



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

**FEDERAL CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and
CORRECTIVE ACTION REPORT - 2024**

**Midwest Generation, LLC
Waukegan Station
401 E. Greenwood Avenue
Waukegan, Illinois**

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January 31, 2025

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OVERVIEW

Groundwater monitoring requirements in accordance with the Federal Register, Environmental Protection Agency, 40 CFR Parts 257.94, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule dated April 17, 2015 (CCR Rule) and subsequent amendments, have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Waukegan Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for the West and East Ash Ponds. The CCR monitoring well network around these ponds consists of eight monitoring wells (MW-01 through MW-04, MW-09, MW-11, MW-14 and MW-16). Wells MW-09, MW-11 and MW-14 are upgradient wells as shown on Figure 1.

This overview of the 2024 groundwater monitoring period is provided in accordance with requirements under Section 257.90(e)(6). Each required item is discussed separately below.

- Section 257.90(e)(6)(i) – At the start of the current monitoring period, the subject CCR unit was operating under the detection monitoring program outlined in Section 257.94.
- Section 257.90(e)(6)(ii) – At the end of the current monitoring period, the subject CCR unit continues to operate under the detection monitoring program outlined in Section 257.94.
- Section 257.90(e)(6)(iii) – The following statistically significant increases (SSIs) above established background for Appendix III detection monitoring constituents were noted in during this monitoring period:
 - MW-01 – boron (1st, 2nd and 4th quarters) and pH 1st and 3rd quarters)
 - MW-02 – boron (1st through 4th quarters), pH (1st and 4th quarters) and sulfate (2nd and 3rd quarters)
 - MW-03 – boron (1st through 4th quarters), pH (1st, 2nd and 4th quarters)
 - MW-04 – boron (1st through 4th quarters), and sulfate (3rd quarter)
 - MW-16 – boron and sulfate (1st through 4th quarters), calcium and total dissolved solids (3rd quarter)

These constituent SSIs have been addressed previously under Alternate Source Demonstrations (ASDs) with determination being made that the SSIs are not associated with a release from the regulated units. The detections of these parameters during the 2024 sampling were generally within similar ranges as previous sampling events. It is noted that at upgradient location MW-09 fluoride was detected above its background concentration

during the third quarter monitoring but was not replicated in the subsequent monitoring event.

- Section 257.90(e)(6)(iv) – The subject units are not under assessment monitoring.
- Section 257.90(e)(6)(v) – The subject units are not under corrective action.
- Section 257.90(e)(6)(vi) – The subject units are not under corrective action.

On June 20, 2023 U.S. Environmental Protection Agency (USEPA) issued a Proposed Denial of Alternative Closure Deadline for Waukegan Generation Station in Docket No. EPA-HQ-OLEM-2023-0209. On September 9, 2023, Midwest Generation submitted detailed comments and responses to the USEPA proposed denial. A final decision has not yet been issued. Some data presentations may be modified based on the final decision.

1.0 INTRODUCTION

The Detection Monitoring requirements in accordance with the Federal Register, Environmental Protection Agency, 40 CFR Parts 257.94, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule dated April 17, 2015 (CCR Rule) have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Waukegan Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for both the West and East Ash Ponds. The CCR monitoring well network around these ponds consists of eight monitoring wells (MW-01 through MW-04, MW-09, MW-11, MW-14 and MW-16). Wells MW-09, MW-11 and MW-14 are upgradient wells.

This annual report covers the work performed relative to CCR groundwater monitoring for the calendar year 2024. It does not duplicate information or activities previously reported. It is prepared in accordance with Section 257.90(e)(1-6) and summarizes the sampling procedures used, provides an evaluation of groundwater flow conditions, summarizes the analytical data generated, and summarizes conclusions and recommendations for the station going forward.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the CCR groundwater monitoring network around the ash ponds at this facility consists of eight wells (MW-01, MW-02, MW-03, MW-04, MW-09, MW-11, MW-14 and MW-16) as shown on Figure 1. As part of sampling procedures, the integrity of all monitoring wells was inspected and water levels were obtained using an electronic water level meter (see summary of water level discussion below). All wells were found in good condition.

All groundwater samples were collected using the low-flow sampling technique from dedicated pumps. The samples were not filtered prior to analysis to provide for total metals concentrations as opposed to dissolved metals concentrations. One duplicate sample was collected from a randomly selected monitoring well per sampling event for quality assurance purposes.

2.2 Groundwater Flow Evaluation

Water level data measurements were obtained from monitoring wells during each round of groundwater sampling. A complete round of water levels was collected prior to initiating sampling, and the water level data are summarized in Table 1. It is noted that water levels were also concurrently measured at other monitoring well locations in the area that are not part of the CCR monitoring network. The full set of water levels were used to generate a groundwater flow map for each sampling event. These maps are provided in Attachment 1. A review of the maps indicates a consistent east to southeasterly groundwater flow direction beneath the ash ponds. In accordance with general groundwater sampling requirements under Section 257.93(c), Table 2 provides a summary of the flow direction and an estimated rate of groundwater flow for each sampling event. The flow rate was calculated using the following equation:

$$V_s = \frac{Kdh}{n_e dl}, \text{ where}$$

V_s is seepage velocity (distance/time)

K is hydraulic conductivity (distance/time)

dh/dl is hydraulic gradient (unitless)

n_e is effective porosity (unitless)

The average hydraulic conductivity of 1.79×10^{-3} ft/sec used in Table 2 was based on a re-evaluation of slug test data performed by Patrick Engineering as part of a hydrogeologic assessment dated February 2011. The estimated effective porosity of the sandy materials (0.35) was obtained from literature (Applied Hydrogeology, Fetter, 1980).

3.0 ANALYTICAL DATA AND STATUS OF EVALUATIONS

3.1 Sampling Summary

The groundwater sampling summary from 2024 is provided in Table 3, in accordance with 257.90(e)(3). Analytical data packages are included in Attachment 2.

3.2 Data Summary

The analytical data from the detection monitoring groundwater sampling for Appendix III parameters are provided in Table 4. Quarterly groundwater sampling was completed for Appendix III in 2024 which exceeds the minimum detection monitoring requirements under Section 257.94. The table includes the sample dates and whether the specific well is considered upgradient or downgradient relative to groundwater flow and the regulated unit. Table 4 also includes calculated Prediction Limits (PLs) established in the initial CCR Groundwater Monitoring Statistical Evaluation Summary dated January 2018 for data comparison purposes. The downgradient intrawell prediction limits were established for the parameters which were part of the Alternate Source Demonstrations (see 2018 and 2019 CCR Compliance Reports). These do not replace interwell prediction limits.

The following downgradient monitoring well SSIs above established background for Appendix III detection monitoring constituents were noted during the 2024 monitoring period:

- o MW-01 – boron (1st, 2nd and 4th quarters) and pH 1st and 3rd quarters)
- o MW-02 – boron (1st through 4th quarters), pH (1st and 4th quarters) and sulfate (2nd and 3rd quarters)
- o MW-03 – boron (1st through 4th quarters), pH (1st, 2nd and 4th quarters)
- o MW-04 – boron (1st through 4th quarters), and sulfate (3rd quarter)
- o MW-16 – boron and sulfate (1st through 4th quarters), calcium and total dissolved solids (3rd quarter)

These constituent SSIs have been addressed previously under Alternate Source Demonstrations (ASDs) with determination being made that the SSIs are not associated with a release from the regulated units. The detections of these parameters during the 2024 sampling were generally within similar ranges as previous sampling events.

3.3 Current Status

Since the noted SSIs for boron, sulfate and pH were previously addressed under a successful ASD, the station remains in detection monitoring.

4.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The detection monitoring requirements in accordance with the CCR Rule have been successfully met. At this time, it is recommended that the station stay in detection monitoring in accordance with Section 257.94.

As previously noted, on June 20, 2023 USEPA issued a Proposed Denial of Alternative Closure Deadline for Waukegan Generation Station in Docket No. EPA-HQ-OLEM-2023-0209. On September 9, 2023, Midwest Generation submitted detailed comments and responses to the USEPA proposed denial. A final decision has not yet been issued. Some data presentations may be modified based on the final decision.

5.0 REFERENCES

- Federal Register, Environmental Protection Agency, 40 CFR Parts 257 and 261, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule. Vol. 80, No. 74, Friday April 17, 2015.
- Patrick Engineering, Inc., Hydrogeologic Assessment Report – Waukegan Generating Station, Waukegan, IL. February 2011.
- KPRG and Associates, Inc., CCR Compliance Monitoring, Sampling and Analysis Plan, Midwest Generation, LLC Waukegan Generating Station. October 10, 2017.
- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2018, Midwest Generation, LLC Waukegan Generating Station. January 31, 2019.
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- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2020, Midwest Generation, LLC Waukegan Generating Station. January 31, 2021.
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- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2022, Midwest Generation, LLC Waukegan Generating Station. January 31, 2023.
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- C.W. Fetter, Jr., Applied Hydrogeology. Charles E. Merrill Publishing Co., 1980.

FIGURE



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CCR MONITORING WELL SITE MAP

WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 550'

Date: January 2, 2018

KPRG Project No. 12313.2

FIGURE 1

TABLES

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-01	11/2/2015	603.12	20.75	582.37
	2/29/2016	603.12	20.71	582.41
	5/2/2016	603.12	20.89	582.23
	8/23/2016	603.12	22.01	581.11
	12/2/2016	603.62	22.27	581.35
	2/21/2017	603.62	22.42	581.20
	5/15/2017	603.62	20.52	583.10
	7/5/2017	603.62	21.81	581.81
	9/11/2017	603.62	21.47	582.15
	11/27/2017	603.62	21.82	581.80
	5/29/2018	603.62	19.43	584.19
	11/5/2018	603.62	20.45	583.17
	5/14/2019	603.62	19.81	583.81
	11/18/2019	603.62	19.89	583.73
	4/21/2020	603.62	20.81	582.81
	11/17/2020	603.62	21.51	582.11
	3/1/2021	603.62	21.19	582.43
	3/30/2021	603.62	21.34	582.28
	5/5/2021	603.62	21.76	581.86
	5/27/2021	603.62	21.78	581.84
	6/18/2021	603.62	21.90	581.72
	7/8/2021	603.62	21.75	581.87
	8/18/2021	603.62	21.82	581.80
	9/29/2021	603.62	22.22	581.40
	10/12/2021	603.62	21.65	581.97
	11/3/2021	603.62	21.45	582.17
	12/14/2021	603.62	21.52	582.10
	1/12/2022	603.62	21.73	581.89
	2/8/2022	603.62	22.00	581.62
	3/10/2022	603.62	21.67	581.95
	4/14/2022	603.62	22.27	581.35
	5/23/2022	603.62	21.25	582.37
	6/28/2022	603.62	21.80	581.82
	7/18/2022	603.62	22.00	581.62
	8/22/2022	603.62	21.78	581.84
	9/26/2022	603.62	21.75	581.87
	10/3/2022	603.62	21.95	581.67
	11/7/2022	603.62	22.17	581.45
	12/15/2022	603.62	21.90	581.72
	1/17/2023	603.62	21.60	582.02
	2/13/2023	603.62	21.76	581.86
	3/15/2023	603.62	21.40	582.22
	4/26/2023	603.62	21.35	582.27
	5/8/2023	603.62	21.46	582.16
	6/7/2023	603.62	21.90	581.72
	7/3/2023	603.62	21.80	581.82
	8/7/2023	603.62	22.22	581.40
	9/13/2023	603.62	22.45	581.17
	10/23/2023	603.62	22.05	581.57
	11/27/2023	603.62	22.28	581.34
	12/26/2023	603.62	22.10	581.52
	1/27/2024	603.62	21.70	581.92
	2/5/2024	603.62	21.53	582.09
	3/20/2024	603.62	21.70	581.92
	4/16/2024	603.62	21.40	582.22
	5/20/2024	603.62	21.55	582.07
	6/11/2024	603.62	21.45	582.17
	7/11/2024	603.62	21.60	582.02
	8/12/2024	603.62	21.53	582.09
	9/9/2024	603.62	22.40	581.22
	10/10/2024	603.62	21.50	582.12
	11/11/2024	603.62	22.74	580.88
	12/16/2024	603.62	22.85	580.77

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-02	11/2/2015	603.04	20.71	582.33
	2/29/2016	603.04	20.59	582.45
	5/2/2016	603.04	20.82	582.22
	8/23/2016	603.04	22.04	581.00
	12/2/2016	603.39	22.13	581.26
	2/21/2017	603.39	22.24	581.15
	5/15/2017	603.39	20.25	583.14
	7/5/2017	603.39	21.59	581.80
	9/11/2017	603.39	21.21	582.18
	11/27/2017	603.39	21.63	581.76
	5/29/2018	603.39	19.12	584.27
	11/5/2018	603.39	20.19	583.20
	5/14/2019	603.39	19.55	583.84
	11/18/2019	603.39	19.60	583.79
	4/21/2020	603.39	20.57	582.82
	11/17/2020	603.39	21.32	582.07
	3/1/2021	603.39	21.04	582.35
	3/30/2021	603.39	21.13	582.26
	5/5/2021	603.39	21.56	581.83
	5/27/2021	603.39	21.60	581.79
	6/18/2021	603.39	21.65	581.74
	7/8/2021	603.39	21.48	581.91
	8/18/2021	603.39	21.56	581.83
	9/29/2021	603.39	22.00	581.39
	10/12/2021	603.39	21.50	581.89
	11/3/2021	603.39	21.26	582.13
	12/14/2021	603.39	21.40	581.99
	1/12/2022	603.39	21.65	581.74
	2/8/2022	603.39	21.90	581.49
	3/10/2022	603.39	21.55	581.84
	4/14/2022	603.39	22.10	581.29
	5/23/2022	603.39	21.11	582.28
	6/28/2022	603.39	21.60	581.79
	7/18/2022	603.39	21.80	581.59
	8/22/2022	603.39	21.65	581.74
	9/26/2022	603.39	21.50	581.89
	10/3/2022	603.39	21.75	581.64
	11/7/2022	603.39	22.22	581.17
	12/15/2022	603.39	21.75	581.64
	1/17/2023	603.39	21.75	581.64
	2/13/2023	603.39	21.69	581.70
	3/15/2023	603.39	21.25	582.14
	4/26/2023	603.39	21.15	582.24
	5/8/2023	603.39	21.35	582.04
	6/7/2023	603.39	21.75	581.64
	7/3/2023	603.39	21.60	581.79
	8/7/2023	603.39	22.08	581.31
	9/13/2023	603.39	22.30	581.09
	10/23/2023	603.39	22.00	581.39
	11/27/2023	603.39	22.14	581.25
	12/26/2023	603.39	22.05	581.34
	1/27/2024	603.39	21.65	581.74
	2/5/2024	603.39	21.42	581.97
	3/20/2024	603.39	21.55	581.84
	4/16/2024	603.39	21.30	582.09
	5/20/2024	603.39	21.40	581.99
	6/11/2024	603.39	21.25	582.14
	7/11/2024	603.39	21.60	581.79
	8/12/2024	603.39	21.33	582.06
	9/9/2024	603.39	22.20	581.19
	10/10/2024	603.39	21.40	581.99
	11/11/2024	603.39	22.60	580.79
	12/16/2024	603.39	22.75	580.64

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-03	11/2/2015	602.91	20.37	582.54
	2/29/2016	602.91	20.43	582.48
	5/2/2016	602.91	20.66	582.25
	8/23/2016	602.91	22.12	580.79
	12/2/2016	603.70	22.52	581.18
	2/21/2017	603.70	22.64	581.06
	5/15/2017	603.70	20.55	583.15
	7/5/2017	603.70	21.92	581.78
	9/11/2017	603.70	21.55	582.15
	11/28/2017	603.70	21.96	581.74
	5/29/2018	603.70	19.40	584.30
	11/5/2018	603.70	20.48	583.22
	5/14/2019	603.70	19.80	583.90
	11/18/2019	603.70	20.05	583.65
	4/21/2020	603.70	20.82	582.88
	11/17/2020	603.70	21.60	582.10
	3/1/2021	603.70	21.30	582.40
	3/30/2021	603.70	21.40	582.30
	5/5/2021	603.70	21.83	581.87
	5/27/2021	603.70	21.85	581.85
	6/18/2021	603.70	21.91	581.79
	7/8/2021	603.70	21.71	581.99
	8/18/2021	603.70	21.80	581.90
	9/29/2021	603.70	22.30	581.40
	10/12/2021	603.70	21.70	582.00
	11/3/2021	603.70	21.53	582.17
	12/14/2021	603.70	21.60	582.10
	1/12/2022	603.70	21.97	581.73
	2/8/2022	603.70	22.29	581.41
	3/10/2022	603.70	21.50	582.20
	4/14/2022	603.70	22.30	581.40
	5/23/2022	603.70	21.18	582.52
	6/28/2022	603.70	21.85	581.85
	7/18/2022	603.70	22.10	581.60
	8/22/2022	603.70	21.76	581.94
	9/26/2022	603.70	21.70	582.00
	10/3/2022	603.70	22.00	581.70
	11/7/2022	603.70	22.22	581.48
	12/15/2022	603.70	22.20	581.50
	1/17/2023	603.70	22.10	581.60
	2/13/2023	603.70	22.00	581.70
	3/15/2023	603.70	21.50	582.20
	4/26/2023	603.70	21.40	582.30
	5/8/2023	603.70	25.12	578.58
	6/7/2023	603.70	22.00	581.70
	7/3/2023	603.70	21.87	581.83
	8/7/2023	603.70	22.43	581.27
	9/13/2023	603.70	22.75	580.95
	10/23/2023	603.70	22.30	581.40
	11/27/2023	603.70	22.60	581.10
	12/26/2023	603.70	22.50	581.20
	1/27/2024	603.70	21.85	581.85
	2/5/2024	603.70	21.67	582.03
	3/20/2024	603.70	21.75	581.95
	4/16/2024	603.70	21.40	582.30
	5/20/2024	603.70	21.63	582.07
	6/11/2024	603.70	21.50	582.20
	7/11/2024	603.70	21.80	581.90
	8/12/2024	603.70	21.55	582.15
	9/9/2024	603.70	22.50	581.20
	10/10/2024	603.70	21.80	581.90
	11/11/2024	603.70	23.05	580.65
	12/16/2024	603.70	23.20	580.50

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-04	11/2/2015	603.19	20.83	582.36
	2/29/2016	603.19	20.70	582.49
	5/2/2016	603.19	20.94	582.25
	8/23/2016	603.19	22.69	580.50
	12/2/2016	603.17	22.18	580.99
	2/21/2017	603.17	22.36	580.81
	5/15/2017	603.17	20.04	583.13
	7/5/2017	603.17	21.46	581.71
	9/11/2017	603.17	21.05	582.12
	11/28/2017	603.17	21.54	581.63
	5/30/2018	603.17	18.88	584.29
	11/6/2018	603.17	19.96	583.21
	5/14/2019	603.17	19.35	583.82
	11/18/2019	603.17	19.36	583.81
	4/21/2020	603.17	20.40	582.77
	11/18/2020	603.17	21.23	581.94
	3/1/2021	603.17	20.95	582.22
	3/30/2021	603.17	21.02	582.15
	5/5/2021	603.17	21.52	581.65
	5/27/2021	603.17	21.55	581.62
	6/18/2021	603.17	21.62	581.55
	7/8/2021	603.17	21.45	581.72
	8/18/2021	603.17	21.49	581.68
	9/29/2021	603.17	22.08	581.09
	10/12/2021	603.17	21.35	581.82
	11/3/2021	603.17	21.15	582.02
	12/14/2021	603.17	21.40	581.77
	1/12/2022	603.17	21.72	581.45
	2/8/2022	603.17	22.17	581.00
	3/10/2022	603.17	21.73	581.44
	4/14/2022	603.17	22.08	581.09
	5/23/2022	603.17	20.92	582.25
	6/28/2022	603.17	21.55	581.62
	7/18/2022	603.17	21.80	581.37
	8/22/2022	603.17	21.55	581.62
	9/26/2022	603.17	21.40	581.77
	10/3/2022	603.17	21.70	581.47
	11/7/2022	603.17	22.13	581.04
	12/15/2022	603.17	22.05	581.12
	1/17/2023	603.17	21.90	581.27
	2/13/2023	603.17	21.76	581.41
	3/15/2023	603.17	21.50	581.67
	4/26/2023	603.17	21.00	582.17
	5/8/2023	603.17	21.11	582.06
	6/7/2023	603.17	21.65	581.52
	7/3/2023	603.17	21.55	581.62
	8/7/2023	603.17	22.20	580.97
	9/13/2023	603.17	22.75	580.42
	10/23/2023	603.17	22.10	581.07
	11/27/2023	603.17	22.49	580.68
	12/26/2023	603.17	22.40	580.77
	1/27/2024	603.17	21.55	581.62
	2/5/2024	603.17	21.25	581.92
	3/20/2024	603.17	21.40	581.77
	4/16/2024	603.17	21.10	582.07
	5/20/2024	603.17	21.21	581.96
	6/11/2024	603.17	21.05	582.12
	7/11/2024	603.17	21.50	581.67
	8/12/2024	603.17	21.12	582.05
	9/9/2024	603.17	22.25	580.92
	10/10/2024	603.17	21.80	581.37
	11/11/2024	603.17	23.00	580.17
	12/16/2024	603.17	23.25	579.92

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-09	11/2/2015	594.00	9.78	584.22
	2/29/2016	594.00	9.89	584.11
	5/2/2016	594.00	9.59	584.41
	8/23/2016	594.00	10.58	583.42
	12/2/2016	594.00	10.27	583.73
	2/21/2017	594.00	10.21	583.79
	5/15/2017	594.00	9.57	584.43
	7/6/2017	594.00	9.81	584.19
	9/11/2017	594.00	10.25	583.75
	11/29/2017	594.00	9.98	584.02
	5/31/2018	594.00	9.38	584.62
	11/6/2018	594.00	9.52	584.48
	5/14/2019	594.00	9.50	584.50
	11/18/2019	594.00	9.62	584.38
	4/21/2020	594.00	9.84	584.16
	11/18/2020	594.00	10.83	583.17
	3/1/2021	594.00	9.90	584.10
	3/30/2021	594.00	10.46	583.54
	5/5/2021	594.00	10.80	583.20
	5/27/2021	594.00	10.92	583.08
	6/18/2021	594.00	11.25	582.75
	7/8/2021	594.00	10.82	583.18
	8/18/2021	594.00	10.99	583.01
	9/29/2021	594.00	11.82	582.18
	10/12/2021	594.00	10.94	583.06
	11/3/2021	594.00	10.53	583.47
	12/14/2021	594.00	10.60	583.40
	1/12/2022	594.00	10.70	583.30
	2/8/2022	594.00	10.95	583.05
	3/10/2022	594.00	10.62	583.38
	4/14/2022	594.00	11.82	582.18
	5/23/2022	594.00	10.41	583.59
	6/28/2022	594.00	10.80	583.20
	7/18/2022	594.00	10.80	583.20
	8/22/2022	594.00	10.76	583.24
	9/26/2022	594.00	10.60	583.40
	10/3/2022	594.00	9.70	584.30
	11/7/2022	594.00	10.71	583.29
	12/15/2022	594.00	10.30	583.70
	1/17/2023	594.00	10.35	583.65
	2/13/2023	594.00	10.06	583.94
	3/15/2023	594.00	9.70	584.30
	4/26/2023	594.00	10.40	583.60
	5/8/2023	594.00	10.55	583.45
	6/7/2023	594.00	10.90	583.10
	7/3/2023	594.00	10.70	583.30
	8/7/2023	594.00	10.91	583.09
	9/13/2023	594.00	11.00	583.00
	10/23/2023	594.00	10.65	583.35
	11/27/2023	594.00	11.02	582.98
	12/26/2023	594.00	10.80	583.20
	1/27/2024	594.00	9.70	584.30
	2/5/2024	594.00	10.26	583.74
	3/20/2024	594.00	10.65	583.35
	4/16/2024	594.00	10.50	583.50
	5/20/2024	594.00	10.60	583.40
	6/11/2024	594.00	10.35	583.65
	7/11/2024	594.00	10.00	584.00
	8/12/2024	594.00	10.44	583.56
	9/9/2024	594.00	10.90	583.10
	10/10/2024	594.00	10.90	583.10
	11/11/2024	594.00	11.09	582.91
	12/16/2024	594.00	11.00	583.00

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-11	11/2/2015	590.35	5.27	585.08
	2/29/2016	590.35	5.54	584.81
	5/2/2016	590.35	5.17	585.18
	8/23/2016	590.35	6.04	584.31
	12/2/2016	590.35	5.86	584.49
	2/21/2017	590.35	5.87	584.48
	5/15/2017	590.35	5.33	585.02
	7/6/2017	590.35	5.62	584.73
	9/11/2017	590.35	5.61	584.74
	11/30/2017	590.35	5.68	584.67
	5/31/2018	590.35	5.41	584.94
	11/6/2018	590.35	5.29	585.06
	5/14/2019	590.35	5.55	584.80
	11/18/2019	590.35	5.80	584.55
	4/21/2020	590.35	5.85	584.50
	11/19/2020	590.35	6.66	583.69
	3/1/2021	590.35	5.46	584.89
	3/30/2021	590.35	6.54	583.81
	5/5/2021	590.35	6.81	583.54
	5/27/2021	590.35	6.76	583.59
	6/18/2021	590.35	6.75	583.60
	7/8/2021	590.35	6.72	583.63
	8/18/2021	590.35	6.90	583.45
	9/29/2021	590.35	7.40	582.95
	10/12/2021	590.35	6.77	583.58
	11/3/2021	590.35	6.61	583.74
	12/14/2021	590.35	6.61	583.74
	1/12/2022	590.35	6.68	583.67
	2/8/2022	590.35	6.85	583.50
	3/10/2022	590.35	6.30	584.05
	4/14/2022	590.35	7.40	582.95
	5/23/2022	590.35	6.40	583.95
	6/28/2022	590.35	6.65	583.70
	7/18/2022	590.35	6.60	583.75
	8/22/2022	590.35	6.35	584.00
	9/26/2022	590.35	5.50	584.85
	10/3/2022	590.35	6.40	583.95
	11/7/2022	590.35	6.36	583.99
	12/15/2022	590.35	5.90	584.45
	1/17/2023	590.35	6.40	583.95
	2/13/2023	590.35	6.16	584.19
	3/15/2023	590.35	5.60	584.75
	4/26/2023	590.35	6.30	584.05
	5/8/2023	590.35	6.34	584.01
	6/7/2023	590.35	6.55	583.80
	7/3/2023	590.35	6.30	584.05
	8/7/2023	590.35	6.60	583.75
	9/13/2023	590.35	6.60	583.75
	10/23/2023	590.35	6.25	584.10
	11/27/2023	590.35	6.33	584.02
	12/26/2023	590.35	6.25	584.10
	1/27/2024	590.35	5.80	584.55
	2/5/2024	590.35	6.11	584.24
	3/20/2024	590.35	6.30	584.05
	4/16/2024	590.35	6.10	584.25
	5/20/2024	590.35	6.27	584.08
	6/11/2024	590.35	6.05	584.30
	7/11/2024	590.35	6.30	584.05
	8/12/2024	590.35	6.06	584.29
	9/9/2024	590.35	6.40	583.95
	10/10/2024	590.35	6.70	583.65
	11/11/2024	590.35	6.42	583.93
	12/16/2024	590.35	6.15	584.20

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-14	11/2/2015	590.24	5.17	585.07
	2/29/2016	590.24	5.01	585.23
	5/2/2016	590.24	4.49	585.75
	8/23/2016	590.24	6.07	584.17
	12/2/2016	590.24	5.49	584.75
	2/21/2017	590.24	5.33	584.91
	5/15/2017	590.24	4.67	585.57
	7/6/2017	590.24	5.27	584.97
	9/11/2017	590.24	5.78	584.46
	11/30/2017	590.24	5.19	585.05
	6/1/2018	590.24	4.45	585.79
	11/6/2018	590.24	4.32	585.92
	5/14/2019	590.24	4.20	586.04
	11/18/2019	590.24	4.75	585.49
	4/21/2020	590.24	5.00	585.24
	11/19/2020	590.24	5.98	584.26
	3/1/2021	590.24	4.55	585.69
	3/30/2021	590.24	5.60	584.64
	5/5/2021	590.24	6.20	584.04
	5/27/2021	590.24	6.32	583.92
	6/18/2021	590.24	6.60	583.64
	7/8/2021	590.24	6.15	584.09
	8/18/2021	590.24	6.45	583.79
	9/29/2021	590.24	7.14	583.10
	10/12/2021	590.24	6.72	583.52
	11/3/2021	590.24	5.66	584.58
	12/14/2021	590.24	5.74	584.50
	1/12/2022	590.24	5.80	584.44
	2/8/2022	590.24	6.40	583.84
	3/10/2022	590.24	7.00	583.24
	4/14/2022	590.24	7.14	583.10
	5/23/2022	590.24	5.21	585.03
	6/28/2022	590.24	5.60	584.64
	7/18/2022	590.24	6.20	584.04
	8/22/2022	590.24	5.73	584.51
	9/26/2022	590.24	5.70	584.54
	10/3/2022	590.24	5.75	584.49
	11/7/2022	590.24	5.82	584.42
	12/15/2022	590.24	5.10	585.14
	1/17/2023	590.24	5.50	584.74
	2/13/2023	590.24	5.16	585.08
	3/15/2023	590.24	4.70	585.54
	4/26/2023	590.24	5.30	584.94
	5/8/2023	590.24	5.45	584.79
	6/7/2023	590.24	27.00	563.24
	7/3/2023	590.24	5.80	584.44
	8/7/2023	590.24	6.13	584.11
	9/13/2023	590.24	6.20	584.04
	10/23/2023	590.24	5.60	584.64
	11/27/2023	590.24	5.78	584.46
	12/26/2023	590.24	5.50	584.74
	1/27/2024	590.24	4.80	585.44
	2/5/2024	590.24	5.01	585.23
	3/20/2024	590.24	5.40	584.84
	4/16/2024	590.24	5.10	585.14
	5/20/2024	590.24	5.33	584.91
	6/11/2024	590.24	5.00	585.24
	7/11/2024	590.24	5.30	584.94
	8/12/2024	590.24	5.39	584.85
	9/9/2024	590.24	6.15	584.09
	10/10/2024	590.24	5.80	584.44
	11/11/2024	590.24	6.06	584.18
	12/16/2024	590.24	5.95	584.29

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-16	11/2/2015	607.41	25.13	582.28
	2/29/2016	607.41	24.91	582.50
	5/2/2016	607.41	25.23	582.18
	8/23/2016	607.41	28.33	579.08
	12/2/2016	607.41	28.22	579.19
	2/21/2017	607.41	27.71	579.70
	5/15/2017	607.41	23.99	583.42
	7/6/2017	607.41	27.03	580.38
	9/11/2017	607.41	26.74	580.67
	11/27/2017	607.41	27.49	579.92
	6/1/2018	607.41	23.22	584.19
	11/6/2018	607.41	23.65	583.76
	5/14/2019	607.41	23.40	584.01
	11/18/2019	607.41	23.60	583.81
	4/21/2020	607.41	25.26	582.15
	11/17/2020	607.41	27.50	579.91
	3/1/2021	607.41	27.25	580.16
	3/30/2021	607.41	26.96	580.45
	5/5/2021	607.41	27.50	579.91
	5/27/2021	607.41	27.35	580.06
	6/18/2021	607.41	27.12	580.29
	7/8/2021	607.41	26.41	581.00
	8/18/2021	607.41	26.92	580.49
	9/29/2021	607.41	27.45	579.96
	10/12/2021	607.41	26.99	580.42
	11/3/2021	607.41	27.04	580.37
	12/14/2021	607.41	27.60	579.81
	1/12/2022	607.41	22.80	584.61
	2/8/2022	607.41	28.22	579.19
	3/10/2022	607.41	27.85	579.56
	4/14/2022	607.41	27.40	580.01
	5/23/2022	607.41	25.85	581.56
	6/28/2022	607.41	27.20	580.21
	7/18/2022	607.41	27.30	580.11
	8/22/2022	607.41	27.28	580.13
	9/26/2022	607.41	21.40	580.13
	10/3/2022	607.41	27.40	580.01
	11/7/2022	607.41	28.09	579.32
	12/15/2022	607.41	28.00	579.41
	1/17/2023	607.41	27.80	579.61
	2/13/2023	607.41	27.67	579.74
	3/15/2023	607.41	25.20	582.21
	4/26/2023	607.41	25.40	582.01
	5/8/2023	607.41	25.64	581.77
	6/7/2023	607.41	27.00	580.41
	7/3/2023	607.41	26.65	580.76
	8/7/2023	607.41	27.88	579.53
	9/13/2023	607.41	28.40	579.01
	10/23/2023	607.41	28.00	579.41
	11/27/2023	607.41	28.40	579.01
	12/26/2023	607.41	28.25	579.16
	1/27/2024	607.41	26.05	581.36
	2/5/2024	607.41	25.83	581.58
	3/20/2024	607.41	26.60	580.81
	4/16/2024	607.41	25.50	581.91
	5/20/2024	607.41	25.70	581.71
	6/11/2024	607.41	25.40	582.01
	7/11/2024	607.41	26.20	581.21
	8/12/2024	607.41	25.62	581.79
	9/9/2024	607.41	27.60	579.81
	10/10/2024	607.41	26.60	580.81
	11/11/2024	607.41	28.72	578.69
	12/16/2024	607.41	28.85	578.56

MSL - Mean Sea Level
TOC - Top of Casing

Table 2. Groundwater Flow Direction and Estimated Seepage Velocity/Flow Rate - Waukegan Generation Station.

DATE	Groundwater Flow Direction	Kavg (ft/sec)*	Average Hydraulic Gradient (ft/ft)	Porosity (unitless)**	Estimated Seepage Velocity (ft/day)
5/6/2023	East-Southeast	1.790E-03	0.0019	0.35	0.85
8/7/2023	East-Southeast	1.790E-03	0.0016	0.35	0.69
11/27/2023	East-Southeast	1.790E-03	0.0023	0.35	1.03
2/5/2024	East-Southeast	1.790E-03	0.0016	0.35	0.71
5/20/2024	East-Southeast	1.790E-03	0.0014	0.35	0.63
8/12/2024	East-Southeast	1.790E-03	0.0017	0.35	0.75
11/11/2024	East-Southeast	1.790E-03	0.0029	0.35	1.27

* Kavg - K values from re-evaluation of slug test data as part of groundwater modeling in support of Application for Construction Permit per Illinois State CCR Rule.

** - Porosity estimate from Applied Hydrogeology, Fetter, 1980.

Table 3. CCR Groundwater Sample Collection Summary for 2024 - Waukegan Generating Station

Well ID	Number of Groundwater Sampling Events	Dates of Groundwater Sampling Events	Detection Monitoring (D) versus Assessment Monitoring (A)
MW-09 (Background)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D
MW-11 (Background)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D
MW-14 (Background)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D
MW-01 (Downgradient)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D
MW-02 (Downgradient)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D
MW-03 (Downgradient)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D
MW-04 (Downgradient)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D
MW-16 (Downgradient)	4	2/5/2024	D
		5/20/2024	D
		8/12/2024	D
		11/11/2024	D

Table 4. Appendix III Groundwater Analytical Results - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-09 up-gradient	11/4/2015	13	210	450	0.14	6.60	370	1700
	3/2/2016	35	380	720	0.11	7.02	970	2800
	5/3/2016	16	310	620	0.12	7.02	740	2500
	8/25/2016	4.5	130	270	0.21	7.13	190	1100
	12/8/2016	15	240	130	0.18	7.01	270	1300
	2/23/2017	14	190	290	0.12	7.68	320	1300
	5/16/2017	27	160	67	0.29	8.15	430	970
	7/6/2017	21	225	430	0.13	7.18	610	1800
	Pred. Limit*	43.9	440	863	0.33	8.53-9.92	1214	3499
	9/13/2017	21	250	420	0.14	7.17	520	1800
	11/28/2017	26	200	390	0.13	7.05	390	1600
	5/31/2018	32	200	29	0.1	6.85	490	1000
	11/6/2018	38	170	23	0.11	7.33	290	930
	5/15/2019	26	120	260	0.13	7.53	31	1000
	11/19/2019	22	160	17	0.16	8.04	300	750
	4/22/2020	22	140	9.2	0.18	7.81	360	700
	11/18/2020	28	250	290	0.18	7.43	420	1700
	5/6/2021	31	170	35	0.12	7.51	420	910
	8/19/2021	7.2	150	170	0.13	7.01	210	350
	11/4/2021	10	150	160	0.24	7.07	180	980
	2/10/2022	9.5	190	220	0.17	7.11	270	1300
	5/24/2022	5.3	150	180	0.23	7.15	200	940
	8/23/2022	12	170	170	0.22	7.14	290	1100
	11/7/2022	6.4	160	200	0.51	6.98	220	1100
	12/21/2022 (W)	NS	NS	NS	0.40	NS	NS	NS
	2013/2023	B, 28	280	280	0.12	6.97	490	1500
	5/9/2023	4.7	140	220	0.23	7.08	200	890
	8/8/2023	NA 20	270	380	0.23	6.98	510	1800
	11/28/2023	2.6	96	170	0.33	7.15	130	750
	2/6/2024	2.4	240	150	0.18	6.88	120	1300
	5/20/2024	2.3	110	91	0.20	7.12	210	650
	8/13/2024	8.5	130	91	0.34	7.08	200	860
	11/12/2024	2.8	130	170	0.32	7.12	130	870
MW-11 up-gradient	11/5/2015	5.2	140	240	0.13	6.51	96	870
	3/2/2016	4.0	170	240	0.1	7.16	210	1200
	5/5/2016	5.0	140	280	0.11	7.17	160	1000
	8/26/2016	3.5	180	240	0.13	6.97	110	1100
	12/7/2016	3.8	170	270	0.12	7.06	110	1200
	2/24/2017	2.4	180	120	4.9	6.61	170	1200
	5/18/2017	1.8	160	170	0.12	7.42	120	1000
	7/6/2017	2.4	160	130	0.14	7.33	130	1100
	Pred. Limit*	6.83	206	153	4.9	7.91-8.14	255	1341
	9/13/2017	1.8	140	150	0.26	7.16	96	870
	11/30/2017	2.2	170	200	0.14	6.99	93	1100
	5/31/2018	1.5	210	160	0.1	6.74	130	1100
	11/6/2018	2.3	170	150	0.12	7.21	78	990
	5/15/2019	3.2	130	260	0.13	7.14	31	1000
	11/19/2019	4.1	130	200	0.15	7.51	29	860
	4/22/2020	3.2	110	150	0.15	7.16	47	740
	11/19/2020	2.3	140	130	0.2	7.00	28	800
	5/6/2021	2.4	130	120	0.15	7.13	45	770
	8/19/2021	1.3	140	88	0.16	6.95	45	730
	11/4/2021	1.6	130	100	0.16	6.80	45	740
	2/10/2022	1.2	150	87	0.17	7.12	44	820
	5/24/2022	1.8	150	95	0.14	6.78	21	650
	8/23/2022	1.4	140	97	0.18	7.01	30	780
	11/8/2022	1.4	150	100	0.21	6.87	26	790
	2/14/2023	1.0	150	100	0.15	6.92	36	730
	5/9/2023	1.2	140	100	0.15	6.99	120	790
	8/8/2023	NA 1.2	140	90	0.16	6.95	67	800
	11/28/2023	1.2	130	82	0.16	7.02	81	790
	2/6/2024	1.2	140	92	0.14	6.94	66	840
	5/21/2024	1.3	140	83	0.16	6.90	16	800
	8/13/2024	1.2	150	82	0.18	6.93	48	740
	11/12/2024	1.7	100	110	0.17	6.91	37	630
MW-14 up-gradient	11/5/2015	1.4	150	190	0.19	6.78	140	1000
	3/2/2016	0.93	150	110	0.17	7.24	150	870
	5/5/2016	1.2	170	120	0.18	7.17	190	980
	8/26/2016	1.5	200	210	0.12	7.00	190	1300
	12/7/2016	0.95	240	340	0.25	6.81	120	1100
	2/23/2017	0.73	150	99	0.19	6.88	110	730
	5/18/2017	0.81	120	130	0.3	7.62	130	590
	7/6/2017	1.2	190	180	0.13	7.29	190	1300
	Pred. Limit*	1.85	274	389	0.35	7.89-8.31	266	1676
	9/13/2017	2.3	180	190	0.15	7.20	270	1200
	11/30/2017	0.85	170	130	0.19	7.13	90	940
	6/1/2018	0.54	100	57	0.28	6.89	42	410
	11/6/2018	0.98	160	110	0.24	7.36	53	610
	5/15/2019	0.69	110	190	0.23	7.25	35	780
	11/19/2019	0.62	130	68	0.16	7.58	21	630
	4/22/2020	0.43	120	20	0.21	7.16	9.5	500
	11/19/2020	0.71	130	40	0.2	7.09	20	520
	5/6/2021	0.45	130	41	0.19	7.16	28	390
	8/19/2021	0.48	130	32	0.13	6.96	34	450
	11/4/2021	0.66	120	37	0.21	7.15	17	580
	2/10/2022	0.5	150	30	0.16	7.29	58	760
	5/24/2022	0.62	120	33	0.17	7.11	43	570
	8/23/2022	0.58	150	52	0.15	7.03	28	740
	11/8/2022	0.65	150	46	0.2	6.99	29	650
	2/14/2023	0.44	120	23	0.14	6.87	36	480
	5/9/2023	0.42	110	17	0.18	7.07	24	460
	8/8/2023	NA 0.48	110	21	0.14	7.11	23	480
	11/28/2023	0.52	130	25	0.16	7.05	5.9	600
	2/6/2024	0.47	130	23	0.14	6.95	36	560
	5/21/2024	0.49	110	9.9	0.21	6.95	16	430
	8/13/2024	0.50	130	15	0.16	7.06	8.5	510
	11/12/2024	0.54	130	25	0.14	6.96	5.9	550
MW-01 down-gradient	11/2/2015	1.8	64	71	0.46	10.93	310	560
	3/1/2016	V 1.9	58	63	0.26	11.13	270	570
	5/4/2016	2.0	45	60	0.3	11.09	210	490
	8/23/2016	2.8	42	60	0.26	10.49	240	550
	13/5/2016	2.2	55	65	0.34	10.46	180	560
	2/21/2017	2.2	50	61	0.29	11.30	250	540
	5/15/2017	2.1	52	59	0.37	10.69	330	570
	1/5/2018	2.3	44	51	0.34	10.83	320	570
	Pred. Limit	1.83	227**	345**	4.9**	7.78-8.43**	233**	1461**
	9/14/2017	2.4	71	47	0.24	10.45	430	770
	11/27/2017	2.7	84	43	0.11	7.85	330	840
	5/29/2018	2.4	54	58	0.33	8.44	350	610
	11/5/2018	2.8	38	43	0.25	8.70	210	630
	5/14/2019	2.2	56	45	0.18	9.85	250	560
	11/19/2019	2.3	38	39	0.24	10.58	240	530
	4/21/2020	2.8	55	25	0.22	9.48	240	470
	11/17/2020	3.3	120	95	0.14	7.87	250	640
	5/5/2021	< 5.8	66	67	0.22	9.00	180	430
	8/18/2021	2.7	72	60	0.17	8.31	170	430
	11/3/2021	2.8	67	60	0.22	8.56	180	440
	2/18/2022	3.3	62	42	0.27	8.67	200	530
	5/23/2022	3.3	94	34	0.2	7.77	180	490
	8/22/2022	2.8	52	43	0.34	8.60	190	430
	11/7/2022	3.0	59	48	0.43	8.45	180	460
	2/13/2023	3.4	46	43	0.34	8.58	170	440
	5/8/2023	2.1	45	54	0.39	8.87	160	370
	8/7/2023	NA 1.8	46	50	0.40	9.08	150	340
	11/27/2023	1.6	54	61	0.31	9.00	140	390
	5/6/2024	2.8	70	70	0.34	8.57	170	550
	5/20/2024	2.3	110	91	0.20	7.57	210	650
	8/12/2024	1.8	63	81	0.28	8.65	170	460
	11/11/2024	2.4	94	82	0.22	7.40	190	550

Notes: All units are in mg/l except pH is in standard units.

Bold - Potential statistically significant increase.

Pred. Limit - Prediction Limit

Index Date - Direction Monitoring and sample after statistical background establishment.

* - Interwell Prediction Limit. All others are interwell comparisons.

NC - Not Calculated.

** - Based on pooled background from MW-11/MW-14. All others based on MW-14 as background.

V - Serial dilution exceeds the current limit.

B - Recampling event

NA - Not analyzed. No confirmation re-sample required.

Table 4. Appendix III Groundwater Analytical Results - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-02 down gradient	11/2/2015	3.0	32	47	0.78	8.27	230	460
	3/1/2016	4.1	39	47	1.3	8.57	220	510
	5/4/2016	3.3	34	51	1.5	8.19	180	440
	8/3/2016	3.1	42	59	1.3	7.52	250	500
	12/2/2016	3.1	28	36	1.0	8.62	160	430
	2/21/2017	3.3	31	52	0.76	8.75	190	420
	5/15/2017	3.6	85	48	0.64	8.33	330	640
	7/5/2017	4.2	100	52	0.42	7.92	300	710
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	9/14/2017	2.5	87	54	0.44	8.12	340	780
	11/27/2017	3.4	69	57	0.62	7.34	200	570
	5/29/2018	4.5	160	43	0.40	8.85	420	990
	11/5/2018	3.1	77	39	0.61	8.06	180	560
	5/14/2019	2.9	47	49	1.0	8.30	140	430
	11/19/2019	4.7	140	43	0.68	7.37	270	900
	4/21/2020	3.4	86	48	0.97	8.02	250	580
	11/17/2020	4.6	79	20	0.82	7.67	310	610
	5/5/2021	4.6	70	37	0.72	8.39	150	420
	8/18/2021	4.1	84	39	0.50	7.82	190	480
	11/3/2021	4.2	59	43	0.63	7.78	170	410
	2/18/2022	6.18	71	34	0.59	8.00	200	580
	5/23/2022	3.5	77	30	0.46	8.12	190	510
	8/22/2022	3.3	84	33	0.28	7.59	220	650
	11/7/2022	3.5	120	36	0.29	7.40	270	700
	2/13/2023	3.8	83	45	0.34	7.90	180	560
	5/8/2023	3.1	62	47	0.39	8.00	210	440
	8/7/2023	NA	68	51	0.40	8.17	210	510
	11/28/2023	2.8	61	67	0.36	7.58	150	480
	2/5/2024	3.5	67	78	0.49	8.16	170	530
	5/20/2024	3.1	170	78	0.24	7.02	300	980
	8/12/2024	3.6	91	73	0.47	7.32	240	640
	11/11/2024	3.4	62	73	0.39	7.83	180	490
MW-03 down gradient	11/2/2015	2.3	72	87	0.51	9.26	270	570
	3/1/2016	2.9	61	78	0.33	7.33	230	520
	5/4/2016	2.4	42	74	0.56	7.25	170	470
	8/24/2016	2.0	70	59	0.3	9.13	200	430
	12/5/2016	2.4	57	69	0.41	7.62	120	440
	2/21/2017	2.2	56	65	0.33	7.56	180	460
	5/15/2017	3.9	61	110	0.27	7.90	320	820
	7/5/2017	3.0	60	60	0.28	7.46	200	470
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	9/14/2017	2.1	86	57	0.26	7.53	200	680
	11/28/2017	2.6	69	63	0.56	6.96	120	500
	5/29/2018	2.4	67	61	0.38	6.84	190	480
	11/5/2018	2.4	54	54	0.5	8.99	150	500
	5/14/2019	4.2	86	17	0.59	7.21	270	660
	11/19/2019	4.2	130	15	0.25	7.47	300	740
	4/21/2020	3.8	120	23	0.29	6.87	270	660
	11/17/2020	3.8	120	53	0.29	7.05	240	650
	5/5/2021	3.3	110	43	0.23	7.18	210	550
	8/18/2021	3	159	46	0.17	6.90	250	690
	11/3/2021	3.2	120	40	0.18	7.05	250	600
	2/8/2022	2.6	91	31	0.3	7.16	210	580
	5/23/2022	2.4	79	32	0.23	8.72	170	430
	6/9/2022	NA	NA	NA	NA	NA	NA	NA
	8/22/2022	1.8	80	45	0.2	7.38	180	570
	11/7/2022	2.3	82	50	0.35	7.35	180	520
	2/13/2023	2.4	74	69	0.21	7.13	150	510
	5/8/2023	2.1	53	53	0.32	7.32	340	340
	8/7/2023	NA	45	54	0.48	7.73	130	380
	11/27/2023	2.1	34	51	0.41	8.06	130	370
	2/5/2024	2.7	39	49	0.49	8.97	160	420
	5/20/2024	2.8	29	74	0.54	8.54	F1 170	480
	8/12/2024	2.6	66	85	0.31	7.51	210	610
	11/11/2024	3.0	28	78	0.54	10.24	180	500
MW-04 down gradient	11/3/2015	1.8	66	62	0.51	6.68	240	480
	3/1/2016	2.0	58	51	0.5	7.17	170	450
	5/4/2016	1.6	44	44	0.61	6.92	140	340
	8/24/2016	2.0	46	58	0.56	7.01	120	370
	12/5/2016	3.4	200	60	0.21	7.40	300	1000
	2/22/2017	2.4	150	41	0.17	7.44	290	850
	5/16/2017	2.5	170	29	0.32	7.34	400	970
	7/5/2017	3.6	200	51	0.29	7.09	520	1100
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	9/14/2017	2.5	180	45	0.28	7.04	480	1100
	11/28/2017	3.3	110	32	0.28	7.04	130	560
	5/30/2018	3.0	150	21	0.38	6.57	200	700
	11/6/2018	2.5	150	58	0.37	6.83	240	900
	5/14/2019	3.3	100	58	0.64	7.30	200	730
	11/19/2019	2.8	120	44	0.75	7.27	240	680
	4/21/2020	2.8	100	33	0.9	7.18	290	670
	11/18/2020	3.1	100	18	1.1	7.17	250	690
	5/5/2021	3.1	75	17	0.91	7.46	190	530
	8/18/2021	3.0	92	39	0.8	7.53	200	590
	11/3/2021	2.7	67	59	0.99	7.36	150	550
	2/8/2022	3.1	110	38	0.66	7.61	190	660
	5/23/2022	2.5	81	41	0.61	8.05	150	510
	6/9/2022	NA	NA	NA	NA	NA	NA	NA
	8/22/2022	F1 3.1	180	31	0.55	7.82	160	650
	11/7/2022	2.7	63	33	0.62	7.47	180	450
	2/13/2023	2.8	110	28	0.36	7.58	210	610
	5/9/2023	2.3	100	39	0.38	7.16	250	560
	8/8/2023	NA	58	63	0.40	7.81	150	400
	11/27/2023	2.4	44	58	0.37	7.63	130	360
	2/5/2024	2.7	74	45	0.46	7.33	130	430
	5/21/2024	2.2	64	58	0.40	7.59	130	450
	8/12/2024	3.2	210	35	0.35	6.89	420	1200
	11/11/2024	2.7	50	65	0.41	7.58	170	410
MW-16 down gradient	11/3/2015	4.1	230	87	0.43	6.24	610	1400
	3/2/2016	3.1	360	130	0.35	6.76	990	1700
	5/2/2016	4.9	250	159	0.49	6.99	150	1600
	8/24/2016	3.6	130	53	0.71	7.00	330	830
	12/5/2016	3.8	160	52	0.51	7.03	280	920
	2/24/2017	6.5	200	67	0.2	5.76	570	1100
	5/16/2017	2.6	340	138	0.15	7.57	780	1700
	7/6/2017	9.5	190	70	0.57	7.35	480	1100
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	9/13/2017	2.8	190	55	0.61	7.33	460	970
	11/27/2017	4.2	140	58	0.71	7.16	270	760
	6/1/2018	3	300	130	0.53	6.53	300	1200
	8/22/2018 (R)	NA	NA	NA	NA	NA	NA	1200
	11/6/2018	3.9	300	150	0.39	6.78	550	1900
	12/4/2018 (R)	NA	320	NA	NA	NA	NA	1600
	5/15/2019	2.8	400	65	0.31	6.67	990	2000
	11/19/2019	7.2	410	400	0.46	6.89	680	3100
	12/27/2019 (R)	NS	NS	NS	NS	NS	NS	2800
	4/21/2020	7.7	420	200	0.5	6.79	1100	2400
	11/17/2020	3.2	120	54	0.71	7.22	320	740
	5/6/2021	3.1	120	55	0.68	7.33	300	740
	8/18/2021	3.1	140	55	0.66	7.19	320	790
	11/4/2021	3	120	48	0.68	7.32	290	810
	2/8/2022	2.6	110	41	0.65	7.40	280	780
	5/23/2022	3.6	170	62	0.53	6.97	420	1100
	8/22/2022	2.7	110	42	0.62	7.33	280	780
	11/7/2022	3	120	47	0.8	7.20	290	730
	2/14/2023	2.6	110	49	0.58	7.28	260	750
	5/9/2023	3.0	140	66	0.58	6.98	350	850
	8/8/2023	NA	130	46	0.56	7.30	310	770
	11/28/2023	2.7	130	47	0.52	7.14	350	830
	2/6/2024	3.6	150	59	0.59	7.25	370	940
	5/21/2024	5.0	160	F1 85	0.50	6.95	430	940
	8/13/2024	5.0	330	110	0.40	6.58	870	1900
	11/12/2024	4.1	220	48	0.39	6.76	450	1200

Notes: All units are in mg/l except pH is in standard units.

Pred. Limit - Prediction Limit

Index Date - Detection Monitoring and example after statistical background establishment.

* - Interwell Prediction Limit. All others are interwell comparisons.

NC - Not Calculated.

** - Based on pooled background from MW-11/MW-14. All others based on MW-14 as background.

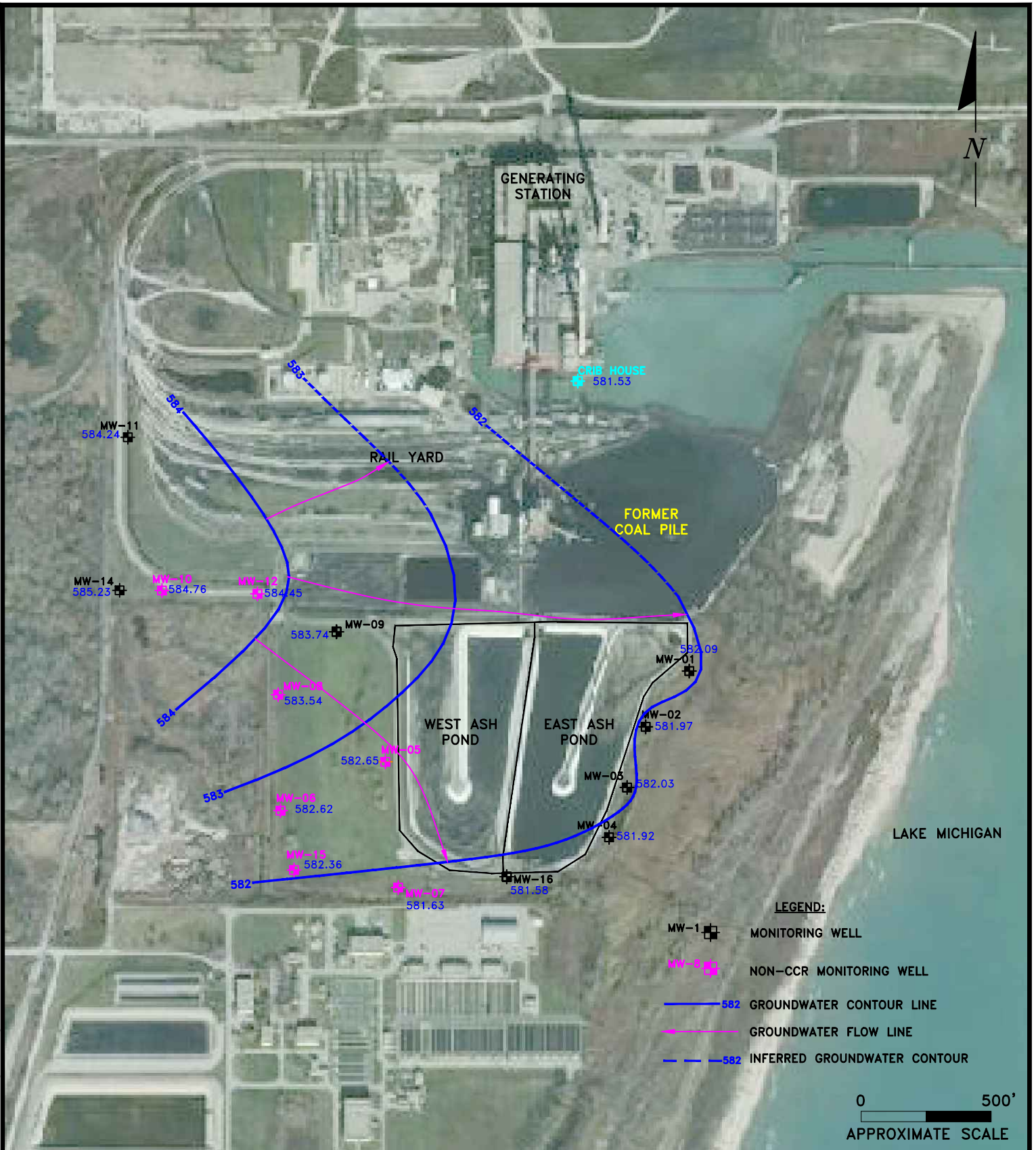
V - Serial dilution exceeds the control limits.

R - Reanalysis event

NA - Not analyzed. No confirmation reanalysis required.

Bold - Potential statistically significant increase.

ATTACHMENT 1
Groundwater Flow Contour Maps



ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G

KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

CCR GROUNDWATER CONTOUR MAP 1Q2024

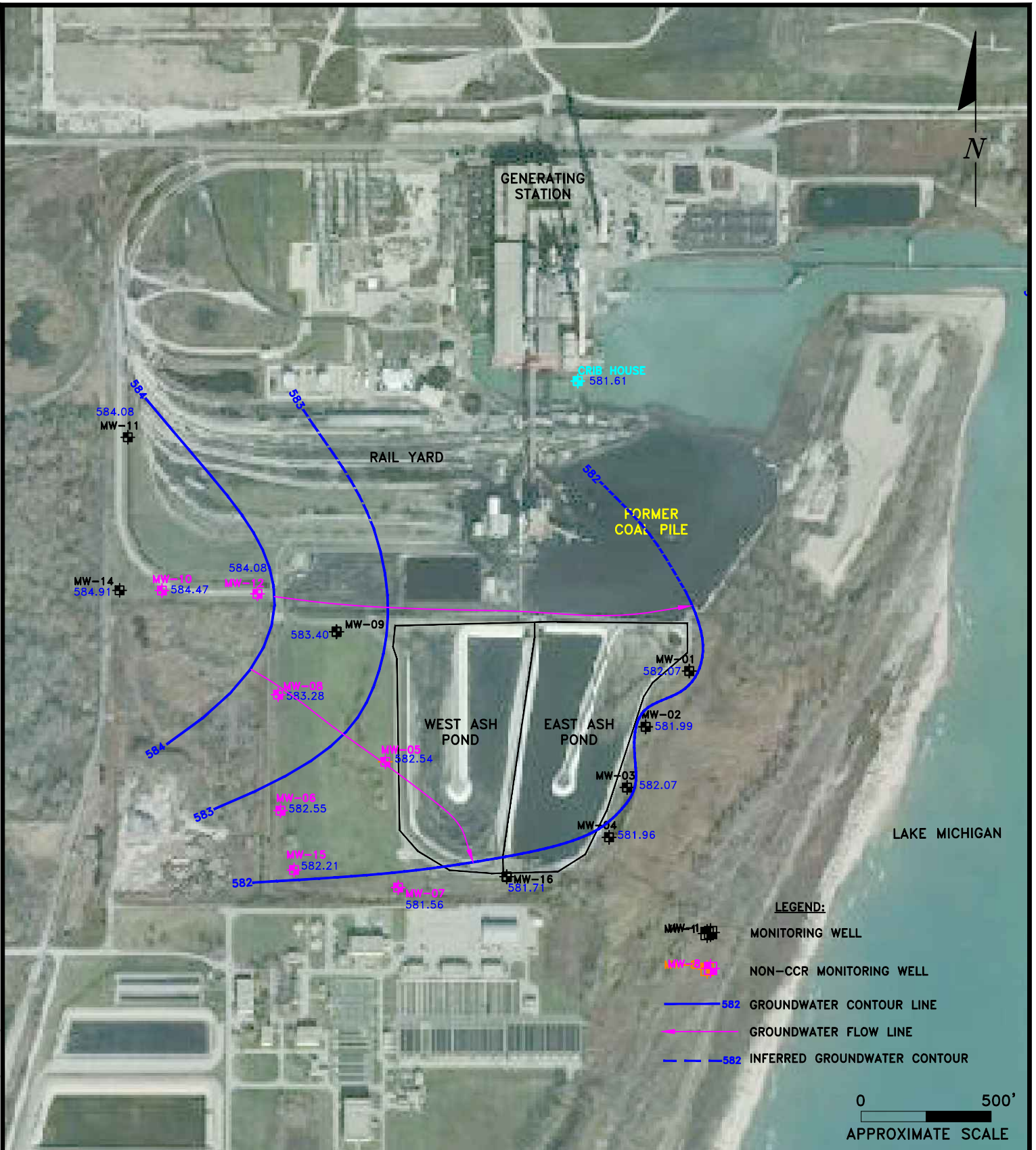
WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 500'

Date: November 8, 2024

KPRG Project No. 12313.2

FIGURE 2



ENVIRONMENTAL CONSULTATION & REMEDIATION

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414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

CCR GROUNDWATER CONTOUR MAP 2Q2024

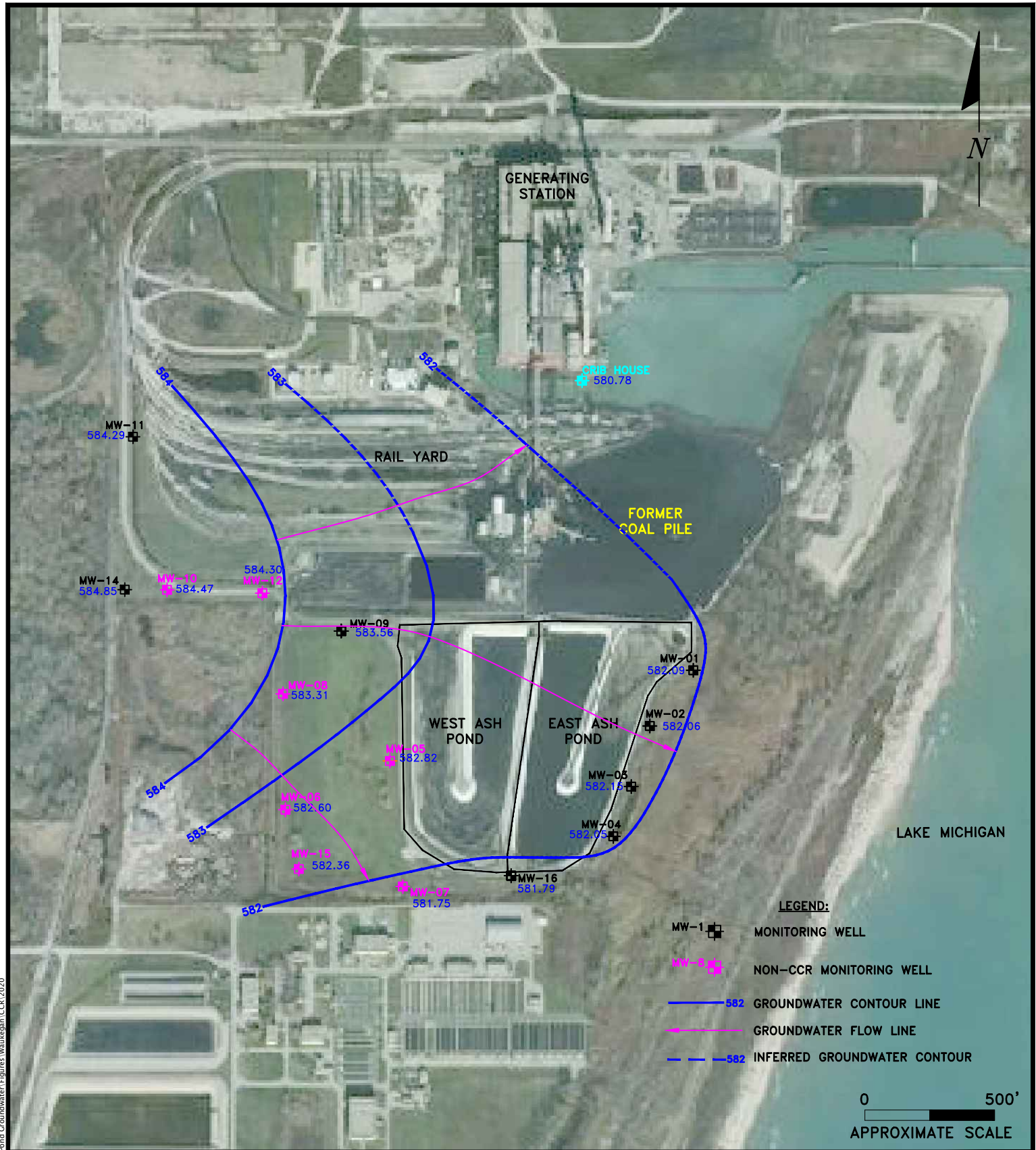
WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 500'

Date: November 8, 2024

KPRG Project No. 12313.2

FIGURE 3



ENVIRONMENTAL CONSULTATION & REMEDIATION

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CCR GROUNDWATER CONTOUR MAP 3Q2024

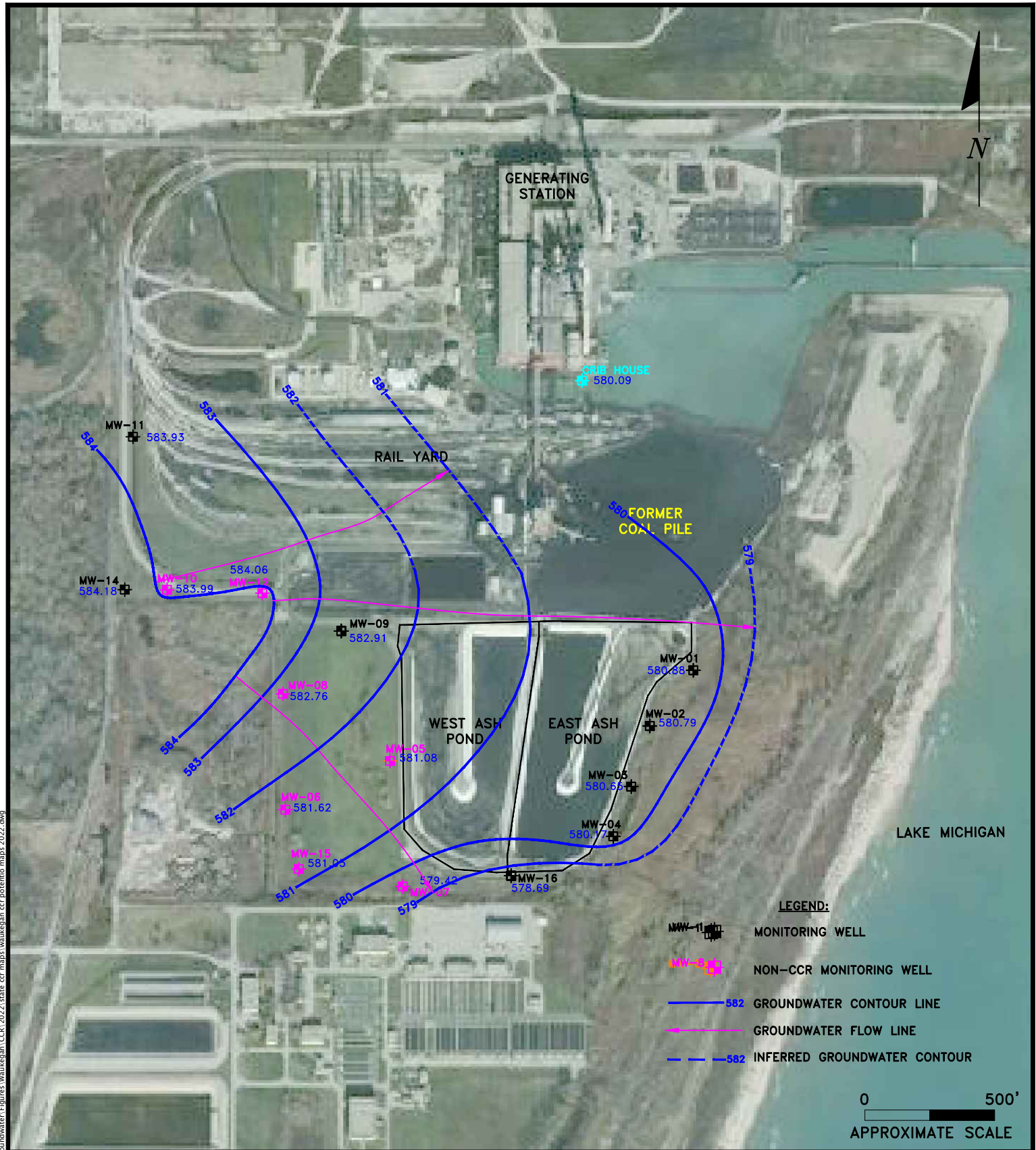
WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 500'

Date: November 25, 2024

KPRG Project No. 12313.2

FIGURE 4



ENVIRONMENTAL CONSULTATION & REMEDIATION

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CCR GROUNDWATER CONTOUR MAP 4Q2024

WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 500'

Date: January 13, 2025

KPRG Project No. 12313.2

FIGURE 5

ATTACHMENT 2
Analytical Data Packages

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
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Brookfield, Wisconsin 53005

Generated 3/5/2024 1:52:18 PM

JOB DESCRIPTION

Waukegan CCR

JOB NUMBER

500-245725-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization



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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR

Job ID: 500-245725-1

Job ID: 500-245725-1

Eurofins Chicago

Job Narrative 500-245725-1

Receipt

The samples were received on 2/6/2024 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.0° C and 2.0° C.

Metals

Methods 200.8, 6020B: The continuing calibration verification (CCV) associated with batch 753405 recovered above the upper control limit for Be. The samples associated with this CCV were below the reporting limit for the affected analyte; therefore, the data have been reported.

Method 6020B: The initial low level calibration verification (ICVL) result for batch 753405 was above the upper control limit. The affected analytes are: Sb. Sample results were below the reporting limit, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Methods 9038, SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-754863 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-245725-1	MW-01	Water	02/05/24 11:33	02/06/24 09:05
500-245725-2	MW-02	Water	02/05/24 15:17	02/06/24 09:05
500-245725-3	MW-03	Water	02/05/24 14:09	02/06/24 09:05
500-245725-4	MW-04	Water	02/05/24 12:42	02/06/24 09:05
500-245725-5	Duplicate	Water	02/05/24 00:00	02/06/24 09:05
500-245725-6	MW-09	Water	02/06/24 13:19	02/07/24 09:55
500-245725-7	MW-11	Water	02/06/24 10:53	02/07/24 09:55
500-245725-8	MW-14	Water	02/06/24 12:12	02/07/24 09:55
500-245725-9	MW-16	Water	02/06/24 14:51	02/07/24 09:55

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-01

Lab Sample ID: 500-245725-1

Date Collected: 02/05/24 11:33

Matrix: Water

Date Received: 02/06/24 09:05

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/06/24 16:00	02/08/24 18:25	1
Arsenic	0.022		0.0010		mg/L		02/06/24 16:00	02/08/24 18:25	1
Barium	0.033		0.0025		mg/L		02/06/24 16:00	02/08/24 18:25	1
Beryllium	<0.0010	^+	0.0010		mg/L		02/06/24 16:00	02/08/24 18:25	1
Boron	2.3		0.50		mg/L		02/06/24 16:00	02/14/24 13:02	10
Cadmium	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:25	1
Calcium	58		0.20		mg/L		02/06/24 16:00	02/08/24 18:25	1
Chromium	<0.0050		0.0050		mg/L		02/06/24 16:00	02/08/24 18:25	1
Cobalt	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 18:25	1
Lead	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:25	1
Lithium	<0.10		0.10		mg/L		02/06/24 16:00	02/14/24 13:02	10
Molybdenum	0.018		0.0050		mg/L		02/06/24 16:00	02/08/24 18:25	1
Selenium	<0.0025		0.0025		mg/L		02/06/24 16:00	02/08/24 18:25	1
Thallium	<0.0020		0.0020		mg/L		02/06/24 16:00	02/08/24 18:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	550		10		mg/L			02/06/24 21:08	1
Chloride (SM 4500 Cl- E)	70		4.0		mg/L			02/07/24 13:29	2
Fluoride (SM 4500 F C)	0.34		0.10		mg/L			03/04/24 15:12	1
Sulfate (SM 4500 SO4 E)	170		25		mg/L			02/20/24 10:53	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-02

Lab Sample ID: 500-245725-2

Date Collected: 02/05/24 15:17

Matrix: Water

Date Received: 02/06/24 09:05

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/06/24 16:00	02/08/24 18:28	1
Arsenic	0.0086		0.0010		mg/L		02/06/24 16:00	02/08/24 18:28	1
Barium	0.024		0.0025		mg/L		02/06/24 16:00	02/08/24 18:28	1
Beryllium	<0.0010	^+	0.0010		mg/L		02/06/24 16:00	02/08/24 18:28	1
Boron	3.5		0.50		mg/L		02/06/24 16:00	02/14/24 13:06	10
Cadmium	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:28	1
Calcium	67		0.20		mg/L		02/06/24 16:00	02/08/24 18:28	1
Chromium	<0.0050		0.0050		mg/L		02/06/24 16:00	02/08/24 18:28	1
Cobalt	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 18:28	1
Lead	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:28	1
Lithium	<0.10		0.10		mg/L		02/06/24 16:00	02/14/24 13:06	10
Molybdenum	0.019		0.0050		mg/L		02/06/24 16:00	02/08/24 18:28	1
Selenium	0.0040		0.0025		mg/L		02/06/24 16:00	02/08/24 18:28	1
Thallium	<0.0020		0.0020		mg/L		02/06/24 16:00	02/08/24 18:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0014		0.00020		mg/L		02/21/24 10:00	02/22/24 07:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	530		10		mg/L			02/06/24 21:10	1
Chloride (SM 4500 Cl- E)	78		4.0		mg/L			02/07/24 13:29	2
Fluoride (SM 4500 F C)	0.49		0.10		mg/L			03/04/24 15:27	1
Sulfate (SM 4500 SO4 E)	170		25		mg/L			02/20/24 10:52	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-03

Lab Sample ID: 500-245725-3

Date Collected: 02/05/24 14:09

Matrix: Water

Date Received: 02/06/24 09:05

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/06/24 16:00	02/08/24 18:32	1
Arsenic	0.023		0.0010		mg/L		02/06/24 16:00	02/08/24 18:32	1
Barium	0.010		0.0025		mg/L		02/06/24 16:00	02/08/24 18:32	1
Beryllium	<0.0010	^+	0.0010		mg/L		02/06/24 16:00	02/08/24 18:32	1
Boron	2.7		0.50		mg/L		02/06/24 16:00	02/14/24 13:09	10
Cadmium	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:32	1
Calcium	39		0.20		mg/L		02/06/24 16:00	02/08/24 18:32	1
Chromium	<0.0050		0.0050		mg/L		02/06/24 16:00	02/08/24 18:32	1
Cobalt	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 18:32	1
Lead	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:32	1
Lithium	<0.10		0.10		mg/L		02/06/24 16:00	02/14/24 13:09	10
Molybdenum	0.029		0.0050		mg/L		02/06/24 16:00	02/08/24 18:32	1
Selenium	0.0051		0.0025		mg/L		02/06/24 16:00	02/08/24 18:32	1
Thallium	<0.0020		0.0020		mg/L		02/06/24 16:00	02/08/24 18:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	420		10		mg/L			02/06/24 21:13	1
Chloride (SM 4500 Cl- E)	49		4.0		mg/L			02/07/24 13:29	2
Fluoride (SM 4500 F C)	0.49		0.10		mg/L			03/04/24 15:32	1
Sulfate (SM 4500 SO4 E)	160		25		mg/L			02/20/24 11:09	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-04

Lab Sample ID: 500-245725-4

Date Collected: 02/05/24 12:42

Matrix: Water

Date Received: 02/06/24 09:05

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/06/24 16:00	02/08/24 18:35	1
Arsenic	0.0078		0.0010		mg/L		02/06/24 16:00	02/08/24 18:35	1
Barium	0.034		0.0025		mg/L		02/06/24 16:00	02/08/24 18:35	1
Beryllium	<0.0010	^+	0.0010		mg/L		02/06/24 16:00	02/08/24 18:35	1
Boron	2.7		0.50		mg/L		02/06/24 16:00	02/14/24 13:13	10
Cadmium	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:35	1
Calcium	74		0.20		mg/L		02/06/24 16:00	02/08/24 18:35	1
Chromium	<0.0050		0.0050		mg/L		02/06/24 16:00	02/08/24 18:35	1
Cobalt	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 18:35	1
Lead	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:35	1
Lithium	<0.10		0.10		mg/L		02/06/24 16:00	02/14/24 13:13	10
Molybdenum	0.037		0.0050		mg/L		02/06/24 16:00	02/08/24 18:35	1
Selenium	0.0081		0.0025		mg/L		02/06/24 16:00	02/08/24 18:35	1
Thallium	<0.0020		0.0020		mg/L		02/06/24 16:00	02/08/24 18:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	430		10		mg/L			02/06/24 21:16	1
Chloride (SM 4500 Cl- E)	45		2.0		mg/L			02/07/24 13:05	1
Fluoride (SM 4500 F C)	0.46		0.10		mg/L			03/04/24 15:38	1
Sulfate (SM 4500 SO4 E)	130		25		mg/L			02/20/24 11:09	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: Duplicate

Lab Sample ID: 500-245725-5

Date Collected: 02/05/24 00:00

Matrix: Water

Date Received: 02/06/24 09:05

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/06/24 16:00	02/08/24 18:39	1
Arsenic	0.0077		0.0010		mg/L		02/06/24 16:00	02/08/24 18:39	1
Barium	0.035		0.0025		mg/L		02/06/24 16:00	02/08/24 18:39	1
Beryllium	<0.0010	^+	0.0010		mg/L		02/06/24 16:00	02/08/24 18:39	1
Boron	2.7		0.50		mg/L		02/06/24 16:00	02/14/24 13:17	10
Cadmium	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:39	1
Calcium	77		0.20		mg/L		02/06/24 16:00	02/08/24 18:39	1
Chromium	<0.0050		0.0050		mg/L		02/06/24 16:00	02/08/24 18:39	1
Cobalt	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 18:39	1
Lead	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 18:39	1
Lithium	<0.10		0.10		mg/L		02/06/24 16:00	02/14/24 13:17	10
Molybdenum	0.037		0.0050		mg/L		02/06/24 16:00	02/08/24 18:39	1
Selenium	0.0083		0.0025		mg/L		02/06/24 16:00	02/08/24 18:39	1
Thallium	<0.0020		0.0020		mg/L		02/06/24 16:00	02/08/24 18:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	430		10		mg/L			02/06/24 21:18	1
Chloride (SM 4500 Cl- E)	44		2.0		mg/L			02/07/24 13:05	1
Fluoride (SM 4500 F C)	0.45		0.10		mg/L			03/04/24 15:43	1
Sulfate (SM 4500 SO4 E)	130		25		mg/L			02/20/24 11:08	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-09

Lab Sample ID: 500-245725-6

Date Collected: 02/06/24 13:19

Matrix: Water

Date Received: 02/07/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/07/24 15:54	02/08/24 15:46	1
Arsenic	0.0035		0.0010		mg/L		02/07/24 15:54	02/08/24 15:46	1
Barium	0.12		0.0025		mg/L		02/07/24 15:54	02/08/24 15:46	1
Beryllium	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:46	1
Boron	24		1.0		mg/L		02/07/24 15:54	02/13/24 17:09	20
Cadmium	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:46	1
Calcium	240		0.20		mg/L		02/07/24 15:54	02/08/24 15:46	1
Chromium	<0.0050		0.0050		mg/L		02/07/24 15:54	02/08/24 15:46	1
Cobalt	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:46	1
Lead	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:46	1
Lithium	<0.20		0.20		mg/L		02/07/24 15:54	02/13/24 17:09	20
Molybdenum	0.32		0.0050		mg/L		02/07/24 15:54	02/08/24 15:46	1
Selenium	0.0070		0.0025		mg/L		02/07/24 15:54	02/08/24 15:46	1
Thallium	<0.0020		0.0020		mg/L		02/07/24 15:54	02/08/24 15:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1300		10		mg/L			02/07/24 20:17	1
Chloride (SM 4500 Cl- E)	150		10		mg/L			02/11/24 14:41	5
Fluoride (SM 4500 F C)	0.18		0.10		mg/L			03/04/24 15:48	1
Sulfate (SM 4500 SO4 E)	460		50		mg/L			02/20/24 11:10	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-11

Lab Sample ID: 500-245725-7

Date Collected: 02/06/24 10:53

Matrix: Water

Date Received: 02/07/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/07/24 15:54	02/08/24 15:49	1
Arsenic	0.13		0.0010		mg/L		02/07/24 15:54	02/08/24 15:49	1
Barium	0.051		0.0025		mg/L		02/07/24 15:54	02/08/24 15:49	1
Beryllium	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:49	1
Boron	1.2		0.050		mg/L		02/07/24 15:54	02/13/24 17:13	1
Cadmium	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:49	1
Calcium	140		0.20		mg/L		02/07/24 15:54	02/08/24 15:49	1
Chromium	<0.0050		0.0050		mg/L		02/07/24 15:54	02/08/24 15:49	1
Cobalt	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:49	1
Lead	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:49	1
Lithium	0.031		0.010		mg/L		02/07/24 15:54	02/13/24 17:13	1
Molybdenum	<0.0050		0.0050		mg/L		02/07/24 15:54	02/08/24 15:49	1
Selenium	<0.0025		0.0025		mg/L		02/07/24 15:54	02/08/24 15:49	1
Thallium	<0.0020		0.0020		mg/L		02/07/24 15:54	02/08/24 15:49	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	840		10		mg/L			02/07/24 20:19	1
Chloride (SM 4500 Cl- E)	92		10		mg/L			02/11/24 14:41	5
Fluoride (SM 4500 F C)	0.14		0.10		mg/L			03/04/24 16:02	1
Sulfate (SM 4500 SO4 E)	66		10		mg/L			02/20/24 10:54	2

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-14

Lab Sample ID: 500-245725-8

Date Collected: 02/06/24 12:12

Matrix: Water

Date Received: 02/07/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/07/24 15:54	02/08/24 15:53	1
Arsenic	0.42		0.0010		mg/L		02/07/24 15:54	02/08/24 15:53	1
Barium	0.031		0.0025		mg/L		02/07/24 15:54	02/08/24 15:53	1
Beryllium	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:53	1
Boron	0.47		0.050		mg/L		02/07/24 15:54	02/13/24 17:16	1
Cadmium	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:53	1
Calcium	130		0.20		mg/L		02/07/24 15:54	02/08/24 15:53	1
Chromium	0.078		0.0050		mg/L		02/07/24 15:54	02/08/24 15:53	1
Cobalt	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:53	1
Lead	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:53	1
Lithium	0.012		0.010		mg/L		02/07/24 15:54	02/13/24 17:16	1
Molybdenum	<0.0050		0.0050		mg/L		02/07/24 15:54	02/08/24 15:53	1
Selenium	<0.0025		0.0025		mg/L		02/07/24 15:54	02/08/24 15:53	1
Thallium	<0.0020		0.0020		mg/L		02/07/24 15:54	02/08/24 15:53	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	560		10		mg/L			02/07/24 20:22	1
Chloride (SM 4500 Cl- E)	23		2.0		mg/L			02/11/24 14:23	1
Fluoride (SM 4500 F C)	0.14		0.10		mg/L			03/04/24 16:07	1
Sulfate (SM 4500 SO4 E)	36		5.0		mg/L			02/20/24 10:30	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-16

Lab Sample ID: 500-245725-9

Date Collected: 02/06/24 14:51

Matrix: Water

Date Received: 02/07/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/07/24 15:54	02/08/24 15:56	1
Arsenic	0.0012		0.0010		mg/L		02/07/24 15:54	02/08/24 15:56	1
Barium	0.039		0.0025		mg/L		02/07/24 15:54	02/08/24 15:56	1
Beryllium	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:56	1
Boron	3.6		0.50		mg/L		02/07/24 15:54	02/13/24 17:20	10
Cadmium	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:56	1
Calcium	150		0.20		mg/L		02/07/24 15:54	02/08/24 15:56	1
Chromium	<0.0050		0.0050		mg/L		02/07/24 15:54	02/08/24 15:56	1
Cobalt	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 15:56	1
Lead	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 15:56	1
Lithium	<0.10		0.10		mg/L		02/07/24 15:54	02/13/24 17:20	10
Molybdenum	0.023		0.0050		mg/L		02/07/24 15:54	02/08/24 15:56	1
Selenium	<0.0025		0.0025		mg/L		02/07/24 15:54	02/08/24 15:56	1
Thallium	<0.0020		0.0020		mg/L		02/07/24 15:54	02/08/24 15:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	840		10		mg/L			02/07/24 20:25	1
Chloride (SM 4500 Cl- E)	50		4.0		mg/L			02/11/24 14:42	2
Fluoride (SM 4500 F C)	0.59		0.10		mg/L			03/04/24 16:12	1
Sulfate (SM 4500 SO4 E)	370		50		mg/L			02/20/24 11:09	10

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Metals

Prep Batch: 752901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total Recoverable	Water	3005A	
500-245725-2	MW-02	Total Recoverable	Water	3005A	
500-245725-3	MW-03	Total Recoverable	Water	3005A	
500-245725-4	MW-04	Total Recoverable	Water	3005A	
500-245725-5	Duplicate	Total Recoverable	Water	3005A	
MB 500-752901/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-752901/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 500-752901/2-A ^2	Lab Control Sample	Total Recoverable	Water	3005A	
500-245725-5 MS	Duplicate	Total Recoverable	Water	3005A	
500-245725-5 DU	Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 753103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-6	MW-09	Total Recoverable	Water	3005A	
500-245725-7	MW-11	Total Recoverable	Water	3005A	
500-245725-8	MW-14	Total Recoverable	Water	3005A	
500-245725-9	MW-16	Total Recoverable	Water	3005A	
MB 500-753103/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-753103/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 753405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total Recoverable	Water	6020B	752901
500-245725-2	MW-02	Total Recoverable	Water	6020B	752901
500-245725-3	MW-03	Total Recoverable	Water	6020B	752901
500-245725-4	MW-04	Total Recoverable	Water	6020B	752901
500-245725-5	Duplicate	Total Recoverable	Water	6020B	752901
500-245725-6	MW-09	Total Recoverable	Water	6020B	753103
500-245725-7	MW-11	Total Recoverable	Water	6020B	753103
500-245725-8	MW-14	Total Recoverable	Water	6020B	753103
500-245725-9	MW-16	Total Recoverable	Water	6020B	753103
MB 500-752901/1-A	Method Blank	Total Recoverable	Water	6020B	752901
MB 500-753103/1-A	Method Blank	Total Recoverable	Water	6020B	753103
LCS 500-752901/2-A	Lab Control Sample	Total Recoverable	Water	6020B	752901
LCS 500-753103/2-A	Lab Control Sample	Total Recoverable	Water	6020B	753103
500-245725-5 MS	Duplicate	Total Recoverable	Water	6020B	752901
500-245725-5 DU	Duplicate	Total Recoverable	Water	6020B	752901

Analysis Batch: 753801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-753103/1-A	Method Blank	Total Recoverable	Water	6020B	753103
LCS 500-753103/2-A	Lab Control Sample	Total Recoverable	Water	6020B	753103

Analysis Batch: 753991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-6	MW-09	Total Recoverable	Water	6020B	753103
500-245725-7	MW-11	Total Recoverable	Water	6020B	753103
500-245725-8	MW-14	Total Recoverable	Water	6020B	753103
500-245725-9	MW-16	Total Recoverable	Water	6020B	753103

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Metals

Analysis Batch: 754170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total Recoverable	Water	6020B	752901
500-245725-2	MW-02	Total Recoverable	Water	6020B	752901
500-245725-3	MW-03	Total Recoverable	Water	6020B	752901
500-245725-4	MW-04	Total Recoverable	Water	6020B	752901
500-245725-5	Duplicate	Total Recoverable	Water	6020B	752901
MB 500-752901/1-A	Method Blank	Total Recoverable	Water	6020B	752901
LCS 500-752901/2-A ^2	Lab Control Sample	Total Recoverable	Water	6020B	752901
500-245725-5 MS	Duplicate	Total Recoverable	Water	6020B	752901
500-245725-5 DU	Duplicate	Total Recoverable	Water	6020B	752901

Prep Batch: 755030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	7470A	
500-245725-2	MW-02	Total/NA	Water	7470A	
500-245725-3	MW-03	Total/NA	Water	7470A	
500-245725-4	MW-04	Total/NA	Water	7470A	
500-245725-5	Duplicate	Total/NA	Water	7470A	
500-245725-6	MW-09	Total/NA	Water	7470A	
500-245725-7	MW-11	Total/NA	Water	7470A	
500-245725-8	MW-14	Total/NA	Water	7470A	
500-245725-9	MW-16	Total/NA	Water	7470A	
MB 500-755030/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-755030/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-245725-9 MS	MW-16	Total/NA	Water	7470A	
500-245725-9 MSD	MW-16	Total/NA	Water	7470A	
500-245725-9 DU	MW-16	Total/NA	Water	7470A	

Analysis Batch: 755246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	7470A	755030
500-245725-2	MW-02	Total/NA	Water	7470A	755030
500-245725-3	MW-03	Total/NA	Water	7470A	755030
500-245725-4	MW-04	Total/NA	Water	7470A	755030
500-245725-5	Duplicate	Total/NA	Water	7470A	755030
500-245725-6	MW-09	Total/NA	Water	7470A	755030
500-245725-7	MW-11	Total/NA	Water	7470A	755030
500-245725-8	MW-14	Total/NA	Water	7470A	755030
500-245725-9	MW-16	Total/NA	Water	7470A	755030
MB 500-755030/12-A	Method Blank	Total/NA	Water	7470A	755030
LCS 500-755030/13-A	Lab Control Sample	Total/NA	Water	7470A	755030
500-245725-9 MS	MW-16	Total/NA	Water	7470A	755030
500-245725-9 MSD	MW-16	Total/NA	Water	7470A	755030
500-245725-9 DU	MW-16	Total/NA	Water	7470A	755030

General Chemistry

Analysis Batch: 752924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	SM 2540C	
500-245725-2	MW-02	Total/NA	Water	SM 2540C	
500-245725-3	MW-03	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

General Chemistry (Continued)

Analysis Batch: 752924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-4	MW-04	Total/NA	Water	SM 2540C	
500-245725-5	Duplicate	Total/NA	Water	SM 2540C	
MB 500-752924/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-752924/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 753095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-245725-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-245725-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-245725-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-245725-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-753095/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-753095/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 753140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-6	MW-09	Total/NA	Water	SM 2540C	
500-245725-7	MW-11	Total/NA	Water	SM 2540C	
500-245725-8	MW-14	Total/NA	Water	SM 2540C	
500-245725-9	MW-16	Total/NA	Water	SM 2540C	
MB 500-753140/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-753140/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 753572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-6	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-245725-7	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-245725-8	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-245725-9	MW-16	Total/NA	Water	SM 4500 Cl- E	
MB 500-753572/109	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-753572/110	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 754863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-245725-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-245725-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-245725-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-245725-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-245725-6	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-245725-7	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-245725-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-245725-9	MW-16	Total/NA	Water	SM 4500 SO4 E	
MB 500-754863/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-754863/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-245725-6 MS	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-245725-6 MSD	MW-09	Total/NA	Water	SM 4500 SO4 E	

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

General Chemistry

Analysis Batch: 756829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	SM 4500 F C	
500-245725-2	MW-02	Total/NA	Water	SM 4500 F C	
500-245725-3	MW-03	Total/NA	Water	SM 4500 F C	
500-245725-4	MW-04	Total/NA	Water	SM 4500 F C	
500-245725-5	Duplicate	Total/NA	Water	SM 4500 F C	
500-245725-6	MW-09	Total/NA	Water	SM 4500 F C	
500-245725-7	MW-11	Total/NA	Water	SM 4500 F C	
500-245725-8	MW-14	Total/NA	Water	SM 4500 F C	
500-245725-9	MW-16	Total/NA	Water	SM 4500 F C	
MB 500-756829/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-756829/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-245725-1 MS	MW-01	Total/NA	Water	SM 4500 F C	
500-245725-1 MSD	MW-01	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-752901/1-A

Matrix: Water

Analysis Batch: 753405

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/06/24 16:00	02/08/24 17:54	1
Arsenic	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 17:54	1
Barium	<0.0025		0.0025		mg/L		02/06/24 16:00	02/08/24 17:54	1
Beryllium	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 17:54	1
Cadmium	0.000557		0.00050		mg/L		02/06/24 16:00	02/08/24 17:54	1
Calcium	<0.20		0.20		mg/L		02/06/24 16:00	02/08/24 17:54	1
Chromium	<0.0050		0.0050		mg/L		02/06/24 16:00	02/08/24 17:54	1
Cobalt	<0.0010		0.0010		mg/L		02/06/24 16:00	02/08/24 17:54	1
Lead	<0.00050		0.00050		mg/L		02/06/24 16:00	02/08/24 17:54	1
Molybdenum	<0.0050		0.0050		mg/L		02/06/24 16:00	02/08/24 17:54	1
Selenium	<0.0025		0.0025		mg/L		02/06/24 16:00	02/08/24 17:54	1
Thallium	<0.0020		0.0020		mg/L		02/06/24 16:00	02/08/24 17:54	1

Lab Sample ID: MB 500-752901/1-A

Matrix: Water

Analysis Batch: 754170

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		02/06/24 16:00	02/14/24 12:31	1
Lithium	<0.010		0.010		mg/L		02/06/24 16:00	02/14/24 12:31	1

Lab Sample ID: LCS 500-752901/2-A

Matrix: Water

Analysis Batch: 753405

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.503	^1+	mg/L		101	80 - 120
Arsenic	0.100	0.0982		mg/L		98	80 - 120
Barium	0.500	0.520		mg/L		104	80 - 120
Beryllium	0.0500	0.0542		mg/L		108	80 - 120
Cadmium	0.0500	0.0555		mg/L		111	80 - 120
Calcium	10.0	8.33		mg/L		83	80 - 120
Chromium	0.200	0.180		mg/L		90	80 - 120
Cobalt	0.500	0.438		mg/L		88	80 - 120
Lead	0.100	0.0995		mg/L		99	80 - 120
Molybdenum	1.00	0.934		mg/L		93	80 - 120
Selenium	0.100	0.0957		mg/L		96	80 - 120
Thallium	0.100	0.0963		mg/L		96	80 - 120

Lab Sample ID: LCS 500-752901/2-A ^2

Matrix: Water

Analysis Batch: 754170

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.07		mg/L		107	80 - 120
Lithium	0.100	0.113		mg/L		113	80 - 120

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-245725-5 MS

Matrix: Water

Analysis Batch: 753405

Client Sample ID: Duplicate

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0030	^1+	0.500	0.538	^1+	mg/L		108	75 - 125
Arsenic	0.0077		0.100	0.112		mg/L		104	75 - 125
Barium	0.035		0.500	0.563		mg/L		106	75 - 125
Beryllium	<0.0010	^+	0.0500	0.0575	^+	mg/L		115	75 - 125
Cadmium	<0.00050		0.0500	0.0532		mg/L		106	75 - 125
Calcium	77		10.0	83.6	4	mg/L		71	75 - 125
Chromium	<0.0050		0.200	0.191		mg/L		96	75 - 125
Cobalt	<0.0010		0.500	0.461		mg/L		92	75 - 125
Lead	<0.00050		0.100	0.101		mg/L		101	75 - 125
Molybdenum	0.037		1.00	1.05		mg/L		101	75 - 125
Selenium	0.0083		0.100	0.108		mg/L		100	75 - 125
Thallium	<0.0020		0.100	0.0986		mg/L		99	75 - 125

Lab Sample ID: 500-245725-5 MS

Matrix: Water

Analysis Batch: 754170

Client Sample ID: Duplicate

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	2.7		1.00	3.67		mg/L		93	75 - 125
Lithium	<0.10		0.100	0.118		mg/L		118	75 - 125

Lab Sample ID: 500-245725-5 DU

Matrix: Water

Analysis Batch: 753405

Client Sample ID: Duplicate

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030	^1+	<0.0030	^1+	mg/L		NC	20
Arsenic	0.0077		0.00751		mg/L		3	20
Barium	0.035		0.0352		mg/L		0.1	20
Beryllium	<0.0010	^+	<0.0010	^+	mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	77		75.6		mg/L		1	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.037		0.0355		mg/L		4	20
Selenium	0.0083		0.00786		mg/L		5	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-245725-5 DU

Matrix: Water

Analysis Batch: 754170

Client Sample ID: Duplicate

Prep Type: Total Recoverable

Prep Batch: 752901

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	2.7		2.66		mg/L		3	20
Lithium	<0.10		<0.10		mg/L		NC	20

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-753103/1-A
Matrix: Water
Analysis Batch: 753405

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 753103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030	^1+	0.0030		mg/L		02/07/24 15:54	02/08/24 14:56	1
Arsenic	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 14:56	1
Barium	<0.0025		0.0025		mg/L		02/07/24 15:54	02/08/24 14:56	1
Beryllium	<0.0010	^+	0.0010		mg/L		02/07/24 15:54	02/08/24 14:56	1
Boron	<0.050		0.050		mg/L		02/07/24 15:54	02/08/24 14:56	1
Cadmium	0.00810		0.00050		mg/L		02/07/24 15:54	02/08/24 14:56	1
Calcium	<0.20		0.20		mg/L		02/07/24 15:54	02/08/24 14:56	1
Chromium	<0.0050		0.0050		mg/L		02/07/24 15:54	02/08/24 14:56	1
Cobalt	<0.0010		0.0010		mg/L		02/07/24 15:54	02/08/24 14:56	1
Lead	<0.00050		0.00050		mg/L		02/07/24 15:54	02/08/24 14:56	1
Molybdenum	<0.0050		0.0050		mg/L		02/07/24 15:54	02/08/24 14:56	1
Selenium	<0.0025		0.0025		mg/L		02/07/24 15:54	02/08/24 14:56	1
Thallium	<0.0020		0.0020		mg/L		02/07/24 15:54	02/08/24 14:56	1

Lab Sample ID: MB 500-753103/1-A
Matrix: Water
Analysis Batch: 753801

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 753103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		02/07/24 15:54	02/12/24 16:25	1

Lab Sample ID: LCS 500-753103/2-A
Matrix: Water
Analysis Batch: 753405

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 753103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.478	^1+	mg/L		96	80 - 120
Arsenic	0.100	0.0945		mg/L		95	80 - 120
Barium	2.00	1.90		mg/L		95	80 - 120
Boron	1.00	1.03		mg/L		103	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	10.0	8.30		mg/L		83	80 - 120
Chromium	0.200	0.185		mg/L		92	80 - 120
Cobalt	0.500	0.460		mg/L		92	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Molybdenum	1.00	0.896		mg/L		90	80 - 120
Selenium	0.100	0.0950		mg/L		95	80 - 120
Thallium	0.100	0.0962		mg/L		96	80 - 120

Lab Sample ID: LCS 500-753103/2-A
Matrix: Water
Analysis Batch: 753801

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 753103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.492		mg/L		98	80 - 120

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-755030/12-A
Matrix: Water
Analysis Batch: 755246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 755030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/21/24 10:00	02/22/24 07:21	1

Lab Sample ID: LCS 500-755030/13-A
Matrix: Water
Analysis Batch: 755246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 755030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00199		mg/L		99	80 - 120

Lab Sample ID: 500-245725-9 MS
Matrix: Water
Analysis Batch: 755246

Client Sample ID: MW-16
Prep Type: Total/NA
Prep Batch: 755030

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.00100	0.000981		mg/L		98	75 - 125

Lab Sample ID: 500-245725-9 MSD
Matrix: Water
Analysis Batch: 755246

Client Sample ID: MW-16
Prep Type: Total/NA
Prep Batch: 755030

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000955		mg/L		96	75 - 125	3	20

Lab Sample ID: 500-245725-9 DU
Matrix: Water
Analysis Batch: 755246

Client Sample ID: MW-16
Prep Type: Total/NA
Prep Batch: 755030

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-752924/1
Matrix: Water
Analysis Batch: 752924

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/06/24 20:27	1

Lab Sample ID: LCS 500-752924/2
Matrix: Water
Analysis Batch: 752924

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	242		mg/L		97	80 - 120

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 500-753140/1

Matrix: Water

Analysis Batch: 753140

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/07/24 20:07	1

Lab Sample ID: LCS 500-753140/2

Matrix: Water

Analysis Batch: 753140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	236		mg/L		94	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-753095/16

Matrix: Water

Analysis Batch: 753095

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			02/07/24 13:03	1

Lab Sample ID: LCS 500-753095/17

Matrix: Water

Analysis Batch: 753095

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.7		mg/L		104	85 - 115

Lab Sample ID: MB 500-753572/109

Matrix: Water

Analysis Batch: 753572

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			02/11/24 14:22	1

Lab Sample ID: LCS 500-753572/110

Matrix: Water

Analysis Batch: 753572

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	21.9		mg/L		110	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-756829/3

Matrix: Water

Analysis Batch: 756829

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			03/04/24 15:03	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-756829/4
Matrix: Water
Analysis Batch: 756829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			10.0	10.1		mg/L		101	90 - 119		

Lab Sample ID: 500-245725-1 MS
Matrix: Water
Analysis Batch: 756829

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	0.34		5.00	5.64		mg/L		106	75 - 125		

Lab Sample ID: 500-245725-1 MSD
Matrix: Water
Analysis Batch: 756829

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.34		5.00	5.60		mg/L		105	75 - 125	1	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-754863/16
Matrix: Water
Analysis Batch: 754863

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			02/20/24 10:27	1

Lab Sample ID: LCS 500-754863/17
Matrix: Water
Analysis Batch: 754863

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			20.0	22.2		mg/L		111	88 - 123		

Lab Sample ID: 500-245725-6 MS
Matrix: Water
Analysis Batch: 754863

Client Sample ID: MW-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate	460		20.0	473	4	mg/L		72	75 - 125		

Lab Sample ID: 500-245725-6 MSD
Matrix: Water
Analysis Batch: 754863

Client Sample ID: MW-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	460		20.0	470	4	mg/L		59	75 - 125	1	20

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Page 27 of 36

MIKE 232

[illegible]



500-245725 Waybi

KAELYN SPERLE
KPRG AND ASSOCIATES, INC
14685 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 25.00 LB MAN
CAD: 0.80307/CAFE3755

Part # 1
43434 W W EXP 03/24

43434/7106/23385

TO **SAMPLE RECEIPT
EUROFINS CHICAGO
2417 BOND ST.**

UNIVERSITY PARK IL 60484

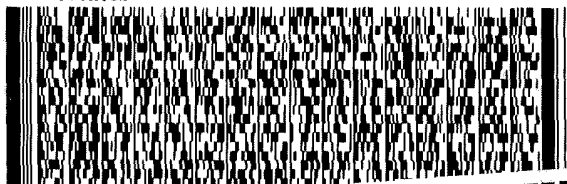
(708) 634-6200

REF:

INV:
PO:

DEPT:

RMA: ||| ||| |||



**FedEx
Express**



10102150620387

FedEx

TRK# 7252 5233 5010
0221

79 JOTA

**TUE - 06 FEB 10:30A
PRIORITY OVERNIGHT**

60484

IL-US ORG 4

10102150620387



#5694418 02/05 2024



500-245725 Waybi

KAELYN SPERLE
KPRG AND ASSOCIATES, INC
14885 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 25.00 LB MAN
CAD: 0780307/CAFE3755

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.

UNIVERSITY PARK IL 60484

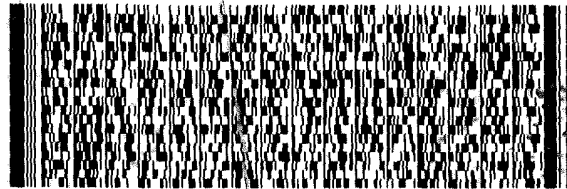
(708) 634-6200

REF:

TRK#

DEPT:

RMA: ||| |||| |||



FedEx
Express



FedEx

TRK#
0221

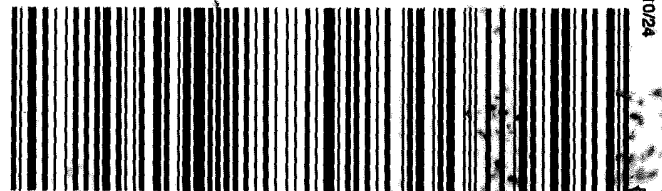
7252 5233 5020

WED - 07 FEB 10:30
PRIORITY OVERNIGHT

79 JOTA

60484

IL-US 001



#5694419 02/06 583J5/EC2B/9AE3

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-245725-1

Login Number: 245725

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0,1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-01

Date Collected: 02/05/24 11:33

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 18:25
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		10	754170	RN	EET CHI	02/14/24 13:02
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:25
Total/NA	Analysis	SM 2540C		1	752924	CLB	EET CHI	02/06/24 21:08
Total/NA	Analysis	SM 4500 CI- E		2	753095	TR	EET CHI	02/07/24 13:29
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 15:12
Total/NA	Analysis	SM 4500 SO4 E		5	754863	TR	EET CHI	02/20/24 10:53

Client Sample ID: MW-02

Date Collected: 02/05/24 15:17

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 18:28
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		10	754170	RN	EET CHI	02/14/24 13:06
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:27
Total/NA	Analysis	SM 2540C		1	752924	CLB	EET CHI	02/06/24 21:10
Total/NA	Analysis	SM 4500 CI- E		2	753095	TR	EET CHI	02/07/24 13:29
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 15:27
Total/NA	Analysis	SM 4500 SO4 E		5	754863	TR	EET CHI	02/20/24 10:52

Client Sample ID: MW-03

Date Collected: 02/05/24 14:09

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 18:32
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		10	754170	RN	EET CHI	02/14/24 13:09
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:29
Total/NA	Analysis	SM 2540C		1	752924	CLB	EET CHI	02/06/24 21:13
Total/NA	Analysis	SM 4500 CI- E		2	753095	TR	EET CHI	02/07/24 13:29
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 15:32
Total/NA	Analysis	SM 4500 SO4 E		5	754863	TR	EET CHI	02/20/24 11:09

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Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-04

Date Collected: 02/05/24 12:42

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 18:35
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		10	754170	RN	EET CHI	02/14/24 13:13
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:31
Total/NA	Analysis	SM 2540C		1	752924	CLB	EET CHI	02/06/24 21:16
Total/NA	Analysis	SM 4500 CI- E		1	753095	TR	EET CHI	02/07/24 13:05
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 15:38
Total/NA	Analysis	SM 4500 SO4 E		5	754863	TR	EET CHI	02/20/24 11:09

Client Sample ID: Duplicate

Date Collected: 02/05/24 00:00

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 18:39
Total Recoverable	Prep	3005A			752901	MC	EET CHI	02/06/24 16:00 - 02/06/24 22:00 ¹
Total Recoverable	Analysis	6020B		10	754170	RN	EET CHI	02/14/24 13:17
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:33
Total/NA	Analysis	SM 2540C		1	752924	CLB	EET CHI	02/06/24 21:18
Total/NA	Analysis	SM 4500 CI- E		1	753095	TR	EET CHI	02/07/24 13:05
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 15:43
Total/NA	Analysis	SM 4500 SO4 E		5	754863	TR	EET CHI	02/20/24 11:08

Client Sample ID: MW-09

Date Collected: 02/06/24 13:19

Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 15:46
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		20	753991	RN	EET CHI	02/13/24 17:09
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:35
Total/NA	Analysis	SM 2540C		1	753140	CLB	EET CHI	02/07/24 20:17
Total/NA	Analysis	SM 4500 CI- E		5	753572	TR	EET CHI	02/11/24 14:41
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 15:48
Total/NA	Analysis	SM 4500 SO4 E		10	754863	TR	EET CHI	02/20/24 11:10

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Client Sample ID: MW-11

Date Collected: 02/06/24 10:53

Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 15:49
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		1	753991	RN	EET CHI	02/13/24 17:13
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:38
Total/NA	Analysis	SM 2540C		1	753140	CLB	EET CHI	02/07/24 20:19
Total/NA	Analysis	SM 4500 CI- E		5	753572	TR	EET CHI	02/11/24 14:41
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 16:02
Total/NA	Analysis	SM 4500 SO4 E		2	754863	TR	EET CHI	02/20/24 10:54

Client Sample ID: MW-14

Date Collected: 02/06/24 12:12

Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 15:53
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		1	753991	RN	EET CHI	02/13/24 17:16
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:44
Total/NA	Analysis	SM 2540C		1	753140	CLB	EET CHI	02/07/24 20:22
Total/NA	Analysis	SM 4500 CI- E		1	753572	TR	EET CHI	02/11/24 14:23
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 16:07
Total/NA	Analysis	SM 4500 SO4 E		1	754863	TR	EET CHI	02/20/24 10:30

Client Sample ID: MW-16

Date Collected: 02/06/24 14:51

Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		1	753405	RN	EET CHI	02/08/24 15:56
Total Recoverable	Prep	3005A			753103	MC	EET CHI	02/07/24 15:54 - 02/07/24 21:54 ¹
Total Recoverable	Analysis	6020B		10	753991	RN	EET CHI	02/13/24 17:20
Total/NA	Prep	7470A			755030	MJG	EET CHI	02/21/24 10:00 - 02/21/24 12:00 ¹
Total/NA	Analysis	7470A		1	755246	MJG	EET CHI	02/22/24 07:46
Total/NA	Analysis	SM 2540C		1	753140	CLB	EET CHI	02/07/24 20:25
Total/NA	Analysis	SM 4500 CI- E		2	753572	TR	EET CHI	02/11/24 14:42
Total/NA	Analysis	SM 4500 F C		1	756829	TR	EET CHI	03/04/24 16:12
Total/NA	Analysis	SM 4500 SO4 E		10	754863	TR	EET CHI	02/20/24 11:09

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

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Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-245725-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

- 1
- 2
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- 5
- 6
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- 9
- 10
- 11
- 12
- 13

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 3/11/2024 1:19:31 PM

JOB DESCRIPTION

Waukegan CCR (RAD)

JOB NUMBER

500-245725-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Authorization



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Authorized for release by
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(219)252-7570

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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR (RAD)

Job ID: 500-245725-2

Job ID: 500-245725-2

Eurofins Chicago

Job Narrative 500-245725-2

Receipt

The samples were received on 2/6/2024 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.0° C and 2.0° C.

RAD

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-245725-1	MW-01	Water	02/05/24 11:33	02/06/24 09:05
500-245725-2	MW-02	Water	02/05/24 15:17	02/06/24 09:05
500-245725-3	MW-03	Water	02/05/24 14:09	02/06/24 09:05
500-245725-4	MW-04	Water	02/05/24 12:42	02/06/24 09:05
500-245725-5	Duplicate	Water	02/05/24 00:00	02/06/24 09:05
500-245725-6	MW-09	Water	02/06/24 13:19	02/07/24 09:55
500-245725-7	MW-11	Water	02/06/24 10:53	02/07/24 09:55
500-245725-8	MW-14	Water	02/06/24 12:12	02/07/24 09:55
500-245725-9	MW-16	Water	02/06/24 14:51	02/07/24 09:55

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-01

Lab Sample ID: 500-245725-1

Date Collected: 02/05/24 11:33

Matrix: Water

Date Received: 02/06/24 09:05

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.126	U	0.0733	0.0734	1.00	0.126	pCi/L	02/09/24 10:00	03/04/24 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110					02/09/24 10:00	03/04/24 15:08	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.635		0.381	0.386	1.00	0.546	pCi/L	02/09/24 10:02	02/27/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110					02/09/24 10:02	02/27/24 12:03	1
Y Carrier	78.1		30 - 110					02/09/24 10:02	02/27/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.684		0.388	0.393	5.00	0.546	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-02

Lab Sample ID: 500-245725-2

Date Collected: 02/05/24 15:17

Matrix: Water

Date Received: 02/06/24 09:05

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.161	U	0.0888	0.0889	1.00	0.161	pCi/L	02/09/24 10:00	03/04/24 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		30 - 110					02/09/24 10:00	03/04/24 15:08	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.945		0.416	0.425	1.00	0.549	pCi/L	02/09/24 10:02	02/27/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		30 - 110					02/09/24 10:02	02/27/24 12:03	1
Y Carrier	80.0		30 - 110					02/09/24 10:02	02/27/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.981		0.425	0.434	5.00	0.549	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-03

Lab Sample ID: 500-245725-3

Date Collected: 02/05/24 14:09

Matrix: Water

Date Received: 02/06/24 09:05

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.113	U	0.0571	0.0571	1.00	0.113	pCi/L	02/09/24 10:00	03/04/24 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		30 - 110					02/09/24 10:00	03/04/24 15:08	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.599	U	0.377	0.378	1.00	0.599	pCi/L	02/09/24 10:02	02/27/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		30 - 110					02/09/24 10:02	02/27/24 12:03	1
Y Carrier	79.3		30 - 110					02/09/24 10:02	02/27/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.599	U	0.381	0.382	5.00	0.599	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-04

Lab Sample ID: 500-245725-4

Date Collected: 02/05/24 12:42

Matrix: Water

Date Received: 02/06/24 09:05

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.103	U	0.0697	0.0701	1.00	0.103	pCi/L	02/09/24 10:00	03/04/24 15:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		30 - 110					02/09/24 10:00	03/04/24 15:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.474	U	0.305	0.306	1.00	0.474	pCi/L	02/09/24 10:02	02/27/24 12:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		30 - 110					02/09/24 10:02	02/27/24 12:03	1
Y Carrier	79.3		30 - 110					02/09/24 10:02	02/27/24 12:03	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.474	U	0.313	0.314	5.00	0.474	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: Duplicate

Lab Sample ID: 500-245725-5

Date Collected: 02/05/24 00:00

Matrix: Water

Date Received: 02/06/24 09:05

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.130	U	0.0826	0.0829	1.00	0.130	pCi/L	02/09/24 10:00	03/04/24 15:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.8		30 - 110					02/09/24 10:00	03/04/24 15:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.499	U	0.320	0.322	1.00	0.499	pCi/L	02/09/24 10:02	02/27/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.8		30 - 110					02/09/24 10:02	02/27/24 12:04	1
Y Carrier	84.9		30 - 110					02/09/24 10:02	02/27/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.499	U	0.330	0.333	5.00	0.499	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-09

Lab Sample ID: 500-245725-6

Date Collected: 02/06/24 13:19

Matrix: Water

Date Received: 02/07/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.355		0.143	0.147	1.00	0.174	pCi/L	02/09/24 10:00	03/04/24 15:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					02/09/24 10:00	03/04/24 15:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.732		0.413	0.418	1.00	0.595	pCi/L	02/09/24 10:02	02/27/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					02/09/24 10:02	02/27/24 12:04	1
Y Carrier	81.5		30 - 110					02/09/24 10:02	02/27/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.09		0.437	0.443	5.00	0.595	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-11

Lab Sample ID: 500-245725-7

Date Collected: 02/06/24 10:53

Matrix: Water

Date Received: 02/07/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.284		0.130	0.132	1.00	0.160	pCi/L	02/09/24 10:00	03/04/24 15:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.0		30 - 110					02/09/24 10:00	03/04/24 15:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.25		0.492	0.505	1.00	0.655	pCi/L	02/09/24 10:02	02/27/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.0		30 - 110					02/09/24 10:02	02/27/24 12:04	1
Y Carrier	80.7		30 - 110					02/09/24 10:02	02/27/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.53		0.509	0.522	5.00	0.655	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-14

Lab Sample ID: 500-245725-8

Date Collected: 02/06/24 12:12

Matrix: Water

Date Received: 02/07/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.181	U	0.117	0.117	1.00	0.181	pCi/L	02/09/24 10:00	03/04/24 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.8		30 - 110					02/09/24 10:00	03/04/24 15:02	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.32		0.627	0.638	1.00	0.868	pCi/L	02/09/24 10:02	02/27/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.8		30 - 110					02/09/24 10:02	02/27/24 12:04	1
Y Carrier	75.9		30 - 110					02/09/24 10:02	02/27/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.44		0.638	0.649	5.00	0.868	pCi/L		03/11/24 12:33	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-16

Lab Sample ID: 500-245725-9

Date Collected: 02/06/24 14:51

Matrix: Water

Date Received: 02/07/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.129	U	0.0862	0.0867	1.00	0.129	pCi/L	02/09/24 10:00	03/04/24 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		30 - 110					02/09/24 10:00	03/04/24 15:02	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.515	U	0.325	0.326	1.00	0.515	pCi/L	02/09/24 10:02	02/27/24 12:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		30 - 110					02/09/24 10:02	02/27/24 12:04	1
Y Carrier	83.0		30 - 110					02/09/24 10:02	02/27/24 12:04	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.515	U	0.336	0.337	5.00	0.515	pCi/L		03/11/24 12:33	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Rad

Prep Batch: 647502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	PrecSep-21	
500-245725-2	MW-02	Total/NA	Water	PrecSep-21	
500-245725-3	MW-03	Total/NA	Water	PrecSep-21	
500-245725-4	MW-04	Total/NA	Water	PrecSep-21	
500-245725-5	Duplicate	Total/NA	Water	PrecSep-21	
500-245725-6	MW-09	Total/NA	Water	PrecSep-21	
500-245725-7	MW-11	Total/NA	Water	PrecSep-21	
500-245725-8	MW-14	Total/NA	Water	PrecSep-21	
500-245725-9	MW-16	Total/NA	Water	PrecSep-21	
MB 160-647502/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-647502/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-245725-3 DU	MW-03	Total/NA	Water	PrecSep-21	

Prep Batch: 647504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-245725-1	MW-01	Total/NA	Water	PrecSep_0	
500-245725-2	MW-02	Total/NA	Water	PrecSep_0	
500-245725-3	MW-03	Total/NA	Water	PrecSep_0	
500-245725-4	MW-04	Total/NA	Water	PrecSep_0	
500-245725-5	Duplicate	Total/NA	Water	PrecSep_0	
500-245725-6	MW-09	Total/NA	Water	PrecSep_0	
500-245725-7	MW-11	Total/NA	Water	PrecSep_0	
500-245725-8	MW-14	Total/NA	Water	PrecSep_0	
500-245725-9	MW-16	Total/NA	Water	PrecSep_0	
MB 160-647504/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-647504/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-245725-3 DU	MW-03	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-647502/1-A

Matrix: Water

Analysis Batch: 650942

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 647502

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.0887	U	0.0467	0.0468	1.00	0.0887	pCi/L	02/09/24 10:00	03/04/24 13:10	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.0		30 - 110					02/09/24 10:00	03/04/24 13:10	1

Lab Sample ID: LCS 160-647502/2-A

Matrix: Water

Analysis Batch: 650947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 647502

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		11.3	10.79		1.13	1.00	0.128	pCi/L	95	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	98.0		30 - 110							

Lab Sample ID: 500-245725-3 DU

Matrix: Water

Analysis Batch: 650944

Client Sample ID: MW-03

Prep Type: Total/NA

Prep Batch: 647502

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	<0.113	U	<0.139	U	0.0805	1.00	0.139	pCi/L	0.29	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	92.5		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-647504/1-A

Matrix: Water

Analysis Batch: 650045

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 647504

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.522	U	0.294	0.294	1.00	0.522	pCi/L	02/09/24 10:02	02/27/24 12:03	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.0		30 - 110					02/09/24 10:02	02/27/24 12:03	1
Y Carrier	83.7		30 - 110					02/09/24 10:02	02/27/24 12:03	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-647504/2-A
Matrix: Water
Analysis Batch: 650045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647504

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.17	9.558		1.27	1.00	0.464	pCi/L	104	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	98.0		30 - 110
Y Carrier	84.1		30 - 110

Lab Sample ID: 500-245725-3 DU
Matrix: Water
Analysis Batch: 650045

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 647504

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	<0.599	U	0.9985		0.406	1.00	0.496	pCi/L	0.75	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.5		30 - 110
Y Carrier	83.4		30 - 110

Eurofins Chicago

2417 Bond Street

University Park, IL 60484

Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

MKE 232

eurofins
Environmental Testing

Client Information		Sampler <u>Kaelyn Sperle</u>		Lab PM Mockler, Diana J		Carrier Tracking No(s)		COC No. 500-120481-44027 1			
Client Contact: <u>Mitchel Delan Kaelyn Sperle</u>		Phone <u>262-278-1621</u>		E-Mail Diana.Mockler@et.eurofinsus.com		State of Origin <u>IL</u>		Page Page 1 of 1			
Company KPRG and Associates, Inc		PWSID		Analysis Requested							
Address 14665 West Lisbon Road, Suite 1A		Due Date Requested <u>Standard</u>		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500_F, C, SM4500, Cl, E, SM4500, SO4, E 180.1 - Turbidity Total Number of Containers							
City Brookfield		TAT Requested (days) <u>Standard</u>									
State Zip: WI, 53005		Compliance Project ☐ Yes ☐ No									
Phone 262-781-0475(Tel)		PO # <u>4502102435</u>									
Email <u>mitcheled@kprginc.com kaelyns@kprginc.com</u>		WO #		Job # <u>500-245725</u>							
Project Name Waukegan CCR Event Desc Quarterly Waukegan CCR		Project # 50011597		Preservation Codes							
Site Illinois		SSOW#		A - HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Z other (specify)							
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Special Instructions/Note:	
						Preservation Code					
MW-01		2/5/24		1133		G		Water		N N X X X	
MW-02		2/5/24		1517		↓		Water		N N ↓ ↓ ↓	
MW-03		2/5/24		1409		↓		Water		N N ↓ ↓ ↓	
MW-04		2/5/24		1242		↓		Water		N N ↓ ↓ ↓	
MW-09								Water			
MW-11								Water			
MW-14								Water			
MW-16								Water			
Duplicate		2/5/24		-		G		Water		N N X X X	
								Water			
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological											
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months											
Deliverable Requested I, II, III, IV, Other (specify)											
Special Instructions/QC Requirements											
Empty Kit Relinquished by				Date		Time		Method of Shipment			
Relinquished by <u>Kaelyn Sperle</u>				Date/Time <u>2/5/24/11045</u>		Company <u>KPRG</u>		Received by <u>FedEx</u>		Date/Time <u>2/5/24/11045</u>	
Relinquished by				Date/Time		Company		Received by <u>Phil Scott</u>		Date/Time <u>2/6/24 0905</u>	
Relinquished by				Date/Time		Company		Received by		Date/Time	
Custody Seals Intact ☐ Yes ☐ No				Custody Seal No				Cooler Temperature(s) °C and Other Remarks <u>25 → 20</u>			

MIKE 232

Client Information		Carrier Tracking No(s)		COC No: 500-120481-44027 1	
Client Contact: <u>Kaelyn Sperle</u>		Lab PM: Mockler, Diana J		Page 1 of 1	
Phone: <u>262-278-1621</u>		E-Mail: Diana.Mockler@et.eurofinsus.com		State of Origin: <u>IL</u>	
Company: KPRG and Associates, Inc.		PWSID:		Job # <u>500-245725</u>	
Address: 14665 West Lisbon Road, Suite 1A		Due Date Requested: <u>Standard</u>		Analysis Requested	
City: Brookfield		TAT Requested (days): <u>Standard</u>		Preservation Codes:	
State, Zip: WI, 53005		Compliance Project: ☐ Yes ☒ No		A - HCL M - Hexane	
Phone: 262-781-0475(Tel)		PO #: <u>4502102435</u>		B - NaOH N - None	
Email: <u>kaelyn.s@kprginc.com</u>		WO #: <u>4502140739</u>		C - Zn Acetate O - AsNaO2	
Project Name: Waukegan CCR Event Desc Quarterly Waukegan CCR		Project #: 50011597		D - Nitric Acid P - Na2O4S	
Site: Illinois		SSOW#		Q - Na2SO3 R - Na2S2O3	
Sample Identification		Sample Date		Sample Time	
Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)	
Perform MS/MSD (Yes or No)		903.0, 904.0		6010C, 6020A, 7470A	
2540C, 4500_F_C, SM4500_CL_E, SM4500_SO4_E		180.1 - Turbidity		Total Number of containers	
Special Instructions/Note:		Preservation Code		Other:	
MW-01		Water		MW-02	
MW-03		Water		MW-04	
MW-09		216/24 1319 G Water		MW-11	
MW-14		216/24 1053 ↓ Water		MW-16	
MW-16		216/24 1212 ↓ Water		Duplicate	
Duplicate		Water		Water	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client	
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		☐ Return To Client ☒ Disposal By Lab ☐ Archive For Months		Special Instructions/QC Requirements	
Deliverable Requested I, II, III, IV, Other (specify)		Empty Kit Relinquished by		Date	
Relinquished by: <u>Kaelyn Sperle</u>		Date/Time: <u>216/24/1715</u>		Company: <u>KPRG</u>	
Relinquished by: <u>Shirley</u>		Date/Time: <u>216/24/1715</u>		Company: <u>FedEx</u>	
Relinquished by: <u>Shirley</u>		Date/Time: <u>216/24/1715</u>		Company: <u>FedEx</u>	
Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>0.5-7.0</u>	



500-245725 Waybi

KAELYN SPERLE
KPRG AND ASSOCIATES, INC
14685 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 25.00 LB MAN
CAD: 0.80307/CAFE3755

Part # 1
43494 W W EXP 01/24

43494/7106/23385

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.

UNIVERSITY PARK IL 60484

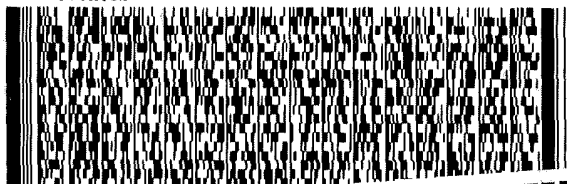
(708) 634-6200

REF:

INV:
PO:

DEPT:

RMA: ||| ||| |||



FedEx
Express



10102150620387

FedEx

TRK# 7252 5233 5010
0221

79 JOTA

TUE - 06 FEB 10:30A
PRIORITY OVERNIGHT

60484

IL-US ORG 4

10102150620387



#5694418 02/05 2024



500-245725 Waybi

KAELYN SPERLE
KPRG AND ASSOCIATES, INC
14885 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 25.00 LB MAN
CAD: 0780307/CAFE3755

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.

UNIVERSITY PARK IL 60484

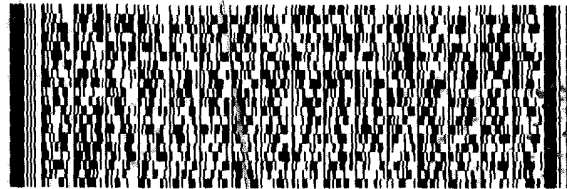
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REF:

TRK#

DEPT:

RMA: ||| |||| |||



FedEx
Express



FedEx

TRK#
0221

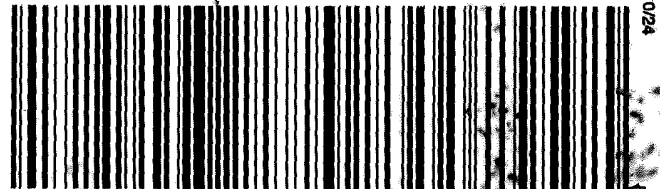
7252 5233 5020

WED - 07 FEB 10:30
PRIORITY OVERNIGHT

79 JOTA

60484

IL-US 081



#5694419 02/06 583J5/EC2B/9AE3



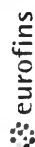
Eurofins Chicago

2417 Bond Street

University Park, IL 60484

Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record



Environment Testing

[illegible]

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-245725-2

Login Number: 245725

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0,1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-245725-2

Login Number: 245725

List Number: 2

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 02/07/24 01:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-245725-2

Login Number: 245725

List Number: 3

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 02/08/24 02:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-01

Date Collected: 02/05/24 11:33

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650944	SCB	EET SL	03/04/24 15:08
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Client Sample ID: MW-02

Date Collected: 02/05/24 15:17

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650944	SCB	EET SL	03/04/24 15:08
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Client Sample ID: MW-03

Date Collected: 02/05/24 14:09

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650944	SCB	EET SL	03/04/24 15:08
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Client Sample ID: MW-04

Date Collected: 02/05/24 12:42

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650944	SCB	EET SL	03/04/24 15:09
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: Duplicate

Date Collected: 02/05/24 00:00

Date Received: 02/06/24 09:05

Lab Sample ID: 500-245725-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650944	SCB	EET SL	03/04/24 15:09
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Client Sample ID: MW-09

Date Collected: 02/06/24 13:19

Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650944	SCB	EET SL	03/04/24 15:09
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Client Sample ID: MW-11

Date Collected: 02/06/24 10:53

Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650944	SCB	EET SL	03/04/24 15:09
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Client Sample ID: MW-14

Date Collected: 02/06/24 12:12

Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650947	SCB	EET SL	03/04/24 15:02
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Client Sample ID: MW-16
Date Collected: 02/06/24 14:51
Date Received: 02/07/24 09:55

Lab Sample ID: 500-245725-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			647502	KAC	EET SL	02/09/24 10:00
Total/NA	Analysis	903.0		1	650947	SCB	EET SL	03/04/24 15:02
Total/NA	Prep	PrecSep_0			647504	KAC	EET SL	02/09/24 10:02
Total/NA	Analysis	904.0		1	650045	CMM	EET SL	02/27/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	651940	CAH	EET SL	03/11/24 12:33

Laboratory References:
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-245725-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba					
		(30-110)					
500-245725-1	MW-01	87.8					
500-245725-2	MW-02	90.3					
500-245725-3	MW-03	91.5					
500-245725-3 DU	MW-03	92.5					
500-245725-4	MW-04	94.5					
500-245725-5	Duplicate	95.8					
500-245725-6	MW-09	88.8					
500-245725-7	MW-11	91.0					
500-245725-8	MW-14	89.8					
500-245725-9	MW-16	91.5					
LCS 160-647502/2-A	Lab Control Sample	98.0					
MB 160-647502/1-A	Method Blank	97.0					

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba	Y				
		(30-110)	(30-110)				
500-245725-1	MW-01	87.8	78.1				
500-245725-2	MW-02	90.3	80.0				
500-245725-3	MW-03	91.5	79.3				
500-245725-3 DU	MW-03	92.5	83.4				
500-245725-4	MW-04	94.5	79.3				
500-245725-5	Duplicate	95.8	84.9				
500-245725-6	MW-09	88.8	81.5				
500-245725-7	MW-11	91.0	80.7				
500-245725-8	MW-14	89.8	75.9				
500-245725-9	MW-16	91.5	83.0				
LCS 160-647504/2-A	Lab Control Sample	98.0	84.1				
MB 160-647504/1-A	Method Blank	97.0	83.7				

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
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Generated 6/10/2024 11:44:28 AM

JOB DESCRIPTION

Waukegan CCR

JOB NUMBER

500-250785-1

Eurofins Chicago

Job Notes

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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR

Job ID: 500-250785-1

Job ID: 500-250785-1

Eurofins Chicago

Job Narrative 500-250785-1

Receipt

The samples were received on 5/21/2024 9:50 AM and 5/22/2024 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.9°C, 2.4°C and 5.9°C.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method SM4500_Cl_E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-769736 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method SM4500_SO4_E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-769954 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Chicago

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-250785-1	MW-01	Water	05/20/24 10:48	05/21/24 09:50
500-250785-2	MW-02	Water	05/20/24 12:14	05/21/24 09:50
500-250785-3	MW-03	Water	05/20/24 13:59	05/21/24 09:50
500-250785-4	Duplicate	Water	05/20/24 00:00	05/21/24 09:50
500-250785-5	MW-04	Water	05/21/24 08:52	05/22/24 09:55
500-250785-6	MW-09	Water	05/21/24 10:14	05/22/24 09:55
500-250785-7	MW-11	Water	05/21/24 13:11	05/22/24 09:55
500-250785-8	MW-14	Water	05/21/24 14:35	05/22/24 09:55
500-250785-9	MW-16	Water	05/21/24 11:54	05/22/24 09:55

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-01

Lab Sample ID: 500-250785-1

Date Collected: 05/20/24 10:48

Matrix: Water

Date Received: 05/21/24 09:50

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:31	1
Arsenic	0.017		0.0010		mg/L		06/04/24 09:00	06/05/24 11:31	1
Barium	0.068		0.0025		mg/L		06/04/24 09:00	06/05/24 11:31	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:31	1
Boron	2.3		0.050		mg/L		06/04/24 09:00	06/05/24 11:31	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:31	1
Calcium	110		0.20		mg/L		06/04/24 09:00	06/05/24 11:31	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:31	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:31	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:31	1
Lithium	<0.010		0.010		mg/L		06/04/24 09:00	06/05/24 11:31	1
Molybdenum	0.017		0.0050		mg/L		06/04/24 09:00	06/05/24 11:31	1
Selenium	<0.0025		0.0025		mg/L		06/04/24 09:00	06/05/24 11:31	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 09:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	650		10		mg/L			05/21/24 23:22	1
Chloride (SM 4500 Cl- E)	91		10		mg/L			05/23/24 16:26	5
Fluoride (SM 4500 F C)	0.20		0.10		mg/L			05/31/24 11:37	1
Sulfate (SM 4500 SO4 E)	210		25		mg/L			05/28/24 17:14	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-02

Lab Sample ID: 500-250785-2

Date Collected: 05/20/24 12:14

Matrix: Water

Date Received: 05/21/24 09:50

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:33	1
Arsenic	0.0087		0.0010		mg/L		06/04/24 09:00	06/05/24 11:33	1
Barium	0.057		0.0025		mg/L		06/04/24 09:00	06/05/24 11:33	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:33	1
Boron	5.1		0.050		mg/L		06/04/24 09:00	06/05/24 11:33	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:33	1
Calcium	170		0.20		mg/L		06/04/24 09:00	06/05/24 11:33	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:33	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:33	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:33	1
Lithium	<0.010		0.010		mg/L		06/04/24 09:00	06/05/24 11:33	1
Molybdenum	0.017		0.0050		mg/L		06/04/24 09:00	06/05/24 11:33	1
Selenium	0.015		0.0025		mg/L		06/04/24 09:00	06/05/24 11:33	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:33	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 09:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	980		10		mg/L			05/21/24 23:24	1
Chloride (SM 4500 Cl- E)	70		4.0		mg/L			05/23/24 16:26	2
Fluoride (SM 4500 F C)	0.24		0.10		mg/L			05/31/24 11:43	1
Sulfate (SM 4500 SO4 E)	360		50		mg/L			05/28/24 17:14	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-03

Lab Sample ID: 500-250785-3

Date Collected: 05/20/24 13:59

Matrix: Water

Date Received: 05/21/24 09:50

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:39	1
Arsenic	0.035		0.0010		mg/L		06/04/24 09:00	06/05/24 11:39	1
Barium	0.0054		0.0025		mg/L		06/04/24 09:00	06/05/24 11:39	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:39	1
Boron	2.9		0.050		mg/L		06/04/24 09:00	06/05/24 11:39	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:39	1
Calcium	29		0.20		mg/L		06/04/24 09:00	06/05/24 11:39	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:39	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:39	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:39	1
Lithium	<0.010		0.010		mg/L		06/04/24 09:00	06/05/24 11:39	1
Molybdenum	0.052		0.0050		mg/L		06/04/24 09:00	06/05/24 11:39	1
Selenium	0.0033		0.0025		mg/L		06/04/24 09:00	06/05/24 11:39	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	490		10		mg/L			05/21/24 23:27	1
Chloride (SM 4500 Cl- E)	74		4.0		mg/L			05/23/24 16:25	2
Fluoride (SM 4500 F C)	0.54		0.10		mg/L			05/31/24 11:48	1
Sulfate (SM 4500 SO4 E)	170	F1	25		mg/L			05/28/24 17:15	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: Duplicate

Lab Sample ID: 500-250785-4

Date Collected: 05/20/24 00:00

Matrix: Water

Date Received: 05/21/24 09:50

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:42	1
Arsenic	0.034		0.0010		mg/L		06/04/24 09:00	06/05/24 11:42	1
Barium	0.0077		0.0025		mg/L		06/04/24 09:00	06/05/24 11:42	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:42	1
Boron	2.9		0.050		mg/L		06/04/24 09:00	06/05/24 11:42	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:42	1
Calcium	38		0.20		mg/L		06/04/24 09:00	06/05/24 11:42	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:42	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:42	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:42	1
Lithium	<0.010		0.010		mg/L		06/04/24 09:00	06/05/24 11:42	1
Molybdenum	0.050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:42	1
Selenium	0.0048		0.0025		mg/L		06/04/24 09:00	06/05/24 11:42	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	490		10		mg/L			05/22/24 00:16	1
Chloride (SM 4500 Cl- E)	75		4.0		mg/L			05/23/24 16:25	2
Fluoride (SM 4500 F C)	0.49		0.10		mg/L			05/31/24 11:54	1
Sulfate (SM 4500 SO4 E)	190		50		mg/L			06/09/24 12:12	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-04

Lab Sample ID: 500-250785-5

Date Collected: 05/21/24 08:52

Matrix: Water

Date Received: 05/22/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:44	1
Arsenic	0.0060		0.0010		mg/L		06/04/24 09:00	06/05/24 11:44	1
Barium	0.028		0.0025		mg/L		06/04/24 09:00	06/05/24 11:44	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:44	1
Boron	2.2		0.050		mg/L		06/04/24 09:00	06/05/24 11:44	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:44	1
Calcium	64		0.20		mg/L		06/04/24 09:00	06/05/24 11:44	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:44	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:44	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:44	1
Lithium	<0.010		0.010		mg/L		06/04/24 09:00	06/05/24 11:44	1
Molybdenum	0.041		0.0050		mg/L		06/04/24 09:00	06/05/24 11:44	1
Selenium	0.0045		0.0025		mg/L		06/04/24 09:00	06/05/24 11:44	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	450		10		mg/L			05/22/24 21:32	1
Chloride (SM 4500 Cl- E)	58		4.0		mg/L			05/23/24 16:25	2
Fluoride (SM 4500 F C)	0.40		0.10		mg/L			05/31/24 11:59	1
Sulfate (SM 4500 SO4 E)	130		25		mg/L			06/09/24 12:13	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-09

Lab Sample ID: 500-250785-6

Date Collected: 05/21/24 10:14

Matrix: Water

Date Received: 05/22/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:57	1
Arsenic	0.027		0.0010		mg/L		06/04/24 09:00	06/05/24 11:57	1
Barium	0.13		0.0025		mg/L		06/04/24 09:00	06/05/24 11:57	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:57	1
Boron	2.3		0.050		mg/L		06/04/24 09:00	06/05/24 11:57	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:57	1
Calcium	120		0.20		mg/L		06/04/24 09:00	06/05/24 11:57	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:57	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:57	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:57	1
Lithium	0.047		0.010		mg/L		06/04/24 09:00	06/05/24 11:57	1
Molybdenum	0.074		0.0050		mg/L		06/04/24 09:00	06/05/24 11:57	1
Selenium	<0.0025		0.0025		mg/L		06/04/24 09:00	06/05/24 11:57	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 10:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	860		10		mg/L			05/22/24 21:35	1
Chloride (SM 4500 Cl- E)	180		10		mg/L			05/23/24 16:24	5
Fluoride (SM 4500 F C)	0.37		0.10		mg/L			05/31/24 12:05	1
Sulfate (SM 4500 SO4 E)	130		25		mg/L			06/09/24 12:14	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-11

Lab Sample ID: 500-250785-7

Date Collected: 05/21/24 13:11

Matrix: Water

Date Received: 05/22/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:59	1
Arsenic	0.10		0.0010		mg/L		06/04/24 09:00	06/05/24 11:59	1
Barium	0.052		0.0025		mg/L		06/04/24 09:00	06/05/24 11:59	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:59	1
Boron	1.3		0.050		mg/L		06/04/24 09:00	06/05/24 11:59	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:59	1
Calcium	140		0.20		mg/L		06/04/24 09:00	06/05/24 11:59	1
Chromium	0.0051		0.0050		mg/L		06/04/24 09:00	06/05/24 11:59	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:59	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:59	1
Lithium	0.030		0.010		mg/L		06/04/24 09:00	06/05/24 11:59	1
Molybdenum	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:59	1
Selenium	<0.0025		0.0025		mg/L		06/04/24 09:00	06/05/24 11:59	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 10:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	800		10		mg/L			05/22/24 21:37	1
Chloride (SM 4500 Cl- E)	93		10		mg/L			05/23/24 16:24	5
Fluoride (SM 4500 F C)	0.16		0.10		mg/L			05/31/24 12:09	1
Sulfate (SM 4500 SO4 E)	67		10		mg/L			06/09/24 12:14	2

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-14

Lab Sample ID: 500-250785-8

Date Collected: 05/21/24 14:35

Matrix: Water

Date Received: 05/22/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 12:01	1
Arsenic	0.67		0.0010		mg/L		06/04/24 09:00	06/05/24 12:01	1
Barium	0.036		0.0025		mg/L		06/04/24 09:00	06/05/24 12:01	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 12:01	1
Boron	0.49		0.050		mg/L		06/04/24 09:00	06/05/24 12:01	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 12:01	1
Calcium	110		0.20		mg/L		06/04/24 09:00	06/05/24 12:01	1
Chromium	0.098		0.0050		mg/L		06/04/24 09:00	06/05/24 12:01	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 12:01	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 12:01	1
Lithium	0.014		0.010		mg/L		06/04/24 09:00	06/05/24 12:01	1
Molybdenum	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 12:01	1
Selenium	<0.0025		0.0025		mg/L		06/04/24 09:00	06/05/24 12:01	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 12:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 10:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	430		10		mg/L			05/22/24 21:40	1
Chloride (SM 4500 Cl- E)	9.9		2.0		mg/L			05/23/24 17:26	1
Fluoride (SM 4500 F C)	0.21		0.10		mg/L			05/31/24 12:14	1
Sulfate (SM 4500 SO4 E)	16		5.0		mg/L			06/09/24 11:53	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-16

Lab Sample ID: 500-250785-9

Date Collected: 05/21/24 11:54

Matrix: Water

Date Received: 05/22/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 12:03	1
Arsenic	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 12:03	1
Barium	0.032		0.0025		mg/L		06/04/24 09:00	06/05/24 12:03	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 12:03	1
Boron	5.0		0.050		mg/L		06/04/24 09:00	06/05/24 12:03	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 12:03	1
Calcium	160		0.20		mg/L		06/04/24 09:00	06/05/24 12:03	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 12:03	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 12:03	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 12:03	1
Lithium	0.019		0.010		mg/L		06/04/24 09:00	06/05/24 12:03	1
Molybdenum	0.020		0.0050		mg/L		06/04/24 09:00	06/05/24 12:03	1
Selenium	0.0057		0.0025		mg/L		06/04/24 09:00	06/05/24 12:03	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 12:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 10:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	940		10		mg/L			05/22/24 21:43	1
Chloride (SM 4500 Cl- E)	65	F1	4.0		mg/L			05/23/24 17:27	2
Fluoride (SM 4500 F C)	0.50		0.10		mg/L			05/31/24 12:28	1
Sulfate (SM 4500 SO4 E)	430		100		mg/L			06/09/24 12:15	20

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Metals

Prep Batch: 770258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	7470A	
500-250785-2	MW-02	Total/NA	Water	7470A	
500-250785-3	MW-03	Total/NA	Water	7470A	
500-250785-4	Duplicate	Total/NA	Water	7470A	
500-250785-5	MW-04	Total/NA	Water	7470A	
500-250785-6	MW-09	Total/NA	Water	7470A	
500-250785-7	MW-11	Total/NA	Water	7470A	
500-250785-8	MW-14	Total/NA	Water	7470A	
500-250785-9	MW-16	Total/NA	Water	7470A	
MB 500-770258/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-770258/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-250785-1 MS	MW-01	Total/NA	Water	7470A	
500-250785-1 MSD	MW-01	Total/NA	Water	7470A	
500-250785-1 DU	MW-01	Total/NA	Water	7470A	

Analysis Batch: 770441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	7470A	770258
500-250785-2	MW-02	Total/NA	Water	7470A	770258
500-250785-3	MW-03	Total/NA	Water	7470A	770258
500-250785-4	Duplicate	Total/NA	Water	7470A	770258
500-250785-5	MW-04	Total/NA	Water	7470A	770258
500-250785-6	MW-09	Total/NA	Water	7470A	770258
500-250785-7	MW-11	Total/NA	Water	7470A	770258
500-250785-8	MW-14	Total/NA	Water	7470A	770258
500-250785-9	MW-16	Total/NA	Water	7470A	770258
MB 500-770258/12-A	Method Blank	Total/NA	Water	7470A	770258
LCS 500-770258/13-A	Lab Control Sample	Total/NA	Water	7470A	770258
500-250785-1 MS	MW-01	Total/NA	Water	7470A	770258
500-250785-1 MSD	MW-01	Total/NA	Water	7470A	770258
500-250785-1 DU	MW-01	Total/NA	Water	7470A	770258

Prep Batch: 770857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total Recoverable	Water	3005A	
500-250785-2	MW-02	Total Recoverable	Water	3005A	
500-250785-3	MW-03	Total Recoverable	Water	3005A	
500-250785-4	Duplicate	Total Recoverable	Water	3005A	
500-250785-5	MW-04	Total Recoverable	Water	3005A	
500-250785-6	MW-09	Total Recoverable	Water	3005A	
500-250785-7	MW-11	Total Recoverable	Water	3005A	
500-250785-8	MW-14	Total Recoverable	Water	3005A	
500-250785-9	MW-16	Total Recoverable	Water	3005A	
MB 500-770857/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-770857/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 771122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total Recoverable	Water	6020B	770857
500-250785-2	MW-02	Total Recoverable	Water	6020B	770857
500-250785-3	MW-03	Total Recoverable	Water	6020B	770857

Eurofins Chicago

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Metals (Continued)

Analysis Batch: 771122 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-4	Duplicate	Total Recoverable	Water	6020B	770857
500-250785-5	MW-04	Total Recoverable	Water	6020B	770857
500-250785-6	MW-09	Total Recoverable	Water	6020B	770857
500-250785-7	MW-11	Total Recoverable	Water	6020B	770857
500-250785-8	MW-14	Total Recoverable	Water	6020B	770857
500-250785-9	MW-16	Total Recoverable	Water	6020B	770857
MB 500-770857/1-A	Method Blank	Total Recoverable	Water	6020B	770857
LCS 500-770857/2-A	Lab Control Sample	Total Recoverable	Water	6020B	770857

General Chemistry

Analysis Batch: 768971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	SM 2540C	
500-250785-2	MW-02	Total/NA	Water	SM 2540C	
500-250785-3	MW-03	Total/NA	Water	SM 2540C	
MB 500-768971/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-768971/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 768974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-4	Duplicate	Total/NA	Water	SM 2540C	
MB 500-768974/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-768974/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-250785-4 MS	Duplicate	Total/NA	Water	SM 2540C	
500-250785-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 769175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-5	MW-04	Total/NA	Water	SM 2540C	
500-250785-6	MW-09	Total/NA	Water	SM 2540C	
500-250785-7	MW-11	Total/NA	Water	SM 2540C	
500-250785-8	MW-14	Total/NA	Water	SM 2540C	
500-250785-9	MW-16	Total/NA	Water	SM 2540C	
MB 500-769175/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-769175/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 769736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	SM 4500 CI- E	
500-250785-2	MW-02	Total/NA	Water	SM 4500 CI- E	
500-250785-3	MW-03	Total/NA	Water	SM 4500 CI- E	
500-250785-4	Duplicate	Total/NA	Water	SM 4500 CI- E	
500-250785-5	MW-04	Total/NA	Water	SM 4500 CI- E	
500-250785-6	MW-09	Total/NA	Water	SM 4500 CI- E	
500-250785-7	MW-11	Total/NA	Water	SM 4500 CI- E	
500-250785-8	MW-14	Total/NA	Water	SM 4500 CI- E	
500-250785-9	MW-16	Total/NA	Water	SM 4500 CI- E	
MB 500-769736/112	Method Blank	Total/NA	Water	SM 4500 CI- E	
MB 500-769736/78	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 500-769736/113	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

General Chemistry (Continued)

Analysis Batch: 769736 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-769736/79	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-250785-9 MS	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-250785-9 MSD	MW-16	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 769954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-250785-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-250785-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
MB 500-769954/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-769954/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-250785-3 MS	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-250785-3 MSD	MW-03	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 770479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	SM 4500 F C	
500-250785-2	MW-02	Total/NA	Water	SM 4500 F C	
500-250785-3	MW-03	Total/NA	Water	SM 4500 F C	
500-250785-4	Duplicate	Total/NA	Water	SM 4500 F C	
500-250785-5	MW-04	Total/NA	Water	SM 4500 F C	
500-250785-6	MW-09	Total/NA	Water	SM 4500 F C	
500-250785-7	MW-11	Total/NA	Water	SM 4500 F C	
500-250785-8	MW-14	Total/NA	Water	SM 4500 F C	
500-250785-9	MW-16	Total/NA	Water	SM 4500 F C	
MB 500-770479/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-770479/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 771679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-4	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-250785-5	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-250785-6	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-250785-7	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-250785-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-250785-9	MW-16	Total/NA	Water	SM 4500 SO4 E	
MB 500-771679/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-771679/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-770857/1-A

Matrix: Water

Analysis Batch: 771122

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 770857

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/04/24 09:00	06/05/24 11:55	1
Arsenic	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:55	1
Barium	<0.0025		0.0025		mg/L		06/04/24 09:00	06/05/24 11:55	1
Beryllium	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:55	1
Boron	<0.050		0.050		mg/L		06/04/24 09:00	06/05/24 11:55	1
Cadmium	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:55	1
Calcium	<0.20		0.20		mg/L		06/04/24 09:00	06/05/24 11:55	1
Chromium	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:55	1
Cobalt	<0.0010		0.0010		mg/L		06/04/24 09:00	06/05/24 11:55	1
Lead	<0.00050		0.00050		mg/L		06/04/24 09:00	06/05/24 11:55	1
Lithium	<0.010		0.010		mg/L		06/04/24 09:00	06/05/24 11:55	1
Molybdenum	<0.0050		0.0050		mg/L		06/04/24 09:00	06/05/24 11:55	1
Selenium	<0.0025		0.0025		mg/L		06/04/24 09:00	06/05/24 11:55	1
Thallium	<0.0020		0.0020		mg/L		06/04/24 09:00	06/05/24 11:55	1

Lab Sample ID: LCS 500-770857/2-A

Matrix: Water

Analysis Batch: 771122

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 770857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.496		mg/L		99	80 - 120
Arsenic	0.100	0.0976		mg/L		98	80 - 120
Barium	2.00	2.10		mg/L		105	80 - 120
Beryllium	0.0500	0.0515		mg/L		103	80 - 120
Boron	1.00	1.06		mg/L		106	80 - 120
Cadmium	0.0500	0.0506		mg/L		101	80 - 120
Calcium	10.0	9.11		mg/L		91	80 - 120
Chromium	0.200	0.208		mg/L		104	80 - 120
Cobalt	0.500	0.533		mg/L		107	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Lithium	0.500	0.518		mg/L		104	80 - 120
Molybdenum	1.00	0.967		mg/L		97	80 - 120
Selenium	0.100	0.0990		mg/L		99	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-770258/12-A

Matrix: Water

Analysis Batch: 770441

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 770258

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/30/24 15:15	05/31/24 08:56	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 500-770258/13-A
Matrix: Water
Analysis Batch: 770441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 770258

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00196		mg/L		98	80 - 120

Lab Sample ID: 500-250785-1 MS
Matrix: Water
Analysis Batch: 770441

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 770258

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.00100	0.00104		mg/L		104	75 - 125

Lab Sample ID: 500-250785-1 MSD
Matrix: Water
Analysis Batch: 770441

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 770258

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	<0.00020		0.00100	0.00102		mg/L		102	75 - 125	2	20

Lab Sample ID: 500-250785-1 DU
Matrix: Water
Analysis Batch: 770441

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 770258

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-768971/1
Matrix: Water
Analysis Batch: 768971

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/21/24 22:28	1

Lab Sample ID: LCS 500-768971/2
Matrix: Water
Analysis Batch: 768971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	268		mg/L		107	80 - 120

Lab Sample ID: MB 500-768974/1
Matrix: Water
Analysis Batch: 768974

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/22/24 00:11	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-768974/2

Matrix: Water

Analysis Batch: 768974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	260		mg/L		104	80 - 120

Lab Sample ID: 500-250785-4 MS

Matrix: Water

Analysis Batch: 768974

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	490		250	802		mg/L		123	75 - 125

Lab Sample ID: 500-250785-4 DU

Matrix: Water

Analysis Batch: 768974

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	490		498		mg/L		0.8	5

Lab Sample ID: MB 500-769175/1

Matrix: Water

Analysis Batch: 769175

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/22/24 20:54	1

Lab Sample ID: LCS 500-769175/2

Matrix: Water

Analysis Batch: 769175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	274		mg/L		110	80 - 120

Method: SM 4500 CI- E - Chloride, Total

Lab Sample ID: MB 500-769736/112

Matrix: Water

Analysis Batch: 769736

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/23/24 17:22	1

Lab Sample ID: MB 500-769736/78

Matrix: Water

Analysis Batch: 769736

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/23/24 16:23	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-769736/113
Matrix: Water
Analysis Batch: 769736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	21.2		mg/L		106	85 - 115

Lab Sample ID: LCS 500-769736/79
Matrix: Water
Analysis Batch: 769736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.6		mg/L		103	85 - 115

Lab Sample ID: 500-250785-9 MS
Matrix: Water
Analysis Batch: 769736

Client Sample ID: MW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	65	F1	20.0	79.1	F1	mg/L		71	75 - 125

Lab Sample ID: 500-250785-9 MSD
Matrix: Water
Analysis Batch: 769736

Client Sample ID: MW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	65	F1	20.0	80.2		mg/L		77	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-770479/3
Matrix: Water
Analysis Batch: 770479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/31/24 11:26	1

Lab Sample ID: LCS 500-770479/4
Matrix: Water
Analysis Batch: 770479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.87		mg/L		99	90 - 119

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-769954/16
Matrix: Water
Analysis Batch: 769954

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			05/28/24 16:38	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 500-769954/17

Matrix: Water

Analysis Batch: 769954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	21.4		mg/L		107	88 - 123

Lab Sample ID: 500-250785-3 MS

Matrix: Water

Analysis Batch: 769954

Client Sample ID: MW-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	170	F1	100	189	F1	mg/L		17	75 - 125

Lab Sample ID: 500-250785-3 MSD

Matrix: Water

Analysis Batch: 769954

Client Sample ID: MW-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	170	F1	100	200	F1	mg/L		28	75 - 125	6	20

Lab Sample ID: MB 500-771679/16

Matrix: Water

Analysis Batch: 771679

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/09/24 11:51	1

Lab Sample ID: LCS 500-771679/17

Matrix: Water

Analysis Batch: 771679

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	20.7		mg/L		104	88 - 123

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins
500-250785
Environmental Testing

Client Information		Sampler: <u>Jack Misner</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s):		COC No: <u>500-123639-44027 1</u>	
Client Contact: <u>Jack Misner</u>		Phone: <u>(708) 622-1143</u>		E-Mail: <u>Diana Mockler@et.eurofins.com</u>		State of Origin: <u>IL</u>		Page: <u>Page 1 of 1</u>	
Company: <u>KPRG and Associates, Inc.</u>		PWSID		Analysis Requested		Job #: <u>12313.2</u>		Preservation Codes: D - HNO3 N - None	
Address: <u>14865 West Lisbon Road, Suite 1A</u>		Due Date Requested: <u>Standard</u>		TAT Requested (days):		Compliance Project: ☐ Yes ☐ No		PO #: <u>4502102435</u>	
City: <u>Brookfield</u>		State, Zip: <u>WI, 53005</u>		Phone: <u>500-250785 COC</u>		Email: <u>jack.misner@kprginc.com</u>		Project Name: <u>Waukegan CCR Event Desc. Quarterly Waukegan CCR</u>	
Site: <u>Illinois</u>		Project #: <u>50011597</u>		SSOW#		Field Filtered Sample (Yes or No)		Total Number of Containers	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MS (Yes or No)	903.0, 904.0	6010C, 6020A, 7470A
MW-01		5/20/24	1048	G	Water	N	N	X	X
MW-02		5/20/24	1151	G	Water	N	N	X	X
MW-03		5/20/24	1359	G	Water	N	N	X	X
MW-04					Water				
MW-05					Water				
MW-11					Water				
MW-14					Water				
MW-16					Water				
Duplicate		5/20/24	-	G	Water	N	N	X	X
					Water				
Possible Hazard Identification		Non-Hazard ☒ Flammable ☐ Skin Irritant ☐ Polson B ☐ Unknown ☐ Radiological ☐		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Deliverable Requested I, II, III, IV, Other (specify)		Return To Client ☐ Disposal By Lab ☒ Archive For ☐ Months		Special Instructions/QC Requirements					
Empty Kit Relinquished by		Date		Time		Method of Shipment:			
Relinquished by: <u>Jack Misner</u>		Date/Time: <u>5/20/24 1620</u>		Company: <u>KPRG</u>		Received by: <u>FedEx</u>		Date/Time: <u>5/20/24</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by: <u>John Smith</u>		Date/Time: <u>5/21/24 0950</u>	
Custody Seals Intact, ☐ Yes ☐ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>0.8-20.9</u>					

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Environment Testing

Client Information		Sampler: <u>Jack Misner</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s)		COC No. <u>500-123639-44027 1</u>					
Client Contact: <u>Jack Misner</u>		Phone: <u>(262)-622-1143</u>		E-Mail: <u>Diana Mockler@et.eurofinsus.com</u>		State of Origin: <u>IL</u>		Page: <u>Page 1 of 1</u>					
Company: <u>KPRG and Associates, Inc.</u>		PWSID		Analysis Requested						Job #: <u>12313, 2</u>			
Address: <u>14665 West Lisbon Road, Suite 1A</u>		Due Date Requested		 500-250785 COC						Preservation Codes: D - HNO3 N - None <u>500-250785</u>			
City: <u>Brookfield</u>		TAT Requested (days)								Total Number of Containers		Other:	
State, Zip: <u>WI, 53005</u>		Compliance Project ☐ Yes ☐ No											
Phone: <u>262-781-0475(Tel)</u>		PO #: <u>4502102435</u>											
Email: <u>mitche@kprginc.com</u>		WO #: <u>jackm@kprginc.com</u>											
Project Name: <u>Waukegan CCR Event Desc. Quarterly Waukegan CCR</u>		Project #: <u>50011597</u>											
Site: <u>Illinois</u>		SSOW#											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastefoil)		Special Instructions/Note:			
<u>MW-01</u>								<u>Water</u>					
<u>MW-02</u>								<u>Water</u>					
<u>MW-03</u>								<u>Water</u>					
<u>MW-04</u>		<u>5/21/24</u>		<u>0852</u>		<u>G</u>		<u>Water</u>					
<u>MW-09</u>		<u>↓</u>		<u>1014</u>		<u>↓</u>		<u>Water</u>					
<u>MW-11</u>		<u>↓</u>		<u>1311</u>		<u>↓</u>		<u>Water</u>					
<u>MW-14</u>		<u>↓</u>		<u>1435</u>		<u>↓</u>		<u>Water</u>					
<u>MW-16</u>		<u>5/21/24</u>		<u>1154</u>		<u>G</u>		<u>Water</u>					
<u>Duplicate</u>								<u>Water</u>					
								<u>Water</u>					
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological													
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months													
Deliverable Requested I, II, III, IV, Other (specify)													
Special Instructions/QC Requirements													
Empty Kit Relinquished by				Date		Time		Method of Shipment					
Relinquished by: <u>Jack Misner</u>		Date/Time: <u>5/21/24 1615</u>		Company: <u>KPRG</u>		Received by: <u>FedEx</u>		Date/Time: <u>5/21/24 1615</u>		Company: <u>FedEx</u>			
Relinquished by:		Date/Time:		Company:		Received by: <u>Stephanie Hernandez</u>		Date/Time: <u>5/22/24 0955</u>		Company: <u>FEIA</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact. ☐ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks <u>6.2+5.9, 2.8+2.4</u>									

SHIP DATE: 20MAY24
ACTWGT: 72.60 LB
CAD: 6994083/SSFE2500
DIMS: 25x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRD82 EXP 10/24

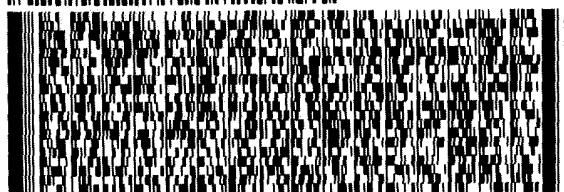
2417 BOND ST

UNIVERSITY PARK IL 60484

(655) 655-6555
 INU:
 PO:

REF:

DEPT:



FedEx
Express



10430340000001

2 of 2

MPS# 2749 0019 1959
0263

Mstr# 2749 0019 1948

79 JOTA

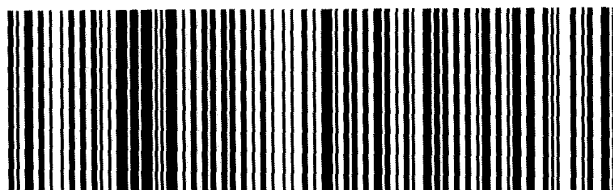
0201

TUE - 21 MAY 10:30A
PRIORITY OVERNIGHT

AHS

60484

IL-US **ORD**



Do Not Lift Using This Tag



500-250785 Waybi

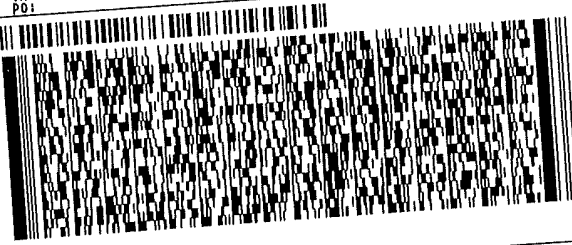
ORIGIN ID: FEPA (262) 622-1143
JACK MISNER
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 21MAY24
ACTWGT: 60.10 LB
CAD: 6994083/SSFE2500
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRD2 EXP 10/24

TO
EUROFINS CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484

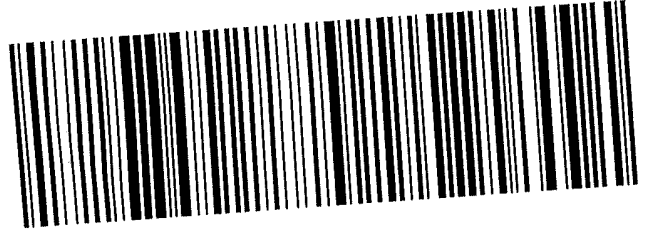
(888) 888-8888 REF: DEPT:



2 of 3
MPS# 2749 5320 6396
0263
Mstr# 2749 5320 6385

79 JOTA

WED - 22 MAY 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD



ORIGIN ID: FEPA (262) 622-1143
JACK MISNER
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 21MAY24
ACTWGT: 62.35 LB
CAD: 6994083/SSFE2500
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRD2 EXP 10/24

TO
EUROFINS CHICAGO
2417 BOND ST
UNIVERSITY PARK IL 60484

(888) 888-8888 REF: DEPT:



1 of 3
TRK# 2749 5320 6385
0201
MASTER

79 JOTA

WED - 22 MAY 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-250785-1

Login Number: 250785

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9,5.9,2.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-01

Date Collected: 05/20/24 10:48

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 11:31
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 09:43
Total/NA	Analysis	SM 2540C		1	768971	CLB	EET CHI	05/21/24 23:22
Total/NA	Analysis	SM 4500 Cl- E		5	769736	TR	EET CHI	05/23/24 16:26
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 11:37
Total/NA	Analysis	SM 4500 SO4 E		5	769954	TR	EET CHI	05/28/24 17:14

Client Sample ID: MW-02

Date Collected: 05/20/24 12:14

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 11:33
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 09:52
Total/NA	Analysis	SM 2540C		1	768971	CLB	EET CHI	05/21/24 23:24
Total/NA	Analysis	SM 4500 Cl- E		2	769736	TR	EET CHI	05/23/24 16:26
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 11:43
Total/NA	Analysis	SM 4500 SO4 E		10	769954	TR	EET CHI	05/28/24 17:14

Client Sample ID: MW-03

Date Collected: 05/20/24 13:59

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 11:39
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 09:59
Total/NA	Analysis	SM 2540C		1	768971	CLB	EET CHI	05/21/24 23:27
Total/NA	Analysis	SM 4500 Cl- E		2	769736	TR	EET CHI	05/23/24 16:25
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 11:48
Total/NA	Analysis	SM 4500 SO4 E		5	769954	TR	EET CHI	05/28/24 17:15

Client Sample ID: Duplicate

Date Collected: 05/20/24 00:00

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 11:42

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: Duplicate

Date Collected: 05/20/24 00:00

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 10:01
Total/NA	Analysis	SM 2540C		1	768974	CLB	EET CHI	05/22/24 00:16
Total/NA	Analysis	SM 4500 Cl- E		2	769736	TR	EET CHI	05/23/24 16:25
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 11:54
Total/NA	Analysis	SM 4500 SO4 E		10	771679	TR	EET CHI	06/09/24 12:12

Client Sample ID: MW-04

Date Collected: 05/21/24 08:52

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 11:44
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 10:03
Total/NA	Analysis	SM 2540C		1	769175	CLB	EET CHI	05/22/24 21:32
Total/NA	Analysis	SM 4500 Cl- E		2	769736	TR	EET CHI	05/23/24 16:25
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 11:59
Total/NA	Analysis	SM 4500 SO4 E		5	771679	TR	EET CHI	06/09/24 12:13

Client Sample ID: MW-09

Date Collected: 05/21/24 10:14

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 11:57
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 10:05
Total/NA	Analysis	SM 2540C		1	769175	CLB	EET CHI	05/22/24 21:35
Total/NA	Analysis	SM 4500 Cl- E		5	769736	TR	EET CHI	05/23/24 16:24
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 12:05
Total/NA	Analysis	SM 4500 SO4 E		5	771679	TR	EET CHI	06/09/24 12:14

Client Sample ID: MW-11

Date Collected: 05/21/24 13:11

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 11:59
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 10:07

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Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Client Sample ID: MW-11

Date Collected: 05/21/24 13:11

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	769175	CLB	EET CHI	05/22/24 21:37
Total/NA	Analysis	SM 4500 CI- E		5	769736	TR	EET CHI	05/23/24 16:24
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 12:09
Total/NA	Analysis	SM 4500 SO4 E		2	771679	TR	EET CHI	06/09/24 12:14

Client Sample ID: MW-14

Date Collected: 05/21/24 14:35

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 12:01
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 10:10
Total/NA	Analysis	SM 2540C		1	769175	CLB	EET CHI	05/22/24 21:40
Total/NA	Analysis	SM 4500 CI- E		1	769736	TR	EET CHI	05/23/24 17:26
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 12:14
Total/NA	Analysis	SM 4500 SO4 E		1	771679	TR	EET CHI	06/09/24 11:53

Client Sample ID: MW-16

Date Collected: 05/21/24 11:54

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			770857	BDE	EET CHI	06/04/24 09:00 - 06/04/24 14:00 ¹
Total Recoverable	Analysis	6020B		1	771122	RN	EET CHI	06/05/24 12:03
Total/NA	Prep	7470A			770258	MJG	EET CHI	05/30/24 15:15 - 05/30/24 17:15 ¹
Total/NA	Analysis	7470A		1	770441	MJG	EET CHI	05/31/24 10:12
Total/NA	Analysis	SM 2540C		1	769175	CLB	EET CHI	05/22/24 21:43
Total/NA	Analysis	SM 4500 CI- E		2	769736	TR	EET CHI	05/23/24 17:27
Total/NA	Analysis	SM 4500 F C		1	770479	SO	EET CHI	05/31/24 12:28
Total/NA	Analysis	SM 4500 SO4 E		20	771679	TR	EET CHI	06/09/24 12:15

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-250785-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	05-31-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 6/24/2024 5:46:35 PM

JOB DESCRIPTION

Waukegan CCR (RAD)

JOB NUMBER

500-250785-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization



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Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR (RAD)

Job ID: 500-250785-2

Job ID: 500-250785-2

Eurofins Chicago

Job Narrative 500-250785-2

Receipt

The samples were received on 5/21/2024 9:50 AM and 5/22/2024 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.9°C, 2.4°C and 5.9°C.

Gas Flow Proportional Counter

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Chicago

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-250785-1	MW-01	Water	05/20/24 10:48	05/21/24 09:50
500-250785-2	MW-02	Water	05/20/24 12:14	05/21/24 09:50
500-250785-3	MW-03	Water	05/20/24 13:59	05/21/24 09:50
500-250785-4	Duplicate	Water	05/20/24 00:00	05/21/24 09:50
500-250785-5	MW-04	Water	05/21/24 08:52	05/22/24 09:55
500-250785-6	MW-09	Water	05/21/24 10:14	05/22/24 09:55
500-250785-7	MW-11	Water	05/21/24 13:11	05/22/24 09:55
500-250785-8	MW-14	Water	05/21/24 14:35	05/22/24 09:55
500-250785-9	MW-16	Water	05/21/24 11:54	05/22/24 09:55

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-01

Lab Sample ID: 500-250785-1

Date Collected: 05/20/24 10:48

Matrix: Water

Date Received: 05/21/24 09:50

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.167	U	0.106	0.106	1.00	0.167	pCi/L	05/28/24 08:24	06/23/24 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		30 - 110					05/28/24 08:24	06/23/24 11:40	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.531	U	0.331	0.333	1.00	0.531	pCi/L	05/28/24 08:30	06/18/24 12:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		30 - 110					05/28/24 08:30	06/18/24 12:26	1
Y Carrier	86.4		30 - 110					05/28/24 08:30	06/18/24 12:26	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.531	U	0.348	0.349	5.00	0.531	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-02

Lab Sample ID: 500-250785-2

Date Collected: 05/20/24 12:14

Matrix: Water

Date Received: 05/21/24 09:50

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.115	U	0.0798	0.0803	1.00	0.115	pCi/L	05/28/24 08:24	06/23/24 11:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		30 - 110					05/28/24 08:24	06/23/24 11:41	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.541	U	0.360	0.364	1.00	0.541	pCi/L	05/28/24 08:30	06/18/24 12:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		30 - 110					05/28/24 08:30	06/18/24 12:26	1
Y Carrier	85.6		30 - 110					05/28/24 08:30	06/18/24 12:26	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.628		0.369	0.373	5.00	0.541	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-03

Lab Sample ID: 500-250785-3

Date Collected: 05/20/24 13:59

Matrix: Water

Date Received: 05/21/24 09:50

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.0964	U	0.0471	0.0471	1.00	0.0964	pCi/L	05/28/24 08:24	06/23/24 11:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		30 - 110					05/28/24 08:24	06/23/24 11:41	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.552	U	0.272	0.272	1.00	0.552	pCi/L	05/28/24 08:30	06/18/24 12:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		30 - 110					05/28/24 08:30	06/18/24 12:26	1
Y Carrier	86.0		30 - 110					05/28/24 08:30	06/18/24 12:26	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.552	U	0.276	0.276	5.00	0.552	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: Duplicate

Lab Sample ID: 500-250785-4

Date Collected: 05/20/24 00:00

Matrix: Water

Date Received: 05/21/24 09:50

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.119	U	0.0639	0.0640	1.00	0.119	pCi/L	05/28/24 08:24	06/23/24 11:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		30 - 110					05/28/24 08:24	06/23/24 11:41	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.647	U	0.411	0.413	1.00	0.647	pCi/L	05/28/24 08:30	06/18/24 12:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		30 - 110					05/28/24 08:30	06/18/24 12:30	1
Y Carrier	81.1		30 - 110					05/28/24 08:30	06/18/24 12:30	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.647	U	0.416	0.418	5.00	0.647	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-04

Lab Sample ID: 500-250785-5

Date Collected: 05/21/24 08:52

Matrix: Water

Date Received: 05/22/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.128	U	0.0906	0.0913	1.00	0.128	pCi/L	05/28/24 08:24	06/23/24 11:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		30 - 110					05/28/24 08:24	06/23/24 11:41	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.526	U	0.270	0.270	1.00	0.526	pCi/L	05/28/24 08:30	06/18/24 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		30 - 110					05/28/24 08:30	06/18/24 12:31	1
Y Carrier	85.2		30 - 110					05/28/24 08:30	06/18/24 12:31	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.526	U	0.285	0.285	5.00	0.526	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-09

Lab Sample ID: 500-250785-6

Date Collected: 05/21/24 10:14

Matrix: Water

Date Received: 05/22/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.431		0.216	0.219	1.00	0.255	pCi/L	05/24/24 08:50	06/18/24 23:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		30 - 110					05/24/24 08:50	06/18/24 23:34	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.533	U	0.332	0.333	1.00	0.533	pCi/L	05/24/24 08:54	06/18/24 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		30 - 110					05/24/24 08:54	06/18/24 11:57	1
Y Carrier	75.9		30 - 110					05/24/24 08:54	06/18/24 11:57	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.768		0.396	0.399	5.00	0.533	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-11

Lab Sample ID: 500-250785-7

Date Collected: 05/21/24 13:11

Matrix: Water

Date Received: 05/22/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.416		0.226	0.230	1.00	0.287	pCi/L	05/24/24 08:50	06/18/24 23:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		30 - 110					05/24/24 08:50	06/18/24 23:34	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.814		0.371	0.378	1.00	0.489	pCi/L	05/24/24 08:54	06/18/24 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		30 - 110					05/24/24 08:54	06/18/24 11:57	1
Y Carrier	80.4		30 - 110					05/24/24 08:54	06/18/24 11:57	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.23		0.434	0.442	5.00	0.489	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-14

Lab Sample ID: 500-250785-8

Date Collected: 05/21/24 14:35

Matrix: Water

Date Received: 05/22/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.429		0.256	0.259	1.00	0.346	pCi/L	05/24/24 08:50	06/18/24 23:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.5		30 - 110					05/24/24 08:50	06/18/24 23:34	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.578	U	0.377	0.379	1.00	0.578	pCi/L	05/24/24 08:54	06/18/24 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.5		30 - 110					05/24/24 08:54	06/18/24 11:57	1
Y Carrier	77.4		30 - 110					05/24/24 08:54	06/18/24 11:57	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.910		0.456	0.459	5.00	0.578	pCi/L		06/24/24 14:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-16

Lab Sample ID: 500-250785-9

Date Collected: 05/21/24 11:54

Matrix: Water

Date Received: 05/22/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.272	U	0.178	0.179	1.00	0.272	pCi/L	05/24/24 08:50	06/18/24 23:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		30 - 110					05/24/24 08:50	06/18/24 23:34	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.514	U	0.300	0.301	1.00	0.514	pCi/L	05/24/24 08:54	06/18/24 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		30 - 110					05/24/24 08:54	06/18/24 11:58	1
Y Carrier	76.6		30 - 110					05/24/24 08:54	06/18/24 11:58	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.514	U	0.349	0.350	5.00	0.514	pCi/L		06/24/24 14:47	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Rad

Prep Batch: 663208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-6	MW-09	Total/NA	Water	PrecSep-21	
500-250785-7	MW-11	Total/NA	Water	PrecSep-21	
500-250785-8	MW-14	Total/NA	Water	PrecSep-21	
500-250785-9	MW-16	Total/NA	Water	PrecSep-21	
MB 160-663208/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-663208/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-250785-8 DU	MW-14	Total/NA	Water	PrecSep-21	

Prep Batch: 663209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-6	MW-09	Total/NA	Water	PrecSep_0	
500-250785-7	MW-11	Total/NA	Water	PrecSep_0	
500-250785-8	MW-14	Total/NA	Water	PrecSep_0	
500-250785-9	MW-16	Total/NA	Water	PrecSep_0	
MB 160-663209/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-663209/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-250785-8 DU	MW-14	Total/NA	Water	PrecSep_0	

Prep Batch: 663401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	PrecSep-21	
500-250785-2	MW-02	Total/NA	Water	PrecSep-21	
500-250785-3	MW-03	Total/NA	Water	PrecSep-21	
500-250785-4	Duplicate	Total/NA	Water	PrecSep-21	
500-250785-5	MW-04	Total/NA	Water	PrecSep-21	
MB 160-663401/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-663401/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 663402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-250785-1	MW-01	Total/NA	Water	PrecSep_0	
500-250785-2	MW-02	Total/NA	Water	PrecSep_0	
500-250785-3	MW-03	Total/NA	Water	PrecSep_0	
500-250785-4	Duplicate	Total/NA	Water	PrecSep_0	
500-250785-5	MW-04	Total/NA	Water	PrecSep_0	
MB 160-663402/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-663402/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-663208/1-A

Matrix: Water

Analysis Batch: 666754

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 663208

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.252	U	0.124	0.124	1.00	0.252	pCi/L	05/24/24 08:50	06/18/24 23:41	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		30 - 110					05/24/24 08:50	06/18/24 23:41	1

Lab Sample ID: LCS 160-663208/2-A

Matrix: Water

Analysis Batch: 666754

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 663208

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		11.3	9.630		1.22	1.00	0.254	pCi/L	85	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	97.3		30 - 110							

Lab Sample ID: 500-250785-8 DU

Matrix: Water

Analysis Batch: 666753

Client Sample ID: MW-14

Prep Type: Total/NA

Prep Batch: 663208

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.429		<0.345	U	0.234	1.00	0.345	pCi/L	0.30	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	76.0		30 - 110							

Lab Sample ID: MB 160-663401/1-A

Matrix: Water

Analysis Batch: 667487

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 663401

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.107	U	0.0454	0.0454	1.00	0.107	pCi/L	05/28/24 08:24	06/23/24 11:40	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		30 - 110					05/28/24 08:24	06/23/24 11:40	1

Lab Sample ID: LCS 160-663401/2-A

Matrix: Water

Analysis Batch: 667487

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 663401

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		11.3	11.51		1.22	1.00	0.109	pCi/L	102	75 - 125

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-663401/2-A
Matrix: Water
Analysis Batch: 667487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663401

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	92.5		30 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-663209/1-A
Matrix: Water
Analysis Batch: 666755

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663209

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.424	U	0.271	0.272	1.00	0.424	pCi/L	05/24/24 08:54	06/18/24 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		30 - 110					05/24/24 08:54	06/18/24 11:55	1
Y Carrier	86.4		30 - 110					05/24/24 08:54	06/18/24 11:55	1

Lab Sample ID: LCS 160-663209/2-A
Matrix: Water
Analysis Batch: 666755

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663209

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.84	7.870		1.11	1.00	0.495	pCi/L	89	75 - 125
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	97.3		30 - 110						
Y Carrier	83.4		30 - 110						

Lab Sample ID: 500-250785-8 DU
Matrix: Water
Analysis Batch: 666755

Client Sample ID: MW-14
Prep Type: Total/NA
Prep Batch: 663209

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	<0.578	U	<0.657	U	0.361	1.00	0.657	pCi/L	0.55	1
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	76.0		30 - 110							
Y Carrier	78.5		30 - 110							

Lab Sample ID: MB 160-663402/1-A
Matrix: Water
Analysis Batch: 666740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663402

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.613	U	0.318	0.318	1.00	0.613	pCi/L	05/28/24 08:30	06/18/24 12:25	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-663402/1-A
Matrix: Water
Analysis Batch: 666740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663402

	MB	MB	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	95.0		30 - 110
Y Carrier	83.0		30 - 110

Prepared	Analyzed	Dil Fac
05/28/24 08:30	06/18/24 12:25	1
05/28/24 08:30	06/18/24 12:25	1

Lab Sample ID: LCS 160-663402/2-A
Matrix: Water
Analysis Batch: 666740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663402

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.84	8.850		1.26	1.00	0.627	pCi/L	100	75 - 125

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	92.5		30 - 110
Y Carrier	82.6		30 - 110

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Chain of Custody Record

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Client Information		Sampler: <u>Jack Misner</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s)		COC No. <u>500-123639-44027 1</u>					
Client Contact: <u>Jack Misner</u>		Phone: <u>(708)-622-1143</u>		E-Mail: <u>Diana.Mockler@et.eurofinsus.com</u>		State of Origin: <u>IL</u>		Page: <u>Page 1 of 1</u>					
Company: <u>KPRG and Associates, Inc.</u>		PWSID		Analysis Requested						Job #: <u>12313, 2</u>			
Address: <u>14665 West Lisbon Road, Suite 1A</u>		Due Date Requested		 500-250785 COC						Preservation Codes: D - HNO3 N - None <u>500-250785</u>			
City: <u>Brookfield</u>		TAT Requested (days)											
State, Zip: <u>WI, 53005</u>		Compliance Project ☐ Yes ☐ No											
Phone: <u>262-781-0475(Tel)</u>		PO #: <u>4502102435</u>											
Email: <u>mitche@dprginc.com</u> <u>jackm@kprginc.com</u>		WO #											
Project Name: <u>Waukegan CCR Event Desc. Quarterly Waukegan CCR</u>		Project #:		 500-250785 COC						Other:			
Site: <u>Illinois</u>		SSOW#											
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil)	Field Filtered Sample (Yes or No)	Perform MS/MS (Yes or No)	903.0, 904.0	6010C, 6020A, 7470A	2540C, 4500_F_C, SM4500_Cl_E, SM4500_SO4_E	180.1 - Turbidity	Total Number of Containers	Special Instructions/Note:
MW-01					Water								
MW-02					Water								
MW-03					Water								
MW-04		<u>5/21/24</u>	<u>0852</u>	<u>G</u>	Water	<u>N</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
MW-09		<u>↓</u>	<u>1014</u>	<u>↓</u>	Water	<u>N</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
MW-11		<u>↓</u>	<u>1311</u>	<u>↓</u>	Water	<u>N</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
MW-14		<u>↓</u>	<u>1435</u>	<u>↓</u>	Water	<u>N</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
MW-16		<u>5/21/24</u>	<u>1154</u>	<u>G</u>	Water	<u>N</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
Duplicate					Water								
					Water								
					Water								
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological													
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months													
Deliverable Requested I, II, III, IV, Other (specify)													
Special Instructions/QC Requirements													
Empty Kit Relinquished by				Date		Time		Method of Shipment					
Relinquished by: <u>Jack Misner</u>		Date/Time: <u>5/21/24 1615</u>		Company: <u>KPRG</u>		Received by: <u>FedEx</u>		Date/Time: <u>5/21/24 1615</u>		Company: <u>FedEx</u>			
Relinquished by:		Date/Time:		Company:		Received by: <u>Stephanie Hernandez</u>		Date/Time: <u>5/22/24 0955</u>		Company: <u>FEIA</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact. ☐ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>6.2 + 5.9, 2.8 + 2.4</u>									

SHIP DATE: 20MAY24
ACTWGT: 72.60 LB
CAD: 6994083/SSFE2500
DIMS: 25x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRD82 EXP 10/24

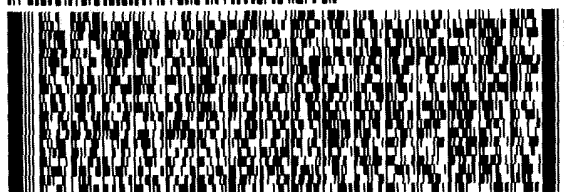
2417 BOND ST

UNIVERSITY PARK IL 60484

(655) 655-6555
 INU:
 PO:

REF:

DEPT:



FedEx
Express



10430340000001

2 of 2

MPS# 2749 0019 1959
0263

Mstr# 2749 0019 1948

79 JOTA

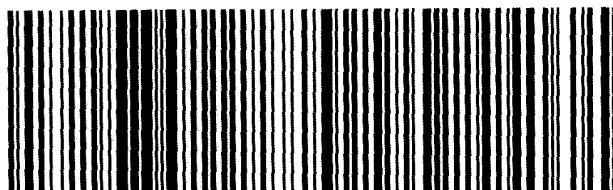
0201

TUE - 21 MAY 10:30A
PRIORITY OVERNIGHT

AHS

60484

IL-US **ORD**



Do Not Lift Using This Tag



500-250785 Waybi

ORIGIN ID: FEPA (262) 622-1143
JACK MISNER
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

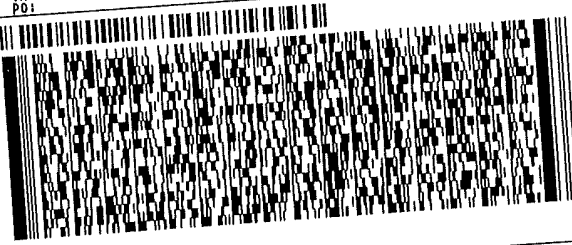
SHIP DATE: 21MAY24
ACTWGT: 60.10 LB
CAD: 6994083/SSFE2500
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRD2 EXP 10/24

TO
EUROFINS CHICAGO
2417 BOND ST

UNIVERSITY PARK IL 60484

(888) 888-8888
REF: INU: PO: DEPT:



2 of 3
MPS# 2749 5320 6396
0263
Mstr# 2749 5320 6385

79 JOTA

WED - 22 MAY 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD



ORIGIN ID: FEPA (262) 622-1143
JACK MISNER
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 21MAY24
ACTWGT: 62.35 LB
CAD: 6994083/SSFE2500
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRD2 EXP 10/24

TO
EUROFINS CHICAGO
2417 BOND ST

UNIVERSITY PARK IL 60484

(888) 888-8888
REF: INU: PO: DEPT:



1 of 3
TRK# 2749 5320 6385
0201
MASTER

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WED - 22 MAY 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD



[illegible]



Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-250785-2

Login Number: 250785

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9,5.9,2.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-250785-2

Login Number: 250785

List Number: 2

Creator: Thornley, Richard W

List Source: Eurofins St. Louis

List Creation: 05/22/24 03:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-250785-2

Login Number: 250785

List Number: 3

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 05/23/24 03:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-01

Date Collected: 05/20/24 10:48

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663401	MLT	EET SL	05/28/24 08:24
Total/NA	Analysis	903.0		1	667487	SCB	EET SL	06/23/24 11:40
Total/NA	Prep	PrecSep_0			663402	MLT	EET SL	05/28/24 08:30
Total/NA	Analysis	904.0		1	666740	SWS	EET SL	06/18/24 12:26
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Client Sample ID: MW-02

Date Collected: 05/20/24 12:14

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663401	MLT	EET SL	05/28/24 08:24
Total/NA	Analysis	903.0		1	667487	SCB	EET SL	06/23/24 11:41
Total/NA	Prep	PrecSep_0			663402	MLT	EET SL	05/28/24 08:30
Total/NA	Analysis	904.0		1	666740	SWS	EET SL	06/18/24 12:26
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Client Sample ID: MW-03

Date Collected: 05/20/24 13:59

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663401	MLT	EET SL	05/28/24 08:24
Total/NA	Analysis	903.0		1	667487	SCB	EET SL	06/23/24 11:41
Total/NA	Prep	PrecSep_0			663402	MLT	EET SL	05/28/24 08:30
Total/NA	Analysis	904.0		1	666740	SWS	EET SL	06/18/24 12:26
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Client Sample ID: Duplicate

Date Collected: 05/20/24 00:00

Date Received: 05/21/24 09:50

Lab Sample ID: 500-250785-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663401	MLT	EET SL	05/28/24 08:24
Total/NA	Analysis	903.0		1	667487	SCB	EET SL	06/23/24 11:41
Total/NA	Prep	PrecSep_0			663402	MLT	EET SL	05/28/24 08:30
Total/NA	Analysis	904.0		1	666740	SWS	EET SL	06/18/24 12:30
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-04

Date Collected: 05/21/24 08:52

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663401	MLT	EET SL	05/28/24 08:24
Total/NA	Analysis	903.0		1	667487	SCB	EET SL	06/23/24 11:41
Total/NA	Prep	PrecSep_0			663402	MLT	EET SL	05/28/24 08:30
Total/NA	Analysis	904.0		1	666740	SWS	EET SL	06/18/24 12:31
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Client Sample ID: MW-09

Date Collected: 05/21/24 10:14

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663208	MLT	EET SL	05/24/24 08:50
Total/NA	Analysis	903.0		1	666753	SCB	EET SL	06/18/24 23:34
Total/NA	Prep	PrecSep_0			663209	MLT	EET SL	05/24/24 08:54
Total/NA	Analysis	904.0		1	666755	SCB	EET SL	06/18/24 11:57
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Client Sample ID: MW-11

Date Collected: 05/21/24 13:11

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663208	MLT	EET SL	05/24/24 08:50
Total/NA	Analysis	903.0		1	666753	SCB	EET SL	06/18/24 23:34
Total/NA	Prep	PrecSep_0			663209	MLT	EET SL	05/24/24 08:54
Total/NA	Analysis	904.0		1	666755	SCB	EET SL	06/18/24 11:57
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Client Sample ID: MW-14

Date Collected: 05/21/24 14:35

Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663208	MLT	EET SL	05/24/24 08:50
Total/NA	Analysis	903.0		1	666753	SCB	EET SL	06/18/24 23:34
Total/NA	Prep	PrecSep_0			663209	MLT	EET SL	05/24/24 08:54
Total/NA	Analysis	904.0		1	666755	SCB	EET SL	06/18/24 11:57
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Client Sample ID: MW-16
Date Collected: 05/21/24 11:54
Date Received: 05/22/24 09:55

Lab Sample ID: 500-250785-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			663208	MLT	EET SL	05/24/24 08:50
Total/NA	Analysis	903.0		1	666753	SCB	EET SL	06/18/24 23:34
Total/NA	Prep	PrecSep_0			663209	MLT	EET SL	05/24/24 08:54
Total/NA	Analysis	904.0		1	666755	SCB	EET SL	06/18/24 11:58
Total/NA	Analysis	Ra226_Ra228		1	667771	EMH	EET SL	06/24/24 14:47

Laboratory References:
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-250785-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba					
		(30-110)					
500-250785-1	MW-01	90.0					
500-250785-2	MW-02	94.0					
500-250785-3	MW-03	86.5					
500-250785-4	Duplicate	88.0					
500-250785-5	MW-04	89.0					
500-250785-6	MW-09	98.5					
500-250785-7	MW-11	95.3					
500-250785-8	MW-14	84.5					
500-250785-8 DU	MW-14	76.0					
500-250785-9	MW-16	97.3					
LCS 160-663208/2-A	Lab Control Sample	97.3					
LCS 160-663401/2-A	Lab Control Sample	92.5					
MB 160-663208/1-A	Method Blank	93.5					
MB 160-663401/1-A	Method Blank	95.0					
Tracer/Carrier Legend							
Ba = Ba Carrier							

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba	Y				
		(30-110)	(30-110)				
500-250785-1	MW-01	90.0	86.4				
500-250785-2	MW-02	94.0	85.6				
500-250785-3	MW-03	86.5	86.0				
500-250785-4	Duplicate	88.0	81.1				
500-250785-5	MW-04	89.0	85.2				
500-250785-6	MW-09	98.5	75.9				
500-250785-7	MW-11	95.3	80.4				
500-250785-8	MW-14	84.5	77.4				
500-250785-8 DU	MW-14	76.0	78.5				
500-250785-9	MW-16	97.3	76.6				
LCS 160-663209/2-A	Lab Control Sample	97.3	83.4				
LCS 160-663402/2-A	Lab Control Sample	92.5	82.6				
MB 160-663209/1-A	Method Blank	93.5	86.4				
MB 160-663402/1-A	Method Blank	95.0	83.0				
Tracer/Carrier Legend							
Ba = Ba Carrier							
Y = Y Carrier							

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 9/4/2024 11:08:54 AM

JOB DESCRIPTION

Waukegan CCR

JOB NUMBER

500-254990-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization



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Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR

Job ID: 500-254990-1

Job ID: 500-254990-1

Eurofins Chicago

Job Narrative 500-254990-1

Receipt

The samples were received on 8/13/2024 9:25 AM and 8/14/2024 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.7°C, 5.9°C and 7.1°C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: MW-09 (500-254990-6), MW-11 (500-254990-7), MW-14 (500-254990-8) and MW-16 (500-254990-9).

Metals

Method 6020B - Total Recoverable: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-09 (500-254990-6) and MW-16 (500-254990-9). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Chicago

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-254990-1	MW-01	Water	08/12/24 12:08	08/13/24 09:25
500-254990-2	MW-02	Water	08/12/24 13:17	08/13/24 09:25
500-254990-3	MW-03	Water	08/12/24 15:01	08/13/24 09:25
500-254990-4	MW-04	Water	08/12/24 16:00	08/13/24 09:25
500-254990-5	Duplicate	Water	08/12/24 00:00	08/13/24 09:25
500-254990-6	MW-09	Water	08/13/24 13:26	08/14/24 09:55
500-254990-7	MW-11	Water	08/13/24 10:32	08/14/24 09:55
500-254990-8	MW-14	Water	08/13/24 11:57	08/14/24 09:55
500-254990-9	MW-16	Water	08/13/24 15:13	08/14/24 09:55

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-01

Lab Sample ID: 500-254990-1

Date Collected: 08/12/24 12:08

Matrix: Water

Date Received: 08/13/24 09:25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:17	1
Arsenic	0.019		0.0010		mg/L		08/21/24 09:01	08/26/24 12:17	1
Barium	0.035		0.0025		mg/L		08/21/24 09:01	08/26/24 12:17	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 13:30	1
Boron	1.8		0.050		mg/L		08/21/24 09:01	08/29/24 15:13	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:17	1
Calcium	63		0.20		mg/L		08/21/24 09:01	08/26/24 12:17	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:17	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:17	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:17	1
Lithium	<0.010		0.010		mg/L		08/21/24 09:01	08/27/24 13:30	1
Molybdenum	0.021		0.0050		mg/L		08/21/24 09:01	08/26/24 12:17	1
Selenium	<0.0025		0.0025		mg/L		08/21/24 09:01	08/26/24 12:17	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 07:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	460		10		mg/L			08/16/24 01:19	1
Chloride (SM 4500 Cl- E)	81		4.0		mg/L			08/15/24 16:17	2
Fluoride (SM 4500 F C)	0.28		0.10		mg/L			08/15/24 17:40	1
Sulfate (SM 4500 SO4 E)	170		25		mg/L			08/20/24 12:15	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-02

Lab Sample ID: 500-254990-2

Date Collected: 08/12/24 13:17

Matrix: Water

Date Received: 08/13/24 09:25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:33	1
Arsenic	0.0079		0.0010		mg/L		08/21/24 09:01	08/26/24 12:33	1
Barium	0.029		0.0025		mg/L		08/21/24 09:01	08/26/24 12:33	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 13:42	1
Boron	3.6		0.050		mg/L		08/21/24 09:01	08/29/24 15:26	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:33	1
Calcium	91		0.20		mg/L		08/21/24 09:01	08/26/24 12:33	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:33	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:33	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:33	1
Lithium	<0.010		0.010		mg/L		08/21/24 09:01	08/27/24 13:42	1
Molybdenum	0.029		0.0050		mg/L		08/21/24 09:01	08/26/24 12:33	1
Selenium	0.0063		0.0025		mg/L		08/21/24 09:01	08/26/24 12:33	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:33	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 07:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	640		10		mg/L			08/16/24 01:22	1
Chloride (SM 4500 Cl- E)	73		4.0		mg/L			08/15/24 16:03	2
Fluoride (SM 4500 F C)	0.47		0.10		mg/L			08/15/24 17:44	1
Sulfate (SM 4500 SO4 E)	240		25		mg/L			08/20/24 12:15	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-03

Lab Sample ID: 500-254990-3

Date Collected: 08/12/24 15:01

Matrix: Water

Date Received: 08/13/24 09:25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:35	1
Arsenic	0.020		0.0010		mg/L		08/21/24 09:01	08/26/24 12:35	1
Barium	0.017		0.0025		mg/L		08/21/24 09:01	08/26/24 12:35	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 13:44	1
Boron	2.6		0.050		mg/L		08/21/24 09:01	08/29/24 15:38	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:35	1
Calcium	66		0.20		mg/L		08/21/24 09:01	08/26/24 12:35	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:35	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:35	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:35	1
Lithium	<0.010		0.010		mg/L		08/21/24 09:01	08/27/24 13:44	1
Molybdenum	0.047		0.0050		mg/L		08/21/24 09:01	08/26/24 12:35	1
Selenium	0.0095		0.0025		mg/L		08/21/24 09:01	08/26/24 12:35	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 08:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	610		10		mg/L			08/16/24 01:24	1
Chloride (SM 4500 Cl- E)	85		10		mg/L			08/15/24 16:16	5
Fluoride (SM 4500 F C)	0.31		0.10		mg/L			08/15/24 17:50	1
Sulfate (SM 4500 SO4 E)	210		25		mg/L			08/20/24 12:15	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-04

Lab Sample ID: 500-254990-4

Date Collected: 08/12/24 16:00

Matrix: Water

Date Received: 08/13/24 09:25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:37	1
Arsenic	0.0033		0.0010		mg/L		08/21/24 09:01	08/26/24 12:37	1
Barium	0.076		0.0025		mg/L		08/21/24 09:01	08/26/24 12:37	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 14:00	1
Boron	3.2		0.050		mg/L		08/21/24 09:01	08/29/24 15:41	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:37	1
Calcium	210		0.20		mg/L		08/21/24 09:01	08/26/24 12:37	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:37	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:37	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:37	1
Lithium	<0.010		0.010		mg/L		08/21/24 09:01	08/27/24 14:00	1
Molybdenum	0.026		0.0050		mg/L		08/21/24 09:01	08/26/24 12:37	1
Selenium	0.020		0.0025		mg/L		08/21/24 09:01	08/26/24 12:37	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 08:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1200		10		mg/L			08/16/24 01:27	1
Chloride (SM 4500 Cl- E)	55		4.0		mg/L			08/15/24 16:03	2
Fluoride (SM 4500 F C)	0.35		0.10		mg/L			08/15/24 17:54	1
Sulfate (SM 4500 SO4 E)	420		50		mg/L			08/20/24 12:32	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: Duplicate

Lab Sample ID: 500-254990-5

Date Collected: 08/12/24 00:00

Matrix: Water

Date Received: 08/13/24 09:25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:40	1
Arsenic	0.0063		0.0010		mg/L		08/21/24 09:01	08/26/24 12:40	1
Barium	0.028		0.0025		mg/L		08/21/24 09:01	08/26/24 12:40	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 14:02	1
Boron	3.4		0.050		mg/L		08/21/24 09:01	08/29/24 15:43	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:40	1
Calcium	88		0.20		mg/L		08/21/24 09:01	08/26/24 12:40	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:40	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:40	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:40	1
Lithium	<0.010		0.010		mg/L		08/21/24 09:01	08/27/24 14:02	1
Molybdenum	0.029		0.0050		mg/L		08/21/24 09:01	08/26/24 12:40	1
Selenium	0.0054		0.0025		mg/L		08/21/24 09:01	08/26/24 12:40	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 08:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	610		10		mg/L			08/16/24 01:29	1
Chloride (SM 4500 Cl- E)	74		4.0		mg/L			08/15/24 16:03	2
Fluoride (SM 4500 F C)	0.46		0.10		mg/L			08/15/24 17:59	1
Sulfate (SM 4500 SO4 E)	230		25		mg/L			08/20/24 12:16	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-09

Lab Sample ID: 500-254990-6

Date Collected: 08/13/24 13:26

Matrix: Water

Date Received: 08/14/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:42	1
Arsenic	0.0062		0.0010		mg/L		08/21/24 09:01	08/26/24 12:42	1
Barium	0.085		0.0025		mg/L		08/21/24 09:01	08/26/24 12:42	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 14:05	1
Boron	8.5		0.25		mg/L		08/21/24 09:01	08/29/24 15:45	5
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:42	1
Calcium	130		0.20		mg/L		08/21/24 09:01	08/26/24 12:42	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:42	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:42	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:42	1
Lithium	0.045		0.010		mg/L		08/21/24 09:01	08/27/24 14:05	1
Molybdenum	0.14		0.0050		mg/L		08/21/24 09:01	08/26/24 12:42	1
Selenium	<0.0025		0.0025		mg/L		08/21/24 09:01	08/26/24 12:42	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 08:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	860		10		mg/L			08/16/24 01:32	1
Chloride (SM 4500 Cl- E)	91		4.0		mg/L			08/15/24 16:02	2
Fluoride (SM 4500 F C)	0.34		0.10		mg/L			08/15/24 18:04	1
Sulfate (SM 4500 SO4 E)	200		25		mg/L			08/20/24 12:16	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-11

Lab Sample ID: 500-254990-7

Date Collected: 08/13/24 10:32

Matrix: Water

Date Received: 08/14/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:58	1
Arsenic	0.16		0.0010		mg/L		08/21/24 09:01	08/26/24 12:58	1
Barium	0.053		0.0025		mg/L		08/21/24 09:01	08/26/24 12:58	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 14:18	1
Boron	1.2		0.050		mg/L		08/21/24 09:01	08/29/24 15:48	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:58	1
Calcium	150		0.20		mg/L		08/21/24 09:01	08/26/24 12:58	1
Chromium	0.0057		0.0050		mg/L		08/21/24 09:01	08/26/24 12:58	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:58	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:58	1
Lithium	0.033		0.010		mg/L		08/21/24 09:01	08/27/24 14:18	1
Molybdenum	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:58	1
Selenium	<0.0025		0.0025		mg/L		08/21/24 09:01	08/26/24 12:58	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 08:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	740		10		mg/L			08/16/24 01:35	1
Chloride (SM 4500 Cl- E)	82		4.0		mg/L			08/15/24 16:02	2
Fluoride (SM 4500 F C)	0.18		0.10		mg/L			08/15/24 18:08	1
Sulfate (SM 4500 SO4 E)	48		5.0		mg/L			08/20/24 11:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-14

Lab Sample ID: 500-254990-8

Date Collected: 08/13/24 11:57

Matrix: Water

Date Received: 08/14/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 13:00	1
Arsenic	3.1		0.0010		mg/L		08/21/24 09:01	08/26/24 13:00	1
Barium	0.057		0.0025		mg/L		08/21/24 09:01	08/26/24 13:00	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 14:21	1
Boron	0.50		0.050		mg/L		08/21/24 09:01	08/29/24 15:50	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 13:00	1
Calcium	130		0.20		mg/L		08/21/24 09:01	08/26/24 13:00	1
Chromium	0.20		0.0050		mg/L		08/21/24 09:01	08/26/24 13:00	1
Cobalt	0.0015		0.0010		mg/L		08/21/24 09:01	08/26/24 13:00	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 13:00	1
Lithium	0.013		0.010		mg/L		08/21/24 09:01	08/27/24 14:21	1
Molybdenum	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 13:00	1
Selenium	<0.0025		0.0025		mg/L		08/21/24 09:01	08/26/24 13:00	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 13:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 08:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	510		10		mg/L			08/16/24 01:37	1
Chloride (SM 4500 Cl- E)	15		2.0		mg/L			08/15/24 15:21	1
Fluoride (SM 4500 F C)	0.16		0.10		mg/L			08/15/24 18:24	1
Sulfate (SM 4500 SO4 E)	8.5		5.0		mg/L			08/20/24 11:47	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-16

Lab Sample ID: 500-254990-9

Date Collected: 08/13/24 15:13

Matrix: Water

Date Received: 08/14/24 09:55

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 13:02	1
Arsenic	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 13:02	1
Barium	0.043		0.0025		mg/L		08/21/24 09:01	08/26/24 13:02	1
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 14:23	1
Boron	5.0		0.25		mg/L		08/21/24 09:01	08/29/24 15:52	5
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 13:02	1
Calcium	330		0.20		mg/L		08/21/24 09:01	08/26/24 13:02	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 13:02	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 13:02	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 13:02	1
Lithium	0.098		0.010		mg/L		08/21/24 09:01	08/27/24 14:23	1
Molybdenum	0.027		0.0050		mg/L		08/21/24 09:01	08/26/24 13:02	1
Selenium	0.018		0.0025		mg/L		08/21/24 09:01	08/26/24 13:02	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 13:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 08:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1900		10		mg/L			08/16/24 01:40	1
Chloride (SM 4500 Cl- E)	110		10		mg/L			08/15/24 16:01	5
Fluoride (SM 4500 F C)	0.40		0.10		mg/L			08/15/24 18:28	1
Sulfate (SM 4500 SO4 E)	870		100		mg/L			08/20/24 12:32	20

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Metals

Prep Batch: 782552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total Recoverable	Water	3005A	
500-254990-2	MW-02	Total Recoverable	Water	3005A	
500-254990-3	MW-03	Total Recoverable	Water	3005A	
500-254990-4	MW-04	Total Recoverable	Water	3005A	
500-254990-5	Duplicate	Total Recoverable	Water	3005A	
500-254990-6	MW-09	Total Recoverable	Water	3005A	
500-254990-7	MW-11	Total Recoverable	Water	3005A	
500-254990-8	MW-14	Total Recoverable	Water	3005A	
500-254990-9	MW-16	Total Recoverable	Water	3005A	
MB 500-782552/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-782552/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-254990-1 MS	MW-01	Total Recoverable	Water	3005A	
500-254990-1 MSD	MW-01	Total Recoverable	Water	3005A	
500-254990-1 DU	MW-01	Total Recoverable	Water	3005A	

Analysis Batch: 783273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total Recoverable	Water	6020B	782552
500-254990-2	MW-02	Total Recoverable	Water	6020B	782552
500-254990-3	MW-03	Total Recoverable	Water	6020B	782552
500-254990-4	MW-04	Total Recoverable	Water	6020B	782552
500-254990-5	Duplicate	Total Recoverable	Water	6020B	782552
500-254990-6	MW-09	Total Recoverable	Water	6020B	782552
500-254990-7	MW-11	Total Recoverable	Water	6020B	782552
500-254990-8	MW-14	Total Recoverable	Water	6020B	782552
500-254990-9	MW-16	Total Recoverable	Water	6020B	782552
MB 500-782552/1-A	Method Blank	Total Recoverable	Water	6020B	782552
LCS 500-782552/2-A	Lab Control Sample	Total Recoverable	Water	6020B	782552
500-254990-1 MS	MW-01	Total Recoverable	Water	6020B	782552
500-254990-1 MSD	MW-01	Total Recoverable	Water	6020B	782552
500-254990-1 DU	MW-01	Total Recoverable	Water	6020B	782552

Analysis Batch: 783596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total Recoverable	Water	6020B	782552
500-254990-2	MW-02	Total Recoverable	Water	6020B	782552
500-254990-3	MW-03	Total Recoverable	Water	6020B	782552
500-254990-4	MW-04	Total Recoverable	Water	6020B	782552
500-254990-5	Duplicate	Total Recoverable	Water	6020B	782552
500-254990-6	MW-09	Total Recoverable	Water	6020B	782552
500-254990-7	MW-11	Total Recoverable	Water	6020B	782552
500-254990-8	MW-14	Total Recoverable	Water	6020B	782552
500-254990-9	MW-16	Total Recoverable	Water	6020B	782552
MB 500-782552/1-A	Method Blank	Total Recoverable	Water	6020B	782552
LCS 500-782552/2-A	Lab Control Sample	Total Recoverable	Water	6020B	782552
500-254990-1 MS	MW-01	Total Recoverable	Water	6020B	782552
500-254990-1 MSD	MW-01	Total Recoverable	Water	6020B	782552
500-254990-1 DU	MW-01	Total Recoverable	Water	6020B	782552

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Metals

Analysis Batch: 783978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total Recoverable	Water	6020B	782552
500-254990-2	MW-02	Total Recoverable	Water	6020B	782552
500-254990-3	MW-03	Total Recoverable	Water	6020B	782552
500-254990-4	MW-04	Total Recoverable	Water	6020B	782552
500-254990-5	Duplicate	Total Recoverable	Water	6020B	782552
500-254990-6	MW-09	Total Recoverable	Water	6020B	782552
500-254990-7	MW-11	Total Recoverable	Water	6020B	782552
500-254990-8	MW-14	Total Recoverable	Water	6020B	782552
500-254990-9	MW-16	Total Recoverable	Water	6020B	782552
MB 500-782552/1-A	Method Blank	Total Recoverable	Water	6020B	782552
LCS 500-782552/2-A	Lab Control Sample	Total Recoverable	Water	6020B	782552
500-254990-1 MS	MW-01	Total Recoverable	Water	6020B	782552
500-254990-1 MSD	MW-01	Total Recoverable	Water	6020B	782552
500-254990-1 DU	MW-01	Total Recoverable	Water	6020B	782552

Prep Batch: 784044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	7470A	
500-254990-2	MW-02	Total/NA	Water	7470A	
500-254990-3	MW-03	Total/NA	Water	7470A	
500-254990-4	MW-04	Total/NA	Water	7470A	
500-254990-5	Duplicate	Total/NA	Water	7470A	
500-254990-6	MW-09	Total/NA	Water	7470A	
500-254990-7	MW-11	Total/NA	Water	7470A	
500-254990-8	MW-14	Total/NA	Water	7470A	
500-254990-9	MW-16	Total/NA	Water	7470A	
MB 500-784044/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-784044/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-254990-5 MS	Duplicate	Total/NA	Water	7470A	
500-254990-5 MSD	Duplicate	Total/NA	Water	7470A	
500-254990-5 DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 784230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	7470A	784044
500-254990-2	MW-02	Total/NA	Water	7470A	784044
500-254990-3	MW-03	Total/NA	Water	7470A	784044
500-254990-4	MW-04	Total/NA	Water	7470A	784044
500-254990-5	Duplicate	Total/NA	Water	7470A	784044
500-254990-6	MW-09	Total/NA	Water	7470A	784044
500-254990-7	MW-11	Total/NA	Water	7470A	784044
500-254990-8	MW-14	Total/NA	Water	7470A	784044
500-254990-9	MW-16	Total/NA	Water	7470A	784044
MB 500-784044/12-A	Method Blank	Total/NA	Water	7470A	784044
LCS 500-784044/13-A	Lab Control Sample	Total/NA	Water	7470A	784044
500-254990-5 MS	Duplicate	Total/NA	Water	7470A	784044
500-254990-5 MSD	Duplicate	Total/NA	Water	7470A	784044
500-254990-5 DU	Duplicate	Total/NA	Water	7470A	784044

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

General Chemistry

Analysis Batch: 781749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	SM 2540C	
500-254990-2	MW-02	Total/NA	Water	SM 2540C	
500-254990-3	MW-03	Total/NA	Water	SM 2540C	
500-254990-4	MW-04	Total/NA	Water	SM 2540C	
500-254990-5	Duplicate	Total/NA	Water	SM 2540C	
500-254990-6	MW-09	Total/NA	Water	SM 2540C	
500-254990-7	MW-11	Total/NA	Water	SM 2540C	
500-254990-8	MW-14	Total/NA	Water	SM 2540C	
500-254990-9	MW-16	Total/NA	Water	SM 2540C	
MB 500-781749/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-781749/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 781815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	SM 4500 F C	
500-254990-2	MW-02	Total/NA	Water	SM 4500 F C	
500-254990-3	MW-03	Total/NA	Water	SM 4500 F C	
500-254990-4	MW-04	Total/NA	Water	SM 4500 F C	
500-254990-5	Duplicate	Total/NA	Water	SM 4500 F C	
500-254990-6	MW-09	Total/NA	Water	SM 4500 F C	
500-254990-7	MW-11	Total/NA	Water	SM 4500 F C	
500-254990-8	MW-14	Total/NA	Water	SM 4500 F C	
500-254990-9	MW-16	Total/NA	Water	SM 4500 F C	
MB 500-781815/59	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-781815/60	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 781984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-254990-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-254990-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-254990-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-254990-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-254990-6	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-254990-7	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-254990-8	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-254990-9	MW-16	Total/NA	Water	SM 4500 Cl- E	
MB 500-781984/64	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-781984/65	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 782442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-254990-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-254990-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-254990-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-254990-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-254990-6	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-254990-7	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-254990-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-254990-9	MW-16	Total/NA	Water	SM 4500 SO4 E	

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

General Chemistry (Continued)

Analysis Batch: 782442 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-782442/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-782442/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-782552/1-A
Matrix: Water
Analysis Batch: 783273

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/21/24 09:01	08/26/24 12:13	1
Arsenic	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:13	1
Barium	<0.0025		0.0025		mg/L		08/21/24 09:01	08/26/24 12:13	1
Cadmium	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:13	1
Calcium	<0.20		0.20		mg/L		08/21/24 09:01	08/26/24 12:13	1
Chromium	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:13	1
Cobalt	<0.0010		0.0010		mg/L		08/21/24 09:01	08/26/24 12:13	1
Lead	<0.00050		0.00050		mg/L		08/21/24 09:01	08/26/24 12:13	1
Molybdenum	<0.0050		0.0050		mg/L		08/21/24 09:01	08/26/24 12:13	1
Selenium	<0.0025		0.0025		mg/L		08/21/24 09:01	08/26/24 12:13	1
Thallium	<0.0020		0.0020		mg/L		08/21/24 09:01	08/26/24 12:13	1

Lab Sample ID: MB 500-782552/1-A
Matrix: Water
Analysis Batch: 783596

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010		0.0010		mg/L		08/21/24 09:01	08/27/24 13:25	1
Lithium	<0.010		0.010		mg/L		08/21/24 09:01	08/27/24 13:25	1

Lab Sample ID: MB 500-782552/1-A
Matrix: Water
Analysis Batch: 783978

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		08/21/24 09:01	08/29/24 15:08	1

Lab Sample ID: LCS 500-782552/2-A
Matrix: Water
Analysis Batch: 783273

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.509		mg/L		102	80 - 120
Arsenic	0.100	0.0991		mg/L		99	80 - 120
Barium	0.500	0.501		mg/L		100	80 - 120
Cadmium	0.0500	0.0524		mg/L		105	80 - 120
Calcium	10.0	8.79		mg/L		88	80 - 120
Chromium	0.200	0.212		mg/L		106	80 - 120
Cobalt	0.500	0.530		mg/L		106	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.992		mg/L		99	80 - 120
Selenium	0.100	0.0996		mg/L		100	80 - 120
Thallium	0.100	0.108		mg/L		108	80 - 120

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-782552/2-A
Matrix: Water
Analysis Batch: 783596

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.0500	0.0525		mg/L		105	80 - 120
Lithium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LCS 500-782552/2-A
Matrix: Water
Analysis Batch: 783978

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.02		mg/L		102	80 - 120

Lab Sample ID: 500-254990-1 MS
Matrix: Water
Analysis Batch: 783273

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0030		0.500	0.526		mg/L		105	75 - 125
Arsenic	0.019		0.100	0.122		mg/L		102	75 - 125
Barium	0.035		0.500	0.544		mg/L		102	75 - 125
Cadmium	<0.00050		0.0500	0.0527		mg/L		105	75 - 125
Calcium	63		10.0	73.1	4	mg/L		102	75 - 125
Chromium	<0.0050		0.200	0.190		mg/L		95	75 - 125
Cobalt	<0.0010		0.500	0.539		mg/L		108	75 - 125
Lead	<0.00050		0.100	0.106		mg/L		106	75 - 125
Molybdenum	0.021		1.00	1.05		mg/L		103	75 - 125
Selenium	<0.0025		0.100	0.101		mg/L		101	75 - 125
Thallium	<0.0020		0.100	0.110		mg/L		110	75 - 125

Lab Sample ID: 500-254990-1 MS
Matrix: Water
Analysis Batch: 783596

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	<0.0010		0.0500	0.0506		mg/L		101	75 - 125
Lithium	<0.010		0.100	0.105		mg/L		105	75 - 125

Lab Sample ID: 500-254990-1 MS
Matrix: Water
Analysis Batch: 783978

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.8		1.00	2.78		mg/L		95	75 - 125

Lab Sample ID: 500-254990-1 MSD
Matrix: Water
Analysis Batch: 783273

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	<0.0030		0.500	0.524		mg/L		105	75 - 125	0	20
Arsenic	0.019		0.100	0.123		mg/L		104	75 - 125	1	20
Barium	0.035		0.500	0.545		mg/L		102	75 - 125	0	20

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-254990-1 MSD

Matrix: Water

Analysis Batch: 783273

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	<0.00050		0.0500	0.0523		mg/L		105	75 - 125	1	20
Calcium	63		10.0	73.8	4	mg/L		109	75 - 125	1	20
Chromium	<0.0050		0.200	0.189		mg/L		95	75 - 125	0	20
Cobalt	<0.0010		0.500	0.545		mg/L		109	75 - 125	1	20
Lead	<0.00050		0.100	0.106		mg/L		106	75 - 125	0	20
Molybdenum	0.021		1.00	1.06		mg/L		104	75 - 125	1	20
Selenium	<0.0025		0.100	0.100		mg/L		100	75 - 125	1	20
Thallium	<0.0020		0.100	0.110		mg/L		110	75 - 125	1	20

Lab Sample ID: 500-254990-1 MSD

Matrix: Water

Analysis Batch: 783596

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	<0.0010		0.0500	0.0500		mg/L		100	75 - 125	1	20
Lithium	<0.010		0.100	0.104		mg/L		104	75 - 125	0	20

Lab Sample ID: 500-254990-1 MSD

Matrix: Water

Analysis Batch: 783978

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1.8		1.00	2.78		mg/L		95	75 - 125	0	20

Lab Sample ID: 500-254990-1 DU

Matrix: Water

Analysis Batch: 783273

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.019		0.0194		mg/L		0.9	20
Barium	0.035		0.0357		mg/L		3	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	63		65.1		mg/L		3	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.021		0.0209		mg/L		0.7	20
Selenium	<0.0025		<0.0025		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-254990-1 DU

Matrix: Water

Analysis Batch: 783596

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Lithium	<0.010		<0.010		mg/L		NC	20

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-254990-1 DU
Matrix: Water
Analysis Batch: 783978

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 782552

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Boron	1.8		1.81		mg/L		0.7	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-784044/12-A
Matrix: Water
Analysis Batch: 784230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 784044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/30/24 10:45	09/03/24 07:46	1

Lab Sample ID: LCS 500-784044/13-A
Matrix: Water
Analysis Batch: 784230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 784044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00205		mg/L		103	80 - 120

Lab Sample ID: 500-254990-5 MS
Matrix: Water
Analysis Batch: 784230

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 784044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.000999	0.00103		mg/L		103	75 - 125

Lab Sample ID: 500-254990-5 MSD
Matrix: Water
Analysis Batch: 784230

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 784044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	<0.00020		0.000999	0.00101		mg/L		101	75 - 125	2	20

Lab Sample ID: 500-254990-5 DU
Matrix: Water
Analysis Batch: 784230

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 784044

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-781749/1
Matrix: Water
Analysis Batch: 781749

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/16/24 00:46	1

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-781749/2

Matrix: Water

Analysis Batch: 781749

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	236		mg/L		94	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-781984/64

Matrix: Water

Analysis Batch: 781984

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			08/15/24 15:20	1

Lab Sample ID: LCS 500-781984/65

Matrix: Water

Analysis Batch: 781984

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.0		mg/L		95	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-781815/59

Matrix: Water

Analysis Batch: 781815

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			08/15/24 17:03	1

Lab Sample ID: LCS 500-781815/60

Matrix: Water

Analysis Batch: 781815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.43		mg/L		94	90 - 119

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-782442/16

Matrix: Water

Analysis Batch: 782442

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			08/20/24 11:45	1

Lab Sample ID: LCS 500-782442/17

Matrix: Water

Analysis Batch: 782442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	22.3		mg/L		112	88 - 123

Eurofins Chicago

euofins | Environment Testing

9/4/2024

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing

Client Information		Sampler: <u>Kaelyn Sperie</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s):		COC No: <u>500-126835-44027 1</u>			
Client Contact: <u>Mitchel Delan Kaelyn Sperie</u>		Phone: <u>262-24278-1621</u>		E-Mail: <u>Diana.Mockler@et.eurofins.com</u>		State of Origin: <u>IL</u>		Page: <u>Page 1 of 1</u>			
Company: <u>KPRG and Associates, Inc.</u>		PWSID		Analysis Requested							
Address: <u>14665 West Lisbon Road, Suite 1A</u>		Due Date Requested: <u>Standard</u>		Job #: <u>500-254990</u> Preservation Codes: D - HNO3 N - None Other:							
City: <u>Brookfield</u>		TAT Requested (days): <u>Standard</u>									
State, Zip: <u>WI, 53005</u>		Compliance Project: ☐ Yes ☐ No									
Phone: <u>262-781-0475(Tel)</u>		PO #: <u>4502102435</u>									
Email: <u>mitcheled@kprginc.com</u>		WO #: <u>4502140739</u>		Field Filled Sample (Yes or No) Perform H5/H5D (Yes or No) 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500, F.C. SM4500, C1.E, SM4500, S04.E Total Number of Containers							
Project Name: <u>Waukegan CCR Event Desc. Quarterly Waukegan CCR</u>		Project #: <u>50011597</u>									
Site: <u>Illinois</u>		SSOW#:									
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)		Special Instructions/Note:	
<u>MW-01</u>								Water			
<u>MW-02</u>								Water			
<u>MW-03</u>								Water			
<u>MW-04</u>								Water			
<u>MW-09</u>		<u>8/13/24</u>		<u>1326</u>		<u>G</u>		Water		<u>5</u>	
<u>MW-11</u>		<u>8/13/24</u>		<u>1032</u>		<u>↓</u>		Water			
<u>MW-14</u>		<u>8/13/24</u>		<u>1157</u>		<u>↓</u>		Water			
<u>MW-16</u>		<u>8/13/24</u>		<u>1513</u>		<u>↓</u>		Water			
<u>Duplicate</u>								Water			
								Water			
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological										☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested I, II, III, IV, Other (specify)										Special Instructions/QC Requirements	
Empty Kit Relinquished by				Date		Time		Method of Shipment			
Relinquished by: <u>Kaelyn Sperie</u>				Date/Time: <u>8/13/24/1625</u>		Company: <u>KPRG</u>		Received by: <u>FedEx</u>			
Relinquished by:				Date/Time:		Company:		Received by: <u>Shi Ruck</u>			
Relinquished by:				Date/Time:		Company:		Received by: <u>0955</u>			
Relinquished by:				Date/Time:		Company:		Received by: <u>EEA</u>			
Custody Seals Intact ☐ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>7.4 → 7.1</u>							



500-254990 Waybi

ORIGIN ID: FEPA (262) 278-1621

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 12AUG24
ACTWGT: 61.90 LB
CAD: 6994084/SSFE2541
DIMS: 23x12x12 IN

BILL THIRD PARTY

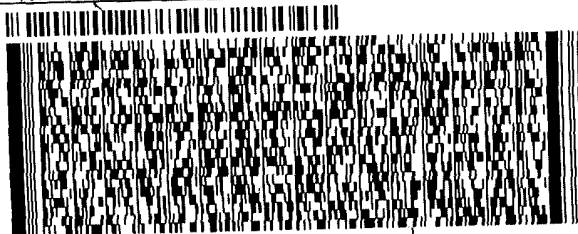
TO EUROFINS CHICAGO
C/O SAMPLE RECEIVING
2417 BOND ST

UNIVERSITY PARK IL 60484

(123) 123-1234

REF:

DEPT:



FedEx
Express



REL#
3786346

4 of 4

MP# 2782 0641 1998

Mstr# 2782 0641 1965

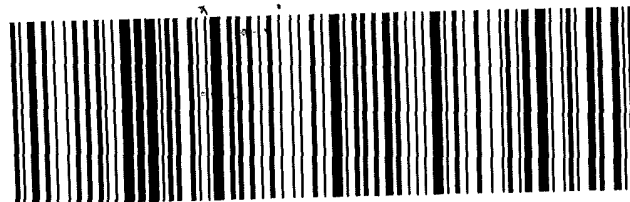
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79 JOTA

TUE - 13 AUG 10:30A
PRIORITY OVERNIGHT

60484

IL-US ORD



48qt.

ORIGIN ID: FEPA (262) 278-1621

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 12AUG24
ACTWGT: 26.00 LB
CAD: 6994084/SSFE2541
DIMS: 15x9x14 IN

BILL THIRD PARTY

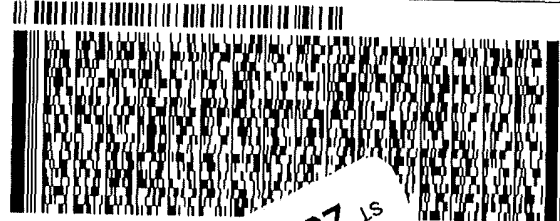
TO EUROFINS CHICAGO
C/O SAMPLE RECEIVING
2417 BOND ST

UNIVERSITY PARK IL 60484

(123) 123-1234

REF:

DEPT:



FedEx
Express



REL#
3786346

TRK#
0201

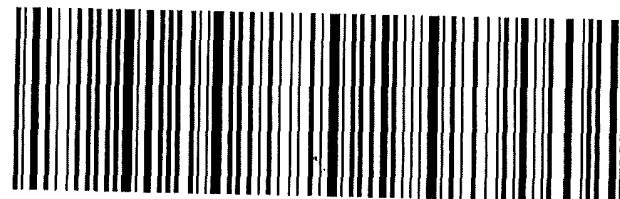
MA

79 A

TUE - 13 AUG 10:30A
PRIORITY OVERNIGHT

60484

IL-US ORD



78qt.

Part # 1562394571480995 EXP 06/25

ORIGIN ID: FEPA (626) 278-1261

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 13AUG24
ACTWGT: 61.15 LB
CAD: 6994085/SSFE2541
DIMS: 25x13x14 IN

BILL THIRD PARTY

Part # 156

TO **ATTN: SAMPLE RCV**
EUROFINS CHICAGO
2417 BOND ST



A
91P
OF

RT 5

500-254990 Waybi

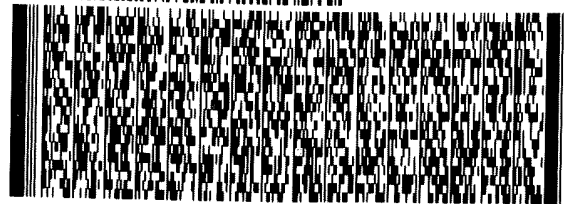
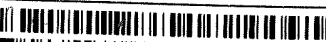
UNIVERSITY PARK IL 604 ST

(999) 999-9999

REF:

INU:

DEPT:



FedEx
Express



J243024071301 UV

2 of 3

MPS# **2782 5409 9184**

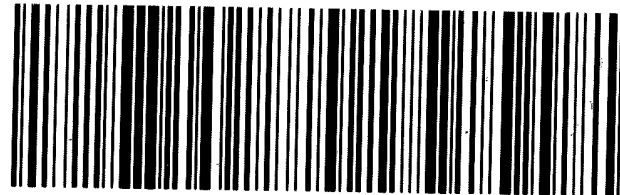
Mstr# 2782 5409 9173

0201

79 JOTA

WED - 14 AUG 10:30A
PRIORITY OVERNIGHT

AHS
60484
IL-US ORD



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler		Lab PM: Mockler, Diana J		Carrier Tracking No(s): 500-191590-1	
Shipping/Receiving		Phone:		E-Mail: Diana.Mockler@et.eurofins.com		State of Origin: Illinois	
Company: TestAmerica Laboratories, Inc.		Due Date Requested: 9/12/2024		Accreditations Required (See note): NELAP - Illinois		Job #: 500-254990-2	
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		TAT Requested (days):		Analysis Requested		Preservation Codes:	
PO #		WO #		Perform MS/MSD (Yes or No)		Total Number of containers	
Project # 50011597		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: NRG Midwest Generation Waukegan		Sample Date		Sample Time		Matrix (W=water, S=solid, O=wastefoil, BT=tissue, A=air)	
Project Name Waukegan CCR (RAD)		Sample Date		Sample Time		Preservation Code:	
Site: NRG Midwest Generation Waukegan		Sample Date		Sample Time		Special Instructions/Note:	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
MW-01 (500-254990-1)		8/12/24		12:08 Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
MW-02 (500-254990-2)		8/12/24		13:17 Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
MW-03 (500-254990-3)		8/12/24		15:01 Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
MW-04 (500-254990-4)		8/12/24		16:00 Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
Duplicate (500-254990-5)		8/12/24		Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months		Special Instructions/QC Requirements:		Cooler Temperature(s) °C and Other Remarks:	
Possible Hazard Identification Unconfirmed		Primary Deliverable Rank: 2		Date: 8/13/24 1600		Company: EPA	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Date/Time: 8/13/24 1600		Company: EPA	
Relinquished by: Suphanie Hernandez		Date/Time: 8/13/24 1600		Received by: M. Pinette		Date/Time: 8/14/2024 0845	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-254990-1

Login Number: 254990

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	
Cooler Temperature is recorded.	True	5.9,1.7,7.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-01

Date Collected: 08/12/24 12:08

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 12:17
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 13:30
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783978	RN	EET CHI	08/29/24 15:13
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 07:57
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:19
Total/NA	Analysis	SM 4500 Cl- E		2	781984	TR	EET CHI	08/15/24 16:17
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 17:40
Total/NA	Analysis	SM 4500 SO4 E		5	782442	TR	EET CHI	08/20/24 12:15

Client Sample ID: MW-02

Date Collected: 08/12/24 13:17

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 12:33
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 13:42
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783978	RN	EET CHI	08/29/24 15:26
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 07:59
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:22
Total/NA	Analysis	SM 4500 Cl- E		2	781984	TR	EET CHI	08/15/24 16:03
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 17:44
Total/NA	Analysis	SM 4500 SO4 E		5	782442	TR	EET CHI	08/20/24 12:15

Client Sample ID: MW-03

Date Collected: 08/12/24 15:01

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 12:35
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 13:44
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783978	RN	EET CHI	08/29/24 15:38
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 08:01

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-03

Date Collected: 08/12/24 15:01

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:24
Total/NA	Analysis	SM 4500 CI- E		5	781984	TR	EET CHI	08/15/24 16:16
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 17:50
Total/NA	Analysis	SM 4500 SO4 E		5	782442	TR	EET CHI	08/20/24 12:15

Client Sample ID: MW-04

Date Collected: 08/12/24 16:00

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 12:37
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 14:00
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783978	RN	EET CHI	08/29/24 15:41
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 08:03
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:27
Total/NA	Analysis	SM 4500 CI- E		2	781984	TR	EET CHI	08/15/24 16:03
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 17:54
Total/NA	Analysis	SM 4500 SO4 E		10	782442	TR	EET CHI	08/20/24 12:32

Client Sample ID: Duplicate

Date Collected: 08/12/24 00:00

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 12:40
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 14:02
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783978	RN	EET CHI	08/29/24 15:43
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 08:21
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:29
Total/NA	Analysis	SM 4500 CI- E		2	781984	TR	EET CHI	08/15/24 16:03
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 17:59
Total/NA	Analysis	SM 4500 SO4 E		5	782442	TR	EET CHI	08/20/24 12:16

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Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-09

Date Collected: 08/13/24 13:26

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 12:42
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 14:05
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		5	783978	RN	EET CHI	08/29/24 15:45
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 08:30
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:32
Total/NA	Analysis	SM 4500 Cl- E		2	781984	TR	EET CHI	08/15/24 16:02
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 18:04
Total/NA	Analysis	SM 4500 SO4 E		5	782442	TR	EET CHI	08/20/24 12:16

Client Sample ID: MW-11

Date Collected: 08/13/24 10:32

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 12:58
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 14:18
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783978	RN	EET CHI	08/29/24 15:48
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 08:39
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:35
Total/NA	Analysis	SM 4500 Cl- E		2	781984	TR	EET CHI	08/15/24 16:02
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 18:08
Total/NA	Analysis	SM 4500 SO4 E		1	782442	TR	EET CHI	08/20/24 11:47

Client Sample ID: MW-14

Date Collected: 08/13/24 11:57

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 13:00
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 14:21
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783978	RN	EET CHI	08/29/24 15:50
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 08:41

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Client Sample ID: MW-14

Date Collected: 08/13/24 11:57

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:37
Total/NA	Analysis	SM 4500 CI- E		1	781984	TR	EET CHI	08/15/24 15:21
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 18:24
Total/NA	Analysis	SM 4500 SO4 E		1	782442	TR	EET CHI	08/20/24 11:47

Client Sample ID: MW-16

Date Collected: 08/13/24 15:13

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783273	RN	EET CHI	08/26/24 13:02
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		1	783596	RN	EET CHI	08/27/24 14:23
Total Recoverable	Prep	3005A			782552	BDE	EET CHI	08/21/24 09:01 - 08/21/24 15:01 ¹
Total Recoverable	Analysis	6020B		5	783978	RN	EET CHI	08/29/24 15:52
Total/NA	Prep	7470A			784044	MJG	EET CHI	08/30/24 10:45 - 08/30/24 12:45 ¹
Total/NA	Analysis	7470A		1	784230	MJG	EET CHI	09/03/24 08:43
Total/NA	Analysis	SM 2540C		1	781749	CLB	EET CHI	08/16/24 01:40
Total/NA	Analysis	SM 4500 CI- E		5	781984	TR	EET CHI	08/15/24 16:01
Total/NA	Analysis	SM 4500 F C		1	781815	SO	EET CHI	08/15/24 18:28
Total/NA	Analysis	SM 4500 SO4 E		20	782442	TR	EET CHI	08/20/24 12:32

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-254990-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	05-31-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 9/16/2024 3:31:12 PM

JOB DESCRIPTION

Waukegan CCR (RAD)

JOB NUMBER

500-254990-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization



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Authorized for release by
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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR (RAD)

Job ID: 500-254990-2

Job ID: 500-254990-2

Eurofins Chicago

Job Narrative 500-254990-2

Receipt

The samples were received on 8/13/2024 9:25 AM and 8/14/2024 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.7°C, 5.9°C and 7.1°C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: MW-09 (500-254990-6), MW-11 (500-254990-7), MW-14 (500-254990-8) and MW-16 (500-254990-9).

Gas Flow Proportional Counter

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-254990-1	MW-01	Water	08/12/24 12:08	08/13/24 09:25
500-254990-2	MW-02	Water	08/12/24 13:17	08/13/24 09:25
500-254990-3	MW-03	Water	08/12/24 15:01	08/13/24 09:25
500-254990-4	MW-04	Water	08/12/24 16:00	08/13/24 09:25
500-254990-5	Duplicate	Water	08/12/24 00:00	08/13/24 09:25
500-254990-6	MW-09	Water	08/13/24 13:26	08/14/24 09:55
500-254990-7	MW-11	Water	08/13/24 10:32	08/14/24 09:55
500-254990-8	MW-14	Water	08/13/24 11:57	08/14/24 09:55
500-254990-9	MW-16	Water	08/13/24 15:13	08/14/24 09:55

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-01

Lab Sample ID: 500-254990-1

Date Collected: 08/12/24 12:08

Matrix: Water

Date Received: 08/13/24 09:25

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.190	U	0.115	0.116	1.00	0.190	pCi/L	08/19/24 08:10	09/10/24 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		30 - 110					08/19/24 08:10	09/10/24 17:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.606	U	0.364	0.365	1.00	0.606	pCi/L	08/19/24 08:14	09/06/24 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		30 - 110					08/19/24 08:14	09/06/24 12:09	1
Y Carrier	79.3		30 - 110					08/19/24 08:14	09/06/24 12:09	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.606	U	0.382	0.383	5.00	0.606	pCi/L		09/16/24 12:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-02

Lab Sample ID: 500-254990-2

Date Collected: 08/12/24 13:17

Matrix: Water

Date Received: 08/13/24 09:25

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.198	U	0.130	0.130	1.00	0.198	pCi/L	08/19/24 08:10	09/10/24 17:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		30 - 110					08/19/24 08:10	09/10/24 17:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.638	U	0.384	0.385	1.00	0.638	pCi/L	08/19/24 08:14	09/06/24 12:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		30 - 110					08/19/24 08:14	09/06/24 12:11	1
Y Carrier	81.1		30 - 110					08/19/24 08:14	09/06/24 12:11	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.638	U	0.405	0.406	5.00	0.638	pCi/L		09/16/24 12:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-03

Lab Sample ID: 500-254990-3

Date Collected: 08/12/24 15:01

Matrix: Water

Date Received: 08/13/24 09:25

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.198	U	0.102	0.102	1.00	0.198	pCi/L	08/19/24 08:10	09/10/24 17:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		30 - 110					08/19/24 08:10	09/10/24 17:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.546	U	0.298	0.298	1.00	0.546	pCi/L	08/19/24 08:14	09/06/24 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		30 - 110					08/19/24 08:14	09/06/24 12:12	1
Y Carrier	80.7		30 - 110					08/19/24 08:14	09/06/24 12:12	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.546	U	0.315	0.315	5.00	0.546	pCi/L		09/16/24 12:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-04

Lab Sample ID: 500-254990-4

Date Collected: 08/12/24 16:00

Matrix: Water

Date Received: 08/13/24 09:25

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.197	U	0.134	0.135	1.00	0.197	pCi/L	08/19/24 08:10	09/10/24 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.6		30 - 110					08/19/24 08:10	09/10/24 17:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.821	U	0.508	0.510	1.00	0.821	pCi/L	08/19/24 08:14	09/06/24 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.6		30 - 110					08/19/24 08:14	09/06/24 12:12	1
Y Carrier	66.9		30 - 110					08/19/24 08:14	09/06/24 12:12	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.821	U	0.525	0.528	5.00	0.821	pCi/L		09/16/24 12:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: Duplicate

Lab Sample ID: 500-254990-5

Date Collected: 08/12/24 00:00

Matrix: Water

Date Received: 08/13/24 09:25

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.104	U	0.0605	0.0606	1.00	0.104	pCi/L	08/19/24 08:10	09/10/24 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.6		30 - 110					08/19/24 08:10	09/10/24 17:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.770	U	0.469	0.471	1.00	0.770	pCi/L	08/19/24 08:14	09/06/24 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.6		30 - 110					08/19/24 08:14	09/06/24 12:12	1
Y Carrier	74.8		30 - 110					08/19/24 08:14	09/06/24 12:12	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.770	U	0.473	0.475	5.00	0.770	pCi/L		09/16/24 12:59	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-09

Lab Sample ID: 500-254990-6

Date Collected: 08/13/24 13:26

Matrix: Water

Date Received: 08/14/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.332		0.131	0.134	1.00	0.130	pCi/L	08/19/24 08:10	09/10/24 20:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110					08/19/24 08:10	09/10/24 20:17	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.764		0.473	0.479	1.00	0.695	pCi/L	08/19/24 08:14	09/06/24 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110					08/19/24 08:14	09/06/24 12:12	1
Y Carrier	68.8		30 - 110					08/19/24 08:14	09/06/24 12:12	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.491	0.497	5.00	0.695	pCi/L		09/16/24 12:59	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-11

Lab Sample ID: 500-254990-7

Date Collected: 08/13/24 10:32

Matrix: Water

Date Received: 08/14/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.494		0.163	0.169	1.00	0.144	pCi/L	08/19/24 08:10	09/10/24 20:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.4		30 - 110					08/19/24 08:10	09/10/24 20:17	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.63		0.523	0.544	1.00	0.598	pCi/L	08/19/24 08:14	09/06/24 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.4		30 - 110					08/19/24 08:14	09/06/24 12:12	1
Y Carrier	81.9		30 - 110					08/19/24 08:14	09/06/24 12:12	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.13		0.548	0.570	5.00	0.598	pCi/L		09/16/24 12:59	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-14

Lab Sample ID: 500-254990-8

Date Collected: 08/13/24 11:57

Matrix: Water

Date Received: 08/14/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.194		0.141	0.142	1.00	0.193	pCi/L	08/19/24 08:10	09/10/24 20:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		30 - 110					08/19/24 08:10	09/10/24 20:17	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.884	U	0.565	0.568	1.00	0.884	pCi/L	08/19/24 08:14	09/06/24 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		30 - 110					08/19/24 08:14	09/06/24 12:12	1
Y Carrier	78.5		30 - 110					08/19/24 08:14	09/06/24 12:12	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.884	U	0.582	0.585	5.00	0.884	pCi/L		09/16/24 12:59	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-16

Lab Sample ID: 500-254990-9

Date Collected: 08/13/24 15:13

Matrix: Water

Date Received: 08/14/24 09:55

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.364		0.156	0.160	1.00	0.186	pCi/L	08/19/24 08:10	09/10/24 20:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					08/19/24 08:10	09/10/24 20:17	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.760		0.397	0.403	1.00	0.547	pCi/L	08/19/24 08:14	09/06/24 12:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					08/19/24 08:14	09/06/24 12:13	1
Y Carrier	78.5		30 - 110					08/19/24 08:14	09/06/24 12:13	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12		0.427	0.434	5.00	0.547	pCi/L		09/16/24 12:59	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Rad

Prep Batch: 675562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	PrecSep-21	
500-254990-2	MW-02	Total/NA	Water	PrecSep-21	
500-254990-3	MW-03	Total/NA	Water	PrecSep-21	
500-254990-4	MW-04	Total/NA	Water	PrecSep-21	
500-254990-5	Duplicate	Total/NA	Water	PrecSep-21	
500-254990-6	MW-09	Total/NA	Water	PrecSep-21	
500-254990-7	MW-11	Total/NA	Water	PrecSep-21	
500-254990-8	MW-14	Total/NA	Water	PrecSep-21	
500-254990-9	MW-16	Total/NA	Water	PrecSep-21	
MB 160-675562/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-675562/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 675563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-254990-1	MW-01	Total/NA	Water	PrecSep_0	
500-254990-2	MW-02	Total/NA	Water	PrecSep_0	
500-254990-3	MW-03	Total/NA	Water	PrecSep_0	
500-254990-4	MW-04	Total/NA	Water	PrecSep_0	
500-254990-5	Duplicate	Total/NA	Water	PrecSep_0	
500-254990-6	MW-09	Total/NA	Water	PrecSep_0	
500-254990-7	MW-11	Total/NA	Water	PrecSep_0	
500-254990-8	MW-14	Total/NA	Water	PrecSep_0	
500-254990-9	MW-16	Total/NA	Water	PrecSep_0	
MB 160-675563/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-675563/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-675562/1-A
Matrix: Water
Analysis Batch: 678848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675562

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.157	U	0.0880	0.0880	1.00	0.157	pCi/L	08/19/24 08:10	09/10/24 12:48	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		30 - 110					08/19/24 08:10	09/10/24 12:48	1

Lab Sample ID: LCS 160-675562/2-A
Matrix: Water
Analysis Batch: 678848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675562

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.58	9.064		1.01	1.00	0.0894	pCi/L	95	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	92.9		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-675563/1-A
Matrix: Water
Analysis Batch: 678528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675563

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.449	U	0.240	0.240	1.00	0.449	pCi/L	08/19/24 08:14	09/06/24 12:07	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		30 - 110					08/19/24 08:14	09/06/24 12:07	1
Y Carrier	80.7		30 - 110					08/19/24 08:14	09/06/24 12:07	1

Lab Sample ID: LCS 160-675563/2-A
Matrix: Water
Analysis Batch: 678528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675563

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228		8.54	8.345		1.19	1.00	0.492	pCi/L	98	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	92.9		30 - 110							
Y Carrier	80.7		30 - 110							

euofins | Environment Testing

Ver: 04/07/2024
9/16/2024

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing

Client Information		Sampler: <u>Kaelyn Sperie</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s):		COC No: <u>500-126835-44027 1</u>			
Client Contact: <u>Mitchel Delan Kaelyn Sperie</u>		Phone: <u>262-24278-1621</u>		E-Mail: <u>Diana.Mockler@et.eurofins.com</u>		State of Origin: <u>IL</u>		Page: <u>Page 1 of 1</u>			
Company: <u>KPRG and Associates, Inc.</u>		PWSID		Analysis Requested							
Address: <u>14665 West Lisbon Road, Suite 1A</u>		Due Date Requested: <u>Standard</u>		Job #: <u>500-254990</u> Preservation Codes: D - HNO3 N - None Other:							
City: <u>Brookfield</u>		TAT Requested (days): <u>Standard</u>									
State, Zip: <u>WI, 53005</u>		Compliance Project: ☐ Yes ☐ No									
Phone: <u>262-781-0475(Tel)</u>		PO #: <u>4502102435</u>									
Email: <u>mitcheled@kprginc.com</u>		WO #: <u>4502140739</u>		Field Filled Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500, F.C. SM4500, Cl.E, SM4500, SO4.E Total Number of Containers							
Project Name: <u>Waukegan CCR Event Desc. Quarterly Waukegan CCR</u>		Project #: <u>50011597</u>									
Site: <u>Illinois</u>		SSOW#:									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note:					
<u>MW-01</u>					Water						
<u>MW-02</u>					Water						
<u>MW-03</u>					Water						
<u>MW-04</u>					Water						
<u>MW-09</u>		<u>8/13/24</u>	<u>1326</u>	<u>G</u>	Water	<u>N</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>MW-11</u>		<u>8/13/24</u>	<u>1032</u>	<u>↓</u>	Water	<u>N</u>	<u>N</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	
<u>MW-14</u>		<u>8/13/24</u>	<u>1157</u>	<u>↓</u>	Water	<u>N</u>	<u>N</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	
<u>MW-16</u>		<u>8/13/24</u>	<u>1513</u>	<u>↓</u>	Water	<u>N</u>	<u>N</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	
<u>Duplicate</u>					Water						
					Water						
Possible Hazard Identification											
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological											
Deliverable Requested I, II, III, IV, Other (specify)											
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months											
Special Instructions/QC Requirements											
Empty Kit Relinquished by											
Relinquished by: <u>Kaelyn Sperie</u>		Date/Time: <u>8/13/24/1625</u>		Company: <u>KPRG</u>		Received by: <u>FedEx</u>		Date/Time: <u>8/13/24/1625</u>		Company: <u>FedEx</u>	
Relinquished by:		Date/Time:		Company:		Received by: <u>Shi Ruck</u>		Date/Time: <u>8/14/24 0955</u>		Company: <u>PEPA</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact ☐ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>7.4 → 7.1</u>							



500-254990 Waybi

ORIGIN ID: FEPA (262) 278-1621

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 12AUG24
ACTWGT: 61.90 LB
CAD: 6994084/SSFE2541
DIMS: 23x12x12 IN

BILL THIRD PARTY

Part # 1562394571480995 EXP 06/25

TO EUROFINS CHICAGO
C/O SAMPLE RECEIVING
2417 BOND ST

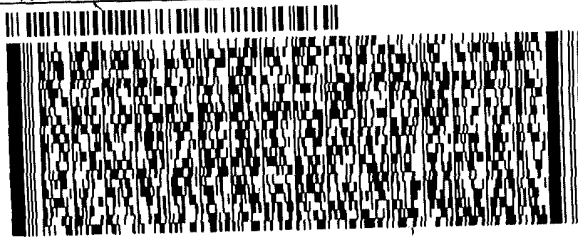
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UNIVERSITY PARK IL 60484

(123) 123-1234

REF:

DEPT:



FedEx
Express



REL#
3786346

4 of 4

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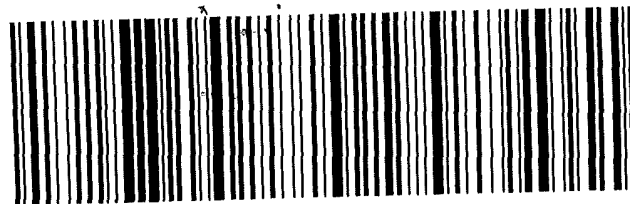
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79 JOTA

TUE - 13 AUG 10:30A
PRIORITY OVERNIGHT

60484

IL-US ORD



48qt.

ORIGIN ID: FEPA (262) 278-1621

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 12AUG24
ACTWGT: 26.00 LB
CAD: 6994084/SSFE2541
DIMS: 15x9x14 IN

BILL THIRD PARTY

Part # 1562394571480995 EXP 06/25

TO EUROFINS CHICAGO
C/O SAMPLE RECEIVING
2417 BOND ST

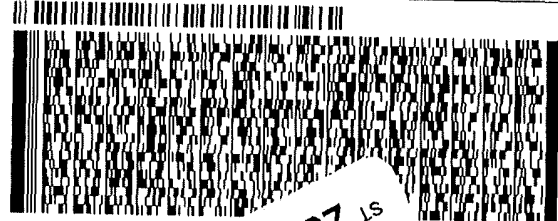
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1.8+1.7

(123) 123-1234

REF:

DEPT:



FedEx
Express



REL#
3786346

TRK#
0201

MA

1965

10:30

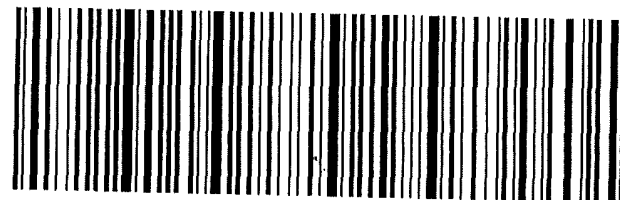
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TUE - 13 AUG 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484

IL-US ORD



78qt.

ORIGIN ID: FEPA (626) 278-1261

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 13AUG24
ACTWGT: 61.15 LB
CAD: 6994085/SSFE2541
DIMS: 25x13x14 IN

BILL THIRD PARTY

Part # 156

TO **ATTN: SAMPLE RCV**
EUROFINS CHICAGO
2417 BOND ST



A
91P
OF

RT 5

500-254990 Waybi

UNIVERSITY PARK IL 604 ST

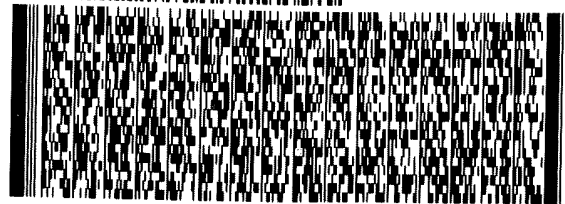
(999) 999-9999

REF:

INV:

DEPT:

PO:



FedEx
Express



J243024071301 UV

2 of 3

MPS# **2782 5409 9184**

Mstr# 2782 5409 9173

0201

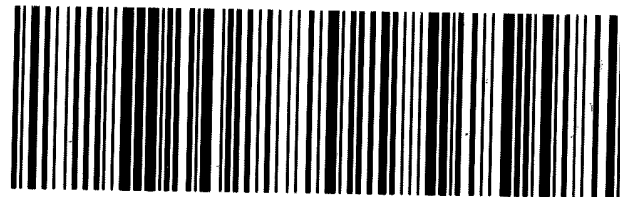
79 JOTA

WED - 14 AUG 10:30A
PRIORITY OVERNIGHT

AHS

60484

IL-US ORD





Environment Testing

Client Information (Sub Contract Lab)			Sampler:	Lab PM:	Carrier Tracking No(s)	COC No												
Client Contact:			Phone	Mockler, Diana J		500-191590-1												
Shipping/Receiving				E-Mail:	State of Origin	Page												
Company				Diana.Mockler@et.eurofinsus.com	Illinois	Page 1 of 1												
Test/America Laboratories, Inc.			Accreditations Required (See note):															
Address			NELAP - Illinois															
City			Due Date Requested:															
State, Zip			9/12/2024															
Phone			TAT Requested (days):															
MO, 63045																		
Email			PO #															
Project Name			WO #															
Waukegan CCR (RAD)			Project #															
Site			50011597															
NRG Midwest Generation Waukegan			SSOW#															
Sample Identification - Client ID (Lab ID)			Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other/other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228_GFPc	Analysis Requested					Total Number of containers	Special Instructions/Note:
MW-01 (500-254990-1)	8/12/24	12:08 Central	Water						X	X						3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
MW-02 (500-254990-2)	8/12/24	13:17 Central	Water						X	X						3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
MW-03 (500-254990-3)	8/12/24	15:01 Central	Water						X	X						3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
MW-04 (500-254990-4)	8/12/24	16:00 Central	Water						X	X						3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
Duplicate (500-254990-5)	8/12/24	Central	Water						X	X						3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	
Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.																		
Possible Hazard Identification																		
Unconfirmed																		
Deliverable Requested: I, II, III, IV, Other (specify)																		
Primary Deliverable Rank: 2																		
Empty Kit Relinquished by:																		
Date:																		
Relinquished by: Stephanie Hernandez																		
Date/Time: 9/13/24 1600																		
Relinquished by:																		
Date/Time:																		
Relinquished by:																		
Date/Time:																		
Custody Seals Intact: ☐ Yes ☐ No																		
Custody Seal No.:																		
Cooler Temperature(s) °C and Other Remarks:																		

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

[illegible]

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-254990-2

Login Number: 254990

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	
Cooler Temperature is recorded.	True	5.9,1.7,7.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-254990-2

Login Number: 254990

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 08/14/24 11:12 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-254990-2

Login Number: 254990

List Number: 3

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 08/15/24 12:42 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-01

Date Collected: 08/12/24 12:08

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678846	CMM	EET SL	09/10/24 17:14
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678528	FLC	EET SL	09/06/24 12:09
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:56

Client Sample ID: MW-02

Date Collected: 08/12/24 13:17

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678846	CMM	EET SL	09/10/24 17:15
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:11
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:56

Client Sample ID: MW-03

Date Collected: 08/12/24 15:01

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678846	CMM	EET SL	09/10/24 17:15
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:56

Client Sample ID: MW-04

Date Collected: 08/12/24 16:00

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678848	CMM	EET SL	09/10/24 17:14
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:56

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: Duplicate

Date Collected: 08/12/24 00:00

Date Received: 08/13/24 09:25

Lab Sample ID: 500-254990-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678848	CMM	EET SL	09/10/24 17:14
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:59

Client Sample ID: MW-09

Date Collected: 08/13/24 13:26

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678846	CMM	EET SL	09/10/24 20:17
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:59

Client Sample ID: MW-11

Date Collected: 08/13/24 10:32

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678846	CMM	EET SL	09/10/24 20:17
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:59

Client Sample ID: MW-14

Date Collected: 08/13/24 11:57

Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678846	CMM	EET SL	09/10/24 20:17
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:59

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Client Sample ID: MW-16
Date Collected: 08/13/24 15:13
Date Received: 08/14/24 09:55

Lab Sample ID: 500-254990-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			675562	MLT	EET SL	08/19/24 08:10
Total/NA	Analysis	903.0		1	678846	CMM	EET SL	09/10/24 20:17
Total/NA	Prep	PrecSep_0			675563	MLT	EET SL	08/19/24 08:14
Total/NA	Analysis	904.0		1	678486	FLC	EET SL	09/06/24 12:13
Total/NA	Analysis	Ra226_Ra228		1	679690	FLC	EET SL	09/16/24 12:59

Laboratory References:
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-254990-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
		Ba					
Lab Sample ID	Client Sample ID	(30-110)					
500-254990-1	MW-01	77.2					
500-254990-2	MW-02	84.3					
500-254990-3	MW-03	83.2					
500-254990-4	MW-04	73.6					
500-254990-5	Duplicate	75.6					
500-254990-6	MW-09	86.8					
500-254990-7	MW-11	78.4					
500-254990-8	MW-14	76.1					
500-254990-9	MW-16	88.1					
LCS 160-675562/2-A	Lab Control Sample	92.9					
MB 160-675562/1-A	Method Blank	100					
Tracer/Carrier Legend							
Ba = Ba Carrier							

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
		Ba	Y				
Lab Sample ID	Client Sample ID	(30-110)	(30-110)				
500-254990-1	MW-01	77.2	79.3				
500-254990-2	MW-02	84.3	81.1				
500-254990-3	MW-03	83.2	80.7				
500-254990-4	MW-04	73.6	66.9				
500-254990-5	Duplicate	75.6	74.8				
500-254990-6	MW-09	86.8	68.8				
500-254990-7	MW-11	78.4	81.9				
500-254990-8	MW-14	76.1	78.5				
500-254990-9	MW-16	88.1	78.5				
LCS 160-675563/2-A	Lab Control Sample	92.9	80.7				
MB 160-675563/1-A	Method Blank	100	80.7				
Tracer/Carrier Legend							
Ba = Ba Carrier							
Y = Y Carrier							

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 12/6/2024 1:49:49 PM

JOB DESCRIPTION

Waukegan CCR

JOB NUMBER

500-259939-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization



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Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570

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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR

Job ID: 500-259939-1

Job ID: 500-259939-1

Eurofins Chicago

Job Narrative 500-259939-1

Receipt

The samples were received on 11/12/24 09:45 and 11/13/24 09:45. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were -0.6°C, 0.1°C and 3.1°C.

Metals

Method 6020B - Total Recoverable: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-01 (500-259939-1), MW-02 (500-259939-2), MW-03 (500-259939-3), MW-04 (500-259939-4), MW-09 (500-259939-5), MW-11 (500-259939-6), MW-14 (500-259939-7) and MW-16 (500-259939-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Chicago

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
300.0	Anions, Ion Chromatography	EPA	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-259939-1	MW-01	Water	11/11/24 15:48	11/12/24 09:45
500-259939-2	MW-02	Water	11/11/24 14:21	11/12/24 09:45
500-259939-3	MW-03	Water	11/11/24 12:40	11/12/24 09:45
500-259939-4	MW-04	Water	11/11/24 11:14	11/12/24 09:45
500-259939-5	MW-09	Water	11/12/24 13:59	11/13/24 09:45
500-259939-6	MW-11	Water	11/12/24 10:49	11/13/24 09:45
500-259939-7	MW-14	Water	11/12/24 12:26	11/13/24 09:45
500-259939-8	MW-16	Water	11/12/24 09:20	11/13/24 09:45
500-259939-9	Duplicate	Water	11/12/24 00:00	11/13/24 09:45

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-01

Lab Sample ID: 500-259939-1

Date Collected: 11/11/24 15:48

Matrix: Water

Date Received: 11/12/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:00	1
Arsenic	0.012		0.0010		mg/L		12/04/24 09:38	12/04/24 19:00	1
Barium	0.053		0.0025		mg/L		12/04/24 09:38	12/04/24 19:00	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:00	1
Boron	2.4		0.25		mg/L		12/04/24 09:38	12/05/24 14:18	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:00	1
Calcium	94		0.20		mg/L		12/04/24 09:38	12/04/24 19:00	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:00	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:00	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:00	1
Lithium	<0.010		0.010		mg/L		12/04/24 09:38	12/04/24 19:00	1
Molybdenum	0.025		0.0050		mg/L		12/04/24 09:38	12/04/24 19:00	1
Selenium	0.0036		0.0025		mg/L		12/04/24 09:38	12/04/24 19:00	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	82		10		mg/L			12/03/24 16:08	10
Sulfate (EPA 300.0)	190		10		mg/L			12/03/24 16:08	10
Total Dissolved Solids (SM 2540C)	550		10		mg/L			11/15/24 09:55	1
Fluoride (SM 4500 F C)	0.22		0.10		mg/L			11/27/24 13:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-02

Lab Sample ID: 500-259939-2

Date Collected: 11/11/24 14:21

Matrix: Water

Date Received: 11/12/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:02	1
Arsenic	0.0090		0.0010		mg/L		12/04/24 09:38	12/04/24 19:02	1
Barium	0.019		0.0025		mg/L		12/04/24 09:38	12/04/24 19:02	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:02	1
Boron	3.4		0.25		mg/L		12/04/24 09:38	12/05/24 14:22	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:02	1
Calcium	62		0.20		mg/L		12/04/24 09:38	12/04/24 19:02	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:02	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:02	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:02	1
Lithium	<0.010		0.010		mg/L		12/04/24 09:38	12/04/24 19:02	1
Molybdenum	0.022		0.0050		mg/L		12/04/24 09:38	12/04/24 19:02	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:02	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	73		10		mg/L			12/03/24 23:34	10
Sulfate (EPA 300.0)	180		10		mg/L			12/03/24 23:34	10
Total Dissolved Solids (SM 2540C)	490		10		mg/L			11/15/24 09:57	1
Fluoride (SM 4500 F C)	0.39		0.10		mg/L			11/27/24 14:01	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-03

Lab Sample ID: 500-259939-3

Date Collected: 11/11/24 12:40

Matrix: Water

Date Received: 11/12/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:05	1
Arsenic	0.043		0.0010		mg/L		12/04/24 09:38	12/04/24 19:05	1
Barium	0.0040		0.0025		mg/L		12/04/24 09:38	12/04/24 19:05	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:05	1
Boron	3.0		0.25		mg/L		12/04/24 09:38	12/05/24 14:26	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:05	1
Calcium	28		0.20		mg/L		12/04/24 09:38	12/04/24 19:05	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:05	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:05	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:05	1
Lithium	<0.010		0.010		mg/L		12/04/24 09:38	12/04/24 19:05	1
Molybdenum	0.060		0.0050		mg/L		12/04/24 09:38	12/04/24 19:05	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:05	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	78		10		mg/L			12/03/24 23:50	10
Sulfate (EPA 300.0)	180		10		mg/L			12/03/24 23:50	10
Total Dissolved Solids (SM 2540C)	500		10		mg/L			11/17/24 23:19	1
Fluoride (SM 4500 F C)	0.54		0.10		mg/L			11/27/24 14:06	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-04

Lab Sample ID: 500-259939-4

Date Collected: 11/11/24 11:14

Matrix: Water

Date Received: 11/12/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:07	1
Arsenic	0.011		0.0010		mg/L		12/04/24 09:38	12/04/24 19:07	1
Barium	0.026		0.0025		mg/L		12/04/24 09:38	12/04/24 19:07	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:07	1
Boron	2.7		0.25		mg/L		12/04/24 09:38	12/05/24 14:37	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:07	1
Calcium	50		0.20		mg/L		12/04/24 09:38	12/04/24 19:07	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:07	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:07	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:07	1
Lithium	<0.010		0.010		mg/L		12/04/24 09:38	12/04/24 19:07	1
Molybdenum	0.070		0.0050		mg/L		12/04/24 09:38	12/04/24 19:07	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:07	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	65		10		mg/L			12/04/24 00:06	10
Sulfate (EPA 300.0)	170		10		mg/L			12/04/24 00:06	10
Total Dissolved Solids (SM 2540C)	410		10		mg/L			11/17/24 23:21	1
Fluoride (SM 4500 F C)	0.41		0.10		mg/L			11/27/24 14:12	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-09

Lab Sample ID: 500-259939-5

Date Collected: 11/12/24 13:59

Matrix: Water

Date Received: 11/13/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:09	1
Arsenic	0.013		0.0010		mg/L		12/04/24 09:38	12/04/24 19:09	1
Barium	0.11		0.0025		mg/L		12/04/24 09:38	12/04/24 19:09	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:09	1
Boron	2.8		0.25		mg/L		12/04/24 09:38	12/05/24 14:41	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:09	1
Calcium	130		0.20		mg/L		12/04/24 09:38	12/04/24 19:09	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:09	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:09	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:09	1
Lithium	0.047		0.010		mg/L		12/04/24 09:38	12/04/24 19:09	1
Molybdenum	0.055		0.0050		mg/L		12/04/24 09:38	12/04/24 19:09	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:09	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	170		10		mg/L			12/04/24 00:21	10
Sulfate (EPA 300.0)	130		10		mg/L			12/04/24 00:21	10
Total Dissolved Solids (SM 2540C)	870		10		mg/L			11/17/24 23:24	1
Fluoride (SM 4500 F C)	0.32		0.10		mg/L			11/27/24 14:31	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-11

Lab Sample ID: 500-259939-6

Date Collected: 11/12/24 10:49

Matrix: Water

Date Received: 11/13/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:17	1
Arsenic	0.41		0.0010		mg/L		12/04/24 09:38	12/04/24 19:17	1
Barium	0.029		0.0025		mg/L		12/04/24 09:38	12/04/24 19:17	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:17	1
Boron	1.7		0.25		mg/L		12/04/24 09:38	12/05/24 14:45	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:17	1
Calcium	100		0.20		mg/L		12/04/24 09:38	12/04/24 19:17	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:17	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:17	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:17	1
Lithium	0.031		0.010		mg/L		12/04/24 09:38	12/04/24 19:17	1
Molybdenum	0.0081		0.0050		mg/L		12/04/24 09:38	12/04/24 19:17	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:17	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	110		5.0		mg/L			12/04/24 00:37	5
Sulfate (EPA 300.0)	37		5.0		mg/L			12/04/24 00:37	5
Total Dissolved Solids (SM 2540C)	630		10		mg/L			11/17/24 23:26	1
Fluoride (SM 4500 F C)	0.17		0.10		mg/L			11/27/24 14:35	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-14

Lab Sample ID: 500-259939-7

Date Collected: 11/12/24 12:26

Matrix: Water

Date Received: 11/13/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:19	1
Arsenic	6.6		0.0050		mg/L		12/04/24 09:38	12/05/24 14:49	5
Barium	0.081		0.0025		mg/L		12/04/24 09:38	12/04/24 19:19	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:19	1
Boron	0.54		0.25		mg/L		12/04/24 09:38	12/05/24 14:49	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:19	1
Calcium	130		0.20		mg/L		12/04/24 09:38	12/04/24 19:19	1
Chromium	0.66		0.0050		mg/L		12/04/24 09:38	12/04/24 19:19	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:19	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:19	1
Lithium	0.014		0.010		mg/L		12/04/24 09:38	12/04/24 19:19	1
Molybdenum	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:19	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:19	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	25		1.0		mg/L			12/04/24 01:24	1
Sulfate (EPA 300.0)	5.9		1.0		mg/L			12/04/24 01:24	1
Total Dissolved Solids (SM 2540C)	550		10		mg/L			11/17/24 23:29	1
Fluoride (SM 4500 F C)	0.14		0.10		mg/L			11/27/24 14:39	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-16

Lab Sample ID: 500-259939-8

Date Collected: 11/12/24 09:20

Matrix: Water

Date Received: 11/13/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:21	1
Arsenic	0.0018		0.0010		mg/L		12/04/24 09:38	12/04/24 19:21	1
Barium	0.057		0.0025		mg/L		12/04/24 09:38	12/04/24 19:21	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:21	1
Boron	4.1		0.25		mg/L		12/04/24 09:38	12/05/24 14:53	5
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:21	1
Calcium	220		0.20		mg/L		12/04/24 09:38	12/04/24 19:21	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:21	1
Cobalt	0.0021		0.0010		mg/L		12/04/24 09:38	12/04/24 19:21	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:21	1
Lithium	0.019		0.010		mg/L		12/04/24 09:38	12/04/24 19:21	1
Molybdenum	0.016		0.0050		mg/L		12/04/24 09:38	12/04/24 19:21	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:21	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	48		20		mg/L			12/04/24 01:39	20
Sulfate (EPA 300.0)	450		20		mg/L			12/04/24 01:39	20
Total Dissolved Solids (SM 2540C)	1200		10		mg/L			11/17/24 23:31	1
Fluoride (SM 4500 F C)	0.39		0.10		mg/L			11/27/24 14:54	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: Duplicate

Lab Sample ID: 500-259939-9

Date Collected: 11/12/24 00:00

Matrix: Water

Date Received: 11/13/24 09:45

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 19:24	1
Arsenic	0.36		0.0010		mg/L		12/04/24 09:38	12/04/24 19:24	1
Barium	0.027		0.0025		mg/L		12/04/24 09:38	12/04/24 19:24	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:24	1
Boron	1.6		0.050		mg/L		12/04/24 09:38	12/05/24 14:56	1
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:24	1
Calcium	99		0.20		mg/L		12/04/24 09:38	12/04/24 19:24	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 19:24	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 19:24	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 19:24	1
Lithium	0.028		0.010		mg/L		12/04/24 09:38	12/04/24 19:24	1
Molybdenum	0.0075		0.0050		mg/L		12/04/24 09:38	12/04/24 19:24	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 19:24	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 19:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	110		10		mg/L			12/04/24 01:55	10
Sulfate (EPA 300.0)	37		10		mg/L			12/04/24 01:55	10
Total Dissolved Solids (SM 2540C)	620		10		mg/L			11/17/24 23:34	1
Fluoride (SM 4500 F C)	0.18		0.10		mg/L			11/27/24 15:08	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Metals

Prep Batch: 797976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total Recoverable	Water	3005A	
500-259939-2	MW-02	Total Recoverable	Water	3005A	
500-259939-3	MW-03	Total Recoverable	Water	3005A	
500-259939-4	MW-04	Total Recoverable	Water	3005A	
500-259939-5	MW-09	Total Recoverable	Water	3005A	
500-259939-6	MW-11	Total Recoverable	Water	3005A	
500-259939-7	MW-14	Total Recoverable	Water	3005A	
500-259939-8	MW-16	Total Recoverable	Water	3005A	
500-259939-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-797976/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-797976/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 798014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total/NA	Water	7470A	
500-259939-2	MW-02	Total/NA	Water	7470A	
500-259939-3	MW-03	Total/NA	Water	7470A	
500-259939-4	MW-04	Total/NA	Water	7470A	
500-259939-5	MW-09	Total/NA	Water	7470A	
500-259939-6	MW-11	Total/NA	Water	7470A	
500-259939-7	MW-14	Total/NA	Water	7470A	
500-259939-8	MW-16	Total/NA	Water	7470A	
500-259939-9	Duplicate	Total/NA	Water	7470A	
MB 500-798014/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-798014/13-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 500-798014/29-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Analysis Batch: 798135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total Recoverable	Water	6020B	797976
500-259939-2	MW-02	Total Recoverable	Water	6020B	797976
500-259939-3	MW-03	Total Recoverable	Water	6020B	797976
500-259939-4	MW-04	Total Recoverable	Water	6020B	797976
500-259939-5	MW-09	Total Recoverable	Water	6020B	797976
500-259939-6	MW-11	Total Recoverable	Water	6020B	797976
500-259939-7	MW-14	Total Recoverable	Water	6020B	797976
500-259939-8	MW-16	Total Recoverable	Water	6020B	797976
500-259939-9	Duplicate	Total Recoverable	Water	6020B	797976
MB 500-797976/1-A	Method Blank	Total Recoverable	Water	6020B	797976
LCS 500-797976/2-A	Lab Control Sample	Total Recoverable	Water	6020B	797976

Analysis Batch: 798220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total/NA	Water	7470A	798014
500-259939-2	MW-02	Total/NA	Water	7470A	798014
500-259939-3	MW-03	Total/NA	Water	7470A	798014
500-259939-4	MW-04	Total/NA	Water	7470A	798014
500-259939-5	MW-09	Total/NA	Water	7470A	798014
500-259939-6	MW-11	Total/NA	Water	7470A	798014
500-259939-7	MW-14	Total/NA	Water	7470A	798014
500-259939-8	MW-16	Total/NA	Water	7470A	798014

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Metals (Continued)

Analysis Batch: 798220 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-9	Duplicate	Total/NA	Water	7470A	798014
MB 500-798014/12-A	Method Blank	Total/NA	Water	7470A	798014
LCS 500-798014/13-A	Lab Control Sample	Total/NA	Water	7470A	798014
LCSD 500-798014/29-A	Lab Control Sample Dup	Total/NA	Water	7470A	798014

Analysis Batch: 798345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total Recoverable	Water	6020B	797976
500-259939-2	MW-02	Total Recoverable	Water	6020B	797976
500-259939-3	MW-03	Total Recoverable	Water	6020B	797976
500-259939-4	MW-04	Total Recoverable	Water	6020B	797976
500-259939-5	MW-09	Total Recoverable	Water	6020B	797976
500-259939-6	MW-11	Total Recoverable	Water	6020B	797976
500-259939-7	MW-14	Total Recoverable	Water	6020B	797976
500-259939-8	MW-16	Total Recoverable	Water	6020B	797976
500-259939-9	Duplicate	Total Recoverable	Water	6020B	797976
MB 500-797976/1-A	Method Blank	Total Recoverable	Water	6020B	797976
LCS 500-797976/2-A	Lab Control Sample	Total Recoverable	Water	6020B	797976

General Chemistry

Analysis Batch: 795525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total/NA	Water	SM 2540C	
500-259939-2	MW-02	Total/NA	Water	SM 2540C	
MB 500-795525/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-795525/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 795735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-3	MW-03	Total/NA	Water	SM 2540C	
500-259939-4	MW-04	Total/NA	Water	SM 2540C	
500-259939-5	MW-09	Total/NA	Water	SM 2540C	
500-259939-6	MW-11	Total/NA	Water	SM 2540C	
500-259939-7	MW-14	Total/NA	Water	SM 2540C	
500-259939-8	MW-16	Total/NA	Water	SM 2540C	
500-259939-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-795735/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-795735/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 797536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total/NA	Water	SM 4500 F C	
500-259939-2	MW-02	Total/NA	Water	SM 4500 F C	
500-259939-3	MW-03	Total/NA	Water	SM 4500 F C	
500-259939-4	MW-04	Total/NA	Water	SM 4500 F C	
500-259939-5	MW-09	Total/NA	Water	SM 4500 F C	
500-259939-6	MW-11	Total/NA	Water	SM 4500 F C	
500-259939-7	MW-14	Total/NA	Water	SM 4500 F C	
500-259939-8	MW-16	Total/NA	Water	SM 4500 F C	
500-259939-9	Duplicate	Total/NA	Water	SM 4500 F C	

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

General Chemistry (Continued)

Analysis Batch: 797536 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-797536/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-797536/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-797536/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-797536/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-259939-8 MS	MW-16	Total/NA	Water	SM 4500 F C	
500-259939-8 MSD	MW-16	Total/NA	Water	SM 4500 F C	

Analysis Batch: 797813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total/NA	Water	300.0	
MB 500-797813/3	Method Blank	Total/NA	Water	300.0	
LCS 500-797813/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 797827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-2	MW-02	Total/NA	Water	300.0	
500-259939-3	MW-03	Total/NA	Water	300.0	
500-259939-4	MW-04	Total/NA	Water	300.0	
500-259939-5	MW-09	Total/NA	Water	300.0	
500-259939-6	MW-11	Total/NA	Water	300.0	
500-259939-7	MW-14	Total/NA	Water	300.0	
500-259939-8	MW-16	Total/NA	Water	300.0	
500-259939-9	Duplicate	Total/NA	Water	300.0	
MB 500-797827/3	Method Blank	Total/NA	Water	300.0	
LCS 500-797827/4	Lab Control Sample	Total/NA	Water	300.0	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-797976/1-A
Matrix: Water
Analysis Batch: 798135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 797976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/04/24 09:38	12/04/24 18:27	1
Arsenic	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 18:27	1
Barium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 18:27	1
Beryllium	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 18:27	1
Cadmium	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 18:27	1
Calcium	<0.20		0.20		mg/L		12/04/24 09:38	12/04/24 18:27	1
Chromium	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 18:27	1
Cobalt	<0.0010		0.0010		mg/L		12/04/24 09:38	12/04/24 18:27	1
Lead	<0.00050		0.00050		mg/L		12/04/24 09:38	12/04/24 18:27	1
Lithium	<0.010		0.010		mg/L		12/04/24 09:38	12/04/24 18:27	1
Molybdenum	<0.0050		0.0050		mg/L		12/04/24 09:38	12/04/24 18:27	1
Selenium	<0.0025		0.0025		mg/L		12/04/24 09:38	12/04/24 18:27	1
Thallium	<0.0020		0.0020		mg/L		12/04/24 09:38	12/04/24 18:27	1

Lab Sample ID: MB 500-797976/1-A
Matrix: Water
Analysis Batch: 798345

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 797976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/04/24 09:38	12/05/24 13:51	1

Lab Sample ID: LCS 500-797976/2-A
Matrix: Water
Analysis Batch: 798135

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 797976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.510		mg/L		102	80 - 120
Arsenic	0.100	0.0948		mg/L		95	80 - 120
Barium	0.500	0.489		mg/L		98	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0496		mg/L		99	80 - 120
Calcium	10.0	8.90		mg/L		89	80 - 120
Chromium	0.200	0.197		mg/L		99	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Lead	0.100	0.0954		mg/L		95	80 - 120
Lithium	0.100	0.0987		mg/L		99	80 - 120
Molybdenum	1.00	0.971		mg/L		97	80 - 120
Selenium	0.100	0.0963		mg/L		96	80 - 120
Thallium	0.100	0.0984		mg/L		98	80 - 120

Lab Sample ID: LCS 500-797976/2-A
Matrix: Water
Analysis Batch: 798345

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 797976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.986		mg/L		99	80 - 120

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-798014/12-A

Matrix: Water

Analysis Batch: 798220

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 798014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/04/24 11:20	12/05/24 09:25	1

Lab Sample ID: LCS 500-798014/13-A

Matrix: Water

Analysis Batch: 798220

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 798014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00199		mg/L		100	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-797813/3

Matrix: Water

Analysis Batch: 797813

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			12/03/24 14:18	1
Sulfate	<1.0		1.0		mg/L			12/03/24 14:18	1

Lab Sample ID: LCS 500-797813/4

Matrix: Water

Analysis Batch: 797813

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	18.2		mg/L		91	90 - 110
Sulfate	20.0	20.7		mg/L		103	90 - 110

Lab Sample ID: MB 500-797827/3

Matrix: Water

Analysis Batch: 797827

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			12/03/24 22:16	1
Sulfate	<1.0		1.0		mg/L			12/03/24 22:16	1

Lab Sample ID: LCS 500-797827/4

Matrix: Water

Analysis Batch: 797827

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.2		mg/L		101	90 - 110
Sulfate	20.0	21.1		mg/L		106	90 - 110

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-795525/1
Matrix: Water
Analysis Batch: 795525

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/15/24 09:01	1

Lab Sample ID: LCS 500-795525/2
Matrix: Water
Analysis Batch: 795525

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	240		mg/L		96	80 - 120

Lab Sample ID: MB 500-795735/1
Matrix: Water
Analysis Batch: 795735

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/17/24 22:48	1

Lab Sample ID: LCS 500-795735/2
Matrix: Water
Analysis Batch: 795735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	258		mg/L		103	80 - 120

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-797536/3
Matrix: Water
Analysis Batch: 797536

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/27/24 12:28	1

Lab Sample ID: MB 500-797536/31
Matrix: Water
Analysis Batch: 797536

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/27/24 14:44	1

Lab Sample ID: LCS 500-797536/32
Matrix: Water
Analysis Batch: 797536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.0		mg/L		100	90 - 119

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-797536/4

Matrix: Water

Analysis Batch: 797536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			10.0	10.1		mg/L		101	90 - 119		

Lab Sample ID: 500-259939-8 MS

Matrix: Water

Analysis Batch: 797536

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	0.39		5.00	5.45		mg/L		101	75 - 125		

Lab Sample ID: 500-259939-8 MSD

Matrix: Water

Analysis Batch: 797536

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.39		5.00	5.45		mg/L		101	75 - 125	0	20

Eurofins Chicago

2417 Bond Street

University Park, IL 60484

Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing

Client Information		Sampler: <u>Jack Misner</u>		Lab PM: Mockler, Diana J		Carrier Tracking No(s):		COC No. 500-129747-44027 1											
Client Contact: Mitchel Dolan		Phone: <u>262-622-1143</u>		E-Mail: Diana Mockler@et.eurofinsus.com		State of Origin: <u>IL</u>		Page: Page 1 of 1											
Company: KPRG and Associates, Inc.		PWSID:		Analysis Requested															
Address: 14665 West Lisbon Road, Suite 1A		Due Date Requested		Field Filtered Samples (Yes or No) Perform MS/MS (Yes or No) 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500_F_C, SM4500_Cl_E, SM4500_SO4_E															
City: Brookfield		TAT Requested (days): <u>Standard</u>																	
State, Zip: WI, 53005		Compliance Project: ☐ Yes ☒ No																	
Phone: 262-781-0475 (Tel)		PO #: 4502161498																	
Email: mitcheld@kprginc.com		WO #:																	
Project Name: Waukegan CCR Event Desc. Quarterly Waukegan CCR		Project #: 50011597		Total Number of containers: 12313.2															
Site: Illinois		SSOW#:																	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Preservation Code:				Special Instructions/Note:									
MW-01	11/11/24	1518	G	Water	N	N	X	X	X	5 containers									
MW-02	↓	1421	↓	Water	N	N	↓	↓	↓										
MW-03	↓	1240	↓	Water	N	N	↓	↓	↓										
MW-04	11/11/24	1114	G	Water	N	N	X	X	X	5 containers									
~~MW-09~~				Water															
~~MW-11~~				Water															
~~MW-14~~				Water															
~~MW-16~~				Water															
~~Duplicate~~				Water															
				Water															
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological										☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months									
Deliverable Requested I, II, III, IV, Other (specify)										Special Instructions/QC Requirements									
Empty Kit Relinquished by				Date		Time		Method of Shipment.											
Relinquished by: <u>Jack Misner</u>				Date/Time: 11/11/24 1700		Company: KPRG		Received by: <u>FedEx</u>				Date/Time: 11/11/24 1700		Company: FedEx					
Relinquished by:				Date/Time:		Company:		Received by: <u>Shirley Smith</u>				Date/Time: 11/12/24 0945		Company: <u>BBTA</u>					
Relinquished by:				Date/Time:		Company:		Received by:				Date/Time:		Company:					
Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>0.4 - 20.1</u>															

Eurofins Chicago

2417 Bond Street

University Park, IL 60484

Phone 708-534-5200 Fax: 708-534-5211

Chain of Custody Record



Environment Testing

Client Information		Sampler: <u>Jack Misner</u>		Lab PM: Mockler, Diana J		Carrier Tracking No(s)		COC No: 500-129747-44027 1							
Client Contact: Mitchel Dolan		Phone: <u>262-622-1143</u>		E-Mail: Diana Mockler@et.eurofinsus.com		State of Origin: <u>IL</u>		Page: Page 1 of 1							
Company: KPRG and Associates, Inc.		PWSID:		Analysis Requested						Job #: <u>12313.2</u>					
Address: 14665 West Lisbon Road, Suite 1A		Due Date Requested		 500-259939 COC						Preservation Codes D HNO3 N None <u>500-259939</u>					
City: Brookfield		TAT Requested (days): <u>Standard</u>								Other:					
State Zip: WI, 53005		Compliance Project ☐ Yes ☐ No													
Phone: 262-781-0475(Tel)		PO #: 4502161498													
Email: mitcheld@kprginc.com		WO #		Total Number of containers:						Special Instructions/Note:					
Project Name: Waukegan CCR Event Desc. Quarterly Waukegan CCR		Project #: 50011597													
Site: Illinois		SSOW#:													
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Other:	
~~MW-01~~								Water							
~~MW-02~~								Water							
~~MW-03~~								Water							
~~MW-04~~								Water							
5 MW-09		11/12/2024		1359		G		Water		N		N		X	
6 MW-11		11/12/2024		1049		G		Water		N		N		X	
7 MW-14		11/12/2024		1726		G		Water		N		N		X	
8 MW-16		11/12/2024		0920		G		Water		N		N		X	
9 Duplicate		11/12/2024		-		G		Water		N		N		X	
								Water							
Possible Hazard Identification														Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological														☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested I, II, III, IV, Other (specify)														Special Instructions/QC Requirements	
Empty Kit Relinquished by				Date		Time		Method of Shipment							
Relinquished by: <u>Jack Misner</u>				Date/Time: <u>11/12/2024 1700</u>		Company: <u>KPRG</u>		Received by: <u>FedEx</u>							
Relinquished by:				Date/Time:		Company:		Received by: <u>Stephanie Hernandez</u>							
Relinquished by:				Date/Time:		Company:		Received by: <u>EEA</u>							
Custody Seals Intact ☐ Yes ☐ No				Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>0.3 -> 0.6 3.2 + 3.1</u>									

KPRG AND ASSOCIATES, INC
14665 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 25.00 LB 11.00 OZ
CAD: 07803077/CAFE3855

Part#: 159489-434

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.



UNI
(708) 634-
INV:
PO:

RMA



ST 10

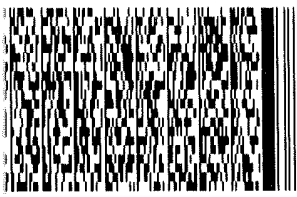
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10:30 A

RK IL 60484

REF:

DEPT:

500-259939 Waybi



FedEx
Express



FedEx

TRK#
0221

4221 9521 5202

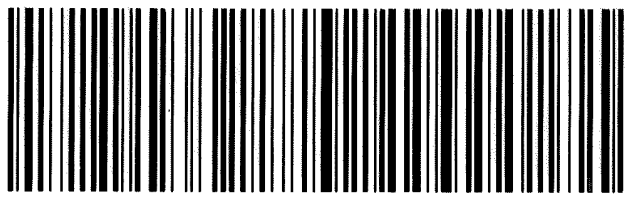
TUE - 12 NOV 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484

IL-US

ORD



11/11 58CJ5/582E/C6C4

Part#: 159489-434

EXP 07/24

NEELIN STERLE
KPRG AND ASSOCIATES, INC
14665 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 23.00 LB 11.00 OZ
CAD: 0780307/CAFE3855

Part # 159469-434 MTW EXP 02/25

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.

UNIVERSITY PARK IL 60484

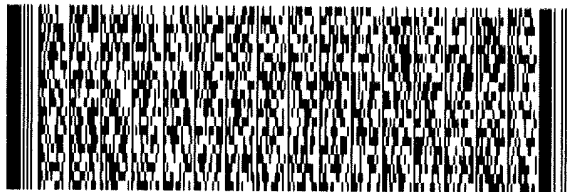
(708) 634-6200

REF:

INV:
PO:

DEPT

RMA



FedEx
Express



AN L10P010702030827

FedEx

TRK#
0221

4221 9521 5279

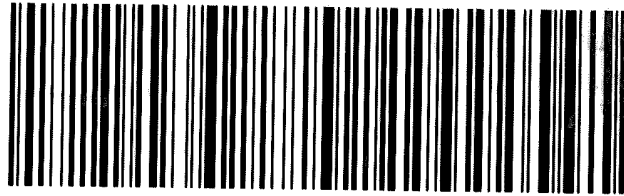
WED - 13 NOV 10:30A
PRIORITY OVERNIGHT

79 JOTA

3.2 → 3.1

60484

IL-US ORD



Part # 159469-434 MTW EXP 07/24



500-259939 Waybi

NEELIN STERLE
KPRG AND ASSOCIATES, INC
14665 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 23.00 LB 11.00 OZ
CAD: 0780307/CAFE3855

Part # 159469-434 MTW EXP 02/25

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.

UNIVERSITY PARK IL 60484

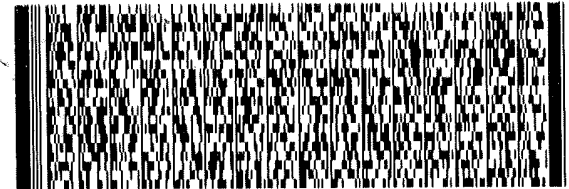
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REF

INV:
PO:

DEPT

RMA



FedEx
Express



AN L10P010702030827

FedEx

TRK#
0221

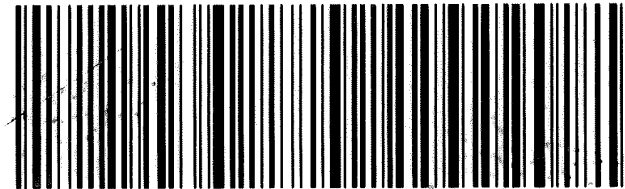
4221 9521 5187

WED - 13 NOV 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484

IL-US ORD



#439588 11/12 58CJ5/582E/C6C4

Part # 159469-434 MTW EXP 07/24

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-259939-1

Login Number: 259939

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1,-0.6,3.1 Samples not frozen
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-01

Date Collected: 11/11/24 15:48

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:18
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:00
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:39
Total/NA	Analysis	300.0		10	797813	MM	EET CHI	12/03/24 16:08
Total/NA	Analysis	SM 2540C		1	795525	SO	EET CHI	11/15/24 09:55
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 13:56

Client Sample ID: MW-02

Date Collected: 11/11/24 14:21

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:22
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:02
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:46
Total/NA	Analysis	300.0		10	797827	MM	EET CHI	12/03/24 23:34
Total/NA	Analysis	SM 2540C		1	795525	SO	EET CHI	11/15/24 09:57
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 14:01

Client Sample ID: MW-03

Date Collected: 11/11/24 12:40

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:26
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:05
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:48
Total/NA	Analysis	300.0		10	797827	MM	EET CHI	12/03/24 23:50
Total/NA	Analysis	SM 2540C		1	795735	CLB	EET CHI	11/17/24 23:19
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 14:06

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-04

Date Collected: 11/11/24 11:14

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:37
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:07
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:50
Total/NA	Analysis	300.0		10	797827	MM	EET CHI	12/04/24 00:06
Total/NA	Analysis	SM 2540C		1	795735	CLB	EET CHI	11/17/24 23:21
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 14:12

Client Sample ID: MW-09

Date Collected: 11/12/24 13:59

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:41
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:09
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:52
Total/NA	Analysis	300.0		10	797827	MM	EET CHI	12/04/24 00:21
Total/NA	Analysis	SM 2540C		1	795735	CLB	EET CHI	11/17/24 23:24
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 14:31

Client Sample ID: MW-11

Date Collected: 11/12/24 10:49

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:45
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:17
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:54
Total/NA	Analysis	300.0		5	797827	MM	EET CHI	12/04/24 00:37
Total/NA	Analysis	SM 2540C		1	795735	CLB	EET CHI	11/17/24 23:26
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 14:35

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Client Sample ID: MW-14

Date Collected: 11/12/24 12:26

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:49
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:19
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:56
Total/NA	Analysis	300.0		1	797827	MM	EET CHI	12/04/24 01:24
Total/NA	Analysis	SM 2540C		1	795735	CLB	EET CHI	11/17/24 23:29
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 14:39

Client Sample ID: MW-16

Date Collected: 11/12/24 09:20

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		5	798345	RN	EET CHI	12/05/24 14:53
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:21
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 09:59
Total/NA	Analysis	300.0		20	797827	MM	EET CHI	12/04/24 01:39
Total/NA	Analysis	SM 2540C		1	795735	CLB	EET CHI	11/17/24 23:31
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 14:54

Client Sample ID: Duplicate

Date Collected: 11/12/24 00:00

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798345	RN	EET CHI	12/05/24 14:56
Total Recoverable	Prep	3005A			797976	BDE	EET CHI	12/04/24 09:38 - 12/04/24 15:38 ¹
Total Recoverable	Analysis	6020B		1	798135	RN	EET CHI	12/04/24 19:24
Total/NA	Prep	7470A			798014	MJG	EET CHI	12/04/24 11:20 - 12/04/24 13:20 ¹
Total/NA	Analysis	7470A		1	798220	MJG	EET CHI	12/05/24 10:01
Total/NA	Analysis	300.0		10	797827	MM	EET CHI	12/04/24 01:55
Total/NA	Analysis	SM 2540C		1	795735	CLB	EET CHI	11/17/24 23:34
Total/NA	Analysis	SM 4500 F C		1	797536	ER	EET CHI	11/27/24 15:08

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Eurofins Chicago

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-259939-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	05-31-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 12/18/2024 12:27:04 PM

JOB DESCRIPTION

Waukegan CCR (RAD)

JOB NUMBER

500-259939-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization



Generated
12/18/2024 12:27:04 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570

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Case Narrative

Client: KPRG and Associates, Inc.
Project: Waukegan CCR (RAD)

Job ID: 500-259939-2

Job ID: 500-259939-2

Eurofins Chicago

Job Narrative 500-259939-2

Receipt

The samples were received on 11/12/2024 9:45 AM and 11/13/2024 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were -0.6°C, 0.1°C and 3.1°C.

Gas Flow Proportional Counter

Method 904.0: Radium-228 prep batch 160-692006:

The Ra-228 laboratory control sample (LCS) recovery associated with the following sample(s) is outside the upper QC limit of (125%) indicating a potential positive bias for that analyte. This analyte was not observed above the RL in the associated samples; therefore the sample data is not adversely affected by this excursion. The data have been reported with this narrative. MW-01 (500-259939-1), MW-02 (500-259939-2), MW-03 (500-259939-3), MW-04 (500-259939-4), MW-09 (500-259939-5), MW-11 (500-259939-6), MW-14 (500-259939-7), (LCS 160-692006/2-A), (500-259932-F-4-B) and (500-259932-G-4-B DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Chicago

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-259939-1	MW-01	Water	11/11/24 15:48	11/12/24 09:45
500-259939-2	MW-02	Water	11/11/24 14:21	11/12/24 09:45
500-259939-3	MW-03	Water	11/11/24 12:40	11/12/24 09:45
500-259939-4	MW-04	Water	11/11/24 11:14	11/12/24 09:45
500-259939-5	MW-09	Water	11/12/24 13:59	11/13/24 09:45
500-259939-6	MW-11	Water	11/12/24 10:49	11/13/24 09:45
500-259939-7	MW-14	Water	11/12/24 12:26	11/13/24 09:45
500-259939-8	MW-16	Water	11/12/24 09:20	11/13/24 09:45
500-259939-9	Duplicate	Water	11/12/24 00:00	11/13/24 09:45

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-01

Date Collected: 11/11/24 15:48

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-1

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.142	U	0.0905	0.0908	1.00	0.142	pCi/L	11/15/24 09:44	12/09/24 14:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.7		30 - 110					11/15/24 09:44	12/09/24 14:10	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.516	U *	0.315	0.316	1.00	0.516	pCi/L	12/05/24 12:43	12/12/24 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		30 - 110					12/05/24 12:43	12/12/24 12:37	1
Y Carrier	79.6		30 - 110					12/05/24 12:43	12/12/24 12:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.516	U	0.328	0.329	5.00	0.516	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-02

Lab Sample ID: 500-259939-2

Date Collected: 11/11/24 14:21

Matrix: Water

Date Received: 11/12/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.121	U	0.0658	0.0659	1.00	0.121	pCi/L	11/15/24 09:44	12/09/24 14:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		30 - 110					11/15/24 09:44	12/09/24 14:11	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.651	U *	0.281	0.283	1.00	0.651	pCi/L	12/05/24 12:43	12/12/24 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		30 - 110					12/05/24 12:43	12/12/24 12:37	1
Y Carrier	74.8		30 - 110					12/05/24 12:43	12/12/24 12:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.651	U	0.289	0.291	5.00	0.651	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-03

Lab Sample ID: 500-259939-3

Date Collected: 11/11/24 12:40

Matrix: Water

Date Received: 11/12/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.130	U	0.0824	0.0827	1.00	0.130	pCi/L	11/15/24 09:44	12/09/24 14:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.2		30 - 110					11/15/24 09:44	12/09/24 14:11	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.895	*	0.515	0.522	1.00	0.751	pCi/L	12/05/24 12:43	12/12/24 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		30 - 110					12/05/24 12:43	12/12/24 12:37	1
Y Carrier	75.1		30 - 110					12/05/24 12:43	12/12/24 12:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.970		0.522	0.529	5.00	0.751	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-04

Lab Sample ID: 500-259939-4

Date Collected: 11/11/24 11:14

Matrix: Water

Date Received: 11/12/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.138	U	0.0874	0.0877	1.00	0.138	pCi/L	11/15/24 09:44	12/09/24 14:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.1		30 - 110					11/15/24 09:44	12/09/24 14:11	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.632	U *	0.327	0.327	1.00	0.632	pCi/L	12/05/24 12:43	12/12/24 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.2		30 - 110					12/05/24 12:43	12/12/24 12:37	1
Y Carrier	81.5		30 - 110					12/05/24 12:43	12/12/24 12:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.632	U	0.338	0.339	5.00	0.632	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-09

Lab Sample ID: 500-259939-5

Date Collected: 11/12/24 13:59

Matrix: Water

Date Received: 11/13/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.379		0.139	0.143	1.00	0.134	pCi/L	11/15/24 09:44	12/09/24 14:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.7		30 - 110					11/15/24 09:44	12/09/24 14:11	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.659	U *	0.428	0.431	1.00	0.659	pCi/L	12/05/24 12:43	12/12/24 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		30 - 110					12/05/24 12:43	12/12/24 12:37	1
Y Carrier	74.4		30 - 110					12/05/24 12:43	12/12/24 12:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.924		0.450	0.454	5.00	0.659	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-11

Lab Sample ID: 500-259939-6

Date Collected: 11/12/24 10:49

Matrix: Water

Date Received: 11/13/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.190	U	0.121	0.121	1.00	0.190	pCi/L	11/15/24 09:44	12/09/24 14:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.6		30 - 110					11/15/24 09:44	12/09/24 14:13	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<1.17	U * G	0.750	0.755	1.00	1.17	pCi/L	12/05/24 12:43	12/12/24 17:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		30 - 110					12/05/24 12:43	12/12/24 17:07	1
Y Carrier	75.9		30 - 110					12/05/24 12:43	12/12/24 17:07	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<1.17	U	0.760	0.765	5.00	1.17	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-14

Lab Sample ID: 500-259939-7

Date Collected: 11/12/24 12:26

Matrix: Water

Date Received: 11/13/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.235	U	0.163	0.164	1.00	0.235	pCi/L	11/15/24 09:44	12/09/24 14:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.2		30 - 110					11/15/24 09:44	12/09/24 14:13	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.914	U *	0.516	0.516	1.00	0.914	pCi/L	12/05/24 12:43	12/12/24 12:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		30 - 110					12/05/24 12:43	12/12/24 12:37	1
Y Carrier	82.2		30 - 110					12/05/24 12:43	12/12/24 12:37	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.914	U	0.541	0.541	5.00	0.914	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-16

Lab Sample ID: 500-259939-8

Date Collected: 11/12/24 09:20

Matrix: Water

Date Received: 11/13/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.209		0.130	0.131	1.00	0.179	pCi/L	11/15/24 09:44	12/09/24 14:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.2		30 - 110					11/15/24 09:44	12/09/24 14:13	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.839		0.492	0.498	1.00	0.723	pCi/L	12/05/24 12:43	12/12/24 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		30 - 110					12/05/24 12:43	12/12/24 12:34	1
Y Carrier	74.4		30 - 110					12/05/24 12:43	12/12/24 12:34	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.05		0.509	0.515	5.00	0.723	pCi/L		12/16/24 15:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: Duplicate

Lab Sample ID: 500-259939-9

Date Collected: 11/12/24 00:00

Matrix: Water

Date Received: 11/13/24 09:45

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.119	U	0.0769	0.0772	1.00	0.119	pCi/L	11/18/24 09:51	12/10/24 20:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110					11/18/24 09:51	12/10/24 20:13	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.900	U	0.470	0.471	1.00	0.900	pCi/L	11/18/24 09:57	12/05/24 15:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110					11/18/24 09:57	12/05/24 15:26	1
Y Carrier	68.4		30 - 110					11/18/24 09:57	12/05/24 15:26	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.900	U	0.476	0.477	5.00	0.900	pCi/L		12/16/24 15:15	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Rad

Prep Batch: 688696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total/NA	Water	PrecSep-21	
500-259939-2	MW-02	Total/NA	Water	PrecSep-21	
500-259939-3	MW-03	Total/NA	Water	PrecSep-21	
500-259939-4	MW-04	Total/NA	Water	PrecSep-21	
500-259939-5	MW-09	Total/NA	Water	PrecSep-21	
500-259939-6	MW-11	Total/NA	Water	PrecSep-21	
500-259939-7	MW-14	Total/NA	Water	PrecSep-21	
500-259939-8	MW-16	Total/NA	Water	PrecSep-21	
MB 160-688696/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-688696/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-259939-6 DU	MW-11	Total/NA	Water	PrecSep-21	

Prep Batch: 689156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-689156/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-689156/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 689157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-689157/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-689157/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 692006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-259939-1	MW-01	Total/NA	Water	PrecSep_0	
500-259939-2	MW-02	Total/NA	Water	PrecSep_0	
500-259939-3	MW-03	Total/NA	Water	PrecSep_0	
500-259939-4	MW-04	Total/NA	Water	PrecSep_0	
500-259939-5	MW-09	Total/NA	Water	PrecSep_0	
500-259939-6	MW-11	Total/NA	Water	PrecSep_0	
500-259939-7	MW-14	Total/NA	Water	PrecSep_0	
500-259939-8	MW-16	Total/NA	Water	PrecSep_0	
MB 160-692006/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-692006/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-688696/1-A

Matrix: Water

Analysis Batch: 692651

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 688696

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.176	U	0.0872	0.0872	1.00	0.176	pCi/L	11/15/24 09:44	12/09/24 14:09	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.2		30 - 110					11/15/24 09:44	12/09/24 14:09	1

Lab Sample ID: LCS 160-688696/2-A

Matrix: Water

Analysis Batch: 692651

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 688696

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.58	8.895		1.00	1.00	0.145	pCi/L	93	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	78.5		30 - 110							

Lab Sample ID: 500-259939-6 DU

Matrix: Water

Analysis Batch: 692652

Client Sample ID: MW-11

Prep Type: Total/NA

Prep Batch: 688696

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	<0.190	U	<0.180	U	0.106	1.00	0.180	pCi/L	0.25	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	75.7		30 - 110							

Lab Sample ID: MB 160-689156/1-A

Matrix: Water

Analysis Batch: 692926

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 689156

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.122	U	0.0788	0.0792	1.00	0.122	pCi/L	11/18/24 09:51	12/10/24 20:16	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		30 - 110					11/18/24 09:51	12/10/24 20:16	1

Lab Sample ID: LCS 160-689156/2-A

Matrix: Water

Analysis Batch: 692926

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 689156

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.58	9.675		1.05	1.00	0.143	pCi/L	101	75 - 125

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-689156/2-A
Matrix: Water
Analysis Batch: 692926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 689156

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.9		30 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-689157/1-A
Matrix: Water
Analysis Batch: 691936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 689157

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.643	U	0.373	0.374	1.00	0.643	pCi/L	11/18/24 09:57	12/05/24 15:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		30 - 110					11/18/24 09:57	12/05/24 15:26	1
Y Carrier	75.5		30 - 110					11/18/24 09:57	12/05/24 15:26	1

Lab Sample ID: LCS 160-689157/2-A
Matrix: Water
Analysis Batch: 691936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 689157

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.29	9.028		1.37	1.00	0.665	pCi/L	109	75 - 125
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	93.9		30 - 110						
Y Carrier	73.3		30 - 110						

Lab Sample ID: MB 160-692006/1-A
Matrix: Water
Analysis Batch: 693287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 692006

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.583	U	0.321	0.321	1.00	0.583	pCi/L	12/05/24 12:43	12/12/24 12:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.0		30 - 110					12/05/24 12:43	12/12/24 12:35	1
Y Carrier	83.4		30 - 110					12/05/24 12:43	12/12/24 12:35	1

Lab Sample ID: LCS 160-692006/2-A
Matrix: Water
Analysis Batch: 693287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 692006

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.27	13.30	*	2.01	1.00	1.04	pCi/L	161	75 - 125

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-692006/2-A
Matrix: Water
Analysis Batch: 693287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 692006

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	91.5		30 - 110
Y Carrier	79.6		30 - 110

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eurofins | Environment Testing

Ver: 05/06/2024 12/18/2024

Eurofins Chicago

2417 Bond Street

University Park, IL 60484

Phone 708-534-5200 Fax: 708-534-5211

Chain of Custody Record



Environment Testing

Client Information		Sampler: Jack Misner		Lab PM: Mockler, Diana J		Carrier Tracking No(s)		COC No: 500-129747-44027 1							
Client Contact: Mitchel Dolan		Phone: 262-622-1143		E-Mail: Diana Mockler@et.eurofinsus.com		State of Origin: IL		Page: Page 1 of 1							
Company: KPRG and Associates, Inc.		PWSID:		Analysis Requested						Job #: 12313.2					
Address: 14665 West Lisbon Road, Suite 1A		Due Date Requested		 500-259939 COC						Preservation Codes D HNO3 N None 500-259939					
City: Brookfield		TAT Requested (days): Standard													
State Zip: WI, 53005		Compliance Project ☐ Yes ☐ No													
Phone: 262-781-0475(Tel)		PO #: 4502161498													
Email: mitched@kprginc.com		WO #													
Project Name: Waukegan CCR Event Desc. Quarterly Waukegan CCR		Project #: 50011597		Total Number of containers:						Other:					
Site: Illinois		SSOW#:													
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Special Instructions/Note:	
~~MW-01~~								Water							
~~MW-02~~								Water							
~~MW-03~~								Water							
~~MW-04~~								Water							
5 MW-09		11/12/2024		1359		G		Water		N		N		X	
6 MW-11		11/12/2024		1049		G		Water		N		N		X	
7 MW-14		11/12/2024		1726		G		Water		N		N		X	
8 MW-16		11/12/2024		0920		G		Water		N		N		X	
9 Duplicate		11/12/2024		-		G		Water		N		N		X	
								Water							
Possible Hazard Identification														Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological														☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested I, II, III, IV, Other (specify)														Special Instructions/QC Requirements	
Empty Kit Relinquished by				Date		Time		Method of Shipment							
Relinquished by: Jack Misner				Date/Time: 11/12/2024 1700		Company: KPRG		Received by: FedEx				Date/Time: 11/12/2024		Company: FedEx	
Relinquished by:				Date/Time:		Company:		Received by: Stephanie Hernandez				Date/Time: 11/13/24 0945		Company: EEA	
Relinquished by:				Date/Time:		Company:		Received by:				Date/Time:		Company:	
Custody Seals Intact ☐ Yes ☐ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 0.3 → 0.6 3.2 → 3.1											

KPRG AND ASSOCIATES, INC
14665 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 25.00 LB 11.00 OZ
CAD: 07803077/CAFE3855

Part#: 159489-434
UN337/FFA

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.



UNI
(708) 634-
INV:
PO:

RMA



ST 10

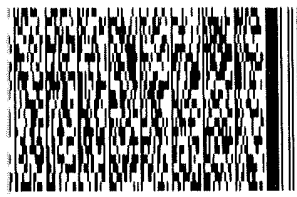
RT 519 5
10:30 A

RK IL 60484

REF:

DEPT:

500-259939 Waybi



FedEx
Express



FedEx

TRK#
0221

4221 9521 5202

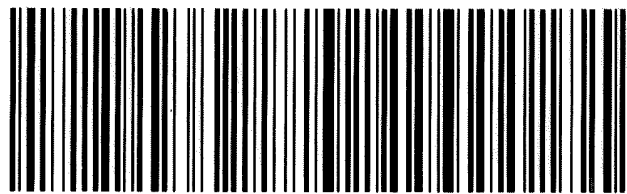
TUE - 12 NOV 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484

IL-US

ORD



11/11 58CJ5/582E/C6C4

Part#: 156287-45, 988
EXP 07/24

NEELIN STERLE
KPRG AND ASSOCIATES, INC
14665 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 23.00 LB 11.00 OZ
CAD: 0780307/CAFE3855

Part # 159469-434 MTW EXP 02/25

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.

UNIVERSITY PARK IL 60484

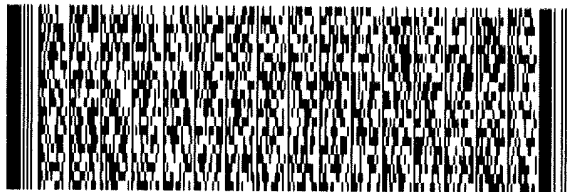
(708) 634-6200

REF:

INV:
PO:

DEPT

RMA



FedEx
Express



AN L10P010702030827

FedEx

TRK#
0221

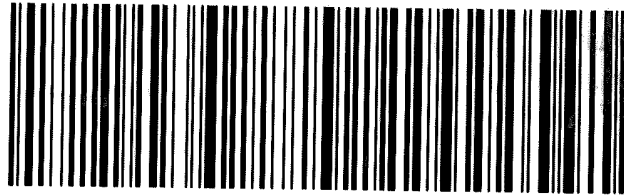
4221 9521 5279

WED - 13 NOV 10:30A
PRIORITY OVERNIGHT

79 JOTA

3.2 → 3.1

60484
IL-US ORD



Part # 159469-434 MTW EXP 07/24



500-259939 Waybi

NEELIN STERLE
KPRG AND ASSOCIATES, INC
14665 W. LISBON ROAD
SUITE 1A
BROOKFIELD, WI 53005
UNITED STATES US

ACTWGT: 23.00 LB 11.00 OZ
CAD: 0780307/CAFE3855

Part # 159469-434 MTW EXP 02/25

TO **SAMPLE RECEIPT**
EUROFINS CHICAGO
2417 BOND ST.

UNIVERSITY PARK IL 60484

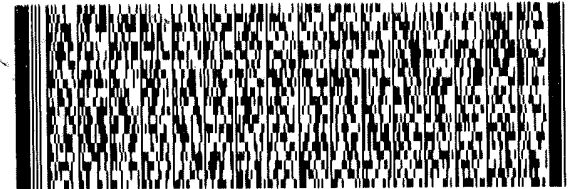
(708) 634-6200

REF

INV:
PO:

DEPT

RMA



FedEx
Express



AN L10P010702030827

FedEx

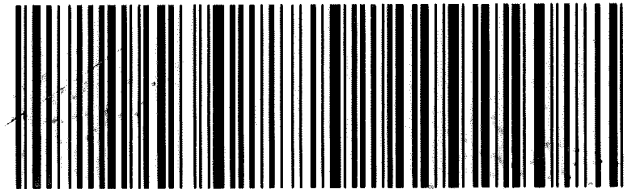
TRK#
0221

4221 9521 5187

WED - 13 NOV 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484
IL-US ORD



#439588 11/12 58CJ5/582E/C6C4

Part # 159469-434 MTW EXP 07/24

Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

 eurofins

Environment Testing

[illegible]

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-259939-2

Login Number: 259939

List Source: Eurofins Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1,-0.6,3.1 Samples not frozen
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Chicago

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-259939-2

Login Number: 259939

List Number: 2

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 11/13/24 01:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Chicago

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-259939-2

Login Number: 259939

List Number: 3

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 11/14/24 01:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-01

Date Collected: 11/11/24 15:48

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692633	SCB	EET SL	12/09/24 14:10
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693287	FLC	EET SL	12/12/24 12:37
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Client Sample ID: MW-02

Date Collected: 11/11/24 14:21

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692633	SCB	EET SL	12/09/24 14:11
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693287	FLC	EET SL	12/12/24 12:37
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Client Sample ID: MW-03

Date Collected: 11/11/24 12:40

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692633	SCB	EET SL	12/09/24 14:11
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693287	FLC	EET SL	12/12/24 12:37
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Client Sample ID: MW-04

Date Collected: 11/11/24 11:14

Date Received: 11/12/24 09:45

Lab Sample ID: 500-259939-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692633	SCB	EET SL	12/09/24 14:11
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693287	FLC	EET SL	12/12/24 12:37
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: MW-09

Date Collected: 11/12/24 13:59

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692633	SCB	EET SL	12/09/24 14:11
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693287	FLC	EET SL	12/12/24 12:37
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Client Sample ID: MW-11

Date Collected: 11/12/24 10:49

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692652	SCB	EET SL	12/09/24 14:13
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693287	FLC	EET SL	12/12/24 17:07
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Client Sample ID: MW-14

Date Collected: 11/12/24 12:26

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692652	SCB	EET SL	12/09/24 14:13
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693287	FLC	EET SL	12/12/24 12:37
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Client Sample ID: MW-16

Date Collected: 11/12/24 09:20

Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			688696	BCE	EET SL	11/15/24 09:44
Total/NA	Analysis	903.0		1	692652	SCB	EET SL	12/09/24 14:13
Total/NA	Prep	PrecSep_0			692006	BCE	EET SL	12/05/24 12:43
Total/NA	Analysis	904.0		1	693288	FLC	EET SL	12/12/24 12:34
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Client Sample ID: Duplicate
Date Collected: 11/12/24 00:00
Date Received: 11/13/24 09:45

Lab Sample ID: 500-259939-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			689156	BCE	EET SL	11/18/24 09:51
Total/NA	Analysis	903.0		1	692849	SCB	EET SL	12/10/24 20:13
Total/NA	Prep	PrecSep_0			689157	BCE	EET SL	11/18/24 09:57
Total/NA	Analysis	904.0		1	691936	SCB	EET SL	12/05/24 15:26
Total/NA	Analysis	Ra226_Ra228		1	694016	FLC	EET SL	12/16/24 15:15

Laboratory References:
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan CCR (RAD)

Job ID: 500-259939-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba					
		(30-110)					
500-259939-1	MW-01	76.7					
500-259939-2	MW-02	84.3					
500-259939-3	MW-03	76.2					
500-259939-4	MW-04	71.1					
500-259939-5	MW-09	79.7					
500-259939-6	MW-11	70.6					
500-259939-6 DU	MW-11	75.7					
500-259939-7	MW-14	73.2					
500-259939-8	MW-16	72.2					
500-259939-9	Duplicate	85.8					
LCS 160-688696/2-A	Lab Control Sample	78.5					
LCS 160-689156/2-A	Lab Control Sample	93.9					
MB 160-688696/1-A	Method Blank	78.2					
MB 160-689156/1-A	Method Blank	95.9					
Tracer/Carrier Legend							
Ba = Ba Carrier							

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
Lab Sample ID	Client Sample ID	Ba	Y				
		(30-110)	(30-110)				
500-259939-1	MW-01	92.0	79.6				
500-259939-2	MW-02	91.2	74.8				
500-259939-3	MW-03	87.0	75.1				
500-259939-4	MW-04	76.2	81.5				
500-259939-5	MW-09	89.0	74.4				
500-259939-6	MW-11	87.2	75.9				
500-259939-7	MW-14	78.2	82.2				
500-259939-8	MW-16	88.2	74.4				
500-259939-9	Duplicate	85.8	68.4				
LCS 160-689157/2-A	Lab Control Sample	93.9	73.3				
LCS 160-692006/2-A	Lab Control Sample	91.5	79.6				
MB 160-689157/1-A	Method Blank	95.9	75.5				
MB 160-692006/1-A	Method Blank	93.0	83.4				
Tracer/Carrier Legend							
Ba = Ba Carrier							
Y = Y Carrier							