

## **DATA SUMMARY POSTING**

Station: Midwest Generation Powerton Generating Station

Regulated Unit(s): Metal Cleaning Basin (IEPA ID No. W1798010008-03)

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 3<sup>rd</sup> 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. 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 for the Metal Cleaning Basin dated March 31, 2022. 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.

It is noted that MW-20 and MW-21 were not sampled with the other wells during the week of August 28, 2023 due to insufficient water volumes.



Table 2. Groundwater Turbidity - Midwest Generation, LLC, Powerton Station, Pekin, IL. Metal Cleaning Basin.

Well	Date	Turbidity (NTU)
MW-13	2/24/2021	8.90
	4/8/2021	6.50
	5/13/2021	2.17
	6/3/2021	2.81
	6/29/2021	4.00
	8/23/2021	3.99
	10/1/2021	4.82
	11/30/2021	5.51
	1/6/2022	16.87
	2/9/2022	1.99
	6/8/2022	30.66
	8/31/2022	16.22
	11/16/2022	4.82
	2/23/2023	23.89
	5/17/2023	10.09
8/30/2023	14.95	
MW-15	2/24/2021	64.90
	4/9/2021	16.80
	5/12/2021	16.45
	6/3/2021	7.85
	6/29/2021	6.58
	7/20/2021	5.82
	8/23/2021	4.28
	10/1/2021	13.13
	11/29/2021	12.35
	2/7/2022	9.38
	6/8/2022	10.32
	8/31/2022	28.7
	11/16/2022	55.82
	2/23/2023	21.36
	5/17/2023	13.90
8/30/2023	34.65	
MW-17	2/24/2021	42.00
	4/8/2021	17.10
	5/12/2021	10.90
	6/3/2021	38.15
	6/28/2021	29.15
	7/20/2021	16.38
	8/23/2021	26.51
	10/1/2021	21.26
	11/30/2021	8.86
	2/9/2022	11.19
	6/8/2022	41.49
	8/31/2022	22.58
	11/16/2022	116.69
	2/23/2023	20.65
	5/18/2023	9.92
8/30/2023	3.56	

Table 2. Groundwater Turbidity - Midwest Generation, LLC, Powerton Station, Pekin, IL. Metal Cleaning Basin.

MW-14	2/24/2021	13.90
	4/8/2021	5.39
	5/12/2021	1.22
	6/3/2021	2.63
	6/28/2021	3.74
	7/20/2021	4.34
	8/23/2021	4.26
	10/1/2021	10.27
	11/29/2021	12.29
	2/9/2022	8.66
	6/8/2022	19.54
	8/31/2022	40.75
	11/17/2022	31.69
	2/21/2023	7.33
	5/17/2023	7.08
8/29/2023	1.95	
MW-20	3/12/2021	343.30
	4/8/2021	14.45
	5/12/2021	3.89
	6/3/2021	6.01
	6/28/2021	8.28
	7/20/2021	9.16
	8/23/2021	27.31
	10/1/2021	8.27
	11/29/2021	8.35
	2/8/2022	76.4
	6/9/2022	19.31
	9/1/2022	63.5
	11/17/2022	NM
	2/21/2023	NM
	6/26/2023	48.01
8/29/2023	NM	
MW-21	3/12/2021	49.20
	4/8/2021	5.88
	5/12/2021	26.09
	6/3/2021	17.61
	6/28/2021	6.33
	7/20/2021	44.93
	8/23/2021	19.43
	10/8/2021	94.82
	11/29/2021	20.2
	3/1/2022	7.64
	6/9/2022	7.56
	9/1/2022	NM
	11/17/2022	NM
	2/20/2023	25.99
	5/18/2023	7.50
8/30/2023	41.82	

NM - Not Measured due to insufficient water volume.

 **ANALYTICAL REPORT****PREPARED FOR**

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Generated 9/26/2023 9:09:39 AM

**JOB DESCRIPTION**

Powerton CCR MCB

**JOB NUMBER**

500-238902-1

# Eurofins Chicago

## Job Notes

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

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

## Authorization



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# Case Narrative

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

Job ID: 500-238902-1

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**Job ID: 500-238902-1**

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**Laboratory: Eurofins Chicago**

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**Narrative**

**Job Narrative  
500-238902-1**

**Receipt**

The samples were received on 8/31/2023 10:05 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.5° C.

**Metals**

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

**General Chemistry**

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

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# Method Summary

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

Job ID: 500-238902-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
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 CF
7470A	Preparation, Mercury	SW846	EET CF

#### 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 CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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

# Sample Summary

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

Job ID: 500-238902-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-238902-1	MW-15	Water	08/30/23 09:32	08/31/23 10:05
500-238902-2	MW-14	Water	08/29/23 10:05	08/31/23 10:05
500-238902-3	MW-17	Water	08/30/23 11:18	08/31/23 10:05
500-238902-4	Duplicate	Water	08/30/23 00:00	08/31/23 10:05
500-238902-5	MW-13	Water	08/30/23 12:21	08/31/23 10:05

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# Client Sample Results

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

Job ID: 500-238902-1

**Client Sample ID: MW-15**

**Lab Sample ID: 500-238902-1**

Date Collected: 08/30/23 09:32

Matrix: Water

Date Received: 08/31/23 10:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0081		0.0020		mg/L		09/05/23 08:00	09/20/23 23:10	1
Boron	1.1		0.10		mg/L		09/05/23 08:00	09/20/23 23:10	1
Barium	0.050		0.0020		mg/L		09/05/23 08:00	09/20/23 23:10	1
Beryllium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/20/23 23:10	1
Calcium	180		0.50		mg/L		09/05/23 08:00	09/20/23 23:10	1
Cadmium	0.00090		0.00020		mg/L		09/05/23 08:00	09/21/23 17:06	1
Cobalt	0.0026		0.00050		mg/L		09/05/23 08:00	09/20/23 23:10	1
Chromium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:10	1
Molybdenum	0.10		0.0020		mg/L		09/05/23 08:00	09/20/23 23:10	1
Lead	0.00063		0.00050		mg/L		09/05/23 08:00	09/20/23 23:10	1
Antimony	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:10	1
Selenium	0.021		0.0050		mg/L		09/05/23 08:00	09/20/23 23:10	1
Thallium	0.0032	F1	0.0010		mg/L		09/05/23 08:00	09/21/23 17:06	1
Lithium	0.028		0.010		mg/L		09/05/23 08:00	09/21/23 17:06	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/14/23 10:57	09/15/23 10:57	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1600		10		mg/L			09/01/23 01:39	1
Chloride (SM 4500 Cl- E)	290		40		mg/L			09/14/23 14:10	20
Fluoride (SM 4500 F C)	0.42		0.10		mg/L			09/10/23 15:14	1
Sulfate (SM 4500 SO4 E)	440		50		mg/L			09/21/23 11:39	10

# Client Sample Results

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

Job ID: 500-238902-1

**Client Sample ID: MW-14**  
**Date Collected: 08/29/23 10:05**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:27	1
<b>Boron</b>	<b>1.5</b>		0.10		mg/L		09/05/23 08:00	09/20/23 23:27	1
<b>Barium</b>	<b>0.041</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:27	1
Beryllium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/20/23 23:27	1
<b>Calcium</b>	<b>180</b>		0.50		mg/L		09/05/23 08:00	09/20/23 23:27	1
Cadmium	<0.00020		0.00020		mg/L		09/05/23 08:00	09/21/23 17:15	1
Cobalt	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:27	1
Chromium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:27	1
<b>Molybdenum</b>	<b>0.034</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:27	1
<b>Lead</b>	<b>0.00056</b>		0.00050		mg/L		09/05/23 08:00	09/20/23 23:27	1
Antimony	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:27	1
Selenium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:27	1
<b>Thallium</b>	<b>0.0022</b>		0.0010		mg/L		09/05/23 08:00	09/21/23 17:15	1
<b>Lithium</b>	<b>0.024</b>		0.010		mg/L		09/05/23 08:00	09/21/23 17:15	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/14/23 10:57	09/15/23 10:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>2300</b>		10		mg/L			09/01/23 01:42	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>150</b>		20		mg/L			09/14/23 14:08	10
<b>Fluoride (SM 4500 F C)</b>	<b>0.97</b>		0.10		mg/L			09/10/23 13:43	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>880</b>		100		mg/L			09/21/23 12:04	20

# Client Sample Results

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

Job ID: 500-238902-1

**Client Sample ID: MW-17**

**Lab Sample ID: 500-238902-3**

Date Collected: 08/30/23 11:18

Matrix: Water

Date Received: 08/31/23 10:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.0030</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:31	1
<b>Boron</b>	<b>0.96</b>		0.10		mg/L		09/05/23 08:00	09/20/23 23:31	1
<b>Barium</b>	<b>0.023</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:31	1
Beryllium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/20/23 23:31	1
<b>Calcium</b>	<b>130</b>		0.50		mg/L		09/05/23 08:00	09/20/23 23:31	1
<b>Cadmium</b>	<b>0.00025</b>		0.00020		mg/L		09/05/23 08:00	09/21/23 17:17	1
Cobalt	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:31	1
Chromium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:31	1
<b>Molybdenum</b>	<b>0.051</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:31	1
Lead	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:31	1
Antimony	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:31	1
Selenium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:31	1
<b>Thallium</b>	<b>0.0015</b>		0.0010		mg/L		09/05/23 08:00	09/21/23 17:17	1
<b>Lithium</b>	<b>0.017</b>		0.010		mg/L		09/05/23 08:00	09/21/23 17:17	1

### Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/14/23 10:57	09/15/23 11:01	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>1400</b>		10		mg/L			09/01/23 01:44	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>200</b>		20		mg/L			09/14/23 14:05	10
<b>Fluoride (SM 4500 F C)</b>	<b>0.67</b>		0.10		mg/L			09/10/23 15:18	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>560</b>		100		mg/L			09/21/23 12:04	20

# Client Sample Results

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

Job ID: 500-238902-1

**Client Sample ID: Duplicate**

**Lab Sample ID: 500-238902-4**

Date Collected: 08/30/23 00:00

Matrix: Water

Date Received: 08/31/23 10:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.021</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:49	1
<b>Boron</b>	<b>2.1</b>		0.10		mg/L		09/05/23 08:00	09/20/23 23:49	1
<b>Barium</b>	<b>0.12</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:49	1
Beryllium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/20/23 23:49	1
<b>Calcium</b>	<b>170</b>		0.50		mg/L		09/05/23 08:00	09/20/23 23:49	1
Cadmium	<0.00020		0.00020		mg/L		09/05/23 08:00	09/20/23 23:49	1
Cobalt	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:49	1
Chromium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:49	1
<b>Molybdenum</b>	<b>0.018</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:49	1
Lead	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:49	1
Antimony	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:49	1
Selenium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:49	1
Thallium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/21/23 17:19	1
Lithium	<0.010		0.010		mg/L		09/05/23 08:00	09/21/23 17:19	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/14/23 10:57	09/15/23 11:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>1600</b>		10		mg/L			09/01/23 01:47	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>140</b>		20		mg/L			09/14/23 14:06	10
<b>Fluoride (SM 4500 F C)</b>	<b>0.40</b>		0.10		mg/L			09/10/23 15:22	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>610</b>		100		mg/L			09/21/23 12:04	20

# Client Sample Results

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

Job ID: 500-238902-1

**Client Sample ID: MW-13**  
Date Collected: 08/30/23 12:21  
Date Received: 08/31/23 10:05

**Lab Sample ID: 500-238902-5**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.023</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:53	1
<b>Boron</b>	<b>2.3</b>		0.10		mg/L		09/05/23 08:00	09/20/23 23:53	1
<b>Barium</b>	<b>0.14</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:53	1
Beryllium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/20/23 23:53	1
<b>Calcium</b>	<b>180</b>		0.50		mg/L		09/05/23 08:00	09/20/23 23:53	1
Cadmium	<0.00020		0.00020		mg/L		09/05/23 08:00	09/20/23 23:53	1
Cobalt	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:53	1
Chromium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:53	1
<b>Molybdenum</b>	<b>0.016</b>		0.0020		mg/L		09/05/23 08:00	09/20/23 23:53	1
Lead	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:53	1
Antimony	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:53	1
Selenium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:53	1
Thallium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/21/23 17:21	1
Lithium	<0.010		0.010		mg/L		09/05/23 08:00	09/20/23 23:53	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/14/23 10:57	09/15/23 11:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>1600</b>		10		mg/L			09/01/23 01:50	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>140</b>		20		mg/L			09/14/23 14:09	10
<b>Fluoride (SM 4500 F C)</b>	<b>0.41</b>		0.10		mg/L			09/10/23 15:27	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>640</b>		100		mg/L			09/21/23 12:04	20

# Definitions/Glossary

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

Job ID: 500-238902-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

## Glossary

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



# QC Association Summary

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

Job ID: 500-238902-1

## Metals

### Prep Batch: 398507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total Recoverable	Water	3005A	
500-238902-2	MW-14	Total Recoverable	Water	3005A	
500-238902-3	MW-17	Total Recoverable	Water	3005A	
500-238902-4	Duplicate	Total Recoverable	Water	3005A	
500-238902-5	MW-13	Total Recoverable	Water	3005A	
MB 310-398507/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 310-398507/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-238902-1 MS	MW-15	Total Recoverable	Water	3005A	
500-238902-1 MSD	MW-15	Total Recoverable	Water	3005A	

### Prep Batch: 399566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	7470A	
500-238902-2	MW-14	Total/NA	Water	7470A	
500-238902-3	MW-17	Total/NA	Water	7470A	
500-238902-4	Duplicate	Total/NA	Water	7470A	
500-238902-5	MW-13	Total/NA	Water	7470A	
MB 310-399566/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-399566/2-A	Lab Control Sample	Total/NA	Water	7470A	
500-238902-5 MS	MW-13	Total/NA	Water	7470A	
500-238902-5 MSD	MW-13	Total/NA	Water	7470A	

### Analysis Batch: 399704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	7470A	399566
500-238902-2	MW-14	Total/NA	Water	7470A	399566
500-238902-3	MW-17	Total/NA	Water	7470A	399566
500-238902-4	Duplicate	Total/NA	Water	7470A	399566
500-238902-5	MW-13	Total/NA	Water	7470A	399566
MB 310-399566/1-A	Method Blank	Total/NA	Water	7470A	399566
LCS 310-399566/2-A	Lab Control Sample	Total/NA	Water	7470A	399566
500-238902-5 MS	MW-13	Total/NA	Water	7470A	399566
500-238902-5 MSD	MW-13	Total/NA	Water	7470A	399566

### Analysis Batch: 400176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total Recoverable	Water	6020B	398507
500-238902-2	MW-14	Total Recoverable	Water	6020B	398507
500-238902-3	MW-17	Total Recoverable	Water	6020B	398507
500-238902-4	Duplicate	Total Recoverable	Water	6020B	398507
500-238902-5	MW-13	Total Recoverable	Water	6020B	398507
MB 310-398507/1-A	Method Blank	Total Recoverable	Water	6020B	398507
LCS 310-398507/2-A	Lab Control Sample	Total Recoverable	Water	6020B	398507
500-238902-1 MS	MW-15	Total Recoverable	Water	6020B	398507
500-238902-1 MSD	MW-15	Total Recoverable	Water	6020B	398507

### Analysis Batch: 400337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total Recoverable	Water	6020B	398507
500-238902-2	MW-14	Total Recoverable	Water	6020B	398507
500-238902-3	MW-17	Total Recoverable	Water	6020B	398507

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# QC Association Summary

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

Job ID: 500-238902-1

## Metals (Continued)

### Analysis Batch: 400337 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-4	Duplicate	Total Recoverable	Water	6020B	398507
500-238902-5	MW-13	Total Recoverable	Water	6020B	398507
MB 310-398507/1-A	Method Blank	Total Recoverable	Water	6020B	398507
500-238902-1 MS	MW-15	Total Recoverable	Water	6020B	398507
500-238902-1 MSD	MW-15	Total Recoverable	Water	6020B	398507

### Analysis Batch: 400466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-398507/2-A	Lab Control Sample	Total Recoverable	Water	6020B	398507

## General Chemistry

### Analysis Batch: 730464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	SM 2540C	
500-238902-2	MW-14	Total/NA	Water	SM 2540C	
500-238902-3	MW-17	Total/NA	Water	SM 2540C	
500-238902-4	Duplicate	Total/NA	Water	SM 2540C	
500-238902-5	MW-13	Total/NA	Water	SM 2540C	
MB 500-730464/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-730464/2	Lab Control Sample	Total/NA	Water	SM 2540C	

### Analysis Batch: 731562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	SM 4500 F C	
500-238902-2	MW-14	Total/NA	Water	SM 4500 F C	
500-238902-3	MW-17	Total/NA	Water	SM 4500 F C	
500-238902-4	Duplicate	Total/NA	Water	SM 4500 F C	
500-238902-5	MW-13	Total/NA	Water	SM 4500 F C	
MB 500-731562/31	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-731562/60	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-731562/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-731562/63	Lab Control Sample	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 732370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	SM 4500 CI- E	
500-238902-2	MW-14	Total/NA	Water	SM 4500 CI- E	
500-238902-3	MW-17	Total/NA	Water	SM 4500 CI- E	
500-238902-4	Duplicate	Total/NA	Water	SM 4500 CI- E	
500-238902-5	MW-13	Total/NA	Water	SM 4500 CI- E	
MB 500-732370/16	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 500-732370/17	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

### Analysis Batch: 733424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	SM 4500 SO4 E	
500-238902-2	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-238902-3	MW-17	Total/NA	Water	SM 4500 SO4 E	
500-238902-4	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-238902-5	MW-13	Total/NA	Water	SM 4500 SO4 E	

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# QC Association Summary

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

Job ID: 500-238902-1

## General Chemistry (Continued)

### Analysis Batch: 733424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-733424/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-733424/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

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

# QC Sample Results

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

Job ID: 500-238902-1

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

**Lab Sample ID: MB 310-398507/1-A**  
**Matrix: Water**  
**Analysis Batch: 400176**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:03	1
Boron	<0.10		0.10		mg/L		09/05/23 08:00	09/20/23 23:03	1
Barium	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:03	1
Beryllium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/20/23 23:03	1
Calcium	<0.50		0.50		mg/L		09/05/23 08:00	09/20/23 23:03	1
Cadmium	<0.00020		0.00020		mg/L		09/05/23 08:00	09/20/23 23:03	1
Cobalt	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:03	1
Chromium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:03	1
Molybdenum	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:03	1
Lead	<0.00050		0.00050		mg/L		09/05/23 08:00	09/20/23 23:03	1
Antimony	<0.0020		0.0020		mg/L		09/05/23 08:00	09/20/23 23:03	1
Selenium	<0.0050		0.0050		mg/L		09/05/23 08:00	09/20/23 23:03	1
Lithium	<0.010		0.010		mg/L		09/05/23 08:00	09/20/23 23:03	1

**Lab Sample ID: MB 310-398507/1-A**  
**Matrix: Water**  
**Analysis Batch: 400337**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	<0.0010		0.0010		mg/L		09/05/23 08:00	09/21/23 17:02	1

**Lab Sample ID: LCS 310-398507/2-A**  
**Matrix: Water**  
**Analysis Batch: 400176**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	Limits
Arsenic	0.200	0.201		mg/L		100		80 - 120
Boron	0.200	0.189		mg/L		94		80 - 120
Barium	0.100	0.0923		mg/L		92		80 - 120
Beryllium	0.100	0.0909		mg/L		91		80 - 120
Calcium	2.00	1.85		mg/L		93		80 - 120
Cadmium	0.100	0.0879		mg/L		88		80 - 120
Cobalt	0.100	0.0992		mg/L		99		80 - 120
Chromium	0.100	0.0955		mg/L		96		80 - 120
Molybdenum	0.200	0.179		mg/L		90		80 - 120
Lead	0.200	0.207		mg/L		104		80 - 120
Antimony	0.200	0.195		mg/L		98		80 - 120
Selenium	0.400	0.377		mg/L		94		80 - 120
Lithium	0.200	0.190		mg/L		95		80 - 120

**Lab Sample ID: LCS 310-398507/2-A**  
**Matrix: Water**  
**Analysis Batch: 400466**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	Limits
Thallium	0.200	0.162		mg/L		81		80 - 120

# QC Sample Results

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

Job ID: 500-238902-1

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

**Lab Sample ID: 500-238902-1 MS**  
**Matrix: Water**  
**Analysis Batch: 400176**

**Client Sample ID: MW-15**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	Sample	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec	
	Result			Result	Qualifier				Limits	Limits
Arsenic	0.0081		0.200	0.208		mg/L		100	75 - 125	
Boron	1.1		0.200	1.25	4	mg/L		80	75 - 125	
Barium	0.050		0.100	0.141		mg/L		91	75 - 125	
Beryllium	<0.0010		0.100	0.0882		mg/L		88	75 - 125	
Calcium	180		2.00	176	4	mg/L		-22	75 - 125	
Cobalt	0.0026		0.100	0.0962		mg/L		94	75 - 125	
Chromium	<0.0050		0.100	0.0928		mg/L		93	75 - 125	
Molybdenum	0.10		0.200	0.295		mg/L		96	75 - 125	
Lead	0.00063		0.200	0.193		mg/L		96	75 - 125	
Antimony	<0.0020		0.200	0.238		mg/L		118	75 - 125	
Selenium	0.021		0.400	0.395		mg/L		93	75 - 125	

**Lab Sample ID: 500-238902-1 MS**  
**Matrix: Water**  
**Analysis Batch: 400337**

**Client Sample ID: MW-15**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	Sample	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec	
	Result			Result	Qualifier				Limits	Limits
Cadmium	0.00090		0.100	0.100		mg/L		99	75 - 125	
Thallium	0.0032	F1	0.200	0.142	F1	mg/L		69	75 - 125	
Lithium	0.028		0.200	0.240		mg/L		106	75 - 125	

**Lab Sample ID: 500-238902-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 400176**

**Client Sample ID: MW-15**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	Sample	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	
	Result			Result	Qualifier				Limits	Limits	RPD	Limit
Arsenic	0.0081		0.200	0.203		mg/L		98	75 - 125	2	20	
Boron	1.1		0.200	1.27	4	mg/L		85	75 - 125	1	20	
Barium	0.050		0.100	0.138		mg/L		88	75 - 125	2	20	
Beryllium	<0.0010		0.100	0.0847		mg/L		85	75 - 125	4	20	
Calcium	180		2.00	175	4	mg/L		-100	75 - 125	1	20	
Cobalt	0.0026		0.100	0.0931		mg/L		90	75 - 125	3	20	
Chromium	<0.0050		0.100	0.0889		mg/L		89	75 - 125	4	20	
Molybdenum	0.10		0.200	0.295		mg/L		96	75 - 125	0	20	
Lead	0.00063		0.200	0.194		mg/L		97	75 - 125	0	20	
Antimony	<0.0020		0.200	0.231		mg/L		115	75 - 125	3	20	
Selenium	0.021		0.400	0.383		mg/L		91	75 - 125	3	20	

**Lab Sample ID: 500-238902-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 400337**

**Client Sample ID: MW-15**  
**Prep Type: Total Recoverable**  
**Prep Batch: 398507**

Analyte	Sample	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	
	Result			Result	Qualifier				Limits	Limits	RPD	Limit
Cadmium	0.00090		0.100	0.0977		mg/L		97	75 - 125	3	20	
Thallium	0.0032	F1	0.200	0.141	F1	mg/L		69	75 - 125	1	20	
Lithium	0.028		0.200	0.234		mg/L		103	75 - 125	2	20	

# QC Sample Results

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

Job ID: 500-238902-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-399566/1-A  
Matrix: Water  
Analysis Batch: 399704

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 399566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/14/23 10:57	09/15/23 10:35	1

Lab Sample ID: LCS 310-399566/2-A  
Matrix: Water  
Analysis Batch: 399704

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 399566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.00163		mg/L		98	80 - 120

Lab Sample ID: 500-238902-5 MS  
Matrix: Water  
Analysis Batch: 399704

Client Sample ID: MW-13  
Prep Type: Total/NA  
Prep Batch: 399566

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.00167	0.00153		mg/L		92	80 - 120

Lab Sample ID: 500-238902-5 MSD  
Matrix: Water  
Analysis Batch: 399704

Client Sample ID: MW-13  
Prep Type: Total/NA  
Prep Batch: 399566

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.00020		0.00167	0.00145		mg/L		87	80 - 120	5	20

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

Lab Sample ID: MB 500-730464/1  
Matrix: Water  
Analysis Batch: 730464

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			09/01/23 01:01	1

Lab Sample ID: LCS 500-730464/2  
Matrix: Water  
Analysis Batch: 730464

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

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

## Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-732370/16  
Matrix: Water  
Analysis Batch: 732370

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			09/14/23 14:05	1

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# QC Sample Results

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

Job ID: 500-238902-1

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

Lab Sample ID: LCS 500-732370/17  
Matrix: Water  
Analysis Batch: 732370

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	21.6		mg/L		108	85 - 115

## Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-731562/31  
Matrix: Water  
Analysis Batch: 731562

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			09/10/23 12:29	1

Lab Sample ID: MB 500-731562/60  
Matrix: Water  
Analysis Batch: 731562

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			09/10/23 14:43	1

Lab Sample ID: LCS 500-731562/32  
Matrix: Water  
Analysis Batch: 731562

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 500-731562/63  
Matrix: Water  
Analysis Batch: 731562

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

## Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-733424/16  
Matrix: Water  
Analysis Batch: 733424

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			09/21/23 11:15	1

Lab Sample ID: LCS 500-733424/17  
Matrix: Water  
Analysis Batch: 733424

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	20.6		mg/L		103	88 - 123

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### Chain of Custody Record

# MKE 232

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 Environmental Testing

<b>Client Information</b> Client Contact: <u>Kaelyn Sperle</u> Company: <u>KPRG and Associates, Inc.</u> Address: <u>14665 W Lisbon Rd</u> City: <u>Brookfield</u> State, Zip: <u>IL, 60569 WI, 53005</u> Phone: <u>262-781-0475(Tel)</u> Email: <u>kaelyns@kprginc.com</u> Project Name: <u>Powerton CCR MCB</u> Site: <u>Midwest Generation-Powerton</u>		Sampler: <u>Kaelyn Sperle</u> Phone: <u>262-278-1621</u> PWSID: _____		Lab PM: <u>Mockler, Diana J</u> E-Mail: <u>Diana.Mockler@et.eurofinsus.com</u>		Carrier Tracking No(s): _____ State of Origin: <u>IL</u>		COC No: <u>500-114459-46460.1</u> Page: <u>Page 1 of 1</u> Job #: <u>500-238902</u>							
Due Date Requested: <u>Standard</u> TAT Requested (days): <u>standard</u> Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			PO #: <u>4502125100</u> WO #: _____ Project #: <u>50018578</u> SSOW#: <u>500-238902 COC</u>		Analysis Requested Field Filtered Sample (Yes or No) Perform Analysis (Yes or No) 2540C, 4500_F_C, SMI4500_CI_E, SMI4500_S04_E 903.0 - Radium 226 904.0 - Radium 228 Ra226Ra228_GFP - Rad Combined 6010C, 6020A, 7470A		Preservation Codes: 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) Other: _____								
<b>Sample Identification</b>		Sample Date		Sample Time			Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)		Total Number of Containers		Special Instructions/Note:		
1 MW-15		8/30/23		0932		G		Water		5					
2 MW-14		8/29/23		1005		G		Water		5					
3 MW-17		8/30/23		1118		G		Water		5					
<del>MW-20</del>								Water							
<del>MW-21</del>								Water							
4 Duplicate		8/30/23		-		G		Water		5					
5 MW-13		8/30/23		1221		G		Water		5					
								Water							
<b>Possible Hazard Identification</b> <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					<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <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:							
Relinquished by: <u>Kaelyn Sperle</u>			Date/Time: <u>8/30/23/1800</u>		Company: <u>KPRG</u>			Received by: <u>Shu...</u>		Date/Time: <u>8/31/23 1005</u>		Company: <u>EBTH</u>			
Relinquished by:			Date/Time:		Company:			Received by:		Date/Time:		Company:			
Relinquished by:			Date/Time:		Company:			Received by:		Date/Time:		Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks: <u>5.9 -&gt; 5.5</u>											



Do Not Print Using This Tag

NIKE SHOX

ORIGIN ID:PIAA (262) 278-1621  
KAELYN SPERLE  
KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

SHIP DATE: 30AUG23  
ACTWGT: 45.80 LB  
CAD: 6994780/SSFE2422  
DIMS: 24x13x15 IN

WESTMONT, IL 60559  
UNITED STATES US

BILL THIRD PARTY

TO EUROFINS CHICAGO

2417 BOND ST.

5.9 755

UNIVERSITY PARK IL 60484



(666) 666-6666

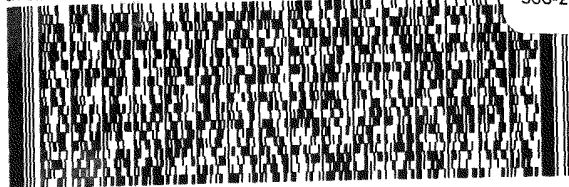
REF:

INU:

DEPT:



500-238902 Waybi



AN1015210210327

2 of 5

THU - 31 AUG 10:30A

MPS# 7831 4952 6459

PRIORITY OVERNIGHT

0263

Mstr# 7831 4952 6448

0201

AHS

**XN JOTA**

60484

IL-US ORD



RT 519

5 10:30

A

ST 25

6459

08 31



Environment Testing America



500-238902 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Chicago</u>			
City/State:	CITY	STATE	Project:
		<u>IL</u>	
<b>Receipt Information</b>			
Date/Time Received:	DATE	TIME	Received By:
	<u>9-1-23</u>	<u>1000</u>	<u>ML</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
<b>Condition of Cooler/Containers</b>			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
<b>Temperature Record</b>			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>R</u>	Correction Factor (°C):	<u>0</u>
*Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature*			
Uncorrected Temp (°C):	<u>—</u>	Corrected Temp (°C):	<u>—</u>
<b>Sample Container Temperature</b>			
Container(s) used:	CONTAINER 1 <u>250 ml plastic</u>	CONTAINER 2	
Uncorrected Temp (°C):	<u>1.9</u>		
Corrected Temp (°C):	<u>1.9</u>		
<b>Exceptions Noted</b>			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
<b>Additional Comments</b>			



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

# Chain of Custody Record



Environment Testing

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (W-water, S-solid, O-water/oil, Bt-tissue, A-Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7470A/1470A Prep Mercury	6020B/3005A (MOD) 14 Metals	Total Number of Containers	Special Instructions/Note:
MW-15 (500-238902-1)	8/30/23	09:32 Central	Water	Water	X	X	X	X	1	
MW-14 (500-238902-2)	8/29/23	10:05 Central	Water	Water	X	X	X	X	1	
MW-17 (500-238902-3)	8/30/23	11:18 Central	Water	Water	X	X	X	X	1	
Duplicate (500-238902-4)	8/30/23	Central	Water	Water	X	X	X	X	1	
MW-13 (500-238902-5)	8/30/23	12:21 Central	Water	Water	X	X	X	X	1	
<p><b>Client Information (Sub Contract Lab)</b></p> <p>Lab PM: Mockler, Diana J          Carrier Tracking No(s): 500-1785211          State of Origin: Illinois          E-Mail: Diana Mockler@et.eurofinsus.com          Job #: 500-238902-1          NELAP - Illinois</p> <p><b>Analysis Requested</b></p> <p>Preservation Codes:          A - HCL          B - NaOH          C - Zn Acetate          D - Nitric Acid          E - NaHSO4          F - MeOH          G - Amchlor          H - Ascorbic Acid          I - Ice          J - DI Water          K - EDTA          L - EDA          Other</p>										
<p><b>Possible Hazard Identification</b></p> <p>Unconfirmed          Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>										
<p>Empty Kit Relinquished by: _____ Date: 8/31/23</p> <p>Relinquished by: _____ Date/Time: 1600</p> <p>Relinquished by: _____ Date/Time:</p> <p>Relinquished by: _____ Date/Time:</p> <p>Custody Seals Intact: Custody Seal No</p>										

Note: Since laboratory accreditation is 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.

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9/26/2023

# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-238902-1

**Login Number: 238902**

**List Number: 1**

**Creator: Scott, Sherri L**

**List Source: Eurofins Chicago**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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	5.5
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	



# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-238902-1

**Login Number: 238902**

**List Number: 2**

**Creator: Costello, Mackenzie K**

**List Source: Eurofins Cedar Falls**

**List Creation: 09/01/23 10:55 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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	
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?	False	Received project as a subcontract.
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: Powerton CCR MCB

Job ID: 500-238902-1

**Client Sample ID: MW-15**  
**Date Collected: 08/30/23 09:32**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400176	DHM5	EET CF	09/20/23 23:10
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400337	DHM5	EET CF	09/21/23 17:06
Total/NA	Prep	7470A			399566	NFT2	EET CF	09/14/23 10:57
Total/NA	Analysis	7470A		1	399704	NFT2	EET CF	09/15/23 10:57
Total/NA	Analysis	SM 2540C		1	730464	CLB	EET CHI	09/01/23 01:39
Total/NA	Analysis	SM 4500 CI- E		20	732370	TR	EET CHI	09/14/23 14:10
Total/NA	Analysis	SM 4500 F C		1	731562	EH	EET CHI	09/10/23 15:14
Total/NA	Analysis	SM 4500 SO4 E		10	733424	TR	EET CHI	09/21/23 11:39

**Client Sample ID: MW-14**  
**Date Collected: 08/29/23 10:05**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400176	DHM5	EET CF	09/20/23 23:27
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400337	DHM5	EET CF	09/21/23 17:15
Total/NA	Prep	7470A			399566	NFT2	EET CF	09/14/23 10:57
Total/NA	Analysis	7470A		1	399704	NFT2	EET CF	09/15/23 10:59
Total/NA	Analysis	SM 2540C		1	730464	CLB	EET CHI	09/01/23 01:42
Total/NA	Analysis	SM 4500 CI- E		10	732370	TR	EET CHI	09/14/23 14:08
Total/NA	Analysis	SM 4500 F C		1	731562	EH	EET CHI	09/10/23 13:43
Total/NA	Analysis	SM 4500 SO4 E		20	733424	TR	EET CHI	09/21/23 12:04

**Client Sample ID: MW-17**  
**Date Collected: 08/30/23 11:18**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400176	DHM5	EET CF	09/20/23 23:31
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400337	DHM5	EET CF	09/21/23 17:17
Total/NA	Prep	7470A			399566	NFT2	EET CF	09/14/23 10:57
Total/NA	Analysis	7470A		1	399704	NFT2	EET CF	09/15/23 11:01
Total/NA	Analysis	SM 2540C		1	730464	CLB	EET CHI	09/01/23 01:44
Total/NA	Analysis	SM 4500 CI- E		10	732370	TR	EET CHI	09/14/23 14:05
Total/NA	Analysis	SM 4500 F C		1	731562	EH	EET CHI	09/10/23 15:18
Total/NA	Analysis	SM 4500 SO4 E		20	733424	TR	EET CHI	09/21/23 12:04

# Lab Chronicle

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

Job ID: 500-238902-1

**Client Sample ID: Duplicate**

**Lab Sample ID: 500-238902-4**

**Date Collected: 08/30/23 00:00**

**Matrix: Water**

**Date Received: 08/31/23 10:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400176	DHM5	EET CF	09/20/23 23:49
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400337	DHM5	EET CF	09/21/23 17:19
Total/NA	Prep	7470A			399566	NFT2	EET CF	09/14/23 10:57
Total/NA	Analysis	7470A		1	399704	NFT2	EET CF	09/15/23 11:03
Total/NA	Analysis	SM 2540C		1	730464	CLB	EET CHI	09/01/23 01:47
Total/NA	Analysis	SM 4500 CI- E		10	732370	TR	EET CHI	09/14/23 14:06
Total/NA	Analysis	SM 4500 F C		1	731562	EH	EET CHI	09/10/23 15:22
Total/NA	Analysis	SM 4500 SO4 E		20	733424	TR	EET CHI	09/21/23 12:04

**Client Sample ID: MW-13**

**Lab Sample ID: 500-238902-5**

**Date Collected: 08/30/23 12:21**

**Matrix: Water**

**Date Received: 08/31/23 10:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400176	DHM5	EET CF	09/20/23 23:53
Total Recoverable	Prep	3005A			398507	QTZ5	EET CF	09/05/23 08:00
Total Recoverable	Analysis	6020B		1	400337	DHM5	EET CF	09/21/23 17:21
Total/NA	Prep	7470A			399566	NFT2	EET CF	09/14/23 10:57
Total/NA	Analysis	7470A		1	399704	NFT2	EET CF	09/15/23 11:05
Total/NA	Analysis	SM 2540C		1	730464	CLB	EET CHI	09/01/23 01:50
Total/NA	Analysis	SM 4500 CI- E		10	732370	TR	EET CHI	09/14/23 14:09
Total/NA	Analysis	SM 4500 F C		1	731562	EH	EET CHI	09/10/23 15:27
Total/NA	Analysis	SM 4500 SO4 E		20	733424	TR	EET CHI	09/21/23 12:04

**Laboratory References:**

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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: Powerton CCR MCB

Job ID: 500-238902-1

## Laboratory: Eurofins Chicago

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

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

## Laboratory: Eurofins Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-23
Georgia	State	IA100001 (OR)	09-29-23
Illinois	NELAP	200024	11-29-23
Iowa	State	007	12-01-23
Kansas	NELAP	E-10341	01-31-24
Minnesota	NELAP	019-999-319	12-31-23
Minnesota (Petrofund)	State	3349	01-18-24
North Dakota	State	R-186	09-29-23
Oregon	NELAP	IA100001	09-29-23





# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 10/3/2023 12:17:04 PM

## JOB DESCRIPTION

Powerton CCR MCB (RAD)

## JOB NUMBER

500-238902-2

# Eurofins Chicago

## Job Notes

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

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

## Authorization



Generated  
10/3/2023 12:17:04 PM

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

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# Case Narrative

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

Job ID: 500-238902-2

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## Job ID: 500-238902-2

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### Laboratory: Eurofins Chicago

#### Narrative

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#### Job Narrative 500-238902-2

#### Receipt

The samples were received on 8/31/2023 10:05 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.5° C.

#### RAD

Methods 903.0, 9315: Radium-226 batch 626536

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-15 (500-238902-1), MW-14 (500-238902-2), MW-17 (500-238902-3), Duplicate (500-238902-4), MW-13 (500-238902-5), (LCS 160-626536/2-A), (MB 160-626536/1-A), (500-238830-F-6-A) and (500-238830-E-6-A DU)

Methods 904.0, 9320: Radium-228 batch 626539

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-15 (500-238902-1), MW-14 (500-238902-2), MW-17 (500-238902-3), Duplicate (500-238902-4), MW-13 (500-238902-5), (LCS 160-626539/2-A), (MB 160-626539/1-A), (500-238830-F-6-B) and (500-238830-E-6-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: Powerton CCR MCB (RAD)

Job ID: 500-238902-2

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

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- 13
- 14

# Sample Summary

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

Job ID: 500-238902-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-238902-1	MW-15	Water	08/30/23 09:32	08/31/23 10:05
500-238902-2	MW-14	Water	08/29/23 10:05	08/31/23 10:05
500-238902-3	MW-17	Water	08/30/23 11:18	08/31/23 10:05
500-238902-4	Duplicate	Water	08/30/23 00:00	08/31/23 10:05
500-238902-5	MW-13	Water	08/30/23 12:21	08/31/23 10:05

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- 14

# Client Sample Results

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

Job ID: 500-238902-2

**Client Sample ID: MW-15**

**Lab Sample ID: 500-238902-1**

Date Collected: 08/30/23 09:32

Matrix: Water

Date Received: 08/31/23 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	<0.192	U	0.106	0.106	1.00	0.192	pCi/L	09/05/23 10:42	09/29/23 18:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		30 - 110					09/05/23 10:42	09/29/23 18:25	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	<0.645	U	0.422	0.426	1.00	0.645	pCi/L	09/05/23 10:45	09/26/23 16:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		30 - 110					09/05/23 10:45	09/26/23 16:16	1
Y Carrier	83.0		30 - 110					09/05/23 10:45	09/26/23 16:16	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	<0.645	U	0.435	0.439	5.00	0.645	pCi/L		10/03/23 11:26	1

# Client Sample Results

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

Job ID: 500-238902-2

**Client Sample ID: MW-14**  
**Date Collected: 08/29/23 10:05**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-2**  
**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	<0.181	U	0.121	0.122	1.00	0.181	pCi/L	09/05/23 10:42	09/29/23 18:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		30 - 110					09/05/23 10:42	09/29/23 18:25	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>0.665</b>		0.390	0.394	1.00	0.560	pCi/L	09/05/23 10:45	09/26/23 16:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		30 - 110					09/05/23 10:45	09/26/23 16:16	1
Y Carrier	83.7		30 - 110					09/05/23 10:45	09/26/23 16:16	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
<b>Combined Radium 226 + 228</b>	<b>0.816</b>		0.408	0.412	5.00	0.560	pCi/L		10/03/23 11:26	1



# Client Sample Results

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

Job ID: 500-238902-2

**Client Sample ID: MW-17**

**Lab Sample ID: 500-238902-3**

Date Collected: 08/30/23 11:18

Matrix: Water

Date Received: 08/31/23 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	<0.189	U	0.114	0.114	1.00	0.189	pCi/L	09/05/23 10:42	09/29/23 18:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					09/05/23 10:42	09/29/23 18:25	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	<0.758	U	0.473	0.475	1.00	0.758	pCi/L	09/05/23 10:45	09/26/23 16:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					09/05/23 10:45	09/26/23 16:16	1
Y Carrier	80.0		30 - 110					09/05/23 10:45	09/26/23 16:16	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	U	0.487	0.488	5.00	0.758	pCi/L		10/03/23 11:26	1

# Client Sample Results

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

Job ID: 500-238902-2

**Client Sample ID: Duplicate**

**Lab Sample ID: 500-238902-4**

Date Collected: 08/30/23 00:00

Matrix: Water

Date Received: 08/31/23 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	0.372		0.157	0.160	1.00	0.170	pCi/L	09/05/23 10:42	09/29/23 18:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		30 - 110					09/05/23 10:42	09/29/23 18:25	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	0.402	0.404	1.00	0.659	pCi/L	09/05/23 10:45	09/26/23 16:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		30 - 110					09/05/23 10:45	09/26/23 16:16	1
Y Carrier	83.7		30 - 110					09/05/23 10:45	09/26/23 16:16	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	0.728		0.432	0.435	5.00	0.659	pCi/L		10/03/23 11:26	1

# Client Sample Results

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

Job ID: 500-238902-2

**Client Sample ID: MW-13**

**Lab Sample ID: 500-238902-5**

Date Collected: 08/30/23 12:21

Matrix: Water

Date Received: 08/31/23 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	0.313		0.140	0.143	1.00	0.157	pCi/L	09/05/23 10:42	09/29/23 18:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		30 - 110					09/05/23 10:42	09/29/23 18:25	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	2.36		0.630	0.666	1.00	0.751	pCi/L	09/05/23 10:45	09/26/23 16:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		30 - 110					09/05/23 10:45	09/26/23 16:15	1
Y Carrier	82.2		30 - 110					09/05/23 10:45	09/26/23 16:15	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.67		0.645	0.681	5.00	0.751	pCi/L		10/03/23 11:26	1

# Definitions/Glossary

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

Job ID: 500-238902-2

## 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: Powerton CCR MCB (RAD)

Job ID: 500-238902-2

## Rad

### Prep Batch: 626536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	PrecSep-21	
500-238902-2	MW-14	Total/NA	Water	PrecSep-21	
500-238902-3	MW-17	Total/NA	Water	PrecSep-21	
500-238902-4	Duplicate	Total/NA	Water	PrecSep-21	
500-238902-5	MW-13	Total/NA	Water	PrecSep-21	
MB 160-626536/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-626536/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 626539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238902-1	MW-15	Total/NA	Water	PrecSep_0	
500-238902-2	MW-14	Total/NA	Water	PrecSep_0	
500-238902-3	MW-17	Total/NA	Water	PrecSep_0	
500-238902-4	Duplicate	Total/NA	Water	PrecSep_0	
500-238902-5	MW-13	Total/NA	Water	PrecSep_0	
MB 160-626539/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-626539/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

# QC Sample Results

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

Job ID: 500-238902-2

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

**Lab Sample ID: MB 160-626536/1-A**  
**Matrix: Water**  
**Analysis Batch: 630165**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626536**

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.180	U	0.0989	0.0990	1.00	0.180	pCi/L	09/05/23 10:42	09/29/23 09:48	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	Dil Fac
Ba Carrier	97.0		30 - 110				09/05/23 10:42		09/29/23 09:48	1

**Lab Sample ID: LCS 160-626536/2-A**  
**Matrix: Water**  
**Analysis Batch: 630162**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626536**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.54		1.19	1.00	0.153	pCi/L	93	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	88.1		30 - 110						

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

**Lab Sample ID: MB 160-626539/1-A**  
**Matrix: Water**  
**Analysis Batch: 629618**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626539**

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	<0.545	U	0.350	0.352	1.00	0.545	pCi/L	09/05/23 10:45	09/26/23 16:10	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	Dil Fac
Ba Carrier	97.0		30 - 110				09/05/23 10:45		09/26/23 16:10	1
Y Carrier	70.7		30 - 110				09/05/23 10:45		09/26/23 16:10	1

**Lab Sample ID: LCS 160-626539/2-A**  
**Matrix: Water**  
**Analysis Batch: 629618**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626539**

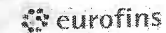
Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	7.85	8.712		1.25	1.00	0.555	pCi/L	111	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	88.1		30 - 110						
Y Carrier	83.4		30 - 110						

**Eurofins Chicago**

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

**Chain of Custody Record**

**MKE 232**



Environmental Testing

<b>Client Information</b>		Sampler: <i>Kaelyn Sperle</i>	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-114459-46460.1																										
Client Contact: <i>Mitchel Delan Kaelyn Sperle</i>		Phone: <i>262-278-1621</i>	E-Mail: Diana.Mockler@et.eurofinsus.com	State of Origin: <b>IL</b>	Page: Page 1 of 1																										
Company: KPRG and Associates, Inc.		PWSID:	<b>Analysis Requested</b>																												
Address: <i>114 Plaza Drive Suite 100 14665 W Lisbon Rd</i>		Due Date Requested: <i>Standard</i>	<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>2540C, 4500_F_C, SM4500_CL_E, SM4500_S04_LF</td> <td>9030 - Radium 226</td> <td>9040 - Radium 228</td> <td>Ra226Ra228_GFP - Rad Combined</td> <td>6010C, 6020A, 7470A</td> </tr> <tr> <td>Perform Analysis (Yes or No)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>			Field Filtered Sample (Yes or No)	2540C, 4500_F_C, SM4500_CL_E, SM4500_S04_LF	9030 - Radium 226	9040 - Radium 228	Ra226Ra228_GFP - Rad Combined	6010C, 6020A, 7470A	Perform Analysis (Yes or No)																			
Field Filtered Sample (Yes or No)	2540C, 4500_F_C, SM4500_CL_E, SM4500_S04_LF	9030 - Radium 226				9040 - Radium 228	Ra226Ra228_GFP - Rad Combined	6010C, 6020A, 7470A																							
Perform Analysis (Yes or No)																															
City: <i>Westmont Brookfield</i>		TAT Requested (days): <i>standard</i>				Job #: <i>500-238902</i>																									
State, Zip: <i>IL 60559 WI, 53005</i>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Preservation Codes:																									
Phone: <i>262-781-0475(Tel)</i>		PO #: 4502125100	<table border="0"> <tr> <td>A - HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4-5</td> </tr> <tr> <td>L - EDA</td> <td>Y - Trizma</td> </tr> <tr> <td></td> <td>Z - other (specify)</td> </tr> </table>			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)
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																														
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J - DI Water	V - MCAA																														
K - EDTA	W - pH 4-5																														
L - EDA	Y - Trizma																														
	Z - other (specify)																														
Email: <i>mitcheld@kprginc.com kaelyns@kprginc.com</i>		WO #:	Other:																												
Project Name: <i>Powerton CCR MCB</i>		Project #: 50018578	Total Number of Containers:																												
Site: <i>Midwest Generation - Powerton</i>		SSOW#: <b>500-238902 COC</b>	Special Instructions/Note:																												
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No) <th>Perform Analysis (Yes or No) <th>2540C, 4500_F_C, SM4500_CL_E, SM4500_S04_LF</th> <th>9030 - Radium 226</th> <th>9040 - Radium 228</th> <th>Ra226Ra228_GFP - Rad Combined</th> <th>6010C, 6020A, 7470A</th> <th>Total Number of Containers</th> <th>Special Instructions/Note</th> </th>	Perform Analysis (Yes or No) <th>2540C, 4500_F_C, SM4500_CL_E, SM4500_S04_LF</th> <th>9030 - Radium 226</th> <th>9040 - Radium 228</th> <th>Ra226Ra228_GFP - Rad Combined</th> <th>6010C, 6020A, 7470A</th> <th>Total Number of Containers</th> <th>Special Instructions/Note</th>	2540C, 4500_F_C, SM4500_CL_E, SM4500_S04_LF	9030 - Radium 226	9040 - Radium 228	Ra226Ra228_GFP - Rad Combined	6010C, 6020A, 7470A	Total Number of Containers	Special Instructions/Note																		
1 MW-15	8/30/23	0932	G	Water	N	X	X	X	X	X		5																			
2 MW-14	8/29/23	1005	G	Water	N	X	X	X	X	X		5																			
3 MW-17	8/30/23	1118	G	Water	N	X	X	X	X	X		5																			
<del>MW-20</del>				Water																											
<del>MW-21</del>				Water																											
4 Duplicate	8/30/23	-	G	Water	N	X	X	X	X	X		5																			
5 MW-13	8/30/23	1221	G	Water	N	X	X	X	X	X		5																			
				Water																											

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_

Special Instructions/QC Requirements: \_\_\_\_\_

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: <i>Kaelyn Ornel</i>	Date/Time: <i>8/30/23/1800</i>	Company: <i>KPRG</i>	Received by: <i>Shu...</i>	Date/Time: <i>8/31/23 1005</i>	Company: <i>EBTH</i>
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact:  Yes  No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: *5.9 -> 5.5*

NIKE 333

Do Not Put Inside This Bag

ORIGIN ID:PIAA (262) 278-1621  
KAEIYN SPERLE  
KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

SHIP DATE: 30AUG23  
ACTWT: 45.80 LB  
CAD: 6994780/SSFE2422  
DIMS: 24x13x15 IN

WESTMONT, IL 60559  
UNITED STATES US

BILL THIRD PARTY

TO EUROFINS CHICAGO

2417 BOND ST.

59-755

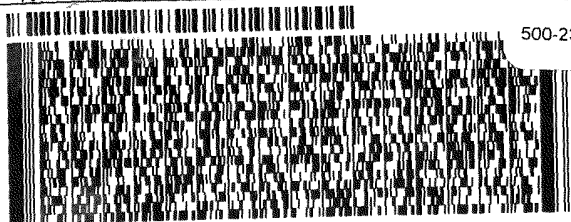
UNIVERSITY PARK IL 60484

(666) 666-6666

REF:

INU:

DEPT:



500-238902 Waybi

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2 of 5

THU - 31 AUG 10:30A

MPS#

7831 4952 6459

PRIORITY OVERNIGHT

0263

Mstr# 7831 4952 6448

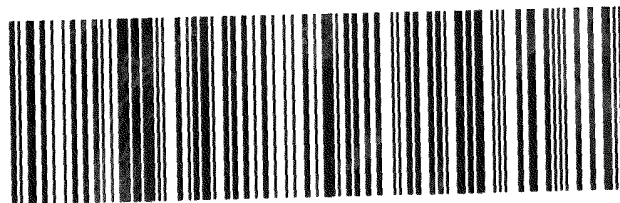
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# Chain of Custody Record



Environment Testing



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Mockler, Diana J	Carrier Tracking No(s): 500-178538.1								
Client Contact: Shipping/Receiving		E-Mail: Diana.Mockler@et.eurofins.com	Page: Page 1 of 1								
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois	Job #: 500-238902-2								
Address: 13715 Rider Trail North,		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Nitric Acid R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Tnzma L - EDTA Z - other (specify) Other:									
City: Earth City		<b>Analysis Requested</b>									
State, Zip: MO, 63045		Total Number of Containers									
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Field Filtered Sample (Yes or No)									
Email:		Perform MS/MSD (Yes or No)									
Project Name: Powerton CCR MCB (RAD)		903.0/PreSep. 21 Standard Target List									
Site:		904.0/PreSep. 0 Standard Target List									
		R4226R4228_GFPC									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Newater, Solid, Overwat/oli, B1-Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep. 21 Standard Target List	904.0/PreSep. 0 Standard Target List	Total Number of Containers	Special Instructions/Note:
MW-15 (500-238902-1)	8/30/23	09:32 Central	Water	Water	X	X	X	X	X	3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-14 (500-238902-2)	8/29/23	10:05 Central	Water	Water	X	X	X	X	X	3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-17 (500-238902-3)	8/30/23	11:18 Central	Water	Water	X	X	X	X	X	3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
Duplicate (500-238902-4)	8/30/23	12:21 Central	Water	Water	X	X	X	X	X	3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-13 (500-238902-5)	8/30/23	12:21 Central	Water	Water	X	X	X	X	X	3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
(5)											
<p>Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte &amp; 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.</p>											
<p><b>Possible Hazard Identification</b>                  Unconfirmed                  Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2                  Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months                  Special Instructions/QC Requirements:</p>											
<p>Empty Kit Relinquished by: _____ Date: _____ Method of Shipment:                  Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____                  Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____                  Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____</p>											
<p>Custody Seals Intact: _____                  Δ Yes Δ No                  Cooler Temperature(s) °C and Other Remarks:</p>											



# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-238902-2

**Login Number: 238902**

**List Number: 1**

**Creator: Scott, Sherri L**

**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	5.5
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: 500-238902-2

**Login Number: 238902**

**List Number: 3**

**Creator: Sharkey-Gonzalez, Briana L**

**List Source: Eurofins St. Louis**

**List Creation: 09/01/23 02:02 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: Powerton CCR MCB (RAD)

Job ID: 500-238902-2

**Client Sample ID: MW-15**  
**Date Collected: 08/30/23 09:32**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			626536	KAC	EET SL	09/05/23 10:42
Total/NA	Analysis	903.0		1	630166	FLC	EET SL	09/29/23 18:25
Total/NA	Prep	PrecSep_0			626539	KAC	EET SL	09/05/23 10:45
Total/NA	Analysis	904.0		1	629621	FLC	EET SL	09/26/23 16:16
Total/NA	Analysis	Ra226_Ra228		1	630529	SCB	EET SL	10/03/23 11:26

**Client Sample ID: MW-14**  
**Date Collected: 08/29/23 10:05**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			626536	KAC	EET SL	09/05/23 10:42
Total/NA	Analysis	903.0		1	630166	FLC	EET SL	09/29/23 18:25
Total/NA	Prep	PrecSep_0			626539	KAC	EET SL	09/05/23 10:45
Total/NA	Analysis	904.0		1	629621	FLC	EET SL	09/26/23 16:16
Total/NA	Analysis	Ra226_Ra228		1	630529	SCB	EET SL	10/03/23 11:26

**Client Sample ID: MW-17**  
**Date Collected: 08/30/23 11:18**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			626536	KAC	EET SL	09/05/23 10:42
Total/NA	Analysis	903.0		1	630166	FLC	EET SL	09/29/23 18:25
Total/NA	Prep	PrecSep_0			626539	KAC	EET SL	09/05/23 10:45
Total/NA	Analysis	904.0		1	629621	FLC	EET SL	09/26/23 16:16
Total/NA	Analysis	Ra226_Ra228		1	630529	SCB	EET SL	10/03/23 11:26

**Client Sample ID: Duplicate**  
**Date Collected: 08/30/23 00:00**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			626536	KAC	EET SL	09/05/23 10:42
Total/NA	Analysis	903.0		1	630166	FLC	EET SL	09/29/23 18:25
Total/NA	Prep	PrecSep_0			626539	KAC	EET SL	09/05/23 10:45
Total/NA	Analysis	904.0		1	629621	FLC	EET SL	09/26/23 16:16
Total/NA	Analysis	Ra226_Ra228		1	630529	SCB	EET SL	10/03/23 11:26

# Lab Chronicle

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

Job ID: 500-238902-2

**Client Sample ID: MW-13**  
**Date Collected: 08/30/23 12:21**  
**Date Received: 08/31/23 10:05**

**Lab Sample ID: 500-238902-5**  
**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			626536	KAC	EET SL	09/05/23 10:42
Total/NA	Analysis	903.0		1	630166	FLC	EET SL	09/29/23 18:25
Total/NA	Prep	PrecSep_0			626539	KAC	EET SL	09/05/23 10:45
Total/NA	Analysis	904.0		1	629621	FLC	EET SL	09/26/23 16:15
Total/NA	Analysis	Ra226_Ra228		1	630529	SCB	EET SL	10/03/23 11:26

**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: Powerton CCR MCB (RAD)

Job ID: 500-238902-2

## 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

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

# Tracer/Carrier Summary

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

Job ID: 500-238902-2

## 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)
500-238902-1	MW-15	85.9
500-238902-2	MW-14	89.1
500-238902-3	MW-17	88.8
500-238902-4	Duplicate	78.9
500-238902-5	MW-13	87.3
LCS 160-626536/2-A	Lab Control Sample	88.1
MB 160-626536/1-A	Method Blank	97.0

#### Tracer/Carrier Legend

Ba = Ba Carrier

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

Matrix: Water

Prep Type: Total/NA

### Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-238902-1	MW-15	85.9	83.0
500-238902-2	MW-14	89.1	83.7
500-238902-3	MW-17	88.8	80.0
500-238902-4	Duplicate	78.9	83.7
500-238902-5	MW-13	87.3	82.2
LCS 160-626539/2-A	Lab Control Sample	88.1	83.4
MB 160-626539/1-A	Method Blank	97.0	70.7

#### Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

PROJECT NAME	NRG – POWERTON STATION – 12313.1		DATE	8/30/23
Sample Name	MW-13	Start Time	1159	
Condition of Well	Good			
Water Level	33.27	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low flow bladder	Purge Characteristics	cloudy gray	
Volume Removed	6 qtz	WL at Sample Time	34.75	
Method of Sample	Low flow bladder	Sample Characteristics	clear Black Spcks	
Sample Analysis	CCR (MCB), CCA	Sample Time	1221	
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)
1202	33.27	7.81	16.8	1.582	7.73	-31.6	4.63
1205	-	7.79	15.5	1.723	4.74	-47.2	180.99
1208		7.80	15.4	1.734	3.07	-104.2	113.47
1211		7.79	15.3	1.743	2.28	-142.8	32.59
1214		7.79	15.2	1.745	1.89	-161.2	21.24
1217	34.75	7.78	15.0	1.748	1.62	-169.2	14.95

SAMPLING NOTES:

CCR (MCB) duplicate

Sampler Name and Company:

KPRG and Associates

PLS



PROJECT NAME	NRG – POWERTON STATION – 12313.1		DATE	8/29/23
Sample Name	MW-14	Start Time	0949	
Condition of Well	good			
Water Level	29.13	Total Depth	—	
Well Diameter	PVC – 2 inch	Volume in Well	—	
Method of Purge	Low flow bladder	Purge Characteristics	clear	
Volume Removed	5 gals	W L at Sample Time	below pump	
Method of Sample	Low flow bladder	Sample Characteristics	clear	
Sample Analysis	CCA, CCR (MCB)	Sample Time	CCR MCB: 8/29/23/1005 CCA: 8/31/23/0910	
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)
0952	29.13	7.16	15.8	2.488	7.53	49.8	2.82
0955	—	6.88	15.5	2.271	4.99	51.2	8.27
0958	—	6.84	15.4	2.246	4.41	50.9	2.66
1001	—	6.84	15.6	2.253	4.11	50.3	1.95

SAMPLING NOTES:

- low water, allowed to recharge before sampling CCA

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG – POWERTON STATION – 12313.1		DATE	8/30/23
Sample Name	MW-15	Start Time	0914	
Condition of Well	good			
Water Level	25.60	Total Depth	—	
Well Diameter	PVC – 2 inch	Volume in Well	—	
Method of Purge	Low flow bladder	Purge Characteristics	cloudy Red/Brown	
Volume Removed	4.5 gte	WL at Sample Time	26.40	
Method of Sample	Low flow bladder	Sample Characteristics	Slightly Cloudy	
Sample Analysis	CCA, CCR (ABB/ASB, MCB)	Sample Time	0932	
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)
0916	25.60	7.22	17.2	2.104	7.61	-47.9	10.08
0919	—	6.94	16.4	1.840	4.40	-93.2	607.41
0922	—	6.93	16.2	1.817	2.37	-104.2	177.12
0925	—	6.93	16.3	1.837	1.86	-108.4	154.08
0928	26.40	6.94	16.0	1.827	1.56	-111.1	34.65

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

*J 7/1*

PROJECT NAME	NRG – POWERTON STATION – 12313.1		DATE	8/30/23
Sample Name	MW-17	Start Time	1100	
Condition of Well	good			
Water Level	21.25	Total Depth	—	
Well Diameter	PVC – 2 inch	Volume in Well	—	
Method of Purge	Low flow bladder	Purge Characteristics	Sl. cloudy	
Volume Removed	5 gts	WL at Sample Time	22.75	
Method of Sample	Low flow bladder	Sample Characteristics	clear	
Sample Analysis	CCR (ABB/ASB, MCB)	Sample Time	1118	
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)
1102	21.25	7.11	18.1	1.528	5.79	-47.9	4.00
1105	—	7.19	16.4	1.611	3.36	-29.0	55.55
1108	—	7.19	16.1	1.615	2.18	-16.1	6.50
1111	—	7.20	15.9	1.587	1.71	-10.9	3.80
1114	22.75	7.21	16.0	1.559	1.46	-7.6	3.56

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG – POWERTON STATION – 12313.1		DATE	8/29/23
Sample Name	MW-20	Start Time	1612	
Condition of Well				
Water Level		Total Depth		
Well Diameter	PVC – 2 inch	Volume in Well		
Method of Purge	Low flow bladder	Purge Characteristics		
Volume Removed		WL at Sample Time		
Method of Sample	Low flow bladder	Sample Characteristics		
Sample Analysis		Sample Time		
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)

SAMPLING NOTES:  
- 8/29/23 - purged 8 min, less than 1' water in well, ~.2 gal

Sampler Name and Company: KPRG and Associates

PROJECT NAME	NRG - POWERTON STATION - 12313.1		DATE	8/30/83
Sample Name	MW-21	Start Time	0327	
Condition of Well	good			
Water Level	32.12	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low flow bladder	Purge Characteristics	clear	
Volume Removed	< 1 qt	W L at Sample Time		
Method of Sample	Low flow bladder	Sample Characteristics		
Sample Analysis	CCR (MCB)	Sample Time		
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)
0840	32.12	6.70	18.5	1.167	5.01	-131.1	33.97
0845	-	6.72	18.7	1.172	3.68	-127.1	34.39
0850	-	6.73	18.9	1.171	3.08	-123.0	38.00
0855		6.73	18.9	1.170	2.98	-122.5	41.82

SAMPLING NOTES:

~ 1 mL per purge cycle, enough to fill flow cell. w/ 1.5' water,  
 - 1/4" air hose, water hose

Sampler Name and  
 Company:

KPRG and Associates