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/17/2021 12:04	09/21/2021 22:05
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/17/2021 12:04	09/24/2021 1:11
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/17/2021 12:04	09/30/2021 3:14
21081645-012D	306	09/16/2021 12:31	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			09/22/2021 9:13	09/22/2021 17:26
21081645-013A	350	09/14/2021 15:53	09/16/2021 13:50		
	Field Elevation Measurements				09/14/2021 15:53
	Standard Methods 2130 B Field				09/14/2021 15:53
	Standard Methods 18th Ed. 2580 B Field				09/14/2021 15:53
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 14:00
	Standard Methods 2320 B 1997, 2011				09/15/2021 14:00
	Standard Methods 2510 B Field				09/14/2021 15:53
	Standard Methods 2540 C (Total) 1997, 2011				09/17/2021 15:03
	Standard Methods 2550 B Field				09/14/2021 15:53
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/16/2021 19:10
	Standard Methods 4500-NO3 F (Total) 2000, 2011				09/16/2021 10:59
	Standard Methods 4500-O G Field				09/14/2021 15:53
	SW-846 9036 (Total)				09/20/2021 17:16
	SW-846 9040B				09/14/2021 15:53
	SW-846 9214 (Total)				09/15/2021 13:45
	SW-846 9251 (Total)				09/16/2021 21:46
21081645-013B	350	09/14/2021 15:53	09/16/2021 13:50		
	Standard Methods 2540 C (Dissolved) 1997, 2011				09/20/2021 16:05
	SW-846 9036 (Dissolved)				09/16/2021 0:18

Client: Vistra Energy
Client Project: Baldwin Groundwater Q3 2021

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

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	SW-846 9251 (Dissolved)				09/16/2021 0:19
21081645-013C	350	09/14/2021 15:53	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 16:46	09/23/2021 13:35
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 16:46	09/23/2021 13:35
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 18:07	09/27/2021 23:44
21081645-013D	350	09/14/2021 15:53	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			09/22/2021 9:13	09/22/2021 17:37
21081645-017A	366	09/15/2021 9:05	09/16/2021 13:50		
	Field Elevation Measurements				09/15/2021 9:05
	Standard Methods 2130 B Field				09/15/2021 9:05
	Standard Methods 18th Ed. 2580 B Field				09/15/2021 9:05
	Standard Methods 2320 B (Total) 1997, 2011				09/17/2021 8:33
	Standard Methods 2320 B 1997, 2011				09/17/2021 8:33
	Standard Methods 2510 B Field				09/15/2021 9:05
	Standard Methods 2540 C (Total) 1997, 2011				09/21/2021 14:48
	Standard Methods 2550 B Field				09/15/2021 9:05
	Standard Methods 4500-O G Field				09/15/2021 9:05
	SW-846 9036 (Total)				09/23/2021 16:04
	SW-846 9040B				09/15/2021 9:05
	SW-846 9214 (Total)				09/17/2021 9:44
	SW-846 9251 (Total)				09/20/2021 22:54
21081645-017B	366	09/15/2021 9:05	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:03
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 1:11
21081645-020A	375	09/14/2021 14:47	09/16/2021 13:50		
	Field Elevation Measurements				09/14/2021 14:47
	Standard Methods 2130 B Field				09/14/2021 14:47
	Standard Methods 18th Ed. 2580 B Field				09/14/2021 14:47
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 14:05
	Standard Methods 2320 B 1997, 2011				09/15/2021 14:05
	Standard Methods 2510 B Field				09/14/2021 14:47
	Standard Methods 2540 C (Total) 1997, 2011				09/17/2021 15:25
	Standard Methods 2550 B Field				09/14/2021 14:47
	Standard Methods 4500-O G Field				09/14/2021 14:47
	SW-846 9036 (Total)				09/16/2021 21:53
	SW-846 9040B				09/14/2021 14:47
	SW-846 9214 (Total)				09/15/2021 13:48

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	SW-846 9251 (Total)				09/16/2021 21:53
21081645-020B	375	09/14/2021 14:47	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:20
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 1:54
21081645-021A	377	09/14/2021 14:04	09/16/2021 13:50		
	Field Elevation Measurements				09/14/2021 14:04
	Standard Methods 2130 B Field				09/14/2021 14:04
	Standard Methods 18th Ed. 2580 B Field				09/14/2021 14:04
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 14:13
	Standard Methods 2320 B 1997, 2011				09/15/2021 14:13
	Standard Methods 2510 B Field				09/14/2021 14:04
	Standard Methods 2540 C (Total) 1997, 2011				09/17/2021 15:25
	Standard Methods 2550 B Field				09/14/2021 14:04
	Standard Methods 4500-O G Field				09/14/2021 14:04
	SW-846 9036 (Total)				09/16/2021 21:56
	SW-846 9040B				09/14/2021 14:04
	SW-846 9214 (Total)				09/15/2021 13:49
	SW-846 9251 (Total)				09/16/2021 22:01
21081645-021B	377	09/14/2021 14:04	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:21
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 2:03
21081645-023A	383	09/13/2021 16:24	09/16/2021 13:50		
	Field Elevation Measurements				09/13/2021 16:24
	Standard Methods 2130 B Field				09/13/2021 16:24
	Standard Methods 18th Ed. 2580 B Field				09/13/2021 16:24
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 14:20
	Standard Methods 2320 B 1997, 2011				09/15/2021 14:20
	Standard Methods 2510 B Field				09/13/2021 16:24
	Standard Methods 2540 C (Total) 1997, 2011				09/17/2021 15:25
	Standard Methods 2550 B Field				09/13/2021 16:24
	Standard Methods 4500-O G Field				09/13/2021 16:24
	SW-846 9036 (Total)				09/16/2021 22:09
	SW-846 9040B				09/13/2021 16:24
	SW-846 9214 (Total)				09/15/2021 13:51
	SW-846 9251 (Total)				09/16/2021 22:04
21081645-023B	383	09/13/2021 16:24	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:25

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 2:55
21081645-024A	384	09/13/2021 15:55	09/16/2021 13:50		
	Field Elevation Measurements				09/13/2021 15:55
	Standard Methods 2130 B Field				09/13/2021 15:55
	Standard Methods 18th Ed. 2580 B Field				09/13/2021 15:55
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 14:28
	Standard Methods 2320 B 1997, 2011				09/15/2021 14:28
	Standard Methods 2510 B Field				09/13/2021 15:55
	Standard Methods 2540 C (Total) 1997, 2011				09/17/2021 15:26
	Standard Methods 2550 B Field				09/13/2021 15:55
	Standard Methods 4500-O G Field				09/13/2021 15:55
	SW-846 9036 (Total)				09/16/2021 22:28
	SW-846 9040B				09/13/2021 15:55
	SW-846 9214 (Total)				09/15/2021 13:53
	SW-846 9251 (Total)				09/20/2021 18:07
21081645-024B	384	09/13/2021 15:55	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:26
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 3:04
21081645-025A	390	09/15/2021 8:21	09/16/2021 13:50		
	Field Elevation Measurements				09/15/2021 8:21
	Standard Methods 2130 B Field				09/15/2021 8:21
	Standard Methods 18th Ed. 2580 B Field				09/15/2021 8:21
	Standard Methods 2320 B (Total) 1997, 2011				09/17/2021 9:02
	Standard Methods 2320 B 1997, 2011				09/17/2021 9:02
	Standard Methods 2510 B Field				09/15/2021 8:21
	Standard Methods 2540 C (Total) 1997, 2011				09/21/2021 15:42
	Standard Methods 2550 B Field				09/15/2021 8:21
	Standard Methods 4500-O G Field				09/15/2021 8:21
	SW-846 9036 (Total)				09/20/2021 23:47
	SW-846 9040B				09/15/2021 8:21
	SW-846 9214 (Total)				09/17/2021 9:51
	SW-846 9251 (Total)				09/20/2021 23:47
21081645-025B	390	09/15/2021 8:21	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:28
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 3:13
21081645-026A	391	09/14/2021 16:52	09/16/2021 13:50		
	Field Elevation Measurements				09/14/2021 16:52

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	Standard Methods 2130 B Field				09/14/2021 16:52
	Standard Methods 18th Ed. 2580 B Field				09/14/2021 16:52
	Standard Methods 2320 B (Total) 1997, 2011				09/15/2021 14:36
	Standard Methods 2320 B 1997, 2011				09/15/2021 14:36
	Standard Methods 2510 B Field				09/14/2021 16:52
	Standard Methods 2540 C (Total) 1997, 2011				09/20/2021 16:40
	Standard Methods 2550 B Field				09/14/2021 16:52
	Standard Methods 4500-O G Field				09/14/2021 16:52
	SW-846 9036 (Total)				09/20/2021 17:18
	SW-846 9040B				09/14/2021 16:52
	SW-846 9214 (Total)				09/15/2021 13:55
	SW-846 9251 (Total)				09/16/2021 22:41
21081645-026B	391	09/14/2021 16:52	09/16/2021 13:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			09/22/2021 13:52	09/23/2021 19:30
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			09/22/2021 14:00	09/28/2021 3:21
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

Client: Vistra Energy
Client Project: Baldwin Groundwater Q3 2021

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

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

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

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**
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**
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**
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**
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**
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**
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**
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

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**
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**
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

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** RPD Limit: **10**
SampID: 21081645-002AMSD

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

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

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

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** RPD Limit: **10**
SampID: 21081645-011BMSD

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** RPD Limit: **10**
SampID: 21081645-010BMSD

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

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** RPD Limit: **10**
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

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** RPD Limit: **10**
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

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** RPD Limit: **15**
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** RPD Limit: **15**
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

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**
SampID: 21081645-012AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
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**
SampID: 21081645-012AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
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**
SampID: 21081645-025AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
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**
SampID: 21081645-025AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
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**
SampID: 21081645-002BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		2		**73**	40.00	36.06	91.1	85	115	09/15/2021

Batch R299022 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 21081645-002BMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		2		**72**	40.00	36.06	90.0	72.51	0.62	09/15/2021

Batch R299022 **SampType:** MS Units **mg/L**
SampID: 21081645-011BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		5	E	**258**	100.0	156.1	102.3	85	115	09/16/2021

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

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**
SampID: 21081645-011AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
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**
SampID: 21081645-011AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		5	E	**263**	100.0	167.8	95.4	258.7	1.70	09/16/2021

Batch R299278 **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	09/20/2021

Batch R299278 **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	99.8	90	110	09/20/2021

Batch R299278 **SampType:** MS Units **mg/L**
SampID: 21081645-012AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		10		**279**	200.0	95.61	91.8	85	115	09/20/2021

Batch R299278 **SampType:** MSD Units **mg/L** RPD Limit: **15**
SampID: 21081645-012AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		10		**278**	200.0	95.61	91.3	279.2	0.36	09/20/2021

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

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

Client: Vistra Energy **Work Order:** 21081645

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 10-Feb-22

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: 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

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: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	*	1		**20**	20.00	0	100.9	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

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

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

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

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**

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**

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**

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**

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

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

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

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**

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**

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

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

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

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

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
Client Project: Baldwin Groundwater Q3 2021

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

Carrier: Joseph Riley

Received By: PWR

Completed by: Ellie Hopkins
On: 16-Sep-21

Reviewed by: Elizabeth A. Hurley
On: 17-Sep-21

Pages to follow: Chain of custody 6 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	3.0	
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.

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: Vistra Energy
Address: 1500 Eastport Plaza Drive
City/State/Zip: Collinsville, IL 62234
Contact: Brian Voelker Phone: (217) 412-6605
Email: brian.voelker@vistraenergy.com Fax:

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

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 3.2 °C LTG# 1
Preserved in: ☒ LAB ☐ FIELD 77366 FOR LAB USE ONLY
LAB NOTES: Added HNO3 (78xxx) PR 9-16-21 split 154 PR 9-16-21 ⊗ Filter in LAB

Client Comments:
Metals selection per program requirements.
6 program reports: IEPA, 601, 605, 605 Closure, 605 Operating, and NPDES.

PROJECT NAME/NUMBER: Baldwin Groundwater Q3 2021

SAMPLE COLLECTOR'S NAME: J. RILEY J. WILSON

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ________ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS
PO# 1054243

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
21081645-001	150	9/14/21 1525	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
002	151	9/14/21 1340	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
003	152	9/14/21 1044	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
004	153 1032	9/16/21 ~~1110~~	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
005	154 DRY	9/16/21 1200	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
006	155	9/16/21 1110	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
007	156	9/15/21 1417	Groundwater										✔								
008	157	9/15/21 1215	Groundwater										✔								
009	252	9/14/21 1132	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
010	253	9/16/21 1000	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
011	304	9/14/21 0948	Groundwater	2	2								✔	✔	✔	✔	✔	✔	✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
[signature]	9/14/21 1830	[signature]	9/14/21 1800
[signature]	9/16/21 1330	[signature]	9/16/21 1330

*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

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CHAIN OF CUSTODY

Pg 2 of 3 Workorder # 21081645

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

Client: Vistra Energy
Address: 1500 Eastport Plaza Drive
City/State/Zip: Collinsville, IL 62234
Contact: Brian Voelker Phone: (217) 412-6605
Email: brian.voelker@vistraenergy.com Fax:

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 3.0 °C LTG# 1
Preserved in: ☑ LAB ☐ FIELD 77366 FOR LAB USE ONLY
LAB NOTES: 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:
Metals selection per program requirements.
6 program reports: IEPA, 601, 605, 605 Closure, 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

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	Bicab/Carb	Cl, SO4, F-	TDS	Nitrate	Diss. Cl, SO4	Diss. TDS	Metals	Diss. Metals					
21081645-012	306 (X)	9/16/21 1231	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓					
013	350	9/14/21 1553	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓					
014	352	9/14/21 1149	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 0805	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 1434	Groundwater	1	1								✓	✓	✓	✓				✓						
022	382	9/15/21 1026	Groundwater	1	1								✓	✓	✓	✓				✓						

Relinquished By	Date/Time	Received By	Date/Time
	9/14/21 1830		9/16/21 1830
	9/16/21 1350		9/16/21 1350

*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

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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: Vistra Energy
Address: 1500 Eastport Plaza Drive
City/State/Zip: Collinsville, IL 62234
Contact: Brian Voelker Phone: (217) 412-6605
Email: brian.voelker@vistraenergy.com Fax:

Samples on: [✓] ICE [ ] BLUE ICE [ ] NO ICE 3.0 °C LTG# 9
Preserved in: [X] LAB [ ] FIELD 77366 FOR LAB USE ONLY
LAB NOTES: Added HNO3 (783661) PK 9-16-21

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 comment section: [ ] Yes [✓] No

Client Comments:
Metals selection per program requirements.
6 program reports: IEPA, 601, 605, 605 Closure, 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

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# 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
21081645-023	383	9/13/21 1624	Groundwater	1	1								✓	✓	✓	✓				✓	
024	384	9/13/21 1555	Groundwater	1	1								✓	✓	✓	✓				✓	
025	390	9/15/21 0821	Groundwater	1	1								✓	✓	✓	✓				✓	
026	391	9/14/21 1652	Groundwater	1	1								✓	✓	✓	✓				✓	
027	104DR	9/14/21 0932	Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
028	104SR	9/14/21 0915	Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
029	304 DUP	9/14/21 0915	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓
030	BA_601_TPZ-164_Source Water	N/A	Groundwater	1	1								✓	✓	✓	✓				✓	
031	Field Blank	9/14/21 1015	Groundwater	2	2												✓	✓	✓	✓	✓
			Groundwater																		
			Groundwater																		

Relinquished By	Date/Time	Received By	Date/Time
	9/14/21 1530		9/16/21 1350
	9/16/21 1350		9/16/21 1350

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CHAIN OF CUSTODY

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

Pg 1 of 3 Workorder # 21091645

Client: Vistra Energy
Address: 1500 Eastport Plaza Drive
City/State/Zip: Collinsville, IL 62234
Contact: Brian Voelker
Phone: (217) 412-6505
Email: brian.voelker@vistraenergy.com Fax:

Samples on: [x] ICE [ ] BLUE ICE [ ] NO ICE 1.6 °C LTGM ___

FOR LAB USE ONLY

Preserved in: [X] LAB [ ] FIELD

LAB NOTES: 773UAO HNO_3 (783UAO) added to 304, 375, 383, 384, 391, 1045R, 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 analysis? If yes, please provide limits in the comment section: [ ] Yes [✓] No

Client Comments:
Metals selection per program requirements.
Use program reports: IEPA, 601, 605, 605 Closure, 606 Operating, and NPDES

PROJECT NAME/NUMBER: Baldwin Groundwater Q3 2021

SAMPLE COLLECTOR'S NAME:

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

BILLING INSTRUCTIONS: PO# 1194243

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
21091645-001	150	9/14/21 1525	Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	151	9/15/21 1340	Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	152	9/14/21 1049	Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	153		Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	154		Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	155		Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	156		Groundwater										✓								
[illegible]	157		Groundwater										✓								
[illegible]	252	9/14/21 1132	Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	253		Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
[illegible]	304	9/14/21 0936	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
[signature]	9/14/21 1650	[signature]	9/14/21 1830

EH 9/15/21

CHAIN OF COUSTODY

Pg 2 of 3 Workorder # [illegible]

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

Client: Vistra Energy

Address: 1500 Eastport Plaza Drive

City/State/Zip: Collinsville, IL 62234

Contact: Brian Voelker Phone: (217) 412-6868

Email: brian.voelker@vistraenergy.com Fax:

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

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE 20 °C LTG# 1

Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY

LAB NOTES:

Client Comments:
Metals selection per program requirements.
program reports: IEPA, 801, 805, 806 Closure, 806 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:

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
[illegible]-01	306		Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓
02	350	9/14/21 1553	Groundwater	2	2								✓	✓	✓	✓	✓	✓	✓	✓	✓
03	352	9/14/21 1149	Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
04	355		Groundwater	2	2								✓			✓	✓	✓	✓	✓	✓
05	356		Groundwater	1	1								✓	✓	✓	✓				✓	
06	368		Groundwater	1	1								✓	✓	✓	✓				✓	
07	369		Groundwater	1	1								✓	✓	✓	✓				✓	
08	370		Groundwater	1	1								✓	✓	✓	✓				✓	
09	375	9/14/21 1447	Groundwater	1	1								✓	✓	✓	✓				✓	
10	377	9/14/21 1431	Groundwater	1	1								✓	✓	✓	✓				✓	
11	382		Groundwater	1	1								✓	✓	✓	✓				✓	
12			Groundwater	1	1								✓	✓	✓	✓				✓	

Relinquished By	Date/Time	Received By	Date/Time
[illegible signature]	9/14/21 1350	[illegible signature]	9/14/21 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.teklabinc.com for terms and conditions.

CoC Rev C Aug 2020

CHAIN OF CUSTODY

Pg 3 of 3 Workorder # 21091645

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

Client: Vistra Energy
Address: 1500 Eastport Plaza Drive
City/State/Zip: Collinsville, IL 62234
Contact: Brian Voelker Phone: (217) 412-6805
Email: brian.voelker@vistraenergy.com Fax:

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

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE 2.8 °C LTC#
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

Client Comments:
Metals selection per program requirements.
8 program reports: IEPA, 601, 602, 605 Closure, 605 Operating, and NPDES

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

RESULTS REQUESTED: ☑ Standard ☐ Other ☐ 1-2 Day (100% Surcharge) ☐ 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
21091645-[illegible]	383	9/13/21 1624	Groundwater	1	1								✔	✔	✔	✔				✔	
[illegible]	384	9/13/21 1555	Groundwater	1	1								✔	✔	✔	✔				✔	
[illegible]	390	9/14	Groundwater	1	1								✔	✔	✔	✔				✔	
[illegible]	391	9/14/21 1612	Groundwater	1	1								✔	✔	✔	✔				✔	
[illegible]	104DR	9/14/21 0832	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
[illegible]	104SR	9/14/21 0915	Groundwater	2	2								✔			✔	✔	✔	✔	✔	✔
[illegible]	304 DUP	9/14/21 0935	Groundwater	2	2								✔	✔	✔	✔	✔	✔	✔	✔	✔
[illegible]	BA_601_[illegible]_Source Water		Groundwater	1	1								✔	✔	✔	✔				✔	
[illegible]	Field Blank	9/14/21 1015	Groundwater	2	2												✔	✔	✔	✔	✔
			Groundwater																		
			Groundwater																		

Relinquished By	Date/Time	Received By	Date/Time
[signature]	9/14/21 [illegible]	[signature]	9/14/21 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.teklabinc.com for terms and conditions.

CoC Rev C Aug 2020

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

Client: Ramboll
Work Order: 21081646
Client Project: Baldwin Groundwater Q3 2021
Report Date: 12-Oct-21

This reporting package includes the following:

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
- 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: 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 605 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

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

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-001 **Client Sample ID:** 304

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-002 **Client Sample ID:** 306

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-003 **Client Sample ID:** 350

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 15:53

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-005 **Client Sample ID:** 366

Matrix: GROUNDWATER **Collection Date:** 09/15/2021 9:05

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-008 **Client Sample ID:** 375

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 14:47

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-009 **Client Sample ID:** 377

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 14:04

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-011 **Client Sample ID:** 383

Matrix: GROUNDWATER **Collection Date:** 09/13/2021 16:24

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-012 **Client Sample ID:** 384

Matrix: GROUNDWATER **Collection Date:** 09/13/2021 16:55

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	09/30/2021 0:00	R300895
Radium-228	*	0		**See Attached**	pci/L	1	09/30/2021 0:00	R300895

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-013 **Client Sample ID:** 390

Matrix: GROUNDWATER **Collection Date:** 09/15/2021 8:21

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-014 **Client Sample ID:** 391

Matrix: GROUNDWATER **Collection Date:** 09/14/2021 16:52

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

Client: Ramboll **Work Order:** 21081646

Client Project: Baldwin Groundwater Q3 2021 **Report Date:** 12-Oct-21

Lab ID: 21081646-015 **Client Sample ID:** 304 DUP

Matrix: GROUNDWATER **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

Client: Ramboll
Client Project: Baldwin Groundwater Q3 2021

Work Order: 21081646
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
21081646-003	350	Groundwater	1	09/14/2021 15:53
21081646-005	366	Groundwater	1	09/15/2021 9:05
21081646-008	375	Groundwater	1	09/14/2021 14:47
21081646-009	377	Groundwater	1	09/14/2021 14:04
21081646-011	383	Groundwater	1	09/13/2021 16:24
21081646-012	384	Groundwater	1	09/13/2021 16:55
21081646-013	390	Groundwater	1	09/15/2021 8:21
21081646-014	391	Groundwater	1	09/14/2021 16:52
21081646-015	304 DUP	Groundwater	1	09/14/2021 9:48

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		
	Test Name			Prep Date/Time	Analysis Date/Time
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
21081646-003A	350	09/14/2021 15:53	09/16/2021 13:50		
	EPA 903.0/904.0, Radium 226/228				09/30/2021 0:00
21081646-005A	366	09/15/2021 9:05	09/16/2021 13:50		
	EPA 903.0/904.0, Radium 226/228				09/30/2021 0:00
21081646-008A	375	09/14/2021 14:47	09/16/2021 13:50		
	EPA 903.0/904.0, Radium 226/228				09/30/2021 0:00
21081646-009A	377	09/14/2021 14:04	09/16/2021 13:50		
	EPA 903.0/904.0, Radium 226/228				09/30/2021 0:00
21081646-011A	383	09/13/2021 16:24	09/16/2021 13:50		
	EPA 903.0/904.0, Radium 226/228				09/30/2021 0:00
21081646-012A	384	09/13/2021 16:55	09/16/2021 13:50		
	EPA 903.0/904.0, Radium 226/228				09/30/2021 0:00
21081646-013A	390	09/15/2021 8:21	09/16/2021 13:50		
	EPA 903.0/904.0, Radium 226/228				09/30/2021 0:00
21081646-014A	391	09/14/2021 16:52	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: Ellie Hopkins
On: 17-Sep-21

Reviewed by: Elizabeth A. Hurley
On: 17-Sep-21

Pages to follow: Chain of custody 4 Extra pages included 27

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	1.8	
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.

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

Pg 1 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# 1
Preserved in: ☑ LAB ☐ FIELD 77366 FOR LAB USE ONLY
LAB NOTES: PK 9/16/21
Added (HNO3 (78366) PK 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: J. RILEY J. WILSON

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

BILLING INSTRUCTIONS
Vistra PO# 1054243

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Radium 226	Radium 228	Combined Ra
21081646-001	304	9/14/21 0948	Groundwater		2								✓	✓	✓
002	306	9/16/21 1231	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 1441	Groundwater		2								✓	✓	✓
009	377	9/14/21 1904	Groundwater		2								✓	✓	✓
010	382	9/15/21 1026	Groundwater		2								✓	✓	✓
011	383	9/13/21 1629	Groundwater		2								✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
	9/14/21 1830		9/16/21 1350
	9/16/21 1330		9/16/21 1350

*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

CoC Rev C Aug 2020

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 77366 FOR LAB USE ONLY
LAB NOTES: PR 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	SAMPLE COLLECTOR'S NAME
Baldwin Groundwater Q3 2021	

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

BILLING INSTRUCTIONS

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	Radium 226	Radium 228	Combined Ra												
21081646-012	384	9/13/21 1655	Groundwater		2								✔	✔	✔												
013	390	9/15/21 0821	Groundwater		2								✔	✔	✔												
014	391	9/14/21 1652	Groundwater		2								✔	✔	✔												
015	304 DUP	9/14/21 8948	Groundwater		2								✔	✔	✔												
016	BA_601_TPZ-164_Source Water	N/A	Groundwater		2								✔	✔	✔												
			Groundwater																								
			Groundwater																								
			Groundwater																								
			Groundwater																								
			Groundwater																								
	383		Groundwater																								

Relinquished By	Date/Time	Received By	Date/Time
	9/14/21 1830		9/14/21 1830
	9/16/21 1350		9/16/21 1350

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CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 2109164

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:

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

Samples on: ☑ ICE ☐ BLUE ICE ☐ NO ICE 2.8 °C LTGB 1
Preserved in: ☒ LAB ☐ FIELD   FOR LAB USE ONLY
LAB NOTES: 773600 HNO_3 (783600) added to 304, 375, 383, 384, 304 DUP EH 9/15/21

Client Comments:
Subcontract to Pace-National.
Two programs reports. CCR 801 and CCR 805

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 PO# 1054243

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Radium 226	Radium 228	Combined Ra
2109164 - 001	304	9/14/21 0949	Groundwater		2								✔	✔	✔
002	306		Groundwater		2								✔	✔	✔
003	350	9/14/21 1553	Groundwater		2								✔	✔	✔
004	356		Groundwater		2								✔	✔	✔
005	366		Groundwater		2								✔	✔	✔
006	369		Groundwater		2								✔	✔	✔
007	370		Groundwater		2								✔	✔	✔
008	375	9/14/21 1447	Groundwater		2								✔	✔	✔
009	377	9/14/21 1404	Groundwater		2								✔	✔	✔
010	382		Groundwater		2								✔	✔	✔
011	383	9/13/21 1224	Groundwater		2								✔	✔	✔

Relinquished By	Date/Time	Received By	Date/Time
[signature]	9/14/21 1630	[signature]	9/14/21 1630

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EH 9/15/21

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

...AIN OF CUSTODY

Pg 2 of 2 Workorder # 21081646

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

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

Samples on: ☐ ICE ☐ BLUE ICE ☐ NO ICE 2.8 °C LTO# 1
Preserved in: ☐ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES:

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

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Radium 226	Radium 228	Combined Ra
21081646-002	384	9/13/21 1655	Groundwater		2								✔	✔	✔
003	390		Groundwater		2								✔	✔	✔
004	391	9/13/21 1650	Groundwater		2								✔	✔	✔
005	304 DUP	9/13/21 0045	Groundwater		2								✔	✔	✔
006	BA_601_TP2-164_Source Water		Groundwater		2								✔	✔	✔
			Groundwater												
			Groundwater												
			Groundwater												
			Groundwater												
			Groundwater												
	383		Groundwater												

Relinquished By	Date/Time	Received By	Date/Time
[signature]	9/14/21 1830	[signature]	9/14/21 1830

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ANALYTICAL REPORT

October 05, 2021

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

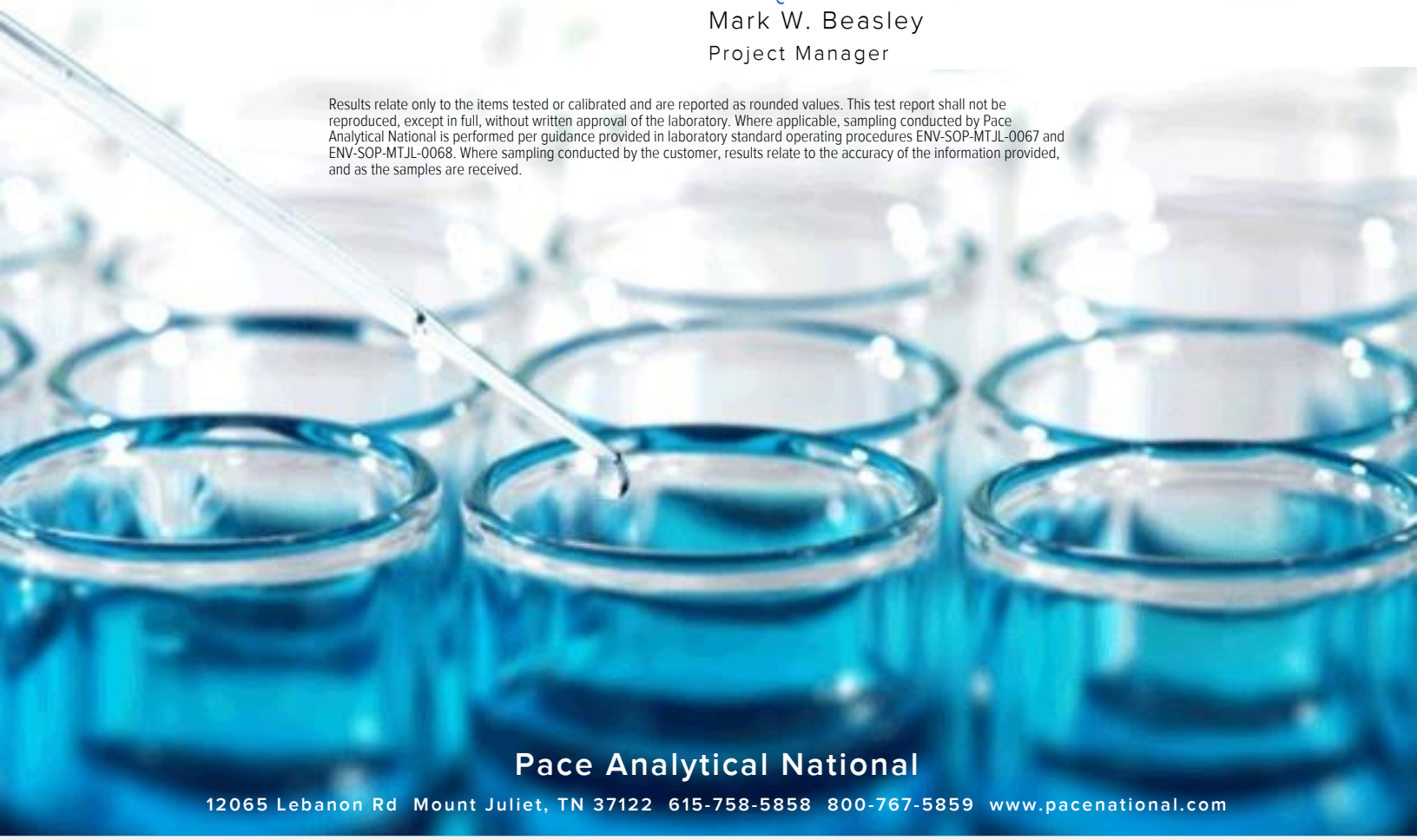
TEKLAB, Inc.

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



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

TABLE OF CONTENTS

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

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

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

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

	Collected by	Collected date/time	Received date/time
21081646-015 L1406345-15 Non-Potable Water		09/14/21 09:58	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

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

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

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

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.231	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

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0405	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	J	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

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

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

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	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	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	J	0.232	0.264	10/01/2021 23:09	WG1747254
(T) Barium-133	*92.8*			*30.0-143*	*10/01/2021 23:09*	WG1747254

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.132	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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.132	U	0.413	0.912	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.0130	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

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

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

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.337	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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.921	J	0.723	0.975	10/01/2021 23:09	WG1747254

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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

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	0.159	0.254	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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

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

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.291	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

Radiochemistry by Method Calculation

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

Radiochemistry by Method SM7500Ra B M

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

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	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	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*			C1				
(T) Yttrium		*98.6*			*104*	*104*							

Method Blank (MB)

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

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

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

Laboratory Control Sample (LCS)

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

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
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	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	20.1	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.

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.

Pg ___ of ___ B010

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: D. Wilson J. Riley QC Level: 3

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# 21081646

Contact: Elizabeth Hurley Email: ehurley@teklabinc.com Phone:

Requested Due Date: 10-15 day TAT Billing/PO: 31824

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											
-01	21081646 - 001	9/14/21 0948	HNO3	Groundwater	✔											
-02	21081646 - 002	9/16/21 1231	HNO3	Groundwater	✔											
-03	21081646 - 003	9/14/21 1553	HNO3	Groundwater	✔											
-04	21081646 - 004	9/15/21 1406	HNO3	Groundwater	✔											
-05	21081646 - 005	9/15/21 0905	HNO3	Groundwater	✔											
-06	21081646 - 006	9/15/21 1241	HNO3	Groundwater	✔											
-07	21081646 - 007	9/15/21 1135	HNO3	Groundwater	✔											
-08	21081646 - 008	9/14/21 1447	HNO3	Groundwater	✔											
-09	21081646 - 009	9/14/21 1404	HNO3	Groundwater	✔											
-10	21081646 - 010	9/15/21 1026	HNO3	Groundwater	✔											
-11	21081646 - 011	9/13/21 1624	HNO3	Groundwater	✔											

*Relinquished By	Date/Time	Received By	Date/Time
[signature]	9/17/21 1600		
		[signature]	9/20/21 9:30

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: 3

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# 21081646

Contact: Elizabeth Hurley
Email: ehurley@teklabinc.com
Requested Due Date: 10-15 day TAT
Billing/PO: 31824
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
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: __Y N
Pres.Correct/Check: Y N

*Relinquished By	Date/Time	Received By	Date/Time
Eell Horn	9/17/21 1600		
		[signature]	9/20/21 9:30

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

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

Report Contents

Client: Ramboll
Work Order: 22031028
Client Project: Baldwin Q1 Groundwater
Report Date: 25-Apr-22

This reporting package includes the following:

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
- 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: 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.

Baldwin Bottom Fly Ash Ponds CCR 605 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

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

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-001 **Client Sample ID:** MW-304

Matrix: GROUNDWATER **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

Client: Ramboll
Work Order: 22031028
Client Project: Baldwin Q1 Groundwater
Report Date: 25-Apr-22
Lab ID: 22031028-002
Client Sample ID: MW-304 Duplicate
Matrix: GROUNDWATER
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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-003 **Client Sample ID:** MW-306

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-004 **Client Sample ID:** MW-350

Matrix: GROUNDWATER **Collection Date:** 03/28/2022 15:27

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	04/12/2022 0:00	R309924
Radium-228	*	0		**See Attached**	pci/L	1	04/12/2022 0:00	R309924

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-006 **Client Sample ID:** MW-366

Matrix: GROUNDWATER **Collection Date:** 03/28/2022 10:18

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	04/12/2022 0:00	R309924
Radium-228	*	0		**See Attached**	pci/L	1	04/12/2022 0:00	R309924

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-009 **Client Sample ID:** MW-375

Matrix: GROUNDWATER **Collection Date:** 03/28/2022 14:25

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-010 **Client Sample ID:** MW-377

Matrix: GROUNDWATER **Collection Date:** 03/28/2022 13:57

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	04/12/2022 0:00	R309924
Radium-228	*	0		**See Attached**	pci/L	1	04/12/2022 0:00	R309924

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-012 **Client Sample ID:** MW-383

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 15:42

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-013 **Client Sample ID:** MW-384

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 15:05

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-014 **Client Sample ID:** MW-390

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 11:12

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-015 **Client Sample ID:** MW-391

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 9:44

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Lab ID: 22031028-017 **Client Sample ID:** Field Blank

Matrix: AQUEOUS **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

Client: Ramboll
Client Project: Baldwin Q1 Groundwater

Work Order: 22031028
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
22031028-004	MW-350	Groundwater	1	03/28/2022 15:27
22031028-006	MW-366	Groundwater	1	03/28/2022 10:18
22031028-009	MW-375	Groundwater	1	03/28/2022 14:25
22031028-010	MW-377	Groundwater	1	03/28/2022 13:57
22031028-012	MW-383	Groundwater	1	03/29/2022 15:42
22031028-013	MW-384	Groundwater	1	03/29/2022 15:05
22031028-014	MW-390	Groundwater	1	03/29/2022 11:12
22031028-015	MW-391	Groundwater	1	03/29/2022 9:44
22031028-017	Field Blank	Aqueous	1	03/29/2022 12:55

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 25-Apr-22

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
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
22031028-004A	MW-350	03/28/2022 15:27	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-006A	MW-366	03/28/2022 10:18	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-009A	MW-375	03/28/2022 14:25	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-010A	MW-377	03/28/2022 13:57	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-012A	MW-383	03/29/2022 15:42	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-013A	MW-384	03/29/2022 15:05	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-014A	MW-390	03/29/2022 11:12	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-015A	MW-391	03/29/2022 9:44	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

Teklab, Inc. Environmental Laboratory

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 2 Extra pages included 30

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.0
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 #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

PRINT PDF

CHAIN OF CUSTODY

 Workorder # 22031028

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 4.0 °C LTG# 3
Preserved in: [✓] LAB [ ] FIELD **FOR LAB USE ONLY**
LAB NOTES: 78011, additional HNO3 (80810) 304, 304 DUP, 356, 370, 375, 382, 383, 390 + 391 MEK 3/30/22

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 program reports.

PROJECT NAME/NUMBER: Baldwin Q1 Groundwater

SAMPLE COLLECTOR'S NAME: J. Riley A. Briggs

RESULTS REQUESTED
[✓] Standard [ ] 1-2 Day (100% Surcharge)
[ ] Other ________ [ ] 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
22031028-001	MW-304	03/28/22 1103	Groundwater		2								✓
002	MW-304 Duplicate	03/28/22 1103	Groundwater		2								✓
003	MW-306	03/29/22 1628	Groundwater		2								✓
004	MW-350	03/24/22 1528	Groundwater		2								✓
005	MW-356	03/20/22 1410	Groundwater		2								✓
006	MW-366	03/17/22 1014	Groundwater		2								✓
007	MW-369	03/29/22 1330	Groundwater		2								✓
008	MW-370	03/24/22 1249	Groundwater		2								✓
009	MW-375	03/23/22 1425	Groundwater		2								✓
010	MW-377	03/28/22 1357	Groundwater		2								✓
011	MW-382	03/28/22 1215	Groundwater		2								✓

Relinquished By	Date/Time	Received By	Date/Time
[signature]	03/30/22 0730	[signature]	3/30/22 0730

PRINT PDF

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: 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:

Client Comments:
Subcontract to Pace-National.
Two program reports.

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

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
Baldwin Q1 Groundwater	

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS
Vistra PO#s

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Ra226/228
22031028-012	MW-383	03/29/22 1512	Groundwater		2								✓
013	MW-384	03/29/22 1505	Groundwater		2								✓
014	MW-390	03/29/22 1112	Groundwater		2								✓
015	MW-391	03/29/22 0944	Groundwater		2								✓
016	TPZ-164	03/29/22 1446	Groundwater		2								✓
017	Field Blank	03/29/22 1255	~~Groundwater~~ Aq.		2								✓
			Groundwater										
			Groundwater										
			Groundwater										
			Groundwater										
			Groundwater										

Relinquished By	Date/Time	Received By	Date/Time
	03/30/22 0730		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

CoC Rev C Aug 2020

ANALYTICAL REPORT

April 19, 2022

TEKLAB, Inc.

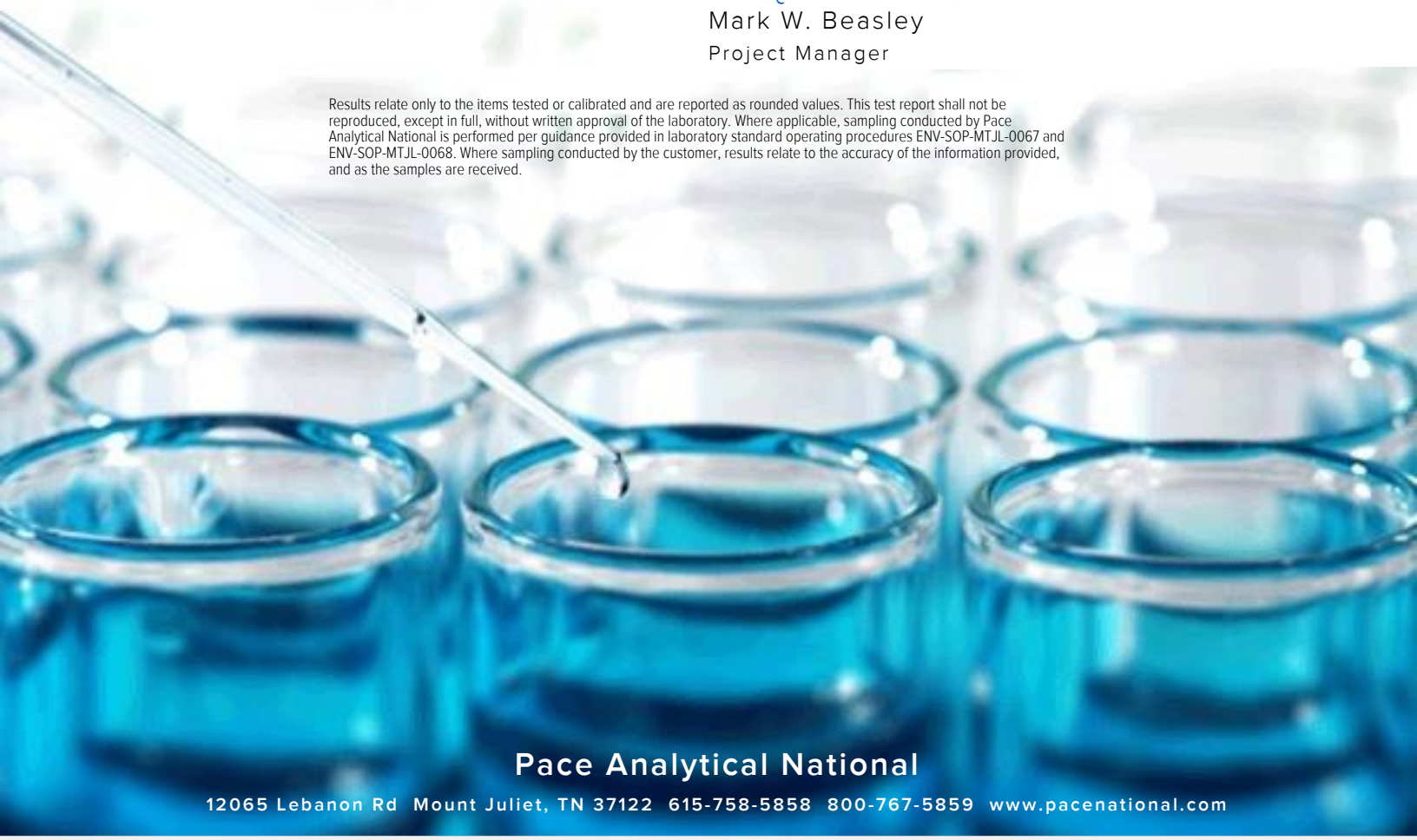
Sample Delivery Group:	L1477565
Samples Received:	04/01/2022
Project Number:	22031028
Description:	

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.



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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

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

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

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

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

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

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

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

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	0.159	0.314	04/12/2022 11:53	WG1846342
(T) Barium-133	*96.4*			*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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.481	J	0.347	0.622	04/14/2022 11:45	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.566	J	0.331	0.615	04/14/2022 11:45	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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

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

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.422	J	0.321	0.610	04/14/2022 16:25	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.567	J	0.312	0.575	04/14/2022 16:25	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0598	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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.323	J	0.402	0.661	04/14/2022 16:25	WG1846342

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.883		0.427	0.620	04/14/2022 16:25	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.248	U	0.250	0.529	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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

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

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	0.130	0.227	04/12/2022 12:03	WG1846342
(T) Barium-133	*103*			*30.0-143*	*04/12/2022 12:03*	WG1846342

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.206	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.274	U	0.423	0.830	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0678	U	0.153	0.278	04/12/2022 12:03	WG1846342
(T) Barium-133	*108*			*30.0-143*	*04/12/2022 12:03*	WG1846342

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.488	J	0.245	0.521	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0964	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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.254	U	0.342	0.620	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	0.157	J	0.207	0.293	04/12/2022 12:03	WG1846342
(T) Barium-133	*98.5*			*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	0.950		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

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

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

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	0.0773	0.161	04/12/2022 12:03	WG1846342
(T) Barium-133	*101*			*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	0.546	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

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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0602	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0602	U	0.326	0.676	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.0478	U	0.150	0.353	04/12/2022 11:53	WG1846342
(T) Barium-133	*103*			*30.0-143*	*04/12/2022 11:53*	WG1846342

Method Blank (MB)

(MB) R3781239-1 04/13/22 14:55

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	-0.201	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	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	0.0639	0.293	0.553	0.240	0.587	0.553	1	116	0.268	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	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
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	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	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*							

Method Blank (MB)

(MB) R3782545-1 04/14/22 16:25

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	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	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*							

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	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*							

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	LAO000356
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.

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: Joseph Riley/Adam Bridges QC Level: 3

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Project# 22031028

Contact: Elizabeth Hurley
Requested Due Date: Standard TAT
Email: EHurley@TekLabInc.com
Billing/PO: 32621
Phone: (618) 344-1004 ext 33

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	✔											
-02	22031028-002A	3/28/22 1103	HNO3	Groundwater	✔											
-03	22031028-003A	3/29/22 1628	HNO3	Groundwater	✔											
-04	22031028-004A	3/28/22 1527	HNO3	Groundwater	✔											
-05	22031028-005A	3/29/22 1410	HNO3	Groundwater	✔											
-06	22031028-006A	3/28/22 1018	HNO3	Groundwater	✔											
-07	22031028-007A	3/29/22 1330	HNO3	Groundwater	✔											
-08	22031028-008A	3/29/22 1249	HNO3	Groundwater	✔											
-09	22031028-009A	3/28/22 1425	HNO3	Groundwater	✔											
-10	22031028-010A	3/29/22 1357	HNO3	Groundwater	✔											
-11	22031028-011A	3/29/22 1213	HNO3	Groundwater	✔											

*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp		[signature]	4/1/22 0930

10.7 [illegible]
13.0 [illegible]

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: Joseph Riley/Adam Bridges QC Level: 3

Project#: 22031028

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Contact: Elizabeth Hurley
Requested Due Date: Standard TAT
Email: EHurley@TekLabInc.com
Billing/PO: 32621
Phone: (618) 344-1004 ext 33

L477565

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	22031028-012A	3/29/22 1542	HNO3	Groundwater	✔
-13	22031028-013A	3/29/22 1505	HNO3	Groundwater	✔
-14	22031028-014A	3/29/22 1112	HNO3	Groundwater	✔
-15	22031028-015A	3/29/22 0944	HNO3	Groundwater	✔
-16	22031028-016A	3/29/22 1446	HNO3	Groundwater	✔
-17	22031028-017A	3/29/22 1255	HNO3	Aqueous	✔
			HNO3	Groundwater	
			HNO3	Groundwater	
			HNO3	Groundwater	
			HNO3	Groundwater	
			HNO3	Groundwater	

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

*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp		[signature]	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)

11.7-6.2/... DRA6
13.2-1.2/13.0 BA02

SubCocRevA
3/2/2016

May 12, 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

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

Report Contents

Client: Ramboll
Work Order: 22031028
Client Project: Baldwin Q1 Groundwater
Report Date: 12-May-22

This reporting package includes the following:

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-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:** 12-May-22

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: Ramboll
Work Order: 22031028
Client Project: Baldwin Q1 Groundwater
Report Date: 12-May-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.

Baldwin Bottom Fly Ash Ponds CCR 605 data are included in this report. EAH 4/25/22

This report was revised on May 12, 2022 per Eric Bauer (Ramboll)'s request. The reason for the revision is correct the collection date from MW-366 from 3/28/22 to 3/29/22. Please replace report dated April 25, 2022 with this report.

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-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	6/30/2022	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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-001 **Client Sample ID:** MW-304

Matrix: GROUNDWATER **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

Client: Ramboll
Work Order: 22031028
Client Project: Baldwin Q1 Groundwater
Report Date: 12-May-22
Lab ID: 22031028-002
Client Sample ID: MW-304 Duplicate
Matrix: GROUNDWATER
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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-003 **Client Sample ID:** MW-306

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-004 **Client Sample ID:** MW-350

Matrix: GROUNDWATER **Collection Date:** 03/28/2022 15:27

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	04/12/2022 0:00	R309924
Radium-228	*	0		**See Attached**	pci/L	1	04/12/2022 0:00	R309924

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-006 **Client Sample ID:** MW-366

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 10:18

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	04/12/2022 0:00	R309924
Radium-228	*	0		**See Attached**	pci/L	1	04/12/2022 0:00	R309924

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-009 **Client Sample ID:** MW-375

Matrix: GROUNDWATER **Collection Date:** 03/28/2022 14:25

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-010 **Client Sample ID:** MW-377

Matrix: GROUNDWATER **Collection Date:** 03/28/2022 13:57

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	04/12/2022 0:00	R309924
Radium-228	*	0		**See Attached**	pci/L	1	04/12/2022 0:00	R309924

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-012 **Client Sample ID:** MW-383

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 15:42

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-013 **Client Sample ID:** MW-384

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 15:05

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-014 **Client Sample ID:** MW-390

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 11:12

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-015 **Client Sample ID:** MW-391

Matrix: GROUNDWATER **Collection Date:** 03/29/2022 9:44

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

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Lab ID: 22031028-017 **Client Sample ID:** Field Blank

Matrix: AQUEOUS **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

Client: Ramboll
Client Project: Baldwin Q1 Groundwater

Work Order: 22031028
Report Date: 12-May-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
22031028-004	MW-350	Groundwater	1	03/28/2022 15:27
22031028-006	MW-366	Groundwater	1	03/29/2022 10:18
22031028-009	MW-375	Groundwater	1	03/28/2022 14:25
22031028-010	MW-377	Groundwater	1	03/28/2022 13:57
22031028-012	MW-383	Groundwater	1	03/29/2022 15:42
22031028-013	MW-384	Groundwater	1	03/29/2022 15:05
22031028-014	MW-390	Groundwater	1	03/29/2022 11:12
22031028-015	MW-391	Groundwater	1	03/29/2022 9:44
22031028-017	Field Blank	Aqueous	1	03/29/2022 12:55

Client: Ramboll **Work Order:** 22031028

Client Project: Baldwin Q1 Groundwater **Report Date:** 12-May-22

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
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
22031028-004A	MW-350	03/28/2022 15:27	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-006A	MW-366	03/29/2022 10:18	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-009A	MW-375	03/28/2022 14:25	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-010A	MW-377	03/28/2022 13:57	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-012A	MW-383	03/29/2022 15:42	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-013A	MW-384	03/29/2022 15:05	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-014A	MW-390	03/29/2022 11:12	03/30/2022 7:30		
	EPA 903.0/904.0, Radium 226/228				04/12/2022 0:00
22031028-015A	MW-391	03/29/2022 9:44	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: 12-May-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 2 Extra pages included 30

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 4.0
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 #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

PRINT PDF

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 22031028

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 4.0°C LTG# 3
Preserved in: ☑ LAB ☐ FIELD FOR LAB USE ONLY
LAB NOTES: 7801, additional HNO3(8081D) 304, 304DUP, 356, 370 375, 382, 383, 390, 391 MEK 3/30/22

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 program reports. MW-366 collected 3/29/22 per field file. EAH 5/12/22

PROJECT NAME/NUMBER
Baldwin Q1 Groundwater

SAMPLE COLLECTOR'S NAME
J. BS (KY A. BRTNS

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

BILLING INSTRUCTIONS
Vistra PO#s

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Ra226/228
22031028-001	MW-304	03/28/22 1103	Groundwater		2								✓
002	MW-304 Duplicate	03/28/22 1103	Groundwater		2								✓
003	MW-306	03/29/22 1626	Groundwater		2								✓
004	MW-350	03/29/22 1527	Groundwater		2								✓
005	MW-356	03/29/22 1410	Groundwater		2								✓
006	MW-366	03/29/22 1015	Groundwater		2								✓
007	MW-369	03/29/22 1330	Groundwater		2								✓
008	MW-370	03/29/22 1249	Groundwater		2								✓
009	MW-375	03/28/22 1425	Groundwater		2								✓
010	MW-377	03/28/22 1357	Groundwater		2								✓
011	MW-382	03/28/22 1215	Groundwater		2								✓

Relinquished By	Date/Time	Received By	Date/Time
	03/30/22 0730		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

CoC Rev C Aug 2020

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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: 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:

Client Comments:
Subcontract to Pace-National.
Two program reports.

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

PROJECT NAME/NUMBER	SAMPLE COLLECTOR'S NAME
Baldwin Q1 Groundwater	

RESULTS REQUESTED
☑ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other ____ ☐ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS
Vistra PO#s

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	# and Type of Containers: UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	INDICATE ANALYSIS REQUESTED: Ra226/228
22031028-012	MW-383	03/29/22 1512	Groundwater		2								✓
013	MW-384	03/29/22 1505	Groundwater		2								✓
014	MW-390	03/29/22 1112	Groundwater		2								✓
015	MW-391	03/29/22 0944	Groundwater		2								✓
016	TPZ-164	03/29/22 1446	Groundwater		2								✓
017	Field Blank	03/29/22 1255	~~Groundwater~~ Aq.		2								✓
			Groundwater										
			Groundwater										
			Groundwater										
			Groundwater										
			Groundwater										

Relinquished By	Date/Time	Received By	Date/Time
	03/30/22 0730		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

CoC Rev C Aug 2020

ANALYTICAL REPORT

May 11, 2022

Revised Report

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

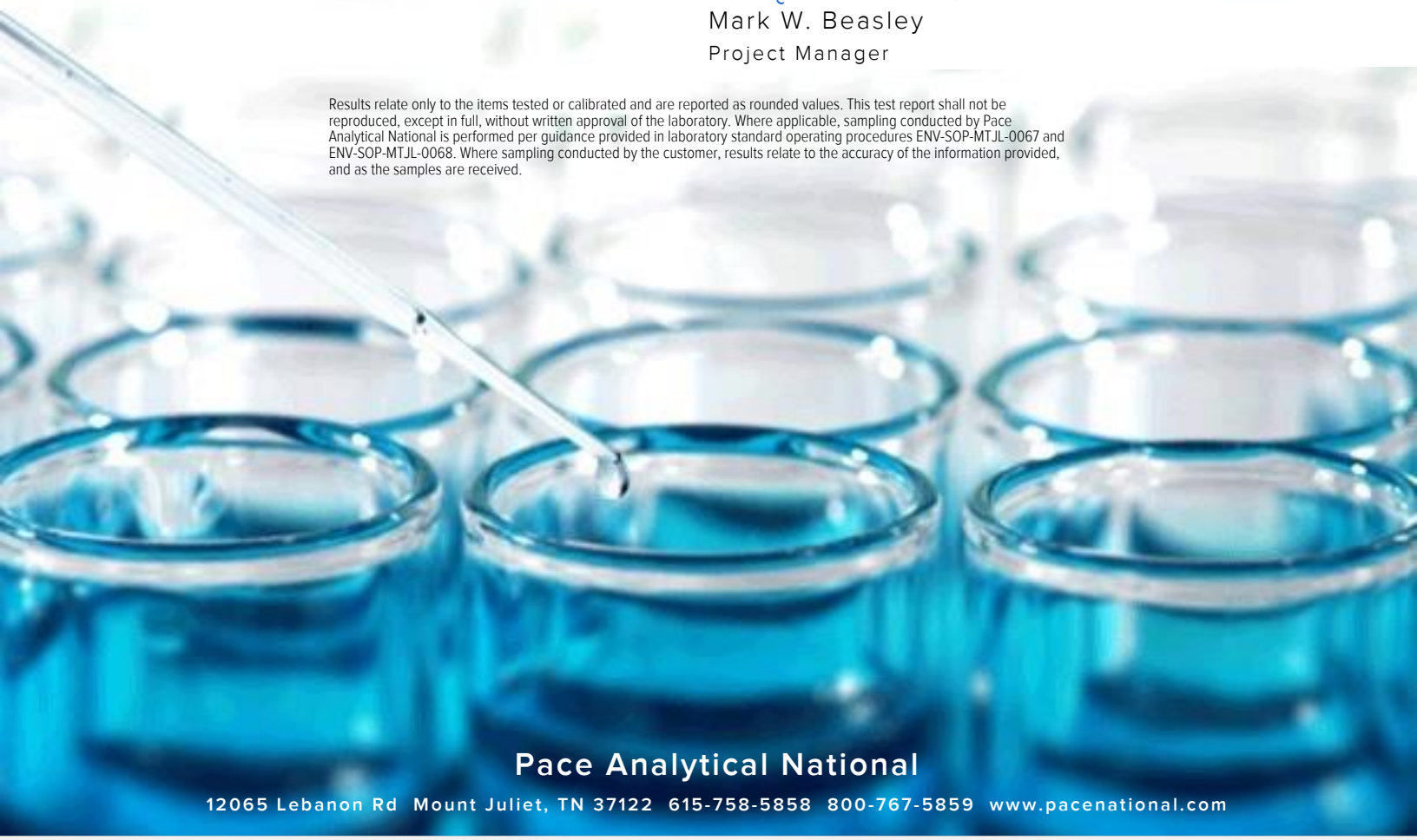
TEKLAB, Inc.

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



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

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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: 03/29/22 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

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

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

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

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

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

Report Revision History

Level II Report - Version 1: 04/19/22 11:56

Project Narrative

Updated collection date.

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.968		0.344	0.628	04/14/2022 11:45	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0288	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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.481	J	0.347	0.622	04/14/2022 11:45	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.566	J	0.331	0.615	04/14/2022 11:45	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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

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

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.422	J	0.321	0.610	04/14/2022 16:25	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.567	J	0.312	0.575	04/14/2022 16:25	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0598	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

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.323	J	0.402	0.661	04/14/2022 16:25	WG1846342

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.883		0.427	0.620	04/14/2022 16:25	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.248	U	0.250	0.529	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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

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

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	0.130	0.227	04/12/2022 12:03	WG1846342
(T) Barium-133	*103*			*30.0-143*	*04/12/2022 12:03*	WG1846342

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.206	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.274	U	0.423	0.830	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0678	U	0.153	0.278	04/12/2022 12:03	WG1846342
(T) Barium-133	*108*			*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	0.488		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

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

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0964	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.254	U	0.342	0.620	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.157	J	0.207	0.293	04/12/2022 12:03	WG1846342
(T) Barium-133	*98.5*			*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	0.950		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

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

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

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	0.0773	0.161	04/12/2022 12:03	WG1846342
(T) Barium-133	*101*			*30.0-143*	*04/12/2022 12:03*	WG1846342

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.694	J	0.457	0.860	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0602	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0602	U	0.326	0.676	04/15/2022 12:10	WG1846342

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.0478	U	0.150	0.353	04/12/2022 11:53	WG1846342
(T) Barium-133	*103*			*30.0-143*	*04/12/2022 11:53*	WG1846342

QUALITY CONTROL SUMMARY

L1477565-01,02,03,04

Method Blank (MB)

(MB) R3781239-1 04/13/22 14:55

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	-0.201	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	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	0.0639	0.293	0.553	0.240	0.587	0.553	1	116	0.268	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	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
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	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	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*							

Method Blank (MB)

(MB) R3782545-1 04/14/22 16:25

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	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	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	0.718	0.267	0.460	0.196	0.540	0.460	1	114	0.867	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	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
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	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	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*							

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	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*							

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.

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: Joseph Riley/Adam Bridges QC Level: 3

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Project# 22031028

Contact: Elizabeth Hurley
Email: EHurley@TekLabInc.com
Requested Due Date: Standard TAT
Billing/PO: 32621
Phone: (618) 344-1004 ext 33

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	✔
-02	22031028-002A	3/28/22 1103	HNO3	Groundwater	✔
-03	22031028-003A	3/29/22 1628	HNO3	Groundwater	✔
-04	22031028-004A	3/28/22 1527	HNO3	Groundwater	✔
-05	22031028-005A	3/29/22 1410	HNO3	Groundwater	✔
-06	22031028-006A	3/28/22 1018	HNO3	Groundwater	✔
-07	22031028-007A	3/29/22 1330	HNO3	Groundwater	✔
-08	22031028-008A	3/29/22 1249	HNO3	Groundwater	✔
-09	22031028-009A	3/28/22 1425	HNO3	Groundwater	✔
-10	22031028-010A	3/29/22 1357	HNO3	Groundwater	✔
-11	22031028-011A	3/29/22 1213	HNO3	Groundwater	✔

*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp		[signature]	4/1/22 0930

10.7 [illegible]
13.0 [illegible]

SubCOCRevA
3/2/2016

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: Joseph Riley/Adam Bridges QC Level: 3

Project#: 22031028

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium 226/228 on your standard turn around time.
Samples collected from an IL site.
Batch QC is required for all analyses requested. EDD requested..

Contact: Elizabeth Hurley
Requested Due Date: Standard TAT
Email: EHurley@TekLabInc.com
Billing/PO: 32621
Phone: (618) 344-1004 ext 33

L477565

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	22031028-012A	3/29/22 1542	HNO3	Groundwater	✔
-13	22031028-013A	3/29/22 1505	HNO3	Groundwater	✔
-14	22031028-014A	3/29/22 1112	HNO3	Groundwater	✔
-15	22031028-015A	3/29/22 0944	HNO3	Groundwater	✔
-16	22031028-016A	3/29/22 1446	HNO3	Groundwater	✔
-17	22031028-017A	3/29/22 1255	HNO3	Aqueous	✔
			HNO3	Groundwater	
			HNO3	Groundwater	
			HNO3	Groundwater	
			HNO3	Groundwater	
			HNO3	Groundwater	

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp		[signature]	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)

SubCocRevA
3/2/2016

11.7 DRA6
13. BA02

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 12 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

Client: Ramboll
Work Order: 22082027
Client Project: Baldwin Groundwater Q3 2022
Report Date: 15-Nov-22

This reporting package includes the following:

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Abbr Definition

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
- 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: Ramboll
Work Order: 22082027
Client Project: Baldwin Groundwater Q3 2022
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_605 data is included in this report. EAH 11/15/22

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

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

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-011 **Client Sample ID:** MW-304

Matrix: GROUNDWATER **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)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/05/2022 20:59	198315
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
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/05/2022 20:59	198315
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/05/2022 20:59	198315

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-012 **Client Sample ID:** MW-306

Matrix: GROUNDWATER **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)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/05/2022 21:05	198315
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
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/05/2022 21:05	198315
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/05/2022 21:05	198315

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-013 **Client Sample ID:** MW-350

Matrix: GROUNDWATER **Collection Date:** 09/29/2022 15:27

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**23.95**	ft	1	09/29/2022 15:27	R319899
Elevation of groundwater surface	*	0		**372.85**	ft	1	09/29/2022 15:27	R319899
Measuring Point Elevation	*	0		**396.80**	ft	1	09/29/2022 15:27	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**11.6**		1	09/29/2022 15:27	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**4.4**	NTU	1	09/29/2022 15:27	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**-21**	mV	1	09/29/2022 15:27	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**870**	µS/cm	1	09/29/2022 15:27	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**13.8**	°C	1	09/29/2022 15:27	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**1.82**	mg/L	1	09/29/2022 15:27	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	10/10/2022 11:11	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**56**	mg/L	1	10/10/2022 11:11	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**382**	mg/L	1	10/04/2022 10:49	R319035
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**113**	mg/L	5	10/06/2022 18:08	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.17**	mg/L	1	10/10/2022 11:46	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		**65**	mg/L	5	10/06/2022 18:08	R319121
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**72.0**	mg/L	1	10/06/2022 17:14	198316
Magnesium	NELAP	0.0500		**0.350**	mg/L	1	10/06/2022 17:14	198316
Potassium	NELAP	0.100		**5.00**	mg/L	1	10/06/2022 17:14	198316
Sodium	NELAP	0.0500		**70.2**	mg/L	1	10/06/2022 17:14	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	J	**0.0009**	mg/L	5	10/04/2022 17:53	198316
Arsenic	NELAP	0.0010	J	**0.0008**	mg/L	5	10/04/2022 17:53	198316
Barium	NELAP	0.0010		**0.296**	mg/L	5	10/04/2022 17:53	198316
Boron	NELAP	0.0250		**0.669**	mg/L	5	10/04/2022 17:53	198316
Chromium	NELAP	0.0015	J	**0.0011**	mg/L	5	10/08/2022 4:04	198316
Cobalt	NELAP	0.0010	J	**0.0002**	mg/L	5	10/04/2022 17:53	198316
Lead	NELAP	0.0010		**0.0016**	mg/L	5	10/04/2022 17:53	198316
Lithium	*	0.0030		**0.0830**	mg/L	5	10/04/2022 17:53	198316
Molybdenum	NELAP	0.0015		**0.0036**	mg/L	5	10/04/2022 17:53	198316
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 17:53	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 17:53	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-017 **Client Sample ID:** MW-366

Matrix: GROUNDWATER **Collection Date:** 09/30/2022 12:19

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**17.91**	ft	1	09/30/2022 12:19	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**6.78**		1	09/30/2022 12:19	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	09/30/2022 12:19	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**138**	mV	1	09/30/2022 12:19	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1810**	µS/cm	1	09/30/2022 12:19	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**16.6**	°C	1	09/30/2022 12:19	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**1.39**	mg/L	1	09/30/2022 12:19	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**321**	mg/L	1	10/10/2022 11:27	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	10/10/2022 11:27	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1350**	mg/L	1	10/06/2022 10:04	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		**700**	mg/L	20	10/06/2022 18:24	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.36**	mg/L	1	10/10/2022 11:50	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		**56**	mg/L	5	10/06/2022 18:19	R319121
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**227**	mg/L	1	10/06/2022 17:21	198316
Magnesium	NELAP	0.0500		**98.4**	mg/L	1	10/06/2022 17:21	198316
Potassium	NELAP	0.100		**4.65**	mg/L	1	10/06/2022 17:21	198316
Sodium	NELAP	0.0500		**68.2**	mg/L	1	10/06/2022 17:21	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 18:12	198316
Arsenic	NELAP	0.0010	J	**0.0005**	mg/L	5	10/04/2022 18:12	198316
Barium	NELAP	0.0010		**0.0607**	mg/L	5	10/04/2022 18:12	198316
Boron	NELAP	0.0250		**2.70**	mg/L	5	10/04/2022 18:12	198316
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	10/08/2022 4:23	198316
Cobalt	NELAP	0.0010	J	**0.0002**	mg/L	5	10/04/2022 18:12	198316
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 18:12	198316
Lithium	*	0.0030		**0.0177**	mg/L	5	10/04/2022 18:12	198316
Molybdenum	NELAP	0.0015		**0.0049**	mg/L	5	10/04/2022 18:12	198316
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 18:12	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 18:12	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-020 **Client Sample ID:** MW-375

Matrix: GROUNDWATER **Collection Date:** 09/30/2022 13:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**33.25**	ft	1	09/30/2022 13:30	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**7.79**		1	09/30/2022 13:30	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	09/30/2022 13:30	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**61**	mV	1	09/30/2022 13:30	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1780**	µS/cm	1	09/30/2022 13:30	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**14.8**	°C	1	09/30/2022 13:30	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.65**	mg/L	1	09/30/2022 13:30	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**593**	mg/L	1	10/10/2022 11:47	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**6**	mg/L	1	10/10/2022 11:47	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1030**	mg/L	1	10/06/2022 10:05	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**160**	mg/L	5	10/06/2022 18:59	R319116
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**2.35**	mg/L	1	10/10/2022 11:55	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		**118**	mg/L	5	10/06/2022 18:59	R319121
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**12.7**	mg/L	1	10/06/2022 17:32	198316
Magnesium	NELAP	0.0500		**6.49**	mg/L	1	10/06/2022 17:32	198316
Potassium	NELAP	0.100		**2.84**	mg/L	1	10/06/2022 17:32	198316
Sodium	NELAP	0.0500		**354**	mg/L	1	10/06/2022 17:32	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010	J	**0.0009**	mg/L	5	10/04/2022 19:16	198316
Arsenic	NELAP	0.0010		**0.0019**	mg/L	5	10/04/2022 19:16	198316
Barium	NELAP	0.0010		**0.0312**	mg/L	5	10/04/2022 19:16	198316
Boron	NELAP	0.0250		**1.75**	mg/L	5	10/04/2022 19:16	198316
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	10/08/2022 5:26	198316
Cobalt	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:16	198316
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:16	198316
Lithium	*	0.0030		**0.0958**	mg/L	5	10/04/2022 19:16	198316
Molybdenum	NELAP	0.0015		**0.0341**	mg/L	5	10/04/2022 19:16	198316
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:16	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 19:16	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-021 **Client Sample ID:** MW-377

Matrix: GROUNDWATER **Collection Date:** 09/30/2022 14:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**6.09**	ft	1	09/30/2022 14:14	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**7.11**		1	09/30/2022 14:14	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	09/30/2022 14:14	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**106**	mV	1	09/30/2022 14:14	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1170**	µS/cm	1	09/30/2022 14:14	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**17.3**	°C	1	09/30/2022 14:14	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.60**	mg/L	1	09/30/2022 14:14	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**416**	mg/L	1	10/10/2022 11:54	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	10/10/2022 11:54	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**622**	mg/L	1	10/06/2022 10:05	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**39**	mg/L	1	10/11/2022 11:38	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**1.11**	mg/L	1	10/10/2022 12:06	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**99**	mg/L	5	10/11/2022 11:44	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**57.3**	mg/L	1	10/07/2022 15:59	198316
Magnesium	NELAP	0.0500		**37.9**	mg/L	1	10/07/2022 15:59	198316
Potassium	NELAP	0.100		**3.47**	mg/L	1	10/06/2022 17:51	198316
Sodium	NELAP	0.0500		**130**	mg/L	1	10/07/2022 15:59	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:22	198316
Arsenic	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:22	198316
Barium	NELAP	0.0010		**0.0589**	mg/L	5	10/04/2022 19:22	198316
Boron	NELAP	0.0250		**1.71**	mg/L	5	10/04/2022 19:22	198316
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	10/08/2022 5:32	198316
Cobalt	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:22	198316
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:22	198316
Lithium	*	0.0030		**0.0621**	mg/L	5	10/04/2022 19:22	198316
Molybdenum	NELAP	0.0015		**< 0.0015**	mg/L	5	10/04/2022 19:22	198316
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:22	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 19:22	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-023 **Client Sample ID:** MW-383

Matrix: GROUNDWATER **Collection Date:** 09/30/2022 10:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**18.96**	ft	1	09/30/2022 10:56	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**7.55**		1	09/30/2022 10:56	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	09/30/2022 10:56	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**100**	mV	1	09/30/2022 10:56	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1520**	µS/cm	1	09/30/2022 10:56	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**18.2**	°C	1	09/30/2022 10:56	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.44**	mg/L	1	09/30/2022 10:56	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**585**	mg/L	1	10/10/2022 12:33	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	10/10/2022 12:33	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**906**	mg/L	1	10/06/2022 10:05	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**169**	mg/L	10	10/11/2022 11:59	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**0.66**	mg/L	1	10/10/2022 12:10	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		**42**	mg/L	1	10/11/2022 11:54	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**19.4**	mg/L	1	10/07/2022 16:07	198316
Magnesium	NELAP	0.0500		**7.71**	mg/L	1	10/07/2022 16:07	198316
Potassium	NELAP	0.100		**2.14**	mg/L	1	10/06/2022 17:58	198316
Sodium	NELAP	0.0500		**314**	mg/L	1	10/07/2022 16:07	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:35	198316
Arsenic	NELAP	0.0010	J	**0.0006**	mg/L	5	10/04/2022 19:35	198316
Barium	NELAP	0.0010		**0.0481**	mg/L	5	10/04/2022 19:35	198316
Boron	NELAP	0.0250		**1.52**	mg/L	5	10/04/2022 19:35	198316
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	10/08/2022 5:44	198316
Cobalt	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:35	198316
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:35	198316
Lithium	*	0.0030		**0.0411**	mg/L	5	10/04/2022 19:35	198316
Molybdenum	NELAP	0.0015		**0.0132**	mg/L	5	10/04/2022 19:35	198316
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:35	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 19:35	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-024 **Client Sample ID:** MW-384

Matrix: GROUNDWATER **Collection Date:** 09/30/2022 10:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**14.40**	ft	1	09/30/2022 10:14	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**8.08**		1	09/30/2022 10:14	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	09/30/2022 10:14	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**65**	mV	1	09/30/2022 10:14	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**2900**	µS/cm	1	09/30/2022 10:14	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**17.0**	°C	1	09/30/2022 10:14	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.90**	mg/L	1	09/30/2022 10:14	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**617**	mg/L	1	10/10/2022 12:41	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**14**	mg/L	1	10/10/2022 12:41	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1600**	mg/L	1	10/06/2022 10:06	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		**35**	mg/L	1	10/11/2022 12:02	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**4.12**	mg/L	1	10/10/2022 12:12	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	80		**531**	mg/L	20	10/11/2022 22:58	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**19.4**	mg/L	1	10/07/2022 16:11	198316
Magnesium	NELAP	0.0500		**7.59**	mg/L	1	10/07/2022 16:11	198316
Potassium	NELAP	0.100		**2.64**	mg/L	1	10/06/2022 18:02	198316
Sodium	NELAP	0.0500		**577**	mg/L	1	10/07/2022 16:11	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:42	198316
Arsenic	NELAP	0.0010	J	**0.0004**	mg/L	5	10/04/2022 19:42	198316
Barium	NELAP	0.0010		**0.0666**	mg/L	5	10/04/2022 19:42	198316
Boron	NELAP	0.0250		**1.91**	mg/L	5	10/04/2022 19:42	198316
Chromium	NELAP	0.0015	J	**0.0015**	mg/L	5	10/08/2022 5:51	198316
Cobalt	NELAP	0.0010	J	**0.0003**	mg/L	5	10/04/2022 19:42	198316
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:42	198316
Lithium	*	0.0030		**0.0594**	mg/L	5	10/04/2022 19:42	198316
Molybdenum	NELAP	0.0015		**0.0352**	mg/L	5	10/04/2022 19:42	198316
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:42	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 19:42	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-025 **Client Sample ID:** MW-390

Matrix: GROUNDWATER **Collection Date:** 09/30/2022 12:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**8.91**	ft	1	09/30/2022 12:57	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**7.15**		1	09/30/2022 12:57	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	09/30/2022 12:57	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**55**	mV	1	09/30/2022 12:57	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**1500**	µS/cm	1	09/30/2022 12:57	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**17.0**	°C	1	09/30/2022 12:57	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.45**	mg/L	1	09/30/2022 12:57	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**435**	mg/L	1	10/10/2022 12:49	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**0**	mg/L	1	10/10/2022 12:49	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**826**	mg/L	1	10/06/2022 8:45	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		**180**	mg/L	5	10/11/2022 12:10	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**1.13**	mg/L	1	10/10/2022 12:13	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		**115**	mg/L	5	10/11/2022 12:10	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**100**	mg/L	1	10/07/2022 16:14	198316
Magnesium	NELAP	0.0500		**42.4**	mg/L	1	10/07/2022 16:14	198316
Potassium	NELAP	0.100		**4.14**	mg/L	1	10/06/2022 18:06	198316
Sodium	NELAP	0.0500		**113**	mg/L	1	10/07/2022 16:14	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:48	198316
Arsenic	NELAP	0.0010		**0.0017**	mg/L	5	10/04/2022 19:48	198316
Barium	NELAP	0.0010		**0.105**	mg/L	5	10/04/2022 19:48	198316
Boron	NELAP	0.0250		**0.384**	mg/L	5	10/04/2022 19:48	198316
Chromium	NELAP	0.0015		**< 0.0015**	mg/L	5	10/08/2022 5:57	198316
Cobalt	NELAP	0.0010	J	**0.0002**	mg/L	5	10/04/2022 19:48	198316
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:48	198316
Lithium	*	0.0030		**0.0276**	mg/L	5	10/04/2022 19:48	198316
Molybdenum	NELAP	0.0015		**0.0051**	mg/L	5	10/04/2022 19:48	198316
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:48	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 19:48	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-026 **Client Sample ID:** MW-391

Matrix: GROUNDWATER **Collection Date:** 09/30/2022 11:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		**56.90**	ft	1	09/30/2022 11:46	R319899
STANDARD METHOD 4500-H B 2001 FIELD								
pH	*	1.00		**8.16**		1	09/30/2022 11:46	R319899
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		**< 1.0**	NTU	1	09/30/2022 11:46	R319899
STANDARD METHODS 18TH ED. 2580 B FIELD								
Oxidation-Reduction Potential	*	-300		**110**	mV	1	09/30/2022 11:46	R319899
STANDARD METHODS 2510 B FIELD								
Spec. Conductance, Field	*	0		**2620**	µS/cm	1	09/30/2022 11:46	R319899
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		**15.6**	°C	1	09/30/2022 11:46	R319899
STANDARD METHODS 4500-O G FIELD								
Oxygen, Dissolved	*	0		**0.44**	mg/L	1	09/30/2022 11:46	R319899
STANDARD METHODS 2320 B (TOTAL) 1997, 2011								
Alkalinity, Bicarbonate (as CaCO3)	NELAP	0		**632**	mg/L	1	10/10/2022 12:56	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	NELAP	0		**24**	mg/L	1	10/10/2022 12:56	R319254
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		**1660**	mg/L	1	10/06/2022 10:06	R319177
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		**426**	mg/L	10	10/11/2022 12:31	R319319
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		**3.55**	mg/L	1	10/10/2022 12:15	R319255
SW-846 9251 (TOTAL)								
Chloride	NELAP	40		**147**	mg/L	10	10/11/2022 12:32	R319323
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Calcium	NELAP	0.100		**8.06**	mg/L	1	10/07/2022 16:18	198316
Magnesium	NELAP	0.0500		**3.88**	mg/L	1	10/06/2022 18:10	198316
Potassium	NELAP	0.100		**2.99**	mg/L	1	10/06/2022 18:10	198316
Sodium	NELAP	0.0500		**607**	mg/L	1	10/07/2022 16:18	198316
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		**0.0022**	mg/L	5	10/04/2022 19:54	198316
Arsenic	NELAP	0.0010		**0.0051**	mg/L	5	10/04/2022 19:54	198316
Barium	NELAP	0.0010		**0.0222**	mg/L	5	10/04/2022 19:54	198316
Boron	NELAP	0.0250		**3.25**	mg/L	5	10/04/2022 19:54	198316
Chromium	NELAP	0.0015		**0.0019**	mg/L	5	10/08/2022 6:03	198316
Cobalt	NELAP	0.0010	J	**0.0007**	mg/L	5	10/04/2022 19:54	198316
Lead	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 19:54	198316
Lithium	*	0.0030		**0.120**	mg/L	5	10/04/2022 19:54	198316
Molybdenum	NELAP	0.0015		**0.0594**	mg/L	5	10/04/2022 19:54	198316
Selenium	NELAP	0.0010		**0.0020**	mg/L	5	10/04/2022 19:54	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 19:54	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-030 **Client Sample ID:** MW-304 Duplicate

Matrix: GROUNDWATER **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)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 20:07	198316
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
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 20:07	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 20:07	198316

Client: Ramboll **Work Order:** 22082027

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 15-Nov-22

Lab ID: 22082027-031 **Client Sample ID:** Field Blank

Matrix: AQUEOUS **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 CaCO3)	NELAP	0		**1**	mg/L	1	10/10/2022 13:19	R319254
STANDARD METHODS 2320 B 1997, 2011								
Alkalinity, Carbonate (as CaCO3)	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)								
Antimony	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 21:05	198316
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
Selenium	NELAP	0.0010		**< 0.0010**	mg/L	5	10/04/2022 21:05	198316
Thallium	NELAP	0.0020		**< 0.0020**	mg/L	5	10/04/2022 21:05	198316

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
22082027-013	MW-350	Groundwater	4	09/29/2022 15:27
22082027-017	MW-366	Groundwater	2	09/30/2022 12:19
22082027-020	MW-375	Groundwater	2	09/30/2022 13:30
22082027-021	MW-377	Groundwater	2	09/30/2022 14:14
22082027-023	MW-383	Groundwater	2	09/30/2022 10:56
22082027-024	MW-384	Groundwater	2	09/30/2022 10:14
22082027-025	MW-390	Groundwater	2	09/30/2022 12:57
22082027-026	MW-391	Groundwater	2	09/30/2022 11:46
22082027-030	MW-304 Duplicate	Groundwater	4	09/29/2022 9:58
22082027-031	Field Blank	Aqueous	4	09/30/2022 15:00

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
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

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	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
22082027-013A	MW-350	09/29/2022 15:27	10/03/2022 10:50		
	EPA 600 353.2 R2.0 (Total)				09/30/2022 17:42
	Field Elevation Measurements				09/29/2022 15:27
	Standard Method 4500-H B 2001 Field				09/29/2022 15:27
	Standard Methods 2130 B Field				09/29/2022 15:27
	Standard Methods 18th Ed. 2580 B Field				09/29/2022 15:27
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:11
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:11
	Standard Methods 2510 B Field				09/29/2022 15:27
	Standard Methods 2540 C (Total) 1997, 2011				10/04/2022 10:49
	Standard Methods 2550 B Field				09/29/2022 15:27
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/30/2022 12:42
	Standard Methods 4500-O G Field				09/29/2022 15:27
	SW-846 9036 (Total)				10/06/2022 18:08
	SW-846 9214 (Total)				10/10/2022 11:46
	SW-846 9251 (Total)				10/06/2022 18:08
22082027-013B	MW-350	09/29/2022 15:27	10/03/2022 10:50		
	SW-846 9036 (Dissolved)				10/06/2022 14:32
	SW-846 9251 (Dissolved)				10/06/2022 14:32
22082027-013C	MW-350	09/29/2022 15:27	10/03/2022 10:50		

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:14
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 17:53
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 12:16
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 4:04
22082027-013D	MW-350	09/29/2022 15:27	10/03/2022 10:50		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/04/2022 9:10	10/05/2022 16:16
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			10/04/2022 9:10	10/06/2022 16:48
22082027-017A	MW-366	09/30/2022 12:19	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 12:19
	Standard Method 4500-H B 2001 Field				09/30/2022 12:19
	Standard Methods 2130 B Field				09/30/2022 12:19
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 12:19
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:27
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:27
	Standard Methods 2510 B Field				09/30/2022 12:19
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:04
	Standard Methods 2550 B Field				09/30/2022 12:19
	Standard Methods 4500-O G Field				09/30/2022 12:19
	SW-846 9036 (Total)				10/06/2022 18:24
	SW-846 9214 (Total)				10/10/2022 11:50
	SW-846 9251 (Total)				10/06/2022 18:19
22082027-017B	MW-366	09/30/2022 12:19	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:21
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 18:12
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 13:22
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 4:23
22082027-020A	MW-375	09/30/2022 13:30	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 13:30
	Standard Method 4500-H B 2001 Field				09/30/2022 13:30
	Standard Methods 2130 B Field				09/30/2022 13:30
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 13:30
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:47
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:47
	Standard Methods 2510 B Field				09/30/2022 13:30
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:05
	Standard Methods 2550 B Field				09/30/2022 13:30
	Standard Methods 4500-O G Field				09/30/2022 13:30

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	SW-846 9036 (Total)				10/06/2022 18:59
	SW-846 9214 (Total)				10/10/2022 11:55
	SW-846 9251 (Total)				10/06/2022 18:59
22082027-020B	MW-375	09/30/2022 13:30	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:32
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:16
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 13:36
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 5:26
22082027-021A	MW-377	09/30/2022 14:14	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 14:14
	Standard Method 4500-H B 2001 Field				09/30/2022 14:14
	Standard Methods 2130 B Field				09/30/2022 14:14
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 14:14
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 11:54
	Standard Methods 2320 B 1997, 2011				10/10/2022 11:54
	Standard Methods 2510 B Field				09/30/2022 14:14
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:05
	Standard Methods 2550 B Field				09/30/2022 14:14
	Standard Methods 4500-O G Field				09/30/2022 14:14
	SW-846 9036 (Total)				10/11/2022 11:38
	SW-846 9214 (Total)				10/10/2022 12:06
	SW-846 9251 (Total)				10/11/2022 11:44
22082027-021B	MW-377	09/30/2022 14:14	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:51
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 15:59
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:22
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 13:41
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 5:32
22082027-023A	MW-383	09/30/2022 10:56	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 10:56
	Standard Method 4500-H B 2001 Field				09/30/2022 10:56
	Standard Methods 2130 B Field				09/30/2022 10:56
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 10:56
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 12:33
	Standard Methods 2320 B 1997, 2011				10/10/2022 12:33
	Standard Methods 2510 B Field				09/30/2022 10:56
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:05

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	Standard Methods 2550 B Field				09/30/2022 10:56
	Standard Methods 4500-O G Field				09/30/2022 10:56
	SW-846 9036 (Total)				10/11/2022 11:59
	SW-846 9214 (Total)				10/10/2022 12:10
	SW-846 9251 (Total)				10/11/2022 11:54
22082027-023B	MW-383	09/30/2022 10:56	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 17:58
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 16:07
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:35
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 14:33
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 5:44
22082027-024A	MW-384	09/30/2022 10:14	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 10:14
	Standard Method 4500-H B 2001 Field				09/30/2022 10:14
	Standard Methods 2130 B Field				09/30/2022 10:14
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 10:14
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 12:41
	Standard Methods 2320 B 1997, 2011				10/10/2022 12:41
	Standard Methods 2510 B Field				09/30/2022 10:14
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:06
	Standard Methods 2550 B Field				09/30/2022 10:14
	Standard Methods 4500-O G Field				09/30/2022 10:14
	SW-846 9036 (Total)				10/11/2022 12:02
	SW-846 9214 (Total)				10/10/2022 12:12
	SW-846 9251 (Total)				10/11/2022 22:58
22082027-024B	MW-384	09/30/2022 10:14	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 18:02
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 16:11
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:42
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 14:38
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 5:51
22082027-025A	MW-390	09/30/2022 12:57	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 12:57
	Standard Method 4500-H B 2001 Field				09/30/2022 12:57
	Standard Methods 2130 B Field				09/30/2022 12:57
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 12:57
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 12:49

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	Standard Methods 2320 B 1997, 2011				10/10/2022 12:49
	Standard Methods 2510 B Field				09/30/2022 12:57
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 8:45
	Standard Methods 2550 B Field				09/30/2022 12:57
	Standard Methods 4500-O G Field				09/30/2022 12:57
	SW-846 9036 (Total)				10/11/2022 12:10
	SW-846 9214 (Total)				10/10/2022 12:13
	SW-846 9251 (Total)				10/11/2022 12:10
22082027-025B	MW-390	09/30/2022 12:57	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 18:06
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 16:14
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:48
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 14:42
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 5:57
22082027-026A	MW-391	09/30/2022 11:46	10/03/2022 10:50		
	Field Elevation Measurements				09/30/2022 11:46
	Standard Method 4500-H B 2001 Field				09/30/2022 11:46
	Standard Methods 2130 B Field				09/30/2022 11:46
	Standard Methods 18th Ed. 2580 B Field				09/30/2022 11:46
	Standard Methods 2320 B (Total) 1997, 2011				10/10/2022 12:56
	Standard Methods 2320 B 1997, 2011				10/10/2022 12:56
	Standard Methods 2510 B Field				09/30/2022 11:46
	Standard Methods 2540 C (Total) 1997, 2011				10/06/2022 10:06
	Standard Methods 2550 B Field				09/30/2022 11:46
	Standard Methods 4500-O G Field				09/30/2022 11:46
	SW-846 9036 (Total)				10/11/2022 12:31
	SW-846 9214 (Total)				10/10/2022 12:15
	SW-846 9251 (Total)				10/11/2022 12:32
22082027-026B	MW-391	09/30/2022 11:46	10/03/2022 10:50		
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/06/2022 18:10
	SW-846 3005A, 6010B, Metals by ICP (Total)			10/03/2022 16:46	10/07/2022 16:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/04/2022 19:54
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/06/2022 14:47
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			10/03/2022 16:46	10/08/2022 6:03
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

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
	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
	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

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		
	Test Name			**Prep Date/Time**	**Analysis Date/Time**
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

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

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**

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**

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**

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**

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**

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

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**

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**

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**

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**

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**

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**

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**

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

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** RPD Limit: **10**
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** RPD Limit: **10**
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** RPD Limit: **10**
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

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**

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**

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**

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**

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**

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**

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**

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

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** RPD Limit: **15**
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** RPD Limit: **15**
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** RPD Limit: **15**
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

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** RPD Limit: **15**
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** RPD Limit: **15**
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

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

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

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**

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

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

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** RPD Limit: **20**

SampID: 22082027-006CMSD

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

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

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: Payton Yoch
On: 03-Oct-22

Reviewed by: Marvin L. Darling
On: 03-Oct-22

Pages to follow: Chain of custody 2 Extra pages included 0

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
Email To:	Brian.Voelker@VistraCorp.com
Phone:	(217) 753-8911
Fax:	
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Jason Stuckey
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES	**GROUND WATER**	DRINKING WATER
UST	RCRA	OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

* WELL DRY

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BAL_257_601	BAL_257_605	BAL_CLOSURE_605	BAL_NPDES_600	BAL_WPCP_605	Quarterly GW	Residual Chlorine (Y/N)	Project No./Lab I.D.
1	22082027-001 MW-104DR			09/29/22	0935		4	2		2									✓	✓	✓	✓		22082027-001
2	002 MW-104SR			09/29/22	[illegible]		4	2		2									✓	✓	✓	✓		002
3	003 MW-150			9.29.22	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			09/30/22	1451		2	1		1							✓							016

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BAL-Q3-2022	[signature]	10/1/22	1035	Allison Coli[illegible]	10/3/22	10:50	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Riley

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 09/30/22

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

MW-152 collection time per field file. EAH 10/28/22

Temp: 5.2 L56.6 ULE

Ph: 83856. CBJ 10-3-22.

~~22100038~~
22082027

TE
EAH
10/10/22

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Jason Stuckey
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BAL_257_601	BAL_257_605	BAL_CLOSURE_605	BAL_NPDES_600	BAL_WPCP_605	Quarterly GW	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	017	MW-366			09/30/22	1219		2	-		-								✓		✓					22082027-017
2	018	MW-369			9.30.22	0708		2	-		-							✓								018
3	019	MW-370			09/30/22	0758		2	-		-							✓								019
4	020	MW-375			9.30.22	~~0758~~ 1056		2	-		-								✓		✓					020
5	021	MW-377			09/30/22	1414		2	-		-								✓		✓					021
6	022	MW-382			9.30.22	0906		2	-		-							✓								022
7	023	MW-383			09/30/22	1056		2	-		-								✓		✓					023
8	024	MW-384			9.30.22	1014		2	-		-								✓		✓					024
9	025	MW-390			09/30/22	1057		2	-		-								✓		✓					025
10	026	MW-391			09/30/22	1146		2	-		-								✓		✓					026
11	027	OW-156			09/30/22	1302		1	-											✓	✓	✓	✓			027
12	028	OW-157			09/30/22	1318		1	-											✓	✓	✓	✓			028
13	029	TPZ-164			09/30/22	1202		2	-		-							✓								029
14	030	MW-304 Duplicate *			09/30/22	0938		4	-		-							✓	✓	✓	✓	✓	✓			030
15	031	Field Blank *			09/30/22	1500		4	-		-							✓	✓	✓	✓	✓	✓			031
16																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BAL-Q3-2022		10/1/22	1035	Allison Cole	10/3/22	10:50	
* per Baldwin Quarterly GW project. EAH 6/31/22							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Ritzi

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 09/30/22

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

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

Elizabeth A. Hurley
Director of Customer Service
(618)344-1004 ex 33
ehurley@teklabinc.com

Report Contents

Client: Ramboll
Work Order: 22082028
Client Project: Baldwin Groundwater Q3 2022
Report Date: 10-Nov-22

This reporting package includes the following:

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
- 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: 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

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

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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-001 **Client Sample ID:** MW-304

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-002 **Client Sample ID:** MW-306

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-003 **Client Sample ID:** MW-350

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-004 **Client Sample ID:** MW-356

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-005 **Client Sample ID:** MW-366

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-006 **Client Sample ID:** MW-369

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-007 **Client Sample ID:** MW-370

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-008 **Client Sample ID:** MW-375

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-009 **Client Sample ID:** MW-377

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-010 **Client Sample ID:** MW-382

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-011 **Client Sample ID:** MW-383

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-012 **Client Sample ID:** MW-384

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-013 **Client Sample ID:** MW-390

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-014 **Client Sample ID:** MW-391

Matrix: GROUNDWATER **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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-015 **Client Sample ID:** TPZ-164

Matrix: GROUNDWATER **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

Client: Ramboll
Work Order: 22082028
Client Project: Baldwin Groundwater Q3 2022
Report Date: 10-Nov-22
Lab ID: 22082028-016
Client Sample ID: MW-304 Duplicate
Matrix: GROUNDWATER
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

Client: Ramboll **Work Order:** 22082028

Client Project: Baldwin Groundwater Q3 2022 **Report Date:** 10-Nov-22

Lab ID: 22082028-017 **Client Sample ID:** Field Blank

Matrix: AQUEOUS **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

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

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		
	Test Name			Prep Date/Time	Analysis Date/Time
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: Payton Yoch
On: 03-Oct-22

Reviewed by: Marvin L. Darling
On: 03-Oct-22

Pages to follow: Chain of custody 2 Extra pages included 30

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 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

~~22100039~~ 22082028

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
Email To:	Brian.Voeiker@VistraCorp.com
Phone:	(217) 753-8911 Fax:
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Brian Voeiker
Copy To:	Jason Stuckey
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY: NPDES, **GROUND WATER**, DRINKING WATER, UST, RCRA, OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Radium 226/228 only. Sed 8/31/22

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BAL_257_601	BAL_257_605	BAL_CLOSURE_605	BAL_NPDES_600	BAL_WPCP_605	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	22082028-001 MW-304			9-29-22	0958		2			2							✓	✓					22082028-001
2	002 MW-306			9-29-22	1818		2			2							✓	✓					002
3	003 MW-350			9-29-22	1527		2			2								✓					003
4	004 MW-356			09/30/22	1451		2			2							✓						004
5	005 MW-366			09/30/22	1219		2			2								✓					005
6	006 MW-369			9-30-22	0708		2			2							✓						006
7	007 MW-370			9-30-22	0758		2			2							✓						007
8	008 MW-375			09/30/22	1330		2			2								✓					008
9	009 MW-377			09/30/22	1414		2			2								✓					009
10	010 MW-382			9-30-22	0906		2			2							✓						010
11	011 MW-383			9-30-22	1056		2			2								✓					011
12	012 MW-384			9-30-22	1014		2			2								✓					012
13	013 MW-390			09/30/22	1257		2			2								✓					013
14	014 MW-391 56.9			09/30/22	1146		2			2								✓					014
15	015 TPZ-164			09/30/22	1602		2			2							✓						015
16	016 MW-304 Duplicate			9-29-22	0950		2			2							✓	✓					016

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BAL-Q3-2022	[signature]	10/1/22	1031	Allison Cole	10/3/22	10:50	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Ryan

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 09/30/22

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

PH✓ 83856. Pnt 10/3/22 Temp: 5.3 LG16 02E

Added HNO3 (83726) to MW-356, MW-375, MW-38 MW-384, and MW-391.

CGC 10-3-22

2208202R

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:	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Vistra Corp
				Address:	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference:	
Phone:	(217) 753-8911 Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT:	standard	Project Number:	2285	Profile #:	

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER

UST | RCRA | OTHER

Site Location STATE: IL

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BAL_257_601	BAL_257_605	BAL_CLOSURE_605	BAL_NPDES_600	BAL_WPCP_605	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	017 Field Blank			07/30/22	1300		2			2							✓	✓					2208202R-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		10/1/22	1035	Allison Cole	10/2/22	1050	
DUP and FB per project history. Per 8/31/22							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JOE TOLEY

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 09/30/22

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ANALYTICAL REPORT

November 10, 2022

Revised Report

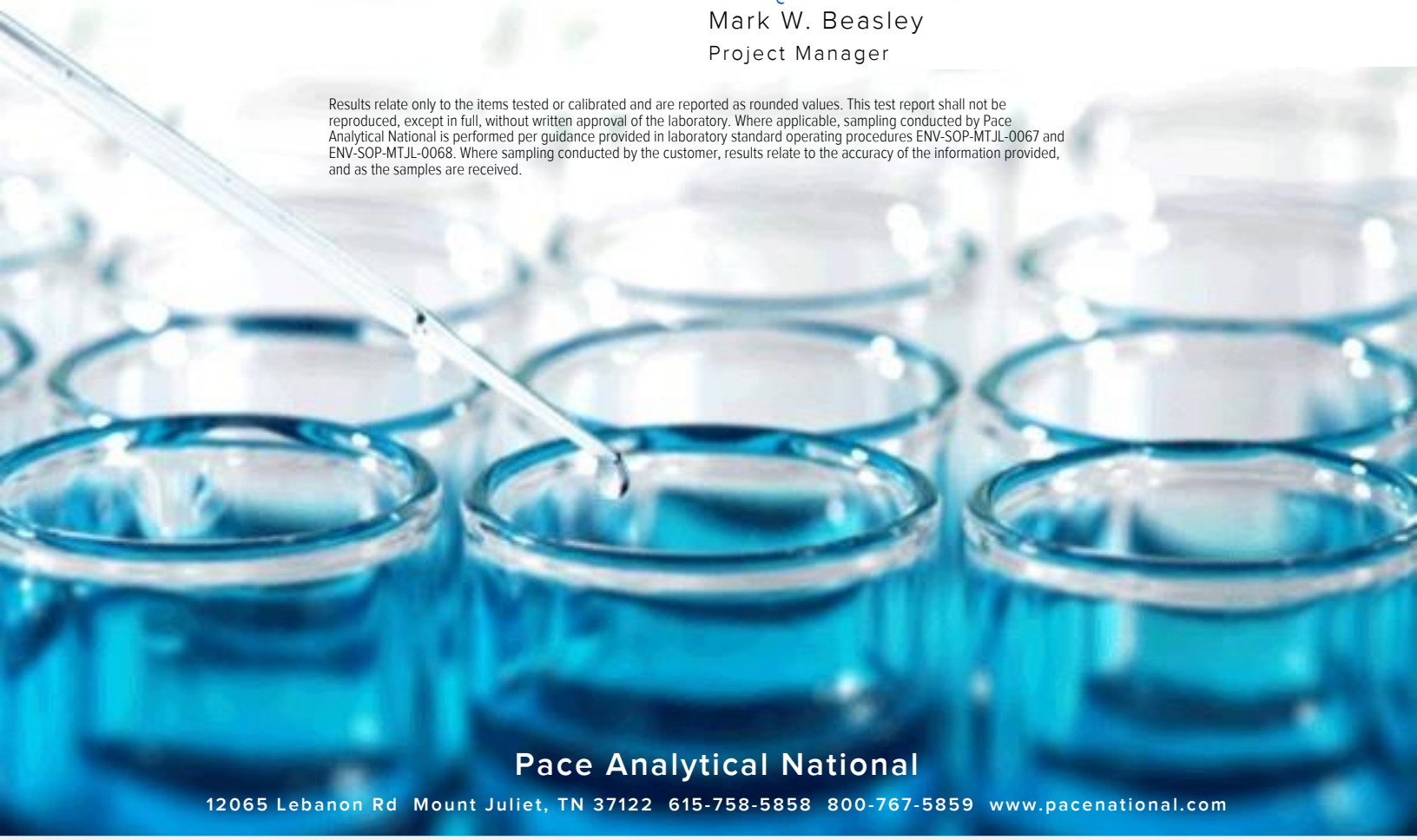
TEKLAB, Inc.

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



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

TABLE OF CONTENTS

22082028-001 L1543671-01 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

22082028-002 L1543671-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/29/22 18:18	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	Received date/time
	09/29/22 15:27	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	Received date/time
	09/30/22 14:51	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	Received date/time
	09/30/22 12:19	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	Received date/time
	09/30/22 07:08	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

22082028-007 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

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

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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.616		0.341	0.498	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.241	J	0.200	0.374	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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	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	J	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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.485		0.234	0.392	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.393		0.259	0.392	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.129	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.389		0.250	0.358	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.395	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.250	U	0.382	0.652	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.250	J	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

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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.437	J	0.294	0.555	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0933	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.266	J	0.325	0.541	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.173	J	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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.827		0.405	0.637	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

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

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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.0403	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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.161	U	0.324	0.556	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.161	J	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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.136	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 pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.142	U	0.267	0.500	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.00661	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

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.381	J	0.258	0.457	10/18/2022 16:54	WG1940112

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
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

Method Blank (MB)

(MB) R3850543-1 10/18/22 11:22

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	-0.232	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 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	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 pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
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 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	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*							

Method Blank (MB)

(MB) R3854855-1 10/18/22 16:54

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	0.00568	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 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-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 pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
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 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	20.0	0.195	20.3	20.2	101	100	1	75.0-125			0.493		20
(T) Barium-133		*87.1*			*87.6*	*91.9*							

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.

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: Joseph Riley/Adam Bridges | QC Level: 3

Comments: **Please Issue reports and invoices via email only**
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..

Project# 22082028

Contact: Elizabeth Hurley | Email: EHurley@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO:
Phone: (618) 344-1004

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.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228											
-01	22082028 - 001	9.29.22 0908	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	7.30.22 1219	HNO3	Groundwater	✔											
-06	22082028 - 006	9.30.22 0708	HNO3	Groundwater	✔											
-07	22082028 - 007	9.30.22 0758	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
		Zac Parker	10-06-22 0900 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: Joseph Riley/Adam Bridges | QC Level: 3

Comments: **Please Issue reports and invoices via email only**
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..

Project# 22082028

Contact: Elizabeth Hurley | Email: EHurley@TekLabInc.com
Requested Due Date: Standard TAT | Billing/PO:
Phone: (618) 344-1004

LF43671

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

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	HNO3	
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

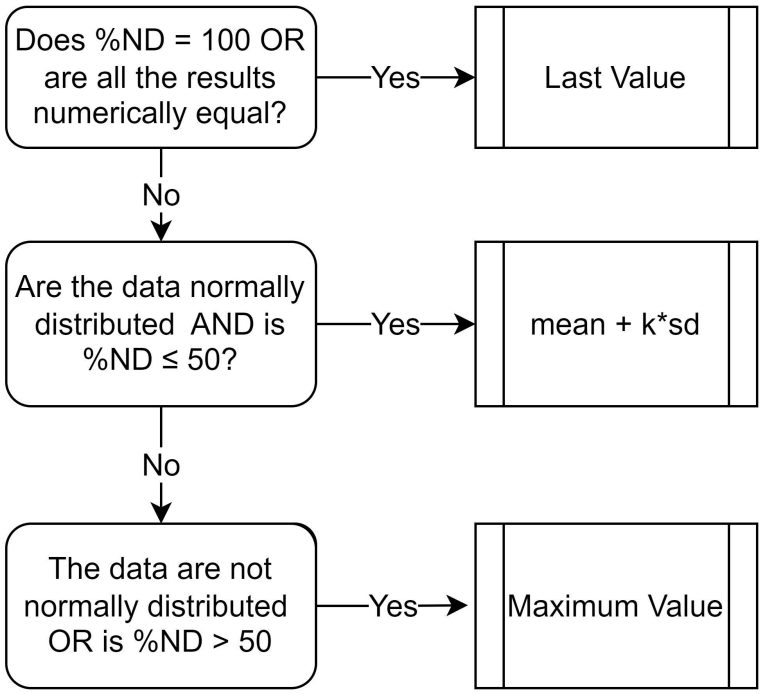
*Relinquished By	Date/Time	Received By	Date/Time
		Bac Pace	10-06-22 10:30

LK43671

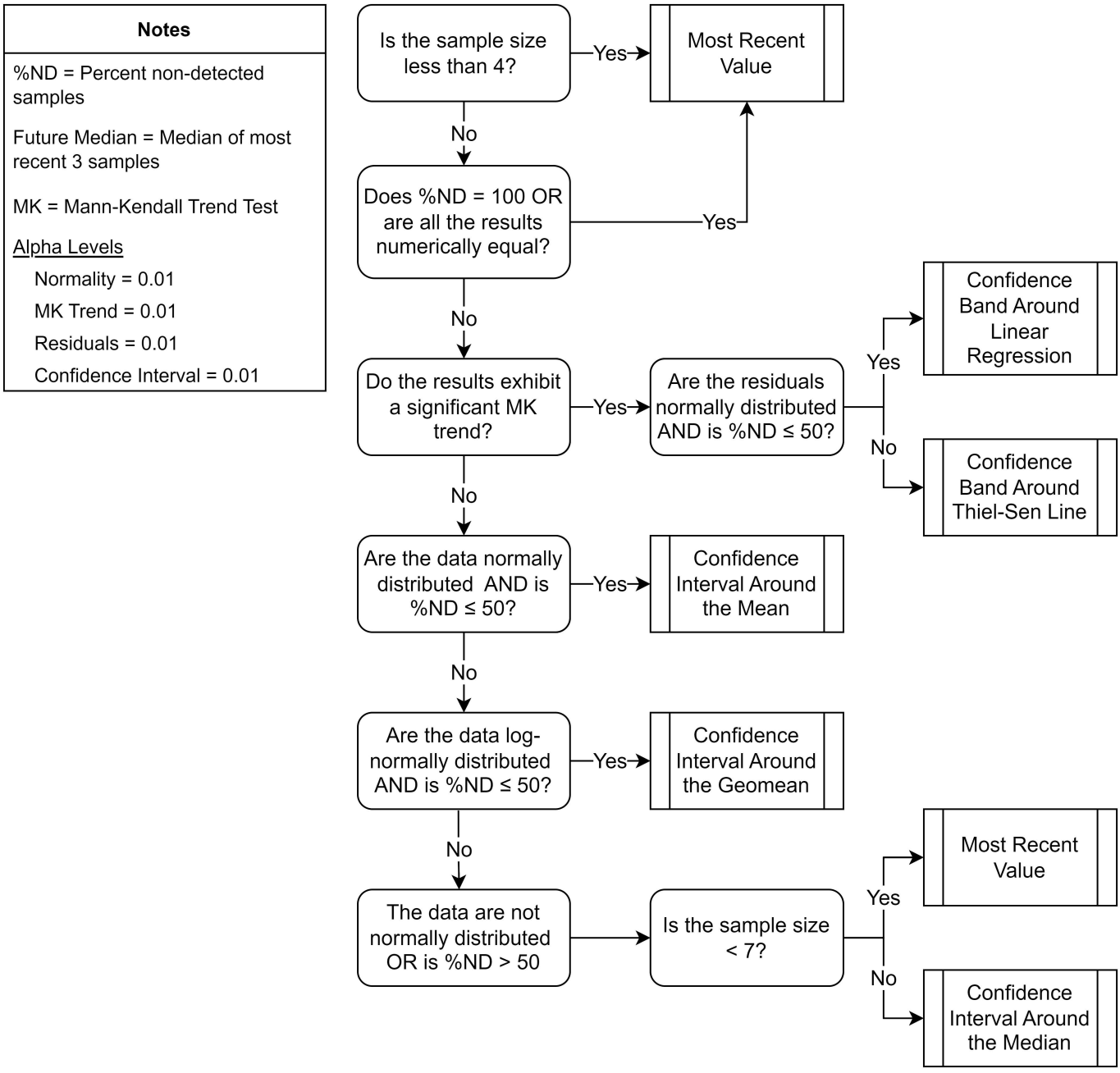
Tracking Numbers	Temperature
5821 5898 1537	18.4+0=18.4 GBA6
5821 5898 1548	20.1+0=20.1 GBA6
5821 5898 1559	17.5+0=17.5 GBA6
5821 5898 1581	19.6+0=19.6 GBA6
5821 5898 1570	15.0+0=15.0 GBA6
5821 5898 1560	19.3+0=19.3 GBA6

APPENDIX B
STATISTICAL METHODOLGY 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 METHODOLGY 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
Alpha Levels
Normality = 0.01
MK Trend = 0.01
Residuals = 0.01
Confidence Interval = 0.01
Is the sample size less than 4?
Yes
Most Recent Value
No
Does %ND = 100 OR are all the results numerically equal?
Yes
No
Do the results exhibit a significant MK trend?
Yes
Are the residuals normally distributed AND is %ND ≤ 50?
Yes
Confidence Band Around Linear Regression
No
Confidence Band Around Thiel-Sen Line
No
Are the data normally distributed AND is %ND ≤ 50?
Yes
Confidence Interval Around the Mean
No
Are the data log-normally distributed AND is %ND ≤ 50?
Yes
Confidence Interval Around the Geomean
No
The data are not normally distributed OR is %ND > 50
Is the sample size < 7?
Yes
Most Recent Value
No
Confidence Interval Around the Median