

DATA SUMMARY POSTING

Station: Midwest Generation Waukegan Generating Station

Regulated Unit(s): East Pond (IEPA ID No. W0971900021-01)
 West Pond (IEPA ID No. W0971900021-02)

In accordance with the new Ill. Adm. Code Title 35, Part 845: Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments (State CCR Rule) groundwater monitoring was completed during the 2nd quarter 2023 which includes the entire list of parameters specified under Section 845.600(a)(1) and (b). Table 1 is a summary table of all available CCR monitoring data to date including any data generated previously as part of the Federal CCR Rule monitoring. In addition, Table 2 provides a summary of turbidity data which was collected as part of State CCR Rule requirements which is a data parameter that was not required under the Federal CCR Rule.

No background statistics or proposed Groundwater Protection Standards are included on these tables. The background statistics and Proposed Groundwater Protection Standards were submitted to Illinois Environmental Protection Agency (EPA) as part of the Application for Initial Operating Permit submitted on October 31, 2021. Upon Illinois EPA approval of the Operating Permit and Proposed Groundwater Protection Standards, the approved comparison values will be included on the tables for subsequent data comparisons/evaluations.

Table 1. Groundwater Analytical Results - Midwest Generation, LLC, Wankegan Station, Wankegan, IL.

Table with 22 columns: Well, Date, Boron, Calcium, Chloride, Fluoride, pH, Sulfate, Total Dissolved Solids, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Lithium, Mercury, Molybdenum, Radium 226 + 228 Combined, Selenium, Thallium. The table contains analytical data for wells MW-02, MW-03, MW-04, and MW-16 across various dates from 2015 to 2023.

Notes: All units are in mg/l except pH is in standard units.
V - Serial dilution exceeds the control limits.
R - Resampling event
NA - Not analyzed.

H - Sample prep or analyzed beyond specific holding time.
* - Detects instrument related QC exceeds the control limits.
- - Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
*1 - Initial Calibration (CV) is outside acceptance limits, high biased.

*6 - Interference Check Standard (ICS A and/or ICSAB) is outside acceptance limits, high biased.
B - compound was found in the blank and the sample

Table 2. Groundwater Turbidity - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Turbidity (NTU)
MW-09	3/3/2021	4.70
	3/30/2021	10.15
	5/6/2021	3.44
	5/27/2021	12.41
	6/18/2021	27.7
	7/8/2021	28.77
	8/19/2021	77.36
	9/29/2021	18.41
	11/4/2021	12.66
	2/10/2022	34.39
	5/24/2022	170.87
	8/23/2022	34.9
	11/7/2022	195.02
	2/14/2023	20.46
	5/9/2023	9.34
MW-11	3/2/2021	2.20
	3/30/2021	6.08
	5/6/2021	2.34
	5/27/2021	2.69
	6/18/2021	13.7
	7/8/2021	4.71
	8/19/2021	139.34
	9/29/2021	402.9
	11/4/2021	152.7
	2/10/2022	13.8
	5/24/2022	2.18
	8/23/2022	3.17
	11/8/2022	7771.57*
	2/14/2023	5.12
5/9/2023	16.30	
MW-14	3/2/2021	2035
	3/30/2021	151.5
	5/6/2021	901.4
	5/27/2021	2385.61
	6/18/2021	69.25
	7/8/2021	73.18
	8/19/2021	77.04
	9/29/2021	8.42
	11/4/2021	7.42
	2/10/2022	81.72
	5/24/2022	43.52
	8/23/2022	24.76
	11/8/2022	311.78
	2/14/2023	660.17
5/9/2023	16.57	

Table 2. Groundwater Turbidity - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Turbidity (NTU)
MW-01	3/1/2021	0.59
	3/30/2021	5.72
	5/5/2021	1.42
	5/27/2021	2.02
	6/18/2021	2.33
	7/8/2021	3.60
	8/18/2021	2.33
	9/29/2021	3.03
	11/3/2021	3.05
	2/8/2022	4.60
	5/23/2022	2.92
	8/22/2022	1.31
	11/7/2022	41.21
	2/13/2023	2.90
	5/8/2023	3.21
MW-02	3/1/2021	0.69
	3/30/2021	5.66
	5/5/2021	1.65
	5/27/2021	2.95
	6/18/2021	2.71
	7/8/2021	4.20
	8/18/2021	9.03
	9/29/2021	3.42
	11/3/2021	4.05
	2/8/2022	13.4
	5/23/2022	30.54
	8/22/2022	25.43
	11/7/2022	23.82
	2/13/2023	5.25
	5/8/2023	14.43
MW-03	3/1/2021	0.75
	3/30/2021	5.73
	5/5/2021	1.71
	5/27/2021	2.02
	6/18/2021	2.56
	7/8/2021	3.74
	8/18/2021	2.60
	9/29/2021	2.82
	11/3/2021	3.26
	2/8/2022	8.27
	5/23/2022	4.11
	8/22/2022	1.91
	11/7/2022	2.27
	2/13/2023	2.86
	5/8/2023	3.61

Table 2. Groundwater Turbidity - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Turbidity (NTU)
MW-04	3/1/2021	1.30
	3/30/2021	6.21
	5/5/2021	1.77
	5/27/2021	2.73
	6/18/2021	3.69
	7/8/2021	5.36
	8/18/2021	40.61
	9/29/2021	3.48
	11/3/2021	4.26
	2/8/2022	13.32
	5/23/2022	28.94
	8/22/2022	2.57
	11/7/2022	41.15
	2/13/2023	3.76
	5/9/2023	15.03
MW-16	3/1/2021	0.77
	3/30/2021	6.07
	5/6/2021	1.63
	5/27/2021	2.00
	6/18/2021	2.59
	7/8/2021	3.58
	8/18/2021	3.22
	9/29/2021	6.05
	11/4/2021	4.00
	2/8/2022	21.6
	5/23/2022	11.75
	8/22/2022	3.54
	11/7/2022	42.55
	2/13/2023	32.31
	5/9/2023	2.95

* - MW-11 November 2022 turbidity is a field recording error.



ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Gnat
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Generated 5/24/2023 10:02:05 AM

JOB DESCRIPTION

Waukegan CCR
Quarterly Waukegan CCR

JOB NUMBER

500-233495-1

Eurofins Chicago

Job Notes

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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/Site: Waukegan CCR

Job ID: 500-233495-1

Job ID: 500-233495-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-233495-1**

Receipt

The samples were received on 5/9/2023 10:05 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 2.2° C, 4.3° C and 5.2° C.

Metals

Method 6020A: The continuing calibration verification (CCV) associated with batch 714296 recovered above the upper control limit for Beryllium. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

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

General Chemistry

Method SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-713522 were outside control limits for sulfat. 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.



Method Summary

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

Job ID: 500-233495-1

Method	Method Description	Protocol	Laboratory
6020A	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: 500-233495-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-233495-1	MW-01	Water	05/08/23 10:42	05/09/23 10:05
500-233495-2	MW-02	Water	05/08/23 11:56	05/09/23 10:05
500-233495-3	MW-03	Water	05/08/23 13:00	05/09/23 10:05
500-233495-4	MW-04	Water	05/09/23 09:43	05/10/23 10:10
500-233495-5	MW-09	Water	05/09/23 14:28	05/10/23 10:10
500-233495-6	MW-11	Water	05/09/23 12:03	05/10/23 10:10
500-233495-7	MW-14	Water	05/09/23 13:14	05/10/23 10:10
500-233495-8	MW-16	Water	05/09/23 11:00	05/10/23 10:10
500-233495-9	Duplicate	Water	05/09/23 00:00	05/10/23 10:10

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

Client Sample Results

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

Job ID: 500-233495-1

Client Sample ID: MW-01

Lab Sample ID: 500-233495-1

Date Collected: 05/08/23 10:42

Matrix: Water

Date Received: 05/09/23 10:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:09	1
Arsenic	0.022		0.0010		mg/L		05/17/23 09:11	05/18/23 01:09	1
Barium	0.027		0.0025		mg/L		05/17/23 09:11	05/18/23 01:09	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:19	1
Boron	2.1		0.25		mg/L		05/17/23 09:11	05/19/23 18:24	5
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:09	1
Calcium	45		0.20		mg/L		05/17/23 09:11	05/19/23 03:19	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:09	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:09	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:09	1
Lithium	<0.010		0.010		mg/L		05/17/23 09:11	05/19/23 03:19	1
Molybdenum	0.023		0.0050		mg/L		05/17/23 09:11	05/18/23 01:09	1
Selenium	<0.0025		0.0025		mg/L		05/17/23 09:11	05/18/23 01:09	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	370		10		mg/L			05/09/23 17:01	1
Chloride (SM 4500 Cl- E)	54		4.0		mg/L			05/18/23 16:31	2
Fluoride (SM 4500 F C)	0.39		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	160		50		mg/L			05/16/23 11:19	10

Client Sample ID: MW-02

Lab Sample ID: 500-233495-2

Date Collected: 05/08/23 11:56

Matrix: Water

Date Received: 05/09/23 10:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:13	1
Arsenic	0.0090		0.0010		mg/L		05/17/23 09:11	05/18/23 01:13	1
Barium	0.027		0.0025		mg/L		05/17/23 09:11	05/18/23 01:13	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:23	1
Boron	3.1		0.50		mg/L		05/17/23 09:11	05/19/23 18:27	10
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:13	1
Calcium	62		0.20		mg/L		05/17/23 09:11	05/19/23 03:23	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:13	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:13	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:13	1
Lithium	<0.010		0.010		mg/L		05/17/23 09:11	05/19/23 03:23	1
Molybdenum	0.030		0.0050		mg/L		05/17/23 09:11	05/18/23 01:13	1
Selenium	0.0038		0.0025		mg/L		05/17/23 09:11	05/18/23 01:13	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:31	1

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Client Sample Results

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

Job ID: 500-233495-1

Client Sample ID: MW-02
Date Collected: 05/08/23 11:56
Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	440		10		mg/L			05/09/23 17:04	1
Chloride (SM 4500 Cl- E)	47		4.0		mg/L			05/18/23 16:31	2
Fluoride (SM 4500 F C)	0.39		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	210		50		mg/L			05/16/23 11:19	10

Client Sample ID: MW-03
Date Collected: 05/08/23 13:00
Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:16	1
Arsenic	0.010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:16	1
Barium	0.013		0.0025		mg/L		05/17/23 09:11	05/18/23 01:16	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:26	1
Boron	2.3		0.25		mg/L		05/17/23 09:11	05/19/23 18:31	5
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:16	1
Calcium	53		0.20		mg/L		05/17/23 09:11	05/19/23 03:26	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:16	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:16	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:16	1
Lithium	<0.010		0.010		mg/L		05/17/23 09:11	05/19/23 03:26	1
Molybdenum	0.046		0.0050		mg/L		05/17/23 09:11	05/18/23 01:16	1
Selenium	0.0057		0.0025		mg/L		05/17/23 09:11	05/18/23 01:16	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	340		10		mg/L			05/09/23 17:06	1
Chloride (SM 4500 Cl- E)	53		4.0		mg/L			05/18/23 16:16	2
Fluoride (SM 4500 F C)	0.32		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	130		50		mg/L			05/16/23 11:21	10

Client Sample ID: MW-04
Date Collected: 05/09/23 09:43
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:20	1
Arsenic	0.0073		0.0010		mg/L		05/17/23 09:11	05/18/23 01:20	1
Barium	0.049		0.0025		mg/L		05/17/23 09:11	05/18/23 01:20	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:29	1
Boron	2.3		0.25		mg/L		05/17/23 09:11	05/19/23 18:34	5
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:20	1
Calcium	100		0.20		mg/L		05/17/23 09:11	05/19/23 03:29	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:20	1

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Client Sample Results

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

Job ID: 500-233495-1

Client Sample ID: MW-04
Date Collected: 05/09/23 09:43
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:20	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:20	1
Lithium	<0.010		0.010		mg/L		05/17/23 09:11	05/19/23 03:29	1
Molybdenum	0.034		0.0050		mg/L		05/17/23 09:11	05/18/23 01:20	1
Selenium	0.0072		0.0025		mg/L		05/17/23 09:11	05/18/23 01:20	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	560		10		mg/L			05/10/23 17:48	1
Chloride (SM 4500 Cl- E)	59		4.0		mg/L			05/18/23 16:31	2
Fluoride (SM 4500 F C)	0.38		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	250		50		mg/L			05/16/23 11:21	10

Client Sample ID: MW-09
Date Collected: 05/09/23 14:28
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:30	1
Arsenic	0.0011		0.0010		mg/L		05/17/23 09:11	05/18/23 01:30	1
Barium	0.021		0.0025		mg/L		05/17/23 09:11	05/18/23 01:30	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:33	1
Boron	4.7		1.0		mg/L		05/17/23 09:11	05/19/23 18:38	20
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:30	1
Calcium	140		0.20		mg/L		05/17/23 09:11	05/19/23 03:33	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:30	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:30	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:30	1
Lithium	0.045		0.010		mg/L		05/17/23 09:11	05/19/23 03:33	1
Molybdenum	0.15		0.0050		mg/L		05/17/23 09:11	05/18/23 01:30	1
Selenium	<0.0025		0.0025		mg/L		05/17/23 09:11	05/18/23 01:30	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:30	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	890		10		mg/L			05/10/23 17:51	1
Chloride (SM 4500 Cl- E)	220		20		mg/L			05/18/23 16:17	10
Fluoride (SM 4500 F C)	0.23		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	200		100		mg/L			05/16/23 11:21	20

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Client Sample Results

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

Job ID: 500-233495-1

Client Sample ID: MW-11

Lab Sample ID: 500-233495-6

Date Collected: 05/09/23 12:03

Matrix: Water

Date Received: 05/10/23 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:34	1
Arsenic	0.14		0.0010		mg/L		05/17/23 09:11	05/18/23 01:34	1
Barium	0.051		0.0025		mg/L		05/17/23 09:11	05/18/23 01:34	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:36	1
Boron	1.2		0.25		mg/L		05/17/23 09:11	05/19/23 18:48	5
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:34	1
Calcium	140		0.20		mg/L		05/17/23 09:11	05/19/23 03:36	1
Chromium	0.0051		0.0050		mg/L		05/17/23 09:11	05/18/23 01:34	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:34	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:34	1
Lithium	0.026		0.010		mg/L		05/17/23 09:11	05/19/23 03:36	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:34	1
Selenium	<0.0025		0.0025		mg/L		05/17/23 09:11	05/18/23 01:34	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	790		10		mg/L			05/10/23 17:54	1
Chloride (SM 4500 Cl- E)	100		10		mg/L			05/18/23 16:17	5
Fluoride (SM 4500 F C)	0.15		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	55		25		mg/L			05/16/23 11:34	5

Client Sample ID: MW-14

Lab Sample ID: 500-233495-7

Date Collected: 05/09/23 13:14

Matrix: Water

Date Received: 05/10/23 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:37	1
Arsenic	0.33		0.0010		mg/L		05/17/23 09:11	05/18/23 01:37	1
Barium	0.038		0.0025		mg/L		05/17/23 09:11	05/18/23 01:37	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:47	1
Boron	0.42		0.050		mg/L		05/17/23 09:11	05/19/23 18:51	1
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:37	1
Calcium	110		0.20		mg/L		05/17/23 09:11	05/19/23 03:47	1
Chromium	0.039		0.0050		mg/L		05/17/23 09:11	05/18/23 01:37	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:37	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:37	1
Lithium	0.013		0.010		mg/L		05/17/23 09:11	05/19/23 03:47	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:37	1
Selenium	<0.0025		0.0025		mg/L		05/17/23 09:11	05/18/23 01:37	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:41	1

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Client Sample Results

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

Job ID: 500-233495-1

Client Sample ID: MW-14
Date Collected: 05/09/23 13:14
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-7
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	460		10		mg/L			05/10/23 17:56	1
Chloride (SM 4500 Cl- E)	17		2.0		mg/L			05/18/23 16:18	1
Fluoride (SM 4500 F C)	0.18		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	24		5.0		mg/L			05/16/23 11:20	1

Client Sample ID: MW-16
Date Collected: 05/09/23 11:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 18:25	05/18/23 01:40	1
Arsenic	<0.0010		0.0010		mg/L		05/17/23 18:25	05/18/23 01:40	1
Barium	0.026		0.0025		mg/L		05/17/23 18:25	05/18/23 01:40	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 18:25	05/19/23 03:50	1
Boron	3.0		0.50		mg/L		05/17/23 16:17	05/19/23 18:55	10
Cadmium	<0.00050		0.00050		mg/L		05/17/23 18:25	05/18/23 01:40	1
Calcium	140		0.20		mg/L		05/17/23 18:25	05/19/23 03:50	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 18:25	05/18/23 01:40	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 18:25	05/18/23 01:40	1
Lead	<0.00050		0.00050		mg/L		05/17/23 18:25	05/18/23 01:40	1
Lithium	0.032		0.010		mg/L		05/17/23 18:25	05/19/23 03:50	1
Molybdenum	0.027		0.0050		mg/L		05/17/23 18:25	05/18/23 01:40	1
Selenium	0.011		0.0025		mg/L		05/17/23 18:25	05/18/23 01:40	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 18:25	05/18/23 01:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	850		10		mg/L			05/10/23 17:59	1
Chloride (SM 4500 Cl- E)	66		4.0		mg/L			05/18/23 16:18	2
Fluoride (SM 4500 F C)	0.58		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	350		50		mg/L			05/16/23 11:22	10

Client Sample ID: Duplicate
Date Collected: 05/09/23 00:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 01:44	1
Arsenic	0.0071		0.0010		mg/L		05/17/23 09:11	05/18/23 01:44	1
Barium	0.050		0.0025		mg/L		05/17/23 09:11	05/18/23 01:44	1
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 03:53	1
Boron	2.3		0.25		mg/L		05/17/23 09:11	05/19/23 18:58	5
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:44	1
Calcium	100		0.20		mg/L		05/17/23 09:11	05/19/23 03:53	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 01:44	1

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Client Sample Results

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

Job ID: 500-233495-1

Client Sample ID: Duplicate

Lab Sample ID: 500-233495-9

Date Collected: 05/09/23 00:00

Matrix: Water

Date Received: 05/10/23 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 01:44	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 01:44	1
Lithium	<0.010		0.010		mg/L		05/17/23 09:11	05/19/23 03:53	1
Molybdenum	0.035		0.0050		mg/L		05/17/23 09:11	05/18/23 01:44	1
Selenium	0.0072		0.0025		mg/L		05/17/23 09:11	05/18/23 01:44	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 01:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	600		10		mg/L			05/10/23 18:01	1
Chloride (SM 4500 Cl- E)	58		4.0		mg/L			05/18/23 16:20	2
Fluoride (SM 4500 F C)	0.38		0.10		mg/L			05/14/23 08:17	1
Sulfate (SM 4500 SO4 E)	250		50		mg/L			05/16/23 11:22	10

Definitions/Glossary

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

Job ID: 500-233495-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

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: 500-233495-1

Metals

Prep Batch: 713746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total Recoverable	Water	3005A	
500-233495-2	MW-02	Total Recoverable	Water	3005A	
500-233495-3	MW-03	Total Recoverable	Water	3005A	
500-233495-4	MW-04	Total Recoverable	Water	3005A	
500-233495-5	MW-09	Total Recoverable	Water	3005A	
500-233495-6	MW-11	Total Recoverable	Water	3005A	
500-233495-7	MW-14	Total Recoverable	Water	3005A	
500-233495-8	MW-16	Total Recoverable	Water	3005A	
500-233495-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-713746/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-713746/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 713853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-8	MW-16	Total Recoverable	Water	3005A	

Analysis Batch: 714026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total Recoverable	Water	6020A	713746
500-233495-2	MW-02	Total Recoverable	Water	6020A	713746
500-233495-3	MW-03	Total Recoverable	Water	6020A	713746
500-233495-4	MW-04	Total Recoverable	Water	6020A	713746
500-233495-5	MW-09	Total Recoverable	Water	6020A	713746
500-233495-6	MW-11	Total Recoverable	Water	6020A	713746
500-233495-7	MW-14	Total Recoverable	Water	6020A	713746
500-233495-8	MW-16	Total Recoverable	Water	6020A	713746
500-233495-9	Duplicate	Total Recoverable	Water	6020A	713746
MB 500-713746/1-A	Method Blank	Total Recoverable	Water	6020A	713746
LCS 500-713746/2-A	Lab Control Sample	Total Recoverable	Water	6020A	713746

Analysis Batch: 714296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total Recoverable	Water	6020A	713746
500-233495-2	MW-02	Total Recoverable	Water	6020A	713746
500-233495-3	MW-03	Total Recoverable	Water	6020A	713746
500-233495-4	MW-04	Total Recoverable	Water	6020A	713746
500-233495-5	MW-09	Total Recoverable	Water	6020A	713746
500-233495-6	MW-11	Total Recoverable	Water	6020A	713746
500-233495-7	MW-14	Total Recoverable	Water	6020A	713746
500-233495-8	MW-16	Total Recoverable	Water	6020A	713746
500-233495-9	Duplicate	Total Recoverable	Water	6020A	713746
MB 500-713746/1-A	Method Blank	Total Recoverable	Water	6020A	713746
LCS 500-713746/2-A	Lab Control Sample	Total Recoverable	Water	6020A	713746

Analysis Batch: 714537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total Recoverable	Water	6020A	713746
500-233495-2	MW-02	Total Recoverable	Water	6020A	713746
500-233495-3	MW-03	Total Recoverable	Water	6020A	713746
500-233495-4	MW-04	Total Recoverable	Water	6020A	713746
500-233495-5	MW-09	Total Recoverable	Water	6020A	713746

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QC Association Summary

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

Job ID: 500-233495-1

Metals (Continued)

Analysis Batch: 714537 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-6	MW-11	Total Recoverable	Water	6020A	713746
500-233495-7	MW-14	Total Recoverable	Water	6020A	713746
500-233495-8	MW-16	Total Recoverable	Water	6020A	713853
500-233495-9	Duplicate	Total Recoverable	Water	6020A	713746
MB 500-713746/1-A	Method Blank	Total Recoverable	Water	6020A	713746
LCS 500-713746/2-A	Lab Control Sample	Total Recoverable	Water	6020A	713746

Prep Batch: 714584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	7470A	
500-233495-2	MW-02	Total/NA	Water	7470A	
500-233495-3	MW-03	Total/NA	Water	7470A	
500-233495-4	MW-04	Total/NA	Water	7470A	
500-233495-5	MW-09	Total/NA	Water	7470A	
500-233495-6	MW-11	Total/NA	Water	7470A	
500-233495-7	MW-14	Total/NA	Water	7470A	
500-233495-8	MW-16	Total/NA	Water	7470A	
500-233495-9	Duplicate	Total/NA	Water	7470A	
MB 500-714584/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-714584/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 714794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	7470A	714584
500-233495-2	MW-02	Total/NA	Water	7470A	714584
500-233495-3	MW-03	Total/NA	Water	7470A	714584
500-233495-4	MW-04	Total/NA	Water	7470A	714584
500-233495-5	MW-09	Total/NA	Water	7470A	714584
500-233495-6	MW-11	Total/NA	Water	7470A	714584
500-233495-7	MW-14	Total/NA	Water	7470A	714584
500-233495-8	MW-16	Total/NA	Water	7470A	714584
500-233495-9	Duplicate	Total/NA	Water	7470A	714584
MB 500-714584/12-A	Method Blank	Total/NA	Water	7470A	714584
LCS 500-714584/13-A	Lab Control Sample	Total/NA	Water	7470A	714584

General Chemistry

Analysis Batch: 712285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	SM 2540C	
500-233495-2	MW-02	Total/NA	Water	SM 2540C	
500-233495-3	MW-03	Total/NA	Water	SM 2540C	
MB 500-712285/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-712285/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 712531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-4	MW-04	Total/NA	Water	SM 2540C	
500-233495-5	MW-09	Total/NA	Water	SM 2540C	
500-233495-6	MW-11	Total/NA	Water	SM 2540C	
500-233495-7	MW-14	Total/NA	Water	SM 2540C	

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QC Association Summary

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

Job ID: 500-233495-1

General Chemistry (Continued)

Analysis Batch: 712531 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-8	MW-16	Total/NA	Water	SM 2540C	
500-233495-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-712531/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-712531/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 713198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	SM 4500 F C	
500-233495-2	MW-02	Total/NA	Water	SM 4500 F C	
500-233495-3	MW-03	Total/NA	Water	SM 4500 F C	
500-233495-4	MW-04	Total/NA	Water	SM 4500 F C	
500-233495-5	MW-09	Total/NA	Water	SM 4500 F C	
500-233495-6	MW-11	Total/NA	Water	SM 4500 F C	
500-233495-7	MW-14	Total/NA	Water	SM 4500 F C	
500-233495-8	MW-16	Total/NA	Water	SM 4500 F C	
500-233495-9	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-713198/31	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-713198/59	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-713198/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-713198/60	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 713522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-233495-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-233495-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-233495-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-233495-5	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-233495-6	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-233495-7	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-233495-8	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-233495-9	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-713522/94	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-713522/95	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-233495-9 MS	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-233495-9 MSD	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 714103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-233495-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-233495-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-233495-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-233495-5	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-233495-6	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-233495-7	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-233495-8	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-233495-9	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-714103/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-714103/40	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-714103/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

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QC Association Summary

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

Job ID: 500-233495-1

General Chemistry (Continued)

Analysis Batch: 714103 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-714103/41	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-233495-8 MS	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-233495-8 MSD	MW-16	Total/NA	Water	SM 4500 Cl- E	

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QC Sample Results

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

Job ID: 500-233495-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-713746/1-A
Matrix: Water
Analysis Batch: 714026

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 713746

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		05/17/23 09:11	05/18/23 00:15	1
Arsenic	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 00:15	1
Barium	<0.0025		0.0025		mg/L		05/17/23 09:11	05/18/23 00:15	1
Cadmium	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 00:15	1
Chromium	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 00:15	1
Cobalt	<0.0010		0.0010		mg/L		05/17/23 09:11	05/18/23 00:15	1
Lead	<0.00050		0.00050		mg/L		05/17/23 09:11	05/18/23 00:15	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/23 09:11	05/18/23 00:15	1
Selenium	<0.0025		0.0025		mg/L		05/17/23 09:11	05/18/23 00:15	1
Thallium	<0.0020		0.0020		mg/L		05/17/23 09:11	05/18/23 00:15	1

Lab Sample ID: MB 500-713746/1-A
Matrix: Water
Analysis Batch: 714296

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 713746

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Beryllium	<0.0010	^+	0.0010		mg/L		05/17/23 09:11	05/19/23 02:24	1
Calcium	<0.20		0.20		mg/L		05/17/23 09:11	05/19/23 02:24	1
Lithium	<0.010		0.010		mg/L		05/17/23 09:11	05/19/23 02:24	1

Lab Sample ID: MB 500-713746/1-A
Matrix: Water
Analysis Batch: 714537

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 713746

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.050		0.050		mg/L		05/17/23 09:11	05/19/23 17:10	1

Lab Sample ID: LCS 500-713746/2-A
Matrix: Water
Analysis Batch: 714026

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 713746

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Antimony	0.500	0.553		mg/L		111	80 - 120
Arsenic	0.100	0.105		mg/L		105	80 - 120
Barium	2.00	2.22		mg/L		111	80 - 120
Cadmium	0.0500	0.0543		mg/L		109	80 - 120
Chromium	0.200	0.226		mg/L		113	80 - 120
Cobalt	0.500	0.575		mg/L		115	80 - 120
Lead	0.100	0.113		mg/L		113	80 - 120
Molybdenum	1.00	1.08		mg/L		108	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120
Thallium	0.100	0.112		mg/L		112	80 - 120

Lab Sample ID: LCS 500-713746/2-A
Matrix: Water
Analysis Batch: 714296

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 713746

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Beryllium	0.0500	0.0554	^+	mg/L		111	80 - 120

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QC Sample Results

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

Job ID: 500-233495-1

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

Lab Sample ID: LCS 500-713746/2-A
Matrix: Water
Analysis Batch: 714296

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 713746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	10.0	11.6		mg/L		116	80 - 120
Lithium	0.500	0.543		mg/L		109	80 - 120

Lab Sample ID: LCS 500-713746/2-A
Matrix: Water
Analysis Batch: 714537

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 713746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.970		mg/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-714584/12-A
Matrix: Water
Analysis Batch: 714794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714584

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/22/23 11:50	05/23/23 07:24	1

Lab Sample ID: LCS 500-714584/13-A
Matrix: Water
Analysis Batch: 714794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714584

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00198	0.00198		mg/L		100	80 - 120

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

Lab Sample ID: MB 500-712285/1
Matrix: Water
Analysis Batch: 712285

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			05/09/23 16:41	1

Lab Sample ID: LCS 500-712285/2
Matrix: Water
Analysis Batch: 712285

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	262		mg/L		105	80 - 120

Lab Sample ID: MB 500-712531/1
Matrix: Water
Analysis Batch: 712531

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			05/10/23 17:23	1

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QC Sample Results

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

Job ID: 500-233495-1

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

Lab Sample ID: LCS 500-712531/2
Matrix: Water
Analysis Batch: 712531

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	244		mg/L		98	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-714103/16
Matrix: Water
Analysis Batch: 714103

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			05/18/23 16:13	1

Lab Sample ID: MB 500-714103/40
Matrix: Water
Analysis Batch: 714103

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			05/18/23 16:19	1

Lab Sample ID: LCS 500-714103/17
Matrix: Water
Analysis Batch: 714103

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

Lab Sample ID: LCS 500-714103/41
Matrix: Water
Analysis Batch: 714103

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	19.2		mg/L		96	85 - 115

Lab Sample ID: 500-233495-8 MS
Matrix: Water
Analysis Batch: 714103

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	66		20.0	84.1		mg/L		89	75 - 125

Lab Sample ID: 500-233495-8 MSD
Matrix: Water
Analysis Batch: 714103

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	66		20.0	83.6		mg/L		86	75 - 125	1	20

QC Sample Results

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

Job ID: 500-233495-1

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-713198/31
Matrix: Water
Analysis Batch: 713198

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			05/14/23 08:17	1

Lab Sample ID: MB 500-713198/59
Matrix: Water
Analysis Batch: 713198

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			05/14/23 08:17	1

Lab Sample ID: LCS 500-713198/32
Matrix: Water
Analysis Batch: 713198

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	10.2		mg/L		102	90 - 119

Lab Sample ID: LCS 500-713198/60
Matrix: Water
Analysis Batch: 713198

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	10.3		mg/L		103	90 - 119

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-713522/94
Matrix: Water
Analysis Batch: 713522

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			05/16/23 11:16	1

Lab Sample ID: LCS 500-713522/95
Matrix: Water
Analysis Batch: 713522

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: 500-233495-9 MS
Matrix: Water
Analysis Batch: 713522

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	250		20.0	269	4	mg/L		74	75 - 125

QC Sample Results

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

Job ID: 500-233495-1

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

Lab Sample ID: 500-233495-9 MSD
Matrix: Water
Analysis Batch: 713522

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	250		20.0	270	4	mg/L		83	75 - 125	1	20

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Eurofins Chicago

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



500-233495 COC

Chain of Custody Record

MKE 232 eurofins

NEW YORK

Client Information		ampler <i>Kaelyn Sperte</i>		Lab PM Mockler Diana J		Carrier Tracking No(s)		COC No: 500-112082-44027 1			
Client Contact <i>Kaelyn Sperte</i>		Phone <i>262-278-1621</i>		E-Mail Diana.Mockler@et.eurofinsus.com		State of Origin <i>IL</i>		Page: Page 1 of 1			
Company KPRG and Associates Inc.		PWS/D		Analysis Requested						Job # <i>500-233495</i>	
Address 14665 West Lisbon Road Suite 1A		Due Date Requested <i>Standard</i>		Field Filtered Sample (Yes or No) Performs MS/MSD (Yes or No) <i>903.0, 904.0</i> <i>6010C, 6020A, 7470A</i> <i>2540C, 4500_F, C, SM4500_CLF, SM4500_SO4_E</i> <i>100% Parity</i>		Total Number of Containers		Preservation Codes			
City Brookfield		TAT Requested (days) <i>Standard</i>						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)			
State Zip WI 53005		Compliance Project Δ Yes Δ No						Other:			
Phone 262-781-0475(Tel)		PO # 4502102435									
Email <i>kaelyns@kprginc.com</i>		WO #:		Project #: 50011597		SSOW#:		Project Name: Waukegan CCR Event Desc: Quarterly Waukegan CCR			
Site: Illinois		Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wash/roll, BT=Tissue, A=Air)	
								Preservation Code		Special Instructions/Note	
MW-01								Water			
MW-02								Water			
MW-03								Water			
<i>4</i> MW-04		<i>5/9/23</i>		<i>0943</i>		<i>G</i>		Water		<i>N N X X X</i>	
<i>5</i> MW-09		<i>5/9/23</i>		<i>1428</i>				Water		<i>N N</i>	
<i>6</i> MW-11		<i>5/9/23</i>		<i>1203</i>				Water		<i>N N</i>	
<i>7</i> MW-14		<i>5/9/23</i>		<i>1314</i>				Water		<i>N N</i>	
<i>8</i> MW-16		<i>5/9/23</i>		<i>1100</i>				Water		<i>N N</i>	
<i>9</i> Duplicate		<i>5/9/23</i>		<i>-</i>				Water		<i>N N</i>	
								Water			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by				Date		Time		Method of Shipment:			
Re inquired by <i>Kaelyn Sperte</i>				Date/Time <i>5/9/23/1615</i>		Company KPRG		Received by <i>FedEx</i>		Date/Time <i>5/9/23/1615</i>	
Reinquired by				Date/Time		Company		Received by <i>[Signature]</i>		Date/Time <i>5/10/23 1010</i>	
Reinquired by				Date/Time		Company		Received by		Date/Time	
Custody Seals Intact. Δ Yes Δ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks <i>(4.4 4.3)(5.3 5.2)</i>							

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ORIGIN ID: FEB 12 12:29:06Z
 KAELYN SPEER
 PRG AND ASSN
 4 PLAZA DR
 WESTMONT, IL 60559
 UNITED STATES US

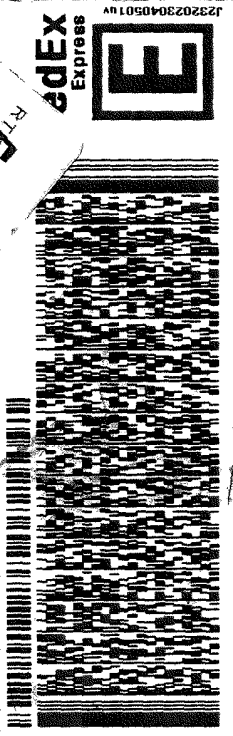
SHIP DATE: 08MAY23
 ACTWGT: 53.70 LB
 CRD: 6994083/SSFE2420
 DIMS: 25x14x14 IN
 BILL THIRD PARTY

TO
 FROM
 REF: DEPT:

5 10:30
 22
 RT 519

UNIVERSITY PARK HIL 60
 2417 BOND ST
 CHICAGO

(708) 584-5200
 301



2 of 2
 MPS# 3980 2538 7251
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 Mstr# 3980 2538 7240
 79 JOTA

TUE - 09 MAY 10:30A
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60484
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ORIGIN ID:EEPA (262) 278-1621
CAREY SPEER
CARGO AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 09MAY23
ACTIVITY: 301B
CNO: 6994063/SSFE2420
DINS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRDB2 EXP 07/23
23313/28CA/FE23

**EUROFINS CHICAGO
2417 BOND ST**

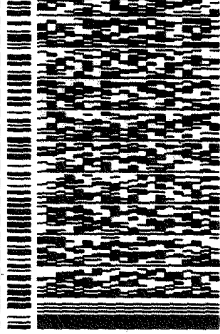
UNIVERSITY PARK IL 60484

(709) 634-6200 REF:
THU: PS:

DEPT:



500-233495 Waybi



FedEx
Express



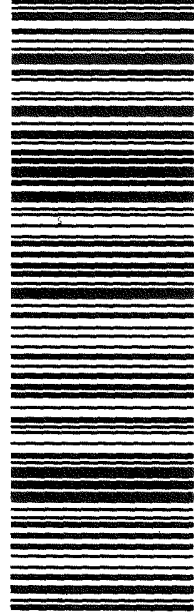
1222023040501 01

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PRIORITY OVERNIGHT

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MPS# 3980 9019 8567
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Mstr# 3980 9019 8545
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60484
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Do Not Lift Using This Tag

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Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-233495-1

Login Number: 233495

List Number: 1

Creator: James, Jeff A

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	2.2,4.3,5.2
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 <math><6\text{mm}</math> (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: 500-233495-1

Client Sample ID: MW-01
Date Collected: 05/08/23 10:42
Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:09
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:19
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		5	714537	FXG	EET CHI	05/19/23 18:24
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:28
Total/NA	Analysis	SM 2540C		1	712285	CLB	EET CHI	05/09/23 17:01
Total/NA	Analysis	SM 4500 CI- E		2	714103	MM	EET CHI	05/18/23 16:31
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		10	713522	MM	EET CHI	05/16/23 11:19

Client Sample ID: MW-02
Date Collected: 05/08/23 11:56
Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:13
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:23
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		10	714537	FXG	EET CHI	05/19/23 18:27
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:31
Total/NA	Analysis	SM 2540C		1	712285	CLB	EET CHI	05/09/23 17:04
Total/NA	Analysis	SM 4500 CI- E		2	714103	MM	EET CHI	05/18/23 16:31
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		10	713522	MM	EET CHI	05/16/23 11:19

Client Sample ID: MW-03
Date Collected: 05/08/23 13:00
Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:16
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:26
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		5	714537	FXG	EET CHI	05/19/23 18:31
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:33

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Lab Chronicle

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

Job ID: 500-233495-1

Client Sample ID: MW-03

Date Collected: 05/08/23 13:00

Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	712285	CLB	EET CHI	05/09/23 17:06
Total/NA	Analysis	SM 4500 CI- E		2	714103	MM	EET CHI	05/18/23 16:16
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		10	713522	MM	EET CHI	05/16/23 11:21

Client Sample ID: MW-04

Date Collected: 05/09/23 09:43

Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:20
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:29
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		5	714537	FXG	EET CHI	05/19/23 18:34
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:35
Total/NA	Analysis	SM 2540C		1	712531	CLB	EET CHI	05/10/23 17:48
Total/NA	Analysis	SM 4500 CI- E		2	714103	MM	EET CHI	05/18/23 16:31
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		10	713522	MM	EET CHI	05/16/23 11:21

Client Sample ID: MW-09

Date Collected: 05/09/23 14:28

Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:30
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:33
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		20	714537	FXG	EET CHI	05/19/23 18:38
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:37
Total/NA	Analysis	SM 2540C		1	712531	CLB	EET CHI	05/10/23 17:51
Total/NA	Analysis	SM 4500 CI- E		10	714103	MM	EET CHI	05/18/23 16:17
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		20	713522	MM	EET CHI	05/16/23 11:21

Lab Chronicle

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

Job ID: 500-233495-1

Client Sample ID: MW-11
Date Collected: 05/09/23 12:03
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:34
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:36
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		5	714537	FXG	EET CHI	05/19/23 18:48
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:39
Total/NA	Analysis	SM 2540C		1	712531	CLB	EET CHI	05/10/23 17:54
Total/NA	Analysis	SM 4500 CI- E		5	714103	MM	EET CHI	05/18/23 16:17
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		5	713522	MM	EET CHI	05/16/23 11:34

Client Sample ID: MW-14
Date Collected: 05/09/23 13:14
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:37
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:47
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714537	FXG	EET CHI	05/19/23 18:51
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:41
Total/NA	Analysis	SM 2540C		1	712531	CLB	EET CHI	05/10/23 17:56
Total/NA	Analysis	SM 4500 CI- E		1	714103	MM	EET CHI	05/18/23 16:18
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		1	713522	MM	EET CHI	05/16/23 11:20

Client Sample ID: MW-16
Date Collected: 05/09/23 11:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 18:25 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:40
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 18:25 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:50
Total Recoverable	Prep	3005A			713853	RN	EET CHI	05/17/23 16:17 - 05/17/23 16:47 ¹
Total Recoverable	Analysis	6020A		10	714537	FXG	EET CHI	05/19/23 18:55
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:48

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Lab Chronicle

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

Job ID: 500-233495-1

Client Sample ID: MW-16
Date Collected: 05/09/23 11:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	712531	CLB	EET CHI	05/10/23 17:59
Total/NA	Analysis	SM 4500 CI- E		2	714103	MM	EET CHI	05/18/23 16:18
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		10	713522	MM	EET CHI	05/16/23 11:22

Client Sample ID: Duplicate
Date Collected: 05/09/23 00:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714026	FXG	EET CHI	05/18/23 01:44
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		1	714296	FXG	EET CHI	05/19/23 03:53
Total Recoverable	Prep	3005A			713746	BDE	EET CHI	05/17/23 09:11 - 05/17/23 09:41 ¹
Total Recoverable	Analysis	6020A		5	714537	FXG	EET CHI	05/19/23 18:58
Total/NA	Prep	7470A			714584	MJG	EET CHI	05/22/23 11:50 - 05/22/23 13:50 ¹
Total/NA	Analysis	7470A		1	714794	MJG	EET CHI	05/23/23 07:50
Total/NA	Analysis	SM 2540C		1	712531	CLB	EET CHI	05/10/23 18:01
Total/NA	Analysis	SM 4500 CI- E		2	714103	MM	EET CHI	05/18/23 16:20
Total/NA	Analysis	SM 4500 F C		1	713198	EH	EET CHI	05/14/23 08:17
Total/NA	Analysis	SM 4500 SO4 E		10	713522	MM	EET CHI	05/16/23 11:22

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: 500-233495-1

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23 *

- 1
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* Accreditation/Certification renewal pending - accreditation/certification considered valid.

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/13/2023 8:11:33 AM

JOB DESCRIPTION

Waukegan CCR (RAD)
Quarterly Waukegan CCR

JOB NUMBER

500-233495-2

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
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(219)252-7570

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Case Narrative

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

Job ID: 500-233495-2

Job ID: 500-233495-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-233495-2

Receipt

The samples were received on 5/9/2023 10:05 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 2.2° C, 4.3° C and 5.2° C.

RAD

Method 903.0: Radium-226 batch 611874

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-01 (500-233495-1), MW-02 (500-233495-2), MW-03 (500-233495-3), MW-04 (500-233495-4), MW-09 (500-233495-5), MW-11 (500-233495-6), MW-14 (500-233495-7), MW-16 (500-233495-8), Duplicate (500-233495-9), (LCS 160-611874/2-A), (MB 160-611874/1-A) and (500-233495-E-1-A DU)

Method 904.0: Radium-228 prep batch 160-611935:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-01 (500-233495-1), MW-02 (500-233495-2), MW-03 (500-233495-3), MW-04 (500-233495-4), MW-09 (500-233495-5), MW-11 (500-233495-6), MW-14 (500-233495-7), MW-16 (500-233495-8), Duplicate (500-233495-9), (LCS 160-611935/2-A), (MB 160-611935/1-A) and (500-233495-E-1-B DU)

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

Method Summary

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

Job ID: 500-233495-2

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: 500-233495-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-233495-1	MW-01	Water	05/08/23 10:42	05/09/23 10:05
500-233495-2	MW-02	Water	05/08/23 11:56	05/09/23 10:05
500-233495-3	MW-03	Water	05/08/23 13:00	05/09/23 10:05
500-233495-4	MW-04	Water	05/09/23 09:43	05/10/23 10:10
500-233495-5	MW-09	Water	05/09/23 14:28	05/10/23 10:10
500-233495-6	MW-11	Water	05/09/23 12:03	05/10/23 10:10
500-233495-7	MW-14	Water	05/09/23 13:14	05/10/23 10:10
500-233495-8	MW-16	Water	05/09/23 11:00	05/10/23 10:10
500-233495-9	Duplicate	Water	05/09/23 00:00	05/10/23 10:10

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Client Sample Results

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

Job ID: 500-233495-2

Client Sample ID: MW-01

Lab Sample ID: 500-233495-1

Date Collected: 05/08/23 10:42

Matrix: Water

Date Received: 05/09/23 10:05

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	<0.276	U	0.122	0.122	1.00	0.276	pCi/L	05/17/23 09:46	06/10/23 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110					05/17/23 09:46	06/10/23 06:11	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	<0.507	U	0.240	0.240	1.00	0.507	pCi/L	05/17/23 14:18	06/09/23 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110					05/17/23 14:18	06/09/23 14:26	1
Y Carrier	83.4		30 - 110					05/17/23 14:18	06/09/23 14:26	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	<0.507	U	0.269	0.269	5.00	0.507	pCi/L		06/12/23 16:15	1

Client Sample ID: MW-02

Lab Sample ID: 500-233495-2

Date Collected: 05/08/23 11:56

Matrix: Water

Date Received: 05/09/23 10:05

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	<0.252	U	0.158	0.159	1.00	0.252	pCi/L	05/17/23 09:46	06/10/23 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.8		30 - 110					05/17/23 09:46	06/10/23 06:11	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	0.364	0.364	1.00	0.659	pCi/L	05/17/23 14:18	06/09/23 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.8		30 - 110					05/17/23 14:18	06/09/23 14:26	1
Y Carrier	81.2		30 - 110					05/17/23 14:18	06/09/23 14:26	1

Client Sample Results

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

Job ID: 500-233495-2

Client Sample ID: MW-02
Date Collected: 05/08/23 11:56
Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-2
Matrix: Water

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	<0.659	U	0.397	0.397	5.00	0.659	pCi/L		06/12/23 16:15	1

Client Sample ID: MW-03
Date Collected: 05/08/23 13:00
Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-3
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	<0.262	U	0.105	0.105	1.00	0.262	pCi/L	05/17/23 09:46	06/10/23 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		30 - 110					05/17/23 09:46	06/10/23 06:11	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	0.808		0.401	0.408	1.00	0.550	pCi/L	05/17/23 14:18	06/09/23 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		30 - 110					05/17/23 14:18	06/09/23 14:26	1
Y Carrier	82.9		30 - 110					05/17/23 14:18	06/09/23 14:26	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	0.758		0.415	0.421	5.00	0.550	pCi/L		06/12/23 16:15	1

Client Sample ID: MW-04
Date Collected: 05/09/23 09:43
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-4
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	<0.291	U	0.159	0.159	1.00	0.291	pCi/L	05/17/23 09:46	06/10/23 06:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		30 - 110					05/17/23 09:46	06/10/23 06:12	1

Client Sample Results

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

Job ID: 500-233495-2

Client Sample ID: MW-04

Lab Sample ID: 500-233495-4

Date Collected: 05/09/23 09:43

Matrix: Water

Date Received: 05/10/23 10:10

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	<0.549	U	0.358	0.360	1.00	0.549	pCi/L	05/17/23 14:18	06/09/23 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		30 - 110					05/17/23 14:18	06/09/23 14:26	1
Y Carrier	81.2		30 - 110					05/17/23 14:18	06/09/23 14:26	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	<0.549	U	0.392	0.394	5.00	0.549	pCi/L		06/12/23 16:15	1

Client Sample ID: MW-09

Lab Sample ID: 500-233495-5

Date Collected: 05/09/23 14:28

Matrix: Water

Date Received: 05/10/23 10:10

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	<0.266	U	0.142	0.142	1.00	0.266	pCi/L	05/17/23 09:46	06/10/23 06:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		30 - 110					05/17/23 09:46	06/10/23 06:12	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	<0.557	U	0.305	0.305	1.00	0.557	pCi/L	05/17/23 14:18	06/09/23 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		30 - 110					05/17/23 14:18	06/09/23 14:26	1
Y Carrier	83.4		30 - 110					05/17/23 14:18	06/09/23 14:26	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	<0.557	U	0.336	0.336	5.00	0.557	pCi/L		06/12/23 16:15	1

Client Sample Results

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

Job ID: 500-233495-2

Client Sample ID: MW-11
Date Collected: 05/09/23 12:03
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-6
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	<0.300	U	0.212	0.214	1.00	0.300	pCi/L	05/17/23 09:46	06/10/23 06:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.5		30 - 110					05/17/23 09:46	06/10/23 06:12	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	0.646		0.415	0.419	1.00	0.611	pCi/L	05/17/23 14:18	06/09/23 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.5		30 - 110					05/17/23 14:18	06/09/23 14:26	1
Y Carrier	84.0		30 - 110					05/17/23 14:18	06/09/23 14:26	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	0.927		0.466	0.470	5.00	0.611	pCi/L		06/12/23 16:15	1

Client Sample ID: MW-14
Date Collected: 05/09/23 13:14
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-7
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	<0.265	U	0.155	0.155	1.00	0.265	pCi/L	05/17/23 09:46	06/10/23 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		30 - 110					05/17/23 09:46	06/10/23 06:08	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	0.562		0.363	0.367	1.00	0.532	pCi/L	05/17/23 14:18	06/09/23 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		30 - 110					05/17/23 14:18	06/09/23 14:26	1
Y Carrier	79.8		30 - 110					05/17/23 14:18	06/09/23 14:26	1

Client Sample Results

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

Job ID: 500-233495-2

Client Sample ID: MW-14
Date Collected: 05/09/23 13:14
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-7
Matrix: Water

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	0.666		0.395	0.398	5.00	0.532	pCi/L		06/12/23 16:15	1

Client Sample ID: MW-16
Date Collected: 05/09/23 11:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-8
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	<0.271	U	0.156	0.156	1.00	0.271	pCi/L	05/17/23 09:46	06/10/23 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.0		30 - 110					05/17/23 09:46	06/10/23 06:08	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	<0.594	U	0.307	0.307	1.00	0.594	pCi/L	05/17/23 14:18	06/09/23 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.0		30 - 110					05/17/23 14:18	06/09/23 14:27	1
Y Carrier	81.5		30 - 110					05/17/23 14:18	06/09/23 14:27	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	<0.594	U	0.344	0.344	5.00	0.594	pCi/L		06/12/23 16:15	1

Client Sample ID: Duplicate
Date Collected: 05/09/23 00:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-9
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	<0.237	U	0.154	0.154	1.00	0.237	pCi/L	05/17/23 09:46	06/10/23 06:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		30 - 110					05/17/23 09:46	06/10/23 06:09	1

Client Sample Results

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

Job ID: 500-233495-2

Client Sample ID: Duplicate
Date Collected: 05/09/23 00:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-9
Matrix: Water

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	<0.620	U	0.374	0.375	1.00	0.620	pCi/L	05/17/23 14:18	06/09/23 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		30 - 110					05/17/23 14:18	06/09/23 14:27	1
Y Carrier	78.9		30 - 110					05/17/23 14:18	06/09/23 14:27	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	<0.620	U	0.404	0.405	5.00	0.620	pCi/L		06/12/23 16:15	1



Definitions/Glossary

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

Job ID: 500-233495-2

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: 500-233495-2

Rad

Prep Batch: 611874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	PrecSep-21	
500-233495-2	MW-02	Total/NA	Water	PrecSep-21	
500-233495-3	MW-03	Total/NA	Water	PrecSep-21	
500-233495-4	MW-04	Total/NA	Water	PrecSep-21	
500-233495-5	MW-09	Total/NA	Water	PrecSep-21	
500-233495-6	MW-11	Total/NA	Water	PrecSep-21	
500-233495-7	MW-14	Total/NA	Water	PrecSep-21	
500-233495-8	MW-16	Total/NA	Water	PrecSep-21	
500-233495-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-611874/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-611874/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-233495-1 DU	MW-01	Total/NA	Water	PrecSep-21	

Prep Batch: 611935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-233495-1	MW-01	Total/NA	Water	PrecSep_0	
500-233495-2	MW-02	Total/NA	Water	PrecSep_0	
500-233495-3	MW-03	Total/NA	Water	PrecSep_0	
500-233495-4	MW-04	Total/NA	Water	PrecSep_0	
500-233495-5	MW-09	Total/NA	Water	PrecSep_0	
500-233495-6	MW-11	Total/NA	Water	PrecSep_0	
500-233495-7	MW-14	Total/NA	Water	PrecSep_0	
500-233495-8	MW-16	Total/NA	Water	PrecSep_0	
500-233495-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-611935/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-611935/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-233495-1 DU	MW-01	Total/NA	Water	PrecSep_0	

QC Sample Results

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

Job ID: 500-233495-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-611874/1-A
Matrix: Water
Analysis Batch: 615345

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611874

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.308	U	0.183	0.184	1.00	0.308	pCi/L	05/17/23 09:46	06/10/23 06:13	1
Carrier	MB	MB	Limits				Prepared		Analyzed	
Ba Carrier	%Yield	Qualifier	30 - 110				05/17/23 09:46		06/10/23 06:13	
	83.0									

Lab Sample ID: LCS 160-611874/2-A
Matrix: Water
Analysis Batch: 615345

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611874

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.06		1.38	1.00	0.241	pCi/L	98	75 - 113
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	30 - 110						
	82.8								

Lab Sample ID: 500-233495-1 DU
Matrix: Water
Analysis Batch: 615345

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 611874

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	<0.276	U	<0.272	U	0.146	1.00	0.272	pCi/L	0.33	1
Carrier	DU	DU	Limits							
Ba Carrier	%Yield	Qualifier	30 - 110							
	80.0									

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-611935/1-A
Matrix: Water
Analysis Batch: 615294

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611935

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	<0.582	U	0.281	0.282	1.00	0.582	pCi/L	05/17/23 14:18	06/09/23 14:25	1
Carrier	MB	MB	Limits				Prepared		Analyzed	
Ba Carrier	%Yield	Qualifier	30 - 110				05/17/23 14:18		06/09/23 14:25	
	83.0									
Y Carrier	81.5		30 - 110				05/17/23 14:18		06/09/23 14:25	

QC Sample Results

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

Job ID: 500-233495-2

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

Lab Sample ID: LCS 160-611935/2-A
Matrix: Water
Analysis Batch: 615294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611935

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	
Radium-228	8.13	7.791		1.14	1.00	0.503	pCi/L	96	75 - 125	
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	82.8		30 - 110							
Y Carrier	85.7		30 - 110							

Lab Sample ID: 500-233495-1 DU
Matrix: Water
Analysis Batch: 615294

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 611935

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										1
Radium-228	<0.507	U	<0.551	U	0.354	1.00	0.551	pCi/L	0.88	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	80.0		30 - 110							
Y Carrier	82.6		30 - 110							

Eurofins Chicago

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



500-233495 COC

Chain of Custody Record

MKE 232 eurofins

NEW YORK

Client Information		ampler <i>Kaelyn Sperte</i>		Lab PM Mockler Diana J		Carrier Tracking No(s)		COC No: 500-112082-44027 1			
Client Contact <i>Kaelyn Sperte</i>		Phone <i>262-278-1621</i>		E-Mail Diana.Mockler@et.eurofinsus.com		State of Origin <i>IL</i>		Page: Page 1 of 1			
Company KPRG and Associates Inc.		PWS/D		Analysis Requested						Job # <i>500-233495</i>	
Address 14665 West Lisbon Road Suite 1A		Due Date Requested <i>Standard</i>		Field Filtered Sample (Yes or No) Performs MS/MSD (Yes or No) <i>903.0, 904.0</i> <i>6010C, 6020A, 7470A</i> <i>2540C, 4500_F, C, SM4500_CLF, SM4500_SO4_E</i> <i>100% Paraffin</i>		Total Number of Containers		Preservation Codes			
City Brookfield		TAT Requested (days) <i>Standard</i>						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)			
State Zip WI 53005		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No						Other:			
Phone 262-781-0475(Tel)		PO # 4502102435									
Email <i>kaelyns@kprginc.com</i>		WO #		Project # 50011597		SSOW#		Special Instructions/Note			
Project Name Waukegan CCR Event Desc: Quarterly Waukegan CCR		Site Illinois									
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wash/roll, BT=tissue, A=air)		Preservation Code	
MW-01								Water		D D N	
MW-02								Water			
MW-03								Water			
4 MW-04		5/9/23		0943		G		Water		N N X X X	
5 MW-09		5/9/23		1428				Water		N N	
6 MW-11		5/9/23		1203				Water		N N	
7 MW-14		5/9/23		1314				Water		N N	
8 MW-16		5/9/23		1100				Water		N N	
9 Duplicate		5/9/23		-				Water		N N	
								Water			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by				Date		Time		Method of Shipment:			
Reinquired by <i>Kaelyn Sperte</i>				Date/Time 5/9/23/1615		Company KPRG		Received by <i>FedEx</i>		Date/Time 5/9/23/1615	
Reinquired by				Date/Time		Company		Received by <i>[Signature]</i>		Date/Time 5/10/23 1010	
Reinquired by				Date/Time		Company		Received by		Date/Time	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks <i>(4.4 4.3)(5.3, 5.2)</i>							

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ift L'ng

ORIGIN ID: FE02
 KAELYN SPEER
 PRG AND ASSN
 4 PLAZA DR
 WESTMONT
 UNITED STATES
 IL 60559

SHIP DATE: 08MAY23
 ACTWGT: 53.70 LB
 CRD: 6994083/SSFE2420
 DIMS: 25x14x14 IN

BILL THIRD PARTY

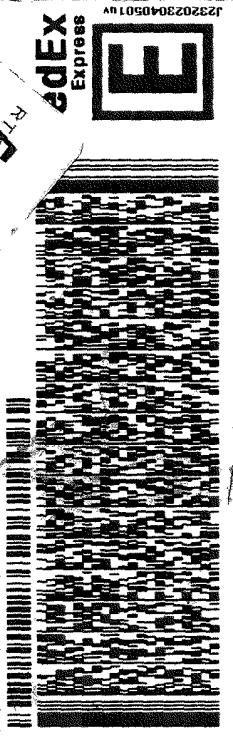
TO

5 10-30
 22
 RT 519

UNIVERSITY PARK HIL 60
 2417 BOND ST
 CHICAGO
 IL 60637

REF: DEPT:

(708) 584-5200
 301



2 of 2
 MPS# 3980 2538 7251
 0263
 Mstr# 3980 2538 7240
 0201

79 JOTA

TUE - 09 MAY 10:30A
 PRIORITY OVERNIGHT

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ORIGIN ID:EEPA (262) 278-1621
CARELYN SPEER
CPKG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 09MAY23
ACTIVITY: 301B
CNO: 6994063/SSFE2420
DINS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRDB2 EXP 07/23
23313/28CA/FE23

**EUROFINS CHICAGO
2417 BOND ST**

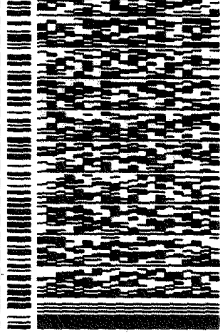
UNIVERSITY PARK IL 60484

(709) 634-6200 REF:
THU: PS:

DEPT:



500-233495 Waybl



FedEx
Express



1222023040501 01

3 of 6
WED - 10 MAY 10:30A
PRIORITY OVERNIGHT

MPS# 3980 9019 8567

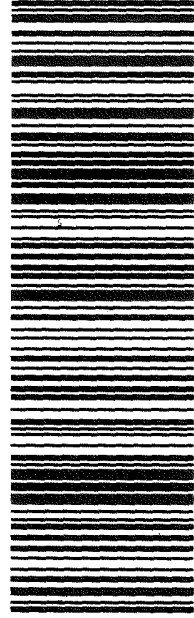
0263

Mstr# 3980 9019 8545

0201

79 JOTA

**60484
IL-US ORD**



Do Not Lift Using This Tag

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Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J	Carrier Tracking No(s): 500-173744-1																																																																																
Shipping/Receiving		E-Mail: Diana.Mockler@et.eurofins.com	Page: Page 1 of 1																																																																																
Company: TestAmerica Laboratories, Inc.		State of Origin: Illinois	Job #: 500-233495-2																																																																																
Address: 13715 Rider Trail North,		Accreditations Required (See note): NELAP - Illinois																																																																																	
City: Earth City	Due Date Requested: 5/30/2023	<table border="1"> <thead> <tr> <th colspan="2">Analysis Requested</th> <th>Perform M/MSD (Yes or No)</th> <th>Field Filtered Sample (Yes or No)</th> <th>903.0/PreSep_21 Standard Target List</th> <th>904.0/PreSep_0 Standard Target List</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>State Zip: MO, 63045</td> <td>TAT Requested (days):</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td>PO #: 314-298-8566(Tel) 314-298-8757(Fax)</td> <td>Project #:</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td>WO #: 50011597</td> <td>SSOW#:</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td>Project Name: Waukegan CCR (RAD)</td> <td>Sample Date</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td>Site: NRG Midwest Generation Waukegan</td> <td>Sample Time</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td></td> <td>Sample Type (C=comp, G=grab)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td></td> <td>Matrix (W=water, S=solid, O=swastool, B=biotissue, A=air)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td></td> <td>Preservation Code:</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> <tr> <td></td> <td>Sample ID (Lab ID)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;</td> </tr> </tbody> </table>		Analysis Requested		Perform M/MSD (Yes or No)	Field Filtered Sample (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Total Number of Containers	Special Instructions/Note:	State Zip: MO, 63045	TAT Requested (days):	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	PO #: 314-298-8566(Tel) 314-298-8757(Fax)	Project #:	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	WO #: 50011597	SSOW#:	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	Project Name: Waukegan CCR (RAD)	Sample Date	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	Site: NRG Midwest Generation Waukegan	Sample Time	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;		Sample Type (C=comp, G=grab)	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;		Matrix (W=water, S=solid, O=swastool, B=biotissue, A=air)	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;		Preservation Code:	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;		Sample ID (Lab ID)	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
Analysis Requested				Perform M/MSD (Yes or No)	Field Filtered Sample (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Total Number of Containers	Special Instructions/Note:																																																																										
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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) _____ Months
 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: _____ Date: _____ Time: _____ Method of Shipment:
 Relinquished by: *Mockler* Date/Time: 5/16/23 15:00 Company: _____
 Relinquished by: *Fedex* Date/Time: 05/15 MON 11:00:53 Company: *ETA 51L*
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: _____



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-233495-2

Login Number: 233495

List Number: 1

Creator: James, Jeff A

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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	2.2,4.3,5.2
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 <6mm (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: 500-233495-2

Login Number: 233495

List Number: 2

Creator: Farrell, Conor P

List Source: Eurofins St. Louis

List Creation: 05/10/23 11:59 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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.	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 <6mm (1/4").	True	
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: 500-233495-2

Login Number: 233495

List Number: 3

Creator: Farrell, Conor P

List Source: Eurofins St. Louis

List Creation: 05/11/23 01:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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.	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 <6mm (1/4").	True	
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: 500-233495-2

Client Sample ID: MW-01

Date Collected: 05/08/23 10:42

Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:11
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:26
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Client Sample ID: MW-02

Date Collected: 05/08/23 11:56

Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:11
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:26
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Client Sample ID: MW-03

Date Collected: 05/08/23 13:00

Date Received: 05/09/23 10:05

Lab Sample ID: 500-233495-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:11
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:26
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Client Sample ID: MW-04

Date Collected: 05/09/23 09:43

Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:12
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:26
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Lab Chronicle

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

Job ID: 500-233495-2

Client Sample ID: MW-09

Lab Sample ID: 500-233495-5

Date Collected: 05/09/23 14:28

Matrix: Water

Date Received: 05/10/23 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:12
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:26
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Client Sample ID: MW-11

Lab Sample ID: 500-233495-6

Date Collected: 05/09/23 12:03

Matrix: Water

Date Received: 05/10/23 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:12
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:26
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Client Sample ID: MW-14

Lab Sample ID: 500-233495-7

Date Collected: 05/09/23 13:14

Matrix: Water

Date Received: 05/10/23 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:08
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:26
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Client Sample ID: MW-16

Lab Sample ID: 500-233495-8

Date Collected: 05/09/23 11:00

Matrix: Water

Date Received: 05/10/23 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:08
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:27
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

Lab Chronicle

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

Job ID: 500-233495-2

Client Sample ID: Duplicate
Date Collected: 05/09/23 00:00
Date Received: 05/10/23 10:10

Lab Sample ID: 500-233495-9
Matrix: Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	PrecSep-21			611874	KAC	EET SL	05/17/23 09:46
Total/NA	Analysis	903.0		1	615345	FLC	EET SL	06/10/23 06:09
Total/NA	Prep	PrecSep_0			611935	KAC	EET SL	05/17/23 14:18
Total/NA	Analysis	904.0		1	615294	FLC	EET SL	06/09/23 14:27
Total/NA	Analysis	Ra226_Ra228		1	615680	EMH	EET SL	06/12/23 16:15

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: 500-233495-2

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-23

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Tracer/Carrier Summary

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

Job ID: 500-233495-2

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)	
500-233495-1	MW-01	81.3	
500-233495-1 DU	MW-01	80.0	
500-233495-2	MW-02	78.8	
500-233495-3	MW-03	84.0	
500-233495-4	MW-04	84.3	
500-233495-5	MW-09	85.5	
500-233495-6	MW-11	74.5	
500-233495-7	MW-14	86.0	
500-233495-8	MW-16	74.0	
500-233495-9	Duplicate	75.5	
LCS 160-611874/2-A	Lab Control Sample	82.8	
MB 160-611874/1-A	Method Blank	83.0	
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 (30-110)	Y (30-110)
500-233495-1	MW-01	81.3	83.4
500-233495-1 DU	MW-01	80.0	82.6
500-233495-2	MW-02	78.8	81.2
500-233495-3	MW-03	84.0	82.9
500-233495-4	MW-04	84.3	81.2
500-233495-5	MW-09	85.5	83.4
500-233495-6	MW-11	74.5	84.0
500-233495-7	MW-14	86.0	79.8
500-233495-8	MW-16	74.0	81.5
500-233495-9	Duplicate	75.5	78.9
LCS 160-611935/2-A	Lab Control Sample	82.8	85.7
MB 160-611935/1-A	Method Blank	83.0	81.5
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/8/23
Sample Name	MW-01	Start Time	1026	
Condition of Well	good			
Water Level	21.46	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	lf bladder	Purge Characteristics	clear	
Volume Removed	3 gts	WL at Sample Time	21.74	
Method of Sample	lf bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit	Sample Time	1042	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1028	21.46	8.19	13.0	.589	6.55	35.4	9.98
1031	-	8.61	13.1	.576	3.52	-5.3	6.84
1034	-	8.75	13.1	.572	2.66	-41.7	4.66
1037	-	8.81	13.1	.571	2.26	-57.4	3.72
1040	21.74	8.87	13.1	.570	1.90	-71.8	3.21

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/8/23
Sample Name	MW-02	Start Time	1138	
Condition of Well	good			
Water Level	21.35	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	If bladder	Purge Characteristics	clear	
Volume Removed	5 gts	WL at Sample Time	21.35	
Method of Sample	If bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit	Sample Time	1156	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1142	21.35	7.46	12.6	.679	6.36	-65.7	8.28
1145	-	8.26	12.8	.606	4.51	-84.6	11.66
1148	-	8.30	12.9	.601	3.09	-105.5	18.95
1151	-	8.07	12.9	.617	2.12	-121.6	15.86
1154	21.35	8.00	12.8	.624	1.88	-121.7	14.43

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/8/23
Sample Name	MW-03	Start Time	1242	
Condition of Well	good			
Water Level	21.12	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	If bladder	Purge Characteristics	clear	
Volume Removed	5 gals	WL at Sample Time	21.57	
Method of Sample	If bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit	Sample Time	1300	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1245	21.12	7.27	13.2	.656	7.88	15.0	7.23
1248	-	7.87	13.4	.607	4.79	-62.6	5.87
1251	-	8.05	13.3	.598	2.44	-89.9	4.20
1254	-	8.17	13.3	.596	2.43	-104.3	3.91
1257	21.57	8.20	13.3	.599	1.98	-112.4	3.61

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

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PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/9/23
Sample Name	MW-04	Start Time	0924	
Condition of Well	good			
Water Level	21.04	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	If bladder	Purge Characteristics	sl. cloudy	
Volume Removed	8 gts	WL at Sample Time	21.04	
Method of Sample	If bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit	Sample Time	0943	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
0927	21.04	6.96	12.7	.803	8.54	-35.7	56.51
0930	-	8.06	12.5	.586	4.52	-43.0	59.06
0933	-	8.34	12.4	.579	2.83	-52.1	39.28
0936	-	7.95	12.4	.613	2.22	-51.4	33.41
0939	-	7.50	12.4	.667	1.89	-38.0	28.81
0942	-	7.25	12.3	.727	1.70	-24.4	17.73
0945	-	7.16	12.3	.774	1.53	-11.1	15.03

SAMPLING NOTES:

CCR Duplicate

Sampler Name and Company:

KPRG and Associates

KL5

PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/9/23
Sample Name	MW-09	Start Time	1412	
Condition of Well	good			
Water Level	10.52	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	1f bladder	Purge Characteristics	clear	
Volume Removed	2 gts	WL at Sample Time	10.52	
Method of Sample	1f bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit	Sample Time	1428	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1414	10.52	7.26	12.1	1.703	7.74	46.7	11.72
1417	-	7.10	11.8	1.525	3.83	27.7	13.30
1420	-	7.09	11.9	1.513	2.91	24.5	9.85
1423	clear	7.08	11.6	1.510	2.41	19.7	9.34

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

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PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/9/23
Sample Name	MW-11	Start Time	1144	
Condition of Well	good			
Water Level	6.27	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	If bladder	Purge Characteristics	clear	
Volume Removed	2.5 gts	WL at Sample Time	6.34	
Method of Sample	If bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit (ELUC)	Sample Time	1203	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1147	6.27	7.05	10.4	1.364	8.38	-71.6	20.85
1150	-	7.01	10.0	1.401	4.92	-106.8	18.18
1153	-	7.01	10.0	1.407	3.42	-112.1	17.59
1156	-	7.00	9.9	1.404	2.38	-114.7	16.58
1159	6.34	6.99	9.8	1.408	2.06	-115.0	16.30

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/9/23
Sample Name	MW-14	Start Time	1252	
Condition of Well	good			
Water Level	5.35	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	If bladder	Purge Characteristics	cloudy, orange/brown	
Volume Removed	2.5 gts	WL at Sample Time	5.42	
Method of Sample	If bladder	Sample Characteristics	clear w/ yellow tint	
Sample Analysis	CCR, permit (ELUC)	Sample Time	1314	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1255	5.35	7.42	10.1	.748	9.01	33.9	81.08
1258	-	7.12	9.5	.702	5.05	7.8	120.42
1301	-	7.10	9.6	.695	3.96	-7.5	48.36
1304	-	7.09	9.6	.697	3.29	-13.4	28.15
1307	5.42	7.07	9.4	.699	2.77	-14.6	16.57

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION - 12313.2		DATE	5/9/23
Sample Name	MW-16	Start Time	1044	
Condition of Well	good			
Water Level	25.54	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	If bladder	Purge Characteristics	clear	
Volume Removed	2 gts	WL at Sample Time	25.54	
Method of Sample	If bladder	Sample Characteristics	clear	
Sample Analysis	CCR	Sample Time	1100	
Water Quality Meter	YSI Pro Dss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1047	25.54	6.78	13.8	.945	9.11	66.3	2.95
1050	-	6.80	13.5	1.242	6.36	72.1	6.86
1053	-	6.96	13.6	1.227	3.99	65.9	4.41
1056	25.54	6.98	13.6	1.220	2.76	61.9	2.95

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS