

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 4th quarter 2022 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, Waukegan Station, Waukegan, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228	Selenium	Thallium	
MW-09 up-gradient	11/4/2015	13	210	450	0.14	6.60	370	1700	< 0.003	< 0.001	0.015	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.081	< 0.0002	0.260	0.1818	< 0.0025	< 0.002	
	3/2/2016	35	380	720	0.11	7.02	970	2800	< 0.003	0.06	0.05	^ < 0.001	< 0.0005	0.043	< 0.001	0.00061	0.094	< 0.0002	0.51	< 0.36	0.025	< 0.002	
	5/3/2016	16	310	620	0.12	7.02	740	2500	< 0.003	0.014	0.025	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.083	< 0.0002	0.63	< 0.512	0.024	< 0.002	
	8/25/2016	4.5	130	270	0.21	7.13	190	1100	0.0041	0.042	0.024	^ < 0.001	0.0011	0.056	0.0027	0.0012	0.049	< 0.0002	0.063	0.482	0.039	< 0.002	
	12/8/2016	15	200	330	0.18	7.01	270	1300	< 0.003	0.004	0.016	^ < 0.001	0.00052	< 0.005	< 0.001	< 0.0005	0.077	< 0.0002	0.24	< 0.72	0.038	< 0.002	
	2/23/2017	14	190	290	0.12	7.68	320	1300	< 0.003	0.0027	0.014	^ < 0.001	< 0.0005	0.059	0.0018	< 0.0005	0.068	< 0.0002	0.26	< 0.461	0.016	< 0.002	
	5/16/2017	27	160	67	0.29	8.15	420	970	< 0.003	< 0.001	0.0094	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.045	< 0.0002	0.51	< 0.342	0.0085	< 0.002	
	7/6/2017	21	220	430	0.13	7.18	610	1800	< 0.003	0.002	0.018	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.089	< 0.0002	0.31	< 0.316	0.021	< 0.002	
	9/13/2017	21	250	420	0.14	7.17	520	1800	< 0.003	0.0067	0.019	^ < 0.001	< 0.0005	0.0052	0.0017	< 0.0005	0.069	< 0.0002	0.33	0.944	0.0041	< 0.002	
	11/29/2017	26	200	390	0.13	7.05	390	1600	< 0.003	0.0017	0.015	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.086	< 0.0002	0.47	0.625	0.042	< 0.002	
	5/31/2018	32	200	29	0.1	6.85	490	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2018	30	170	23	0.11	7.33	290	930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/15/2019	26	120	260	0.13	7.53	31	1000	< 0.003	< 0.001	0.0073	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.035	< 0.0002	0.54	< 0.433	< 0.0025	< 0.002	
	11/19/2019	22	160	17	0.16	8.04	300	750	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/2020	22	140	9.2	0.18	7.81	360	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/18/2020	28	250	290	0.18	7.43	420	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/6/2021	31	170	35	0.12	7.51	420	910	< 0.003	< 0.001	0.0075	^ < 0.001	< 0.0005	< 0.005	^ < 0.001	< 0.0005	0.04	< 0.0002	0.47	< 0.614	0.023	< 0.002	
	8/19/2021	7.2	150	170	0.13	7.01	210	350	< 0.003	0.0019	0.015	^ < 0.001	< 0.0005	< 0.005	< ^ < 0.001	0.015	0.066	< 0.0002	0.12	< 0.457	0.071	< ^ < 0.002	
	11/4/2021	10	150	160	0.24	7.07	180	980	< 0.003	0.0026	0.074	^ < 0.001	< 0.0005	< 0.005	0.0011	< 0.0005	0.06	< 0.0002	0.12	< 0.775	0.097	< 0.002	
	2/10/2022	9.5	190	220	0.17	7.11	270	1300	< 0.003	0.015	0.033	^ < 0.001	0.00076	< 0.005	0.0038	< 0.0005	0.065	< 0.0002	0.21	< 0.523	0.036	< 0.002	
5/24/2022	5.3	150	180	0.23	7.15	200	940	< 0.003	0.0019	0.02	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.054	< 0.0002	0.18	< 0.444	< 0.0025	< 0.002		
8/23/2022	12	170	170	0.22	7.14	290	1100	< 0.003	0.0012	0.046	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.048	< 0.0002	0.21	< 0.487	0.0034	< 0.002		
11/7/2022	6.4	160	200	0.51	6.98	220	1100	< 0.003	0.0083	0.14	^ < 0.001	< 0.0005	< 0.005	0.0013	0.034	0.057	< 0.0002	0.088	2.58	< 0.0025	< 0.002		
MW-11 up-gradient	11/5/2015	5.2	140	240	0.003	6.51	190	1100	< 0.003	0.13	0.039	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.001	0.055	< 0.0002	< 0.0050	0.656	< 0.0025	< 0.002	
	3/2/2016	4.0	170	240	0.1	7.16	210	1200	< 0.003	0.55	0.048	^ < 0.001	< 0.0005	0.0058	< 0.001	0.011	0.049	< 0.0002	< 0.0050	1.09	< 0.0025	< 0.002	
	5/5/2016	5.0	140	280	0.11	7.17	160	1000	< 0.003	0.51	0.038	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.057	< 0.0002	< 0.005	1.24	< 0.0025	< 0.002	
	8/26/2016	3.5	180	240	0.13	6.97	110	1100	< 0.003	1.1	0.05	^ < 0.001	< 0.0005	0.0055	< 0.001	0.0005	0.055	< 0.0002	< 0.005	1.04	< 0.0025	< 0.002	
	12/7/2016	3.0	170	270	0.12	7.06	110	1200	< 0.003	0.87	0.049	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.87	< 0.0025	< 0.002	
	2/24/2017	2.4	180	220	4.9	6.61	170	1200	< 0.003	0.58	0.047	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.039	< 0.0002	< 0.005	0.982	< 0.0025	< 0.002	
	5/18/2017	1.8	160	170	0.12	7.42	120	1000	< 0.003	0.5	0.047	^ < 0.001	< 0.0005	0.0056	< 0.001	< 0.0005	0.036	< 0.0002	< 0.005	1.31	< 0.0025	< 0.002	
	7/6/2017	2.4	160	190	0.14	7.33	130	1100	< 0.003	0.69	0.056	^ < 0.001	< 0.0005	0.0057	< 0.001	< 0.0005	0.041	< 0.0002	< 0.005	0.889	< 0.0025	< 0.002	
	9/13/2017	1.9	140	150	0.26	7.16	96	870	< 0.003	0.86	0.036	^ < 0.001	< 0.0005	0.008	< 0.001	< 0.00071	0.037	< 0.0002	0.0054	0.718	< 0.0025	< 0.002	
	11/30/2017	2.2	170	200	0.14	6.99	93	1100	< 0.003	0.59	0.05	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.041	< 0.0002	< 0.005	1.21	< 0.0025	< 0.002	
	5/31/2018	1.5	210	160	0.1	6.74	130	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2018	2.3	170	150	0.12	7.21	78	990	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/15/2019	3.2	120	260	0.13	7.14	31	1000	< 0.003	0.3	0.048	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.5	< 0.0025	< 0.002	
	11/19/2019	4.1	130	200	0.15	7.51	29	860	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/2020	3.2	110	150	0.15	7.16	47	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/19/2020	2.3	140	130	0.2	7.00	28	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/6/2021	2.4	130	120	0.15	7.13	45	770	< 0.003	0.44	0.044	^ < 0.001	< 0.0005	< 0.005	^ < 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.7	< 0.0025	< 0.002	
	8/19/2021	1.3	140	88	0.16	6.95	45	730	< 0.003	1.1	0.055	^ < 0.001	< 0.0005	0.0057	< ^ < 0.001	< 0.0005	0.033	< 0.0002	< 0.005	1.89	< 0.0025	< ^ < 0.002	
	11/4/2021	1.6	130	100	0.16	6.80	45	740	< 0.003	0.9	0.052	^ < 0.001	< 0.0005	< 0.005	^ < 0.001	< 0.0005	0.037	< 0.0002	0.0058	1.35	< ^ < 0.0025	< 0.002	
	2/10/2022	1.2	150	87	0.17	7.12	44	860	< 0.003	0.68	0.051	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.032	< 0.0002	< 0.005	0.839	< 0.0025	< 0.002	
5/24/2022	1.8	150	95	0.14	6.78	21	820	< 0.003	0.18	0.041	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.037	< 0.0002	< 0.005	1.21	< 0.0025	< 0.002		
8/23/2022	1.4	140	97	0.18	7.01	30	780	< 0.003	0.43	0.053	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.031	< 0.0002	< 0.005	1.05	< 0.0025	< 0.002		
11/8/2022	1.4	150	100	0.21	6.87	26	790	< 0.003	0.55	0.064	^ < 0.001	< 0.0005	0.005	< 0.001	0.032	0.034	< 0.0002	< 0.005	2.02	< 0.0025	< 0.002		
MW-14 up-gradient	11/5/2015	1.4	150	190	0.19	6.78	140	1000	< 0.003	0.19	0.052	^ < 0.001	< 0.0005	0.01	0.012	< 0.0005	0.025	< 0.0002	< 0.005	0.7087	< 0.0025	< 0.002	
	3/2/2016	0.93	150	110	0.17	7.24	150	870	< 0.015	4.3	0.12	^ < 0.001	< 0.0005	1.1	0.0036	0.0068	0.019	< 0.0002	< 0.005	1.36	< 0.0025	< 0.002	
	5/5/2016	1.2	170	120	0.18	7.17	190	980	< 0.003	0.35	0.054	^ < 0.001	< 0.0005	0.017	0.0014	< 0.0005	0.021	< 0.0002	< 0.005	< 0.488	< 0.0025	< 0.002	
	8/26/2016	1.5	200	210	0.12	7.00	190	1300	< 0.003	1.0	0.058	^ < 0.001	< 0.0005	0.021	< 0.001	< 0.0005	0.026	< 0.0002	< 0.005	0.75	< 0.0025	< 0.002	
	12/7/2016	0.95	240	340	0.25	6.81	120	1100	0.0096	19	0.42	^ < 0.001	0.0089	4.6	0.0025	0.0084	0.022	< 0.0002	0.0094	< 0.866	0.014	< 0.002	
	2/23/2017	0.73	150	99	0.19	6.88	110	730	0.0061	9.3	0.36	^ < 0.001	0.001	4.6	0.0070	0.0095	0.017	< 0.0002	< 0.005	< 0.514	0.0031		

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

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228	Selenium	Thallium	
MW-02 down-gradient	11/2/2015	3.0	32	47	0.78	8.27	230	460	< 0.003	0.014	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0630	0.4628	< 0.0025	< 0.002	
	3/1/2016	4.1	39	47	1.3	8.57	220	510	< 0.003	0.011	0.02	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.078	0.529	< 0.0025	< 0.002	
	5/4/2016	3.3	34	51	1.5	8.19	180	440	< 0.003	0.0081	0.018	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.069	< 0.425	< 0.0025	< 0.002	
	8/23/2016	3.1	42	59	1.3	7.52	250	500	< 0.003	0.0082	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.056	< 0.439	< 0.0025	< 0.002	
	12/5/2016	3.1	28	56	1.0	8.62	160	430	< 0.003	0.018	0.015	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.071	0.509	< 0.0025	< 0.002	
	2/21/2017	3.3	31	52	0.76	8.75	190	420	< 0.003	0.028	0.012	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.051	< 0.416	0.0038	< 0.002	
	5/15/2017	3.6	85	48	0.64	8.33	320	640	< 0.003	0.02	0.029	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.047	0.425	0.023	< 0.002	
	7/5/2017	4.2	100	52	0.42	7.92	300	710	< 0.003	0.0094	0.031	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.047	< 0.295	0.017	< 0.002	
	9/14/2017	2.5	87	54	0.44	8.19	340	780	< 0.003	0.012	0.035	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.049	0.769	0.0052	< 0.002	
	11/27/2017	3.4	69	57	0.62	7.34	200	570	< 0.003	0.011	0.022	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.048	< 0.442	< 0.0025	< 0.002	
	5/29/2018	4.5	160	43	0.40	6.85	420	990	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/5/2018	3.1	77	59	0.61	8.06	180	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/14/2019	2.9	47	49	1.0	8.30	140	430	< 0.003	0.0094	0.013	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.069	0.37	< 0.0025	< 0.002	
	11/19/2019	4.7	140	43	0.7	7.37	270	900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/21/2020	3.4	86	48	1.0	8.02	250	580	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/17/2020	4.0	79	20	0.8	7.67	310	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/5/2021	4.6	70	37	0.7	8.39	190	420	< 0.003	0.008	0.03	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.023	0.97	< 0.0025	< 0.002	
	8/18/2021	4.1	84	39	0.5	7.92	190	480	< 0.003	0.0088	0.029	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.021	< 0.525	< 0.0025	< 0.002	
	11/3/2021	4.2	59	43	0.6	7.78	170	410	< 0.003	0.009	0.025	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.03	0.763	< 0.0025	< 0.002	
	2/8/2022	0.2	71	34	0.5	8.00	200	580	< 0.003	0.021	0.025	< 0.001	< 0.0005	< 0.005	< 0.001	0.00069	0.0055	< 0.0002	0.028	0.64	< 0.0025	< 0.002	
	5/23/2022	3.5	77	30	0.5	8.12	190	510	< 0.003	0.02	0.03	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.024	0.66	0.0035	< 0.002	
8/22/2022	3.3	84	33	0.3	7.59	220	650	< 0.003	0.011	0.024	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.029	< 0.4	< 0.0025	< 0.002		
11/7/2022	3.5	120	36	0.29	7.40	270	700	< 0.003	0.013	0.033	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.028	1.47	< 0.0025	< 0.002		
MW-03 down-gradient	11/2/2015	2.3	72	87	0.51	9.26	270	570	< 0.003	0.0068	0.011	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0370	0.071	< 0.0025	< 0.002	
	3/1/2016	2.9	61	70	0.33	7.33	220	530	< 0.003	0.0069	0.015	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0560	< 0.332	0.0043	< 0.002	
	5/4/2016	2.4	42	74	0.56	7.25	170	470	< 0.003	0.007	0.011	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.058	< 0.48	< 0.0025	< 0.002	
	8/24/2016	2.0	70	59	0.3	9.13	200	430	< 0.003	0.010	0.0069	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.042	< 0.428	< 0.0025	< 0.002	
	12/5/2016	2.4	57	60	0.41	7.62	120	440	< 0.003	0.0065	0.0094	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.044	< 0.526	< 0.0025	< 0.002	
	2/21/2017	2.2	56	65	0.33	7.56	180	460	< 0.003	0.011	0.0067	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.043	0.437	< 0.0025	< 0.002	
	5/16/2017	3.9	110	61	0.27	7.90	320	820	< 0.003	0.0087	0.039	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.041	< 0.461	0.014	< 0.002	
	7/5/2017	3.0	60	60	0.28	7.46	200	470	< 0.003	0.0029	0.017	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.058	< 0.304	0.0045	< 0.002	
	9/14/2017	2.1	86	57	0.26	7.53	260	680	< 0.003	0.0024	0.026	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.056	0.462	0.0081	< 0.002	
	11/28/2017	2.6	69	63	0.56	6.96	120	500	< 0.003	0.0025	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.057	1.17	< 0.0025	< 0.002	
	5/29/2018	2.4	67	61	0.38	6.84	190	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/5/2018	2.4	54	54	0.5	8.99	150	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/14/2019	4.2	86	17	0.59	7.21	270	660	< 0.003	0.0059	0.022	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.053	0.657	0.0061	< 0.002	
	11/19/2019	4.2	130	15	0.25	7.47	300	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/21/2020	3.8	120	23	0.29	6.87	270	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/17/2020	3.8	120	53	0.29	7.05	240	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/5/2021	3.3	110	43	0.23	7.18	210	550	< 0.003	0.0066	0.035	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.016	0.689	0.0065	< 0.002	
	8/18/2021	3	150	46	0.17	6.9	250	690	< 0.003	0.0052	0.041	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.00031	0.045	0.656	< 0.0025	< 0.002	
	11/3/2021	3.2	120	40	0.18	7.05	250	600	< 0.003	0.0071	0.036	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.025	< 0.438	0.0093	< 0.002	
	2/8/2022	2.6	91	31	0.3	7.16	210	580	< 0.003	0.0053	0.028	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.002	< 0.0002	0.031	0.792	0.0062	< 0.002	
	5/23/2022	2.4	79	32	0.23	8.72	170	430	< 0.003	0.016	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.025	< 0.534	0.0031	< 0.002	
8/22/2022	1.8	80	45	0.2	7.38	180	570	< 0.003	0.0054	0.02	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.026	0.809	0.004	< 0.002		
11/7/2022	2.3	82	50	0.35	7.35	180	520	< 0.003	0.0055	0.021	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.035	1.39	0.004	< 0.002		
MW-04 down-gradient	11/3/2015	1.8	66	62	0.51	6.68	240	480	< 0.003	0.0066	0.032	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.031	0.2732	< 0.0025	< 0.002	
	3/1/2016	2.0	58	51	0.5	7.17																	

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	
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	
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	
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	

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

Well	Date	Turbidity (NTU)
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	
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	
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	
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	

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

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

Generated 12/2/2022 10:37:31 AM

JOB DESCRIPTION

Waukegan CCR

JOB NUMBER

500-225046-1

Eurofins Chicago

Job Notes

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Authorization



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Case Narrative

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

Job ID: 500-225046-1

Job ID: 500-225046-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-225046-1**

Comments

No additional comments.

Receipt

The samples were received on 11/8/2022 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.9° C, 1.2° C and 5.9° C.

Metals

Method 6020A: The low level continuing calibration verification (ICVL/CCVL) associated with batch 500-685597 recovered above the upper control limit for Beryllium. The samples associated with this ICVL/CCVL 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

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



Method Summary

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

Job ID: 500-225046-1

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 PEN
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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

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

Job ID: 500-225046-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-225046-1	MW-01	Water	11/07/22 10:26	11/08/22 10:20
500-225046-2	MW-02	Water	11/07/22 11:24	11/08/22 10:20
500-225046-3	MW-03	Water	11/07/22 12:20	11/08/22 10:20
500-225046-4	MW-04	Water	11/07/22 13:54	11/08/22 10:20
500-225046-5	MW-09	Water	11/07/22 15:58	11/08/22 10:20
500-225046-6	MW-16	Water	11/07/22 15:00	11/08/22 10:20
500-225046-7	MW-11	Water	11/08/22 13:58	11/09/22 10:30
500-225046-8	MW-14	Water	11/08/22 12:53	11/09/22 10:30
500-225046-9	Duplicate	Water	11/08/22 00:00	11/09/22 10:30

- 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: 500-225046-1

Client Sample ID: MW-01

Lab Sample ID: 500-225046-1

Date Collected: 11/07/22 10:26

Matrix: Water

Date Received: 11/08/22 10:20

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		11/16/22 08:32	11/16/22 21:55	1
Arsenic	0.024		0.0010		mg/L		11/16/22 08:32	11/16/22 21:55	1
Barium	0.030		0.0025		mg/L		11/16/22 08:32	11/16/22 21:55	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 21:55	1
Boron	3.0		0.25		mg/L		11/16/22 08:32	11/17/22 15:47	5
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 21:55	1
Calcium	59		0.20		mg/L		11/16/22 08:32	11/16/22 21:55	1
Chromium	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 21:55	1
Cobalt	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 21:55	1
Lead	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 21:55	1
Lithium	<0.010		0.010		mg/L		11/16/22 08:32	11/16/22 21:55	1
Molybdenum	0.026		0.0050		mg/L		11/16/22 08:32	11/16/22 21:55	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 21:55	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 21:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 08:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	460		10		mg/L			11/14/22 01:10	1
Chloride (SM 4500 Cl- E)	48		10		mg/L			11/23/22 10:05	5
Fluoride (SM 4500 F C)	0.43		0.10		mg/L			11/11/22 16:15	1
Sulfate (SM 4500 SO4 E)	180		50		mg/L			11/21/22 11:17	10

Client Sample ID: MW-02

Lab Sample ID: 500-225046-2

Date Collected: 11/07/22 11:24

Matrix: Water

Date Received: 11/08/22 10:20

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		11/16/22 08:32	11/16/22 21:59	1
Arsenic	0.013		0.0010		mg/L		11/16/22 08:32	11/16/22 21:59	1
Barium	0.033		0.0025		mg/L		11/16/22 08:32	11/16/22 21:59	1
Beryllium	0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 21:59	1
Boron	3.5		0.50		mg/L		11/16/22 08:32	11/17/22 15:51	10
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 21:59	1
Calcium	120		0.20		mg/L		11/16/22 08:32	11/16/22 21:59	1
Chromium	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 21:59	1
Cobalt	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 21:59	1
Lead	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 21:59	1
Lithium	<0.010		0.010		mg/L		11/16/22 08:32	11/16/22 21:59	1
Molybdenum	0.028		0.0050		mg/L		11/16/22 08:32	11/16/22 21:59	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 21:59	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 21:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 08:59	1

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Client Sample Results

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

Job ID: 500-225046-1

Client Sample ID: MW-02

Lab Sample ID: 500-225046-2

Date Collected: 11/07/22 11:24

Matrix: Water

Date Received: 11/08/22 10:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	700		10		mg/L			11/14/22 01:13	1
Chloride (SM 4500 Cl- E)	36		10		mg/L			11/23/22 10:06	5
Fluoride (SM 4500 F C)	0.29		0.10		mg/L			11/11/22 16:15	1
Sulfate (SM 4500 SO4 E)	270		50		mg/L			11/21/22 11:18	10

Client Sample ID: MW-03

Lab Sample ID: 500-225046-3

Date Collected: 11/07/22 12:20

Matrix: Water

Date Received: 11/08/22 10:20

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		11/16/22 08:32	11/16/22 22:02	1
Arsenic	0.0055		0.0010		mg/L		11/16/22 08:32	11/16/22 22:02	1
Barium	0.021		0.0025		mg/L		11/16/22 08:32	11/16/22 22:02	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 22:02	1
Boron	2.3		0.25		mg/L		11/16/22 08:32	11/17/22 15:54	5
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:02	1
Calcium	82		0.20		mg/L		11/16/22 08:32	11/16/22 22:02	1
Chromium	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:02	1
Cobalt	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 22:02	1
Lead	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:02	1
Lithium	<0.010		0.010		mg/L		11/16/22 08:32	11/16/22 22:02	1
Molybdenum	0.035		0.0050		mg/L		11/16/22 08:32	11/16/22 22:02	1
Selenium	0.0040		0.0025		mg/L		11/16/22 08:32	11/16/22 22:02	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 22:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 09:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	520		10		mg/L			11/14/22 01:15	1
Chloride (SM 4500 Cl- E)	50		10		mg/L			11/23/22 10:06	5
Fluoride (SM 4500 F C)	0.35		0.10		mg/L			11/11/22 16:15	1
Sulfate (SM 4500 SO4 E)	180		50		mg/L			11/21/22 11:18	10

Client Sample ID: MW-04

Lab Sample ID: 500-225046-4

Date Collected: 11/07/22 13:54

Matrix: Water

Date Received: 11/08/22 10:20

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		11/16/22 08:32	11/16/22 22:05	1
Arsenic	0.0073		0.0010		mg/L		11/16/22 08:32	11/16/22 22:05	1
Barium	0.026		0.0025		mg/L		11/16/22 08:32	11/16/22 22:05	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 22:05	1
Boron	2.7		0.25		mg/L		11/16/22 08:32	11/17/22 15:58	5
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:05	1
Calcium	63		0.20		mg/L		11/16/22 08:32	11/16/22 22:05	1
Chromium	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:05	1

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Client Sample Results

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

Job ID: 500-225046-1

Client Sample ID: MW-04
Date Collected: 11/07/22 13:54
Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-4
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		11/16/22 08:32	11/16/22 22:05	1
Lead	0.0048		0.00050		mg/L		11/16/22 08:32	11/16/22 22:05	1
Lithium	<0.010		0.010		mg/L		11/16/22 08:32	11/16/22 22:05	1
Molybdenum	0.026		0.0050		mg/L		11/16/22 08:32	11/16/22 22:05	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 22:05	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 22:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 09:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	450		10		mg/L			11/14/22 01:18	1
Chloride (SM 4500 Cl- E)	33		10		mg/L			11/23/22 10:06	5
Fluoride (SM 4500 F C)	0.62		0.10		mg/L			11/11/22 16:15	1
Sulfate (SM 4500 SO4 E)	180		50		mg/L			11/21/22 11:18	10

Client Sample ID: MW-09
Date Collected: 11/07/22 15:58
Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-5
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		11/16/22 08:32	11/16/22 22:16	1
Arsenic	0.0083		0.0010		mg/L		11/16/22 08:32	11/16/22 22:16	1
Barium	0.14		0.0025		mg/L		11/16/22 08:32	11/16/22 22:16	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 22:16	1
Boron	6.4		1.0		mg/L		11/16/22 08:32	11/17/22 16:08	20
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:16	1
Calcium	160		0.20		mg/L		11/16/22 08:32	11/16/22 22:16	1
Chromium	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:16	1
Cobalt	0.0013		0.0010		mg/L		11/16/22 08:32	11/16/22 22:16	1
Lead	0.0034		0.00050		mg/L		11/16/22 08:32	11/16/22 22:16	1
Lithium	0.057		0.010		mg/L		11/16/22 08:32	11/16/22 22:16	1
Molybdenum	0.088		0.0050		mg/L		11/16/22 08:32	11/16/22 22:16	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 22:16	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 22:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 09:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1100		10		mg/L			11/14/22 01:20	1
Chloride (SM 4500 Cl- E)	200		20		mg/L			11/23/22 10:06	10
Fluoride (SM 4500 F C)	0.51		0.10		mg/L			11/11/22 16:15	1
Sulfate (SM 4500 SO4 E)	220		50		mg/L			11/21/22 11:19	10

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Client Sample Results

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

Job ID: 500-225046-1

Client Sample ID: MW-16

Lab Sample ID: 500-225046-6

Date Collected: 11/07/22 15:00

Matrix: Water

Date Received: 11/08/22 10:20

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		11/16/22 08:32	11/16/22 22:19	1
Arsenic	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 22:19	1
Barium	0.031		0.0025		mg/L		11/16/22 08:32	11/16/22 22:19	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 22:19	1
Boron	3.0		0.50		mg/L		11/16/22 08:32	11/17/22 16:12	10
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:19	1
Calcium	120		0.20		mg/L		11/16/22 08:32	11/16/22 22:19	1
Chromium	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:19	1
Cobalt	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 22:19	1
Lead	0.0038		0.00050		mg/L		11/16/22 08:32	11/16/22 22:19	1
Lithium	0.011		0.010		mg/L		11/16/22 08:32	11/16/22 22:19	1
Molybdenum	0.021		0.0050		mg/L		11/16/22 08:32	11/16/22 22:19	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 22:19	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 22:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 09:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	730		10		mg/L			11/14/22 01:23	1
Chloride (SM 4500 Cl- E)	47		10		mg/L			11/23/22 10:07	5
Fluoride (SM 4500 F C)	0.80		0.10		mg/L			11/11/22 16:15	1
Sulfate (SM 4500 SO4 E)	290		50		mg/L			11/21/22 11:19	10

Client Sample ID: MW-11

Lab Sample ID: 500-225046-7

Date Collected: 11/08/22 13:58

Matrix: Water

Date Received: 11/09/22 10:30

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		11/16/22 08:32	11/16/22 22:22	1
Arsenic	0.55		0.0010		mg/L		11/16/22 08:32	11/16/22 22:22	1
Barium	0.064		0.0025		mg/L		11/16/22 08:32	11/16/22 22:22	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 22:22	1
Boron	1.4		0.25		mg/L		11/16/22 08:32	11/17/22 16:15	5
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:22	1
Calcium	150		0.20		mg/L		11/16/22 08:32	11/16/22 22:22	1
Chromium	0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:22	1
Cobalt	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 22:22	1
Lead	0.0032		0.00050		mg/L		11/16/22 08:32	11/16/22 22:22	1
Lithium	0.034		0.010		mg/L		11/16/22 08:32	11/16/22 22:22	1
Molybdenum	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:22	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 22:22	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 22:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 09:10	1

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Client Sample Results

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

Job ID: 500-225046-1

Client Sample ID: MW-11

Date Collected: 11/08/22 13:58

Date Received: 11/09/22 10:30

Lab Sample ID: 500-225046-7

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	790		10		mg/L			11/15/22 03:35	1
Chloride (SM 4500 Cl- E)	100		20		mg/L			11/23/22 10:07	10
Fluoride (SM 4500 F C)	0.21		0.10		mg/L			11/16/22 12:15	1
Sulfate (SM 4500 SO4 E)	26		25		mg/L			11/21/22 11:58	5

Client Sample ID: MW-14

Date Collected: 11/08/22 12:53

Date Received: 11/09/22 10:30

Lab Sample ID: 500-225046-8

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		11/16/22 08:32	11/16/22 22:26	1
Arsenic	2.1		0.0010		mg/L		11/16/22 08:32	11/16/22 22:26	1
Barium	0.053		0.0025		mg/L		11/16/22 08:32	11/16/22 22:26	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 22:26	1
Boron	0.65		0.050		mg/L		11/16/22 08:32	11/17/22 16:19	1
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:26	1
Calcium	150		0.20		mg/L		11/16/22 08:32	11/16/22 22:26	1
Chromium	0.099		0.0050		mg/L		11/16/22 08:32	11/16/22 22:26	1
Cobalt	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 22:26	1
Lead	0.0034		0.00050		mg/L		11/16/22 08:32	11/16/22 22:26	1
Lithium	0.019		0.010		mg/L		11/16/22 08:32	11/16/22 22:26	1
Molybdenum	0.0051		0.0050		mg/L		11/16/22 08:32	11/16/22 22:26	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 22:26	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 22:26	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	650		10		mg/L			11/15/22 03:38	1
Chloride (SM 4500 Cl- E)	46		10		mg/L			11/23/22 10:07	5
Fluoride (SM 4500 F C)	0.20		0.10		mg/L			11/16/22 12:20	1
Sulfate (SM 4500 SO4 E)	28		10		mg/L			11/21/22 11:37	2

Client Sample ID: Duplicate

Date Collected: 11/08/22 00:00

Date Received: 11/09/22 10:30

Lab Sample ID: 500-225046-9

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		11/16/22 08:32	11/16/22 22:29	1
Arsenic	0.55		0.0010		mg/L		11/16/22 08:32	11/16/22 22:29	1
Barium	0.062		0.0025		mg/L		11/16/22 08:32	11/16/22 22:29	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 22:29	1
Boron	1.4		0.25		mg/L		11/16/22 08:32	11/17/22 16:22	5
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 22:29	1
Calcium	150		0.20		mg/L		11/16/22 08:32	11/16/22 22:29	1
Chromium	0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:29	1

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Client Sample Results

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

Job ID: 500-225046-1

Client Sample ID: Duplicate

Lab Sample ID: 500-225046-9

Date Collected: 11/08/22 00:00

Matrix: Water

Date Received: 11/09/22 10:30

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		11/16/22 08:32	11/16/22 22:29	1
Lead	0.0035		0.00050		mg/L		11/16/22 08:32	11/16/22 22:29	1
Lithium	0.031		0.010		mg/L		11/16/22 08:32	11/16/22 22:29	1
Molybdenum	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 22:29	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 22:29	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 22:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	780		10		mg/L			11/15/22 03:41	1
Chloride (SM 4500 Cl- E)	98		10		mg/L			11/23/22 10:08	5
Fluoride (SM 4500 F C)	0.19		0.10		mg/L			11/16/22 12:23	1
Sulfate (SM 4500 SO4 E)	30		10		mg/L			11/21/22 12:14	2

Definitions/Glossary

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

Job ID: 500-225046-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

Glossary

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

QC Association Summary

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

Job ID: 500-225046-1

Metals

Prep Batch: 685236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total Recoverable	Water	3005A	
500-225046-2	MW-02	Total Recoverable	Water	3005A	
500-225046-3	MW-03	Total Recoverable	Water	3005A	
500-225046-4	MW-04	Total Recoverable	Water	3005A	
500-225046-5	MW-09	Total Recoverable	Water	3005A	
500-225046-6	MW-16	Total Recoverable	Water	3005A	
500-225046-7	MW-11	Total Recoverable	Water	3005A	
500-225046-8	MW-14	Total Recoverable	Water	3005A	
500-225046-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-685236/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-685236/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 685597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total Recoverable	Water	6020A	685236
500-225046-2	MW-02	Total Recoverable	Water	6020A	685236
500-225046-3	MW-03	Total Recoverable	Water	6020A	685236
500-225046-4	MW-04	Total Recoverable	Water	6020A	685236
500-225046-5	MW-09	Total Recoverable	Water	6020A	685236
500-225046-6	MW-16	Total Recoverable	Water	6020A	685236
500-225046-7	MW-11	Total Recoverable	Water	6020A	685236
500-225046-8	MW-14	Total Recoverable	Water	6020A	685236
500-225046-9	Duplicate	Total Recoverable	Water	6020A	685236
MB 500-685236/1-A	Method Blank	Total Recoverable	Water	6020A	685236
LCS 500-685236/2-A	Lab Control Sample	Total Recoverable	Water	6020A	685236

Prep Batch: 685598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	7470A	
500-225046-2	MW-02	Total/NA	Water	7470A	
500-225046-3	MW-03	Total/NA	Water	7470A	
500-225046-4	MW-04	Total/NA	Water	7470A	
500-225046-5	MW-09	Total/NA	Water	7470A	
500-225046-6	MW-16	Total/NA	Water	7470A	
500-225046-7	MW-11	Total/NA	Water	7470A	
500-225046-8	MW-14	Total/NA	Water	7470A	
500-225046-9	Duplicate	Total/NA	Water	7470A	
MB 500-685598/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-685598/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 685896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	7470A	685598
500-225046-2	MW-02	Total/NA	Water	7470A	685598
500-225046-3	MW-03	Total/NA	Water	7470A	685598
500-225046-4	MW-04	Total/NA	Water	7470A	685598
500-225046-5	MW-09	Total/NA	Water	7470A	685598
500-225046-6	MW-16	Total/NA	Water	7470A	685598
500-225046-7	MW-11	Total/NA	Water	7470A	685598
500-225046-8	MW-14	Total/NA	Water	7470A	685598
500-225046-9	Duplicate	Total/NA	Water	7470A	685598

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QC Association Summary

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

Job ID: 500-225046-1

Metals (Continued)

Analysis Batch: 685896 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-685598/12-A	Method Blank	Total/NA	Water	7470A	685598
LCS 500-685598/13-A	Lab Control Sample	Total/NA	Water	7470A	685598

Analysis Batch: 685905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total Recoverable	Water	6020A	685236
500-225046-2	MW-02	Total Recoverable	Water	6020A	685236
500-225046-3	MW-03	Total Recoverable	Water	6020A	685236
500-225046-4	MW-04	Total Recoverable	Water	6020A	685236
500-225046-5	MW-09	Total Recoverable	Water	6020A	685236
500-225046-6	MW-16	Total Recoverable	Water	6020A	685236
500-225046-7	MW-11	Total Recoverable	Water	6020A	685236
500-225046-8	MW-14	Total Recoverable	Water	6020A	685236
500-225046-9	Duplicate	Total Recoverable	Water	6020A	685236
MB 500-685236/1-A	Method Blank	Total Recoverable	Water	6020A	685236
LCS 500-685236/2-A	Lab Control Sample	Total Recoverable	Water	6020A	685236

General Chemistry

Analysis Batch: 600348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	SM 4500 F C	
500-225046-2	MW-02	Total/NA	Water	SM 4500 F C	
500-225046-3	MW-03	Total/NA	Water	SM 4500 F C	
500-225046-4	MW-04	Total/NA	Water	SM 4500 F C	
500-225046-5	MW-09	Total/NA	Water	SM 4500 F C	
500-225046-6	MW-16	Total/NA	Water	SM 4500 F C	
MB 400-600348/10	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-600348/13	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 400-600348/12	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-225046-6 DU	MW-16	Total/NA	Water	SM 4500 F C	

Analysis Batch: 600791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-7	MW-11	Total/NA	Water	SM 4500 F C	
500-225046-8	MW-14	Total/NA	Water	SM 4500 F C	
500-225046-9	Duplicate	Total/NA	Water	SM 4500 F C	
MB 400-600791/33	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-600791/36	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 400-600791/35	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 684716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	SM 2540C	
500-225046-2	MW-02	Total/NA	Water	SM 2540C	
500-225046-3	MW-03	Total/NA	Water	SM 2540C	
500-225046-4	MW-04	Total/NA	Water	SM 2540C	
500-225046-5	MW-09	Total/NA	Water	SM 2540C	
500-225046-6	MW-16	Total/NA	Water	SM 2540C	
MB 500-684716/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-684716/2	Lab Control Sample	Total/NA	Water	SM 2540C	

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QC Association Summary

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

Job ID: 500-225046-1

General Chemistry

Analysis Batch: 684918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-7	MW-11	Total/NA	Water	SM 2540C	
500-225046-8	MW-14	Total/NA	Water	SM 2540C	
500-225046-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-684918/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-684918/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 686338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-225046-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-225046-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-225046-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-225046-5	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-225046-6	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-225046-7	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-225046-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-225046-9	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-686338/50	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MB 500-686338/87	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-686338/51	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 500-686338/88	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-225046-7 MS	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-225046-7 MSD	MW-11	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 686775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	SM 4500 CI- E	
500-225046-2	MW-02	Total/NA	Water	SM 4500 CI- E	
500-225046-3	MW-03	Total/NA	Water	SM 4500 CI- E	
500-225046-4	MW-04	Total/NA	Water	SM 4500 CI- E	
500-225046-5	MW-09	Total/NA	Water	SM 4500 CI- E	
500-225046-6	MW-16	Total/NA	Water	SM 4500 CI- E	
500-225046-7	MW-11	Total/NA	Water	SM 4500 CI- E	
500-225046-8	MW-14	Total/NA	Water	SM 4500 CI- E	
500-225046-9	Duplicate	Total/NA	Water	SM 4500 CI- E	
MB 500-686775/16	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 500-686775/17	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

QC Sample Results

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

Job ID: 500-225046-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-685236/1-A
Matrix: Water
Analysis Batch: 685597

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 685236

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		11/16/22 08:32	11/16/22 20:54	1
Arsenic	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 20:54	1
Barium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 20:54	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		11/16/22 08:32	11/16/22 20:54	1
Cadmium	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 20:54	1
Calcium	<0.20		0.20		mg/L		11/16/22 08:32	11/16/22 20:54	1
Chromium	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 20:54	1
Cobalt	<0.0010		0.0010		mg/L		11/16/22 08:32	11/16/22 20:54	1
Lead	<0.00050		0.00050		mg/L		11/16/22 08:32	11/16/22 20:54	1
Lithium	<0.010		0.010		mg/L		11/16/22 08:32	11/16/22 20:54	1
Molybdenum	<0.0050		0.0050		mg/L		11/16/22 08:32	11/16/22 20:54	1
Selenium	<0.0025		0.0025		mg/L		11/16/22 08:32	11/16/22 20:54	1
Thallium	<0.0020		0.0020		mg/L		11/16/22 08:32	11/16/22 20:54	1

Lab Sample ID: MB 500-685236/1-A
Matrix: Water
Analysis Batch: 685905

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 685236

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.050		0.050		mg/L		11/16/22 08:32	11/17/22 14:55	1

Lab Sample ID: LCS 500-685236/2-A
Matrix: Water
Analysis Batch: 685597

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 685236

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0991		mg/L		99	80 - 120
Barium	0.500	0.506		mg/L		101	80 - 120
Beryllium	0.0500	0.0494	^1+ ^+	mg/L		99	80 - 120
Cadmium	0.0500	0.0492		mg/L		98	80 - 120
Calcium	10.0	11.0		mg/L		110	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.500	0.508		mg/L		102	80 - 120
Lead	0.100	0.0986		mg/L		99	80 - 120
Lithium	0.100	0.0938		mg/L		94	80 - 120
Molybdenum	1.00	0.937		mg/L		94	80 - 120
Selenium	0.100	0.0994		mg/L		99	80 - 120
Thallium	0.100	0.0993		mg/L		99	80 - 120

Lab Sample ID: LCS 500-685236/2-A
Matrix: Water
Analysis Batch: 685905

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 685236

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

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QC Sample Results

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

Job ID: 500-225046-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-685598/12-A
Matrix: Water
Analysis Batch: 685896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685598

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/17/22 12:30	11/18/22 08:48	1

Lab Sample ID: LCS 500-685598/13-A
Matrix: Water
Analysis Batch: 685896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685598

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00198	0.00180		mg/L		91	80 - 120

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

Lab Sample ID: MB 500-684716/1
Matrix: Water
Analysis Batch: 684716

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/14/22 00:24	1

Lab Sample ID: LCS 500-684716/2
Matrix: Water
Analysis Batch: 684716

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	252		mg/L		101	80 - 120

Lab Sample ID: MB 500-684918/1
Matrix: Water
Analysis Batch: 684918

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/15/22 02:52	1

Lab Sample ID: LCS 500-684918/2
Matrix: Water
Analysis Batch: 684918

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	240		mg/L		96	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-686775/16
Matrix: Water
Analysis Batch: 686775

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			11/23/22 10:02	1

QC Sample Results

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

Job ID: 500-225046-1

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

Lab Sample ID: LCS 500-686775/17
Matrix: Water
Analysis Batch: 686775

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.1		mg/L		101	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-600348/10
Matrix: Water
Analysis Batch: 600348

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/11/22 16:15	1

Lab Sample ID: LCS 400-600348/13
Matrix: Water
Analysis Batch: 600348

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	5.00	4.92		mg/L		98	90 - 110

Lab Sample ID: MRL 400-600348/12
Matrix: Water
Analysis Batch: 600348

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.100	0.110		mg/L		110	

Lab Sample ID: 500-225046-6 DU
Matrix: Water
Analysis Batch: 600348

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.80		0.796		mg/L		0	4

Lab Sample ID: MB 400-600791/33
Matrix: Water
Analysis Batch: 600791

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/16/22 12:40	1

Lab Sample ID: LCS 400-600791/36
Matrix: Water
Analysis Batch: 600791

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	5.00	5.19		mg/L		104	90 - 110

QC Sample Results

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

Job ID: 500-225046-1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MRL 400-600791/35
Matrix: Water
Analysis Batch: 600791

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.100	0.105		mg/L		105	

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-686338/50
Matrix: Water
Analysis Batch: 686338

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			11/21/22 11:10	1

Lab Sample ID: MB 500-686338/87
Matrix: Water
Analysis Batch: 686338

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			11/21/22 11:35	1

Lab Sample ID: LCS 500-686338/51
Matrix: Water
Analysis Batch: 686338

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	21.7		mg/L		109	88 - 123

Lab Sample ID: LCS 500-686338/88
Matrix: Water
Analysis Batch: 686338

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	21.8		mg/L		109	88 - 123

Lab Sample ID: 500-225046-7 MS
Matrix: Water
Analysis Batch: 686338

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	26		20.0	42.4		mg/L		81	75 - 125

Lab Sample ID: 500-225046-7 MSD
Matrix: Water
Analysis Batch: 686338

Client Sample ID: MW-11
Prep Type: Total/NA


Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	26		20.0	43.0		mg/L		84	75 - 125	1	20

Eurofins Chicago

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

Chain of Custody Record

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Client Information		Sampler <i>Kaelyn Sperle</i>		Lab PM: Mockler, Diana J		Carrier Tracking No(s):		COC No: 500-106647-44027 1					
Client Contact: Mitchel Dolan		Phone: <i>262-278-1621</i>		E-Mail: Diana Mockler@et.eurofins.com		State of Origin: <i>IL</i>		Page: Page 1 of 1					
Company: KPRG and Associates, Inc		PWSID:		Analysis Requested				Job #: <i>500-225046</i>					
Address: 14665 West Lisbon Road, Suite 1A		Due Date Requested: <i>Standard</i>		 <p>500-225046 COC</p>				Preservation Codes					
City: Brookfield		TAT Requested (days): <i>Standard</i>						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		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 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						Field Filtered Sample (Yes or No)		Total Number of containers			
Email: mitched@kprginc.com		WO #:						Perform MS/MSD (Yes or No)					
Project Name: Waukegan CCR Event Desc: Quarterly Waukegan CCR		Project #: 50011597		903.0, 904.0				Special Instructions/Note					
Site: Illinois		SSOW#:		6010C, 6020A, 7470A									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0, 904.0	6010C, 6020A, 7470A	2540C, 4500_F_C, SM4500_C1_E, SM4500_S04_E	500-225046 COC	Total Number of containers	Special Instructions/Note
				Preservation Code		X	X	D	D	N	N	X	
1	MW-01	11/7/22	1026	G	Water	N	N	X	X	X			
2	MW-02	11/7/22	1124	G	Water	N	N	X	X	X			
3	MW-03	11/7/22	1220	G	Water	N	N	X	X	X			
4	MW-04	11/7/22	1354	G	Water	N	N	X	X	X			
5	MW-09	11/7/22	1558	G	Water	N	N	X	X	X			
	MW-10				Water								
	MW-11				Water								
6	MW-16	11/7/22	1500	G	Water	N	N	X	X	X			
	MW-17				Water								
	MW-18				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:							
Relinquished by: <i>Kaelyn Sperle</i>		Date/Time: <i>11/7/22/1730</i>		Company: <i>KPRG</i>		Received by: <i>FedEx</i>		Date/Time: <i>11/7/22/1730</i>		Company: <i>FedEx</i>			
Relinquished by:		Date/Time:		Company:		Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>11/8/22 1020</i>		Company: <i>EEIA</i>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks		<i>62.59, 1.4 to 0.9</i>							

Eurofins Chicago

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

Chain of Custody Record



Environmental Testing

Client Information		Sampler: <u>Maelyn Sperie</u>		Lab PM: Mockler Diana J		Carrier Tracking No(s):		COC No. 500-106647-44027 1	
Client Contact: Mitchel Dolan		Phone: <u>262-278-1621</u>		E-Mail: Diana Mockler@et eurofinsus.com		State of Origin: <u>IL</u>		Page: Page 1 of 1	
Company: KPRG and Associates Inc				PWSID:		Analysis Requested			
Address: 14665 West Lisbon Road Suite 1A		Due Date Requested: <u>Standard</u>		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500_F_C, SM4500_CI_E, SM4500_S04_E Toxicity		Total Number of containers 500-225046 COC		Job #: <u>500-225046</u>	
City: Brookfield		TAT Requested (days): <u>Standard</u>						Preservation Codes	
State Zip: WI 53005		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No						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)	
Phone: 262-781-0475(Tel)		PO #: 4502102435						Other:	
Email: mitcheld@kprginc.com		WO #:							
Project Name: Waukegan CCR Event Desc. Quarterly Waukegan CCR		Project #: 50011597							
Site: Illinois		SSOW#:							
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Preservation Code:		Special Instructions/Note	
MW-04					Water	D D N N			
MW-02					Water				
MW-03					Water				
MW-05					Water				
MW-06					Water				
7 MW-11		11/8/22	1358	G	Water	N N X X X			
8 MW-14		11/8/22	1253	G	Water	N N X X X			
MW-07					Water				
9 Duplicate		11/8/22	-	G	Water	N N X X X			
					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:				
Relinquished by: <u>Maelyn Sperie</u>			Date/Time: <u>11/8/22/1600</u>	Company: <u>KPRG</u>	Received by: <u>FedEx</u>		Date/Time: <u>11/8/22/1600</u>	Company: <u>FedEx</u>	
Relinquished by:			Date/Time:	Company:	Received by: <u>Stephanie Homomony</u>		Date/Time: <u>11/9/22 1030</u>	Company: <u>EELA</u>	
Relinquished by:			Date/Time:	Company:	Received by:		Date/Time:	Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks: <u>12-7/12</u>				



ORIGIN ID:FEPA (262) 278-1621
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

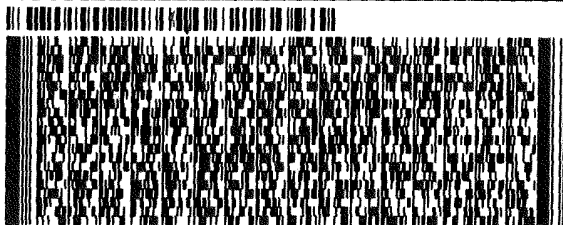
SHIP DATE: 07NOV22
ACTWGT: 42.90 LB
CAD: 6894085/SSFE2341
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-433-444085-188-07/23

TO **ATTN: SAMPLE RECEIVING
EUROFINS CHICAGO
2417 BOND ST**

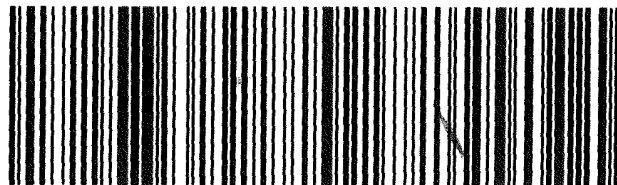
UNIVERSITY PARK IL 60484

(999) 999-9999 REF: INVT: PO: DEPT:



2 of 4
MPS# 3903 4021 9756
0263
Mstr# 3903 4021 9745

**TUE - 08 NOV 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD**



ORIGIN ID:FEPA (262) 278-1621
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 07NOV22
ACTWGT: 46.55 LB
CAD: 6894085/SSFE2341
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-433-444085-188-07/23

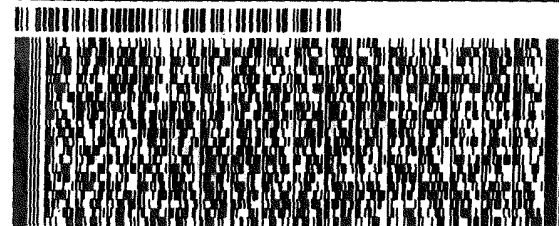
TO **ATTN: SAMPLE RECEIVING
EUROFINS CHICAGO
2417 BOND ST**



UNIVERSITY PARK IL 60484

500 225046 Waybl

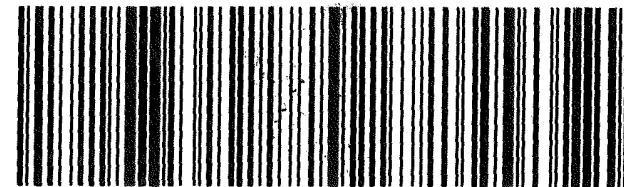
(999) 999-9999 REF: INVT: PO: DEPT:



4 of 4
MPS# 3903 4021 9778
0263
Mstr# 3903 4021 9745

**TUE - 08 NOV 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD**

79 JOTA



ORIGIN ID: FEPA (262) 278-1621
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 08NOV22
ACTWGT: 48.80 LB
CAD: 6994085/SSFE2341
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 156297-453
EXP 07/23

TO **EUROFINS CHICAGO**

2417 BOND ST

UNIVERSITY PARK IL 60484

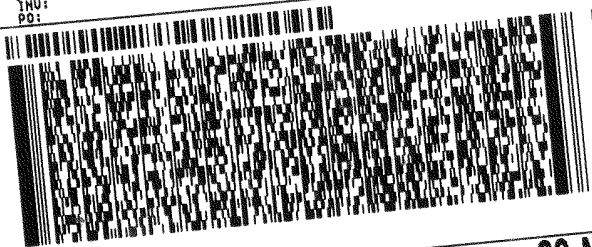


500-225046 Waybr

(999) 999-9999
INU:
PO:

REF:

DEPT:



FedEx
Express



ART108101101
J224222

4 of 4

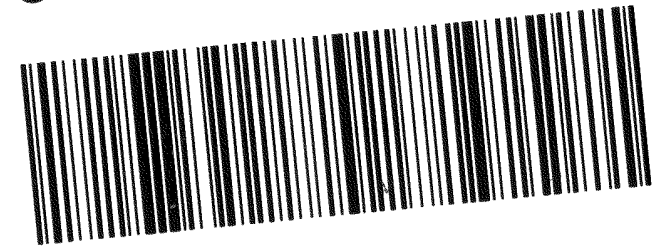
MPS# **3903 8904 4925**
0263
Mstr# **3903 8904 4899**

0201

79 JOTA

WED - 09 NOV 10:30A
PRIORITY OVERNIGHT

AHS
60484
IL-US ORD



Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Lab PM:		Carrier Tracking No(s):		COC No:	
Shipping/Receiving		Mockler, Diana J		500-167138-1		500-167138-1	
Company: TestAmerica Laboratories, Inc.		E-Mail: Diana.Mockler@et.eurofins.com		State of Origin: Illinois		Page: Page 1 of 1	
Address: 13715 Rider Trail North,		Accreditations Required (See note): NELAP - Illinois		Job #: 500-225046-2		Preservation Codes:	
City: Earth City		Due Date Requested: 12/12/2022		Analysis Requested		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
State, Zip: MO, 63045		TAT Requested (days):		Perform MS/MSD (Yes or No)		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:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		PO #:		Field Filtered Sample (Yes or No)		Total Number of Containers	
Email:		WO #:		903.0/PreSep_21 Standard Target List		3	
Project #: 50011597		Sample Date		904.0/PreSep_0 Standard Target List		3	
Site: NRG Midwest Generation Waukegan		Sample Time		Raz26Ra228 GPC		3	
Sample Identification - Client ID (Lab ID)		Sample Time		Matrix (Water, Solid, Swastolu, EtOH, AcAr)		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-01 (500-225046-1)		11/7/22		Water		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-02 (500-225046-2)		11/7/22		Water		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-03 (500-225046-3)		11/7/22		Water		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-04 (500-225046-4)		11/7/22		Water		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-09 (500-225046-5)		11/7/22		Water		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-16 (500-225046-6)		11/7/22		Water		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon out 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/tests/mainx being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____
 Relinquished by: *Ann Leach* Date/Time: 11/8/22 1445 Company: *FEDEX*
 Relinquished by: *FEDEX* Date/Time: 11/9/22 1310 Company: *EPASIL*
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks: _____



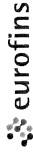
Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Mockler, Diana J		Lab PM: Mockler, Diana J		Carrier Tracking No(s): 500-167211.1		COC No: 500-167211.1			
Client Contact: Diana.Mockler@et.eurofins.com		Phone: Diana.Mockler@et.eurofins.com		E-Mail: Diana.Mockler@et.eurofins.com		State of Origin: Illinois		Page: Page 1 of 1			
Shipping/Receiving Company: TestAmerica Laboratories, Inc.		Address: 13715 Rider Trail North, Earth City, MO, 63045		PO #: 314-298-8566(Tel) 314-298-8757(Fax)		Email: Project #: 50011597		Job #: 500-225046-1			
Site: NRG Midwest Generation Waukegan		Project Name: Waukegan CCR		SSOW#: 50011597		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, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)		Other:			
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Swab, On-water, RT-Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228 GFPC	Total Number of Containers	Special Instructions/Note:
MW-11 (500-225046-7)	11/8/22	13:58 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-14 (500-225046-8)	11/8/22	12:53 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-01 (500-225046-9)	11/8/22	Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
<p>Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon out 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>Possible Hazard Identification Unconfirmed</p>											
<p>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: _____ Time: _____ Method of Shipment: _____</p>											
<p>Relinquished by: <i>John Smith</i> Date: 11/9/22 Time: 1550 Company: <i>ETA</i></p>											
<p>Relinquished by: FED EX Date/Time: NOV 10 2022 0850 Company: FEASTIC</p>											
<p>Relinquished by: _____ Date/Time: _____ Company: _____</p>											
<p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: Autumn R. Johnson</p>											



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Mockler, Diana J		Carrier Tracking No(s): 500-167135.1	
Client Contact: Shipping/Receiving		Phone: Diana.Mockler@et.eurofins.com		State of Origin: Illinois	
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): NELAP - Illinois		Job #: 500-225046-1	
Address: 3355 McLemore Drive,		Due Date Requested: 11/30/2022		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - Trizma Z - other (specify) Other:	
City: Pensacola		TAT Requested (days):		Analysis Requested	
State, Zip: FL, 32514		PO #:		Total Number of containers	
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		WO #:		Perform MS/MSD (Yes or No)	
Email:		Project #: 50011597		Field Filtered Sample (Yes or No)	
Project Name: Waukegan CCR		SSOW#:		4500 F.C	
Site: NRG Midwest Generation Waukegan				Special Instructions/Note:	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=swab/soil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers
MW-01 (500-225046-1)	11/7/22	10:26 Central	Water	Water		X	X	1
MW-02 (500-225046-2)	11/7/22	11:24 Central	Water	Water		X	X	1
MW-03 (500-225046-3)	11/7/22	12:20 Central	Water	Water		X	X	1
MW-04 (500-225046-4)	11/7/22	13:54 Central	Water	Water		X	X	1
MW-09 (500-225046-5)	11/7/22	15:58 Central	Water	Water		X	X	1
MW-16 (500-225046-6)	11/7/22	15:00 Central	Water	Water		X	X	1

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon out 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 Return To Client Disposal By Lab Archive For Months
 Deliverable Requested: I, II, III, IV, Other (specify) **Primary Deliverable Rank: 2**

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *[Signature]* Date/Time: **11/8/22 1445** Company: **EBAA**
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No Δ NO
 Cooler Temperature(s) °C and Other Remarks: **0-20C (PHO)**



Do not lift using this tag.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Part # 159439-434
P. 0023

ORIGIN ID: JOTA (708) 534-5200
SAMPLE LOGIN
TESTAMERICA LABS
2417 BOND ST

SHIP DATE: 08NOV22
ACTWGT: 20.00 LB MAN
CAD: 033264/CAFE3616

UNIVERSITY PARK, IL 60484
UNITED STATES US

BILL SENDER

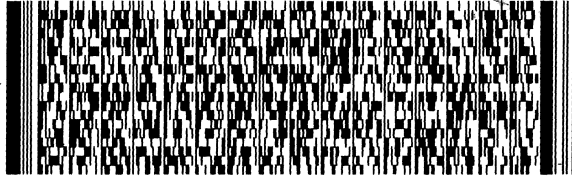
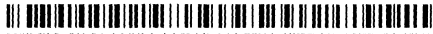
TO **SAMPLE RECEIVING**
EUROFINS - PENSACOLA
3355 MCLEMORE DR.

O-2C
IR 10
MP

PENSACOLA FL 32514

(850) 474-1001
REF: 225035/046

577C4/07F5/4324



FedEx
Express



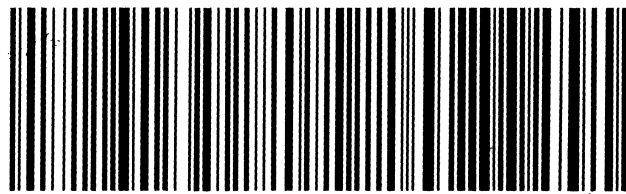
JJ22022032801uv

TRK# 1893 4460 9042
0201

WED - 09 NOV 10:30A
PRIORITY OVERNIGHT

XH PNSA

32514
FL-US **BFM**



- 1
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Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J	Carrier Tracking No(s): 500-167200-1																																																																																																																																								
Client Contact: Shipping/Receiving		E-Mail: Diana.Mockler@et.eurofinsus.com	Page: Page 1 of 1																																																																																																																																								
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Site: NRG Midwest Generation Waukegan		SSOW#:																																																																																																																																									
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Empty Kit Relinquished by: _____ Date: _____ Time: _____ Relinquished by: <i>Shirley</i> Date: 11/9/22 Time: 1550 Company: <i>ETA</i> Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No																																																																																																																																											
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 Method of Shipment: _____ Received by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: 11/22/2022 18:56 Company: _____ Cooler Temperature(s) °C and Other Remarks: 0.0°C 1/8																																																																																																																																											



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-225046-1

Login Number: 225046

List Number: 1

Creator: Hernandez, Stephanie

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	5.9,0.9,1.2
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: 500-225046-1

Login Number: 225046

List Number: 2

Creator: Whitley, Adrian

List Source: Eurofins Pensacola

List Creation: 11/09/22 02:01 PM

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.	N/A	
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	0.2°C IR10
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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: 500-225046-1

Login Number: 225046

List Number: 5

Creator: Whitley, Adrian

List Source: Eurofins Pensacola

List Creation: 11/11/22 02:44 PM

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.	N/A	
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	0.0°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (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: 500-225046-1

Client Sample ID: MW-01

Date Collected: 11/07/22 10:26

Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		5	685905	FXG	EET CHI	11/17/22 15:47
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 21:55
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 08:57
Total/NA	Analysis	SM 2540C		1	684716	CLB	EET CHI	11/14/22 01:10
Total/NA	Analysis	SM 4500 CI- E		5	686775	LP	EET CHI	11/23/22 10:05
Total/NA	Analysis	SM 4500 F C		1	600348	JP	EET PEN	11/11/22 16:15
Total/NA	Analysis	SM 4500 SO4 E		10	686338	LP	EET CHI	11/21/22 11:17

Client Sample ID: MW-02

Date Collected: 11/07/22 11:24

Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		10	685905	FXG	EET CHI	11/17/22 15:51
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 21:59
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 08:59
Total/NA	Analysis	SM 2540C		1	684716	CLB	EET CHI	11/14/22 01:13
Total/NA	Analysis	SM 4500 CI- E		5	686775	LP	EET CHI	11/23/22 10:06
Total/NA	Analysis	SM 4500 F C		1	600348	JP	EET PEN	11/11/22 16:15
Total/NA	Analysis	SM 4500 SO4 E		10	686338	LP	EET CHI	11/21/22 11:18

Client Sample ID: MW-03

Date Collected: 11/07/22 12:20

Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		5	685905	FXG	EET CHI	11/17/22 15:54
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 22:02
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 09:01
Total/NA	Analysis	SM 2540C		1	684716	CLB	EET CHI	11/14/22 01:15
Total/NA	Analysis	SM 4500 CI- E		5	686775	LP	EET CHI	11/23/22 10:06
Total/NA	Analysis	SM 4500 F C		1	600348	JP	EET PEN	11/11/22 16:15
Total/NA	Analysis	SM 4500 SO4 E		10	686338	LP	EET CHI	11/21/22 11:18

Lab Chronicle

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

Job ID: 500-225046-1

Client Sample ID: MW-04
Date Collected: 11/07/22 13:54
Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		5	685905	FXG	EET CHI	11/17/22 15:58
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 22:05
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 09:03
Total/NA	Analysis	SM 2540C		1	684716	CLB	EET CHI	11/14/22 01:18
Total/NA	Analysis	SM 4500 CI- E		5	686775	LP	EET CHI	11/23/22 10:06
Total/NA	Analysis	SM 4500 F C		1	600348	JP	EET PEN	11/11/22 16:15
Total/NA	Analysis	SM 4500 SO4 E		10	686338	LP	EET CHI	11/21/22 11:18

Client Sample ID: MW-09
Date Collected: 11/07/22 15:58
Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		20	685905	FXG	EET CHI	11/17/22 16:08
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 22:16
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 09:06
Total/NA	Analysis	SM 2540C		1	684716	CLB	EET CHI	11/14/22 01:20
Total/NA	Analysis	SM 4500 CI- E		10	686775	LP	EET CHI	11/23/22 10:06
Total/NA	Analysis	SM 4500 F C		1	600348	JP	EET PEN	11/11/22 16:15
Total/NA	Analysis	SM 4500 SO4 E		10	686338	LP	EET CHI	11/21/22 11:19

Client Sample ID: MW-16
Date Collected: 11/07/22 15:00
Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		10	685905	FXG	EET CHI	11/17/22 16:12
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 22:19
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 09:08
Total/NA	Analysis	SM 2540C		1	684716	CLB	EET CHI	11/14/22 01:23
Total/NA	Analysis	SM 4500 CI- E		5	686775	LP	EET CHI	11/23/22 10:07
Total/NA	Analysis	SM 4500 F C		1	600348	JP	EET PEN	11/11/22 16:15
Total/NA	Analysis	SM 4500 SO4 E		10	686338	LP	EET CHI	11/21/22 11:19

Lab Chronicle

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

Job ID: 500-225046-1

Client Sample ID: MW-11
Date Collected: 11/08/22 13:58
Date Received: 11/09/22 10:30

Lab Sample ID: 500-225046-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		5	685905	FXG	EET CHI	11/17/22 16:15
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 22:22
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 09:10
Total/NA	Analysis	SM 2540C		1	684918	CLB	EET CHI	11/15/22 03:35
Total/NA	Analysis	SM 4500 CI- E		10	686775	LP	EET CHI	11/23/22 10:07
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 12:15
Total/NA	Analysis	SM 4500 SO4 E		5	686338	LP	EET CHI	11/21/22 11:58

Client Sample ID: MW-14
Date Collected: 11/08/22 12:53
Date Received: 11/09/22 10:30

Lab Sample ID: 500-225046-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685905	FXG	EET CHI	11/17/22 16:19
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 22:26
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 09:12
Total/NA	Analysis	SM 2540C		1	684918	CLB	EET CHI	11/15/22 03:38
Total/NA	Analysis	SM 4500 CI- E		5	686775	LP	EET CHI	11/23/22 10:07
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 12:20
Total/NA	Analysis	SM 4500 SO4 E		2	686338	LP	EET CHI	11/21/22 11:37

Client Sample ID: Duplicate
Date Collected: 11/08/22 00:00
Date Received: 11/09/22 10:30

Lab Sample ID: 500-225046-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		5	685905	FXG	EET CHI	11/17/22 16:22
Total Recoverable	Prep	3005A			685236	BDE	EET CHI	11/16/22 08:32 - 11/16/22 09:02 ¹
Total Recoverable	Analysis	6020A		1	685597	FXG	EET CHI	11/16/22 22:29
Total/NA	Prep	7470A			685598	MJG	EET CHI	11/17/22 12:30 - 11/17/22 14:30 ¹
Total/NA	Analysis	7470A		1	685896	MJG	EET CHI	11/18/22 09:14
Total/NA	Analysis	SM 2540C		1	684918	CLB	EET CHI	11/15/22 03:41
Total/NA	Analysis	SM 4500 CI- E		5	686775	LP	EET CHI	11/23/22 10:08
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 12:23
Total/NA	Analysis	SM 4500 SO4 E		2	686338	LP	EET CHI	11/21/22 12:14

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Lab Chronicle

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

Job ID: 500-225046-1

Laboratory References:

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Accreditation/Certification Summary

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

Job ID: 500-225046-1

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-30-23

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

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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 12/14/2022 10:19:41 AM

JOB DESCRIPTION

Waukegan CCR (RAD)

JOB NUMBER

500-225046-2

Eurofins Chicago

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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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12/14/2022 10:19:41 AM

Authorized for release by
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Case Narrative

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

Job ID: 500-225046-2

Job ID: 500-225046-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-225046-2

Comments

No additional comments.

Receipt

The samples were received on 11/8/2022 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.9° C, 1.2° C and 5.9° C.

RAD

Methods 903.0, 9315: Radium-226 batch 589928

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-11 (500-225046-7), MW-14 (500-225046-8), Duplicate (500-225046-9), (LCS 160-589928/2-A), (MB 160-589928/1-A), (400-228686-A-1-A), (400-228686-A-1-B MS) and (400-228686-B-1-A MSD)

Method 903.0: Radium-226 batch 589668

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 (500-225046-1), MW-02 (500-225046-2), MW-03 (500-225046-3), MW-04 (500-225046-4), MW-09 (500-225046-5), MW-16 (500-225046-6), (LCS 160-589668/2-A), (MB 160-589668/1-A), (480-203643-C-2-A), (480-203643-C-2-B MS) and (480-203643-D-2-A MSD)

Methods 904.0, 9320: Radium-228 batch 589930

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-11 (500-225046-7), MW-14 (500-225046-8), Duplicate (500-225046-9), (LCS 160-589930/2-A), (MB 160-589930/1-B), (400-228686-A-1-C), (400-228686-A-1-D MS) and (400-228686-B-1-B MSD)

Method 904.0: Radium-228 batch 589669

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 (500-225046-1), MW-02 (500-225046-2), MW-03 (500-225046-3), MW-04 (500-225046-4), MW-09 (500-225046-5), MW-16 (500-225046-6), (LCS 160-589669/2-A), (MB 160-589669/1-A), (480-203643-C-2-C), (480-203643-C-2-D MS) and (480-203643-D-2-B MSD)

Method PrecSep_0:

Method PrecSep_0:

Method PrecSep-21:

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: 500-225046-2

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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Sample Summary

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

Job ID: 500-225046-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-225046-1	MW-01	Water	11/07/22 10:26	11/08/22 10:20
500-225046-2	MW-02	Water	11/07/22 11:24	11/08/22 10:20
500-225046-3	MW-03	Water	11/07/22 12:20	11/08/22 10:20
500-225046-4	MW-04	Water	11/07/22 13:54	11/08/22 10:20
500-225046-5	MW-09	Water	11/07/22 15:58	11/08/22 10:20
500-225046-6	MW-16	Water	11/07/22 15:00	11/08/22 10:20
500-225046-7	MW-11	Water	11/08/22 13:58	11/09/22 10:30
500-225046-8	MW-14	Water	11/08/22 12:53	11/09/22 10:30
500-225046-9	Duplicate	Water	11/08/22 00:00	11/09/22 10:30

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Client Sample Results

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

Job ID: 500-225046-2

Client Sample ID: MW-01

Lab Sample ID: 500-225046-1

Date Collected: 11/07/22 10:26

Matrix: Water

Date Received: 11/08/22 10:20

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	<0.168	U	0.101	0.101	1.00	0.168	pCi/L	11/11/22 07:19	12/05/22 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					11/11/22 07:19	12/05/22 09:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.866		0.375	0.383	1.00	0.494	pCi/L	11/11/22 08:13	12/02/22 14:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					11/11/22 08:13	12/02/22 14:03	1
Y Carrier	91.6		40 - 110					11/11/22 08:13	12/02/22 14:03	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.944		0.388	0.396	5.00	0.494	pCi/L		12/13/22 16:59	1

Client Sample ID: MW-02

Lab Sample ID: 500-225046-2

Date Collected: 11/07/22 11:24

Matrix: Water

Date Received: 11/08/22 10:20

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	<0.171	U	0.0909	0.0909	1.00	0.171	pCi/L	11/11/22 07:19	12/05/22 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		40 - 110					11/11/22 07:19	12/05/22 09:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.44		0.465	0.483	1.00	0.522	pCi/L	11/11/22 08:13	12/02/22 14:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		40 - 110					11/11/22 08:13	12/02/22 14:03	1
Y Carrier	87.5		40 - 110					11/11/22 08:13	12/02/22 14:03	1

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Client Sample Results

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

Job ID: 500-225046-2

Client Sample ID: MW-02

Lab Sample ID: 500-225046-2

Date Collected: 11/07/22 11:24

Matrix: Water

Date Received: 11/08/22 10:20

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.47		0.474	0.491	5.00	0.522	pCi/L		12/13/22 16:59	1

Client Sample ID: MW-03

Lab Sample ID: 500-225046-3

Date Collected: 11/07/22 12:20

Matrix: Water

Date Received: 11/08/22 10:20

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	<0.169	U	0.110	0.110	1.00	0.169	pCi/L	11/11/22 07:19	12/05/22 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					11/11/22 07:19	12/05/22 09:10	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.28		0.463	0.478	1.00	0.602	pCi/L	11/11/22 08:13	12/02/22 14:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					11/11/22 08:13	12/02/22 14:03	1
Y Carrier	91.6		40 - 110					11/11/22 08:13	12/02/22 14:03	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.39		0.476	0.490	5.00	0.602	pCi/L		12/13/22 16:59	1

Client Sample ID: MW-04

Lab Sample ID: 500-225046-4

Date Collected: 11/07/22 13:54

Matrix: Water

Date Received: 11/08/22 10:20

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	0.245		0.143	0.145	1.00	0.192	pCi/L	11/11/22 07:19	12/05/22 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					11/11/22 07:19	12/05/22 09:10	1

Client Sample Results

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

Job ID: 500-225046-2

Client Sample ID: MW-04

Lab Sample ID: 500-225046-4

Date Collected: 11/07/22 13:54

Matrix: Water

Date Received: 11/08/22 10:20

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.60		0.450	0.473	1.00	0.503	pCi/L	11/11/22 08:13	12/02/22 14:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					11/11/22 08:13	12/02/22 14:04	1
Y Carrier	92.7		40 - 110					11/11/22 08:13	12/02/22 14:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.85		0.472	0.495	5.00	0.503	pCi/L		12/13/22 16:59	1

Client Sample ID: MW-09

Lab Sample ID: 500-225046-5

Date Collected: 11/07/22 15:58

Matrix: Water

Date Received: 11/08/22 10:20

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	0.588		0.210	0.217	1.00	0.223	pCi/L	11/11/22 07:19	12/05/22 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.6		40 - 110					11/11/22 07:19	12/05/22 09:10	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.00		0.556	0.585	1.00	0.608	pCi/L	11/11/22 08:13	12/02/22 14:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.6		40 - 110					11/11/22 08:13	12/02/22 14:04	1
Y Carrier	91.6		40 - 110					11/11/22 08:13	12/02/22 14:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.58		0.594	0.624	5.00	0.608	pCi/L		12/13/22 16:59	1

Client Sample Results

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

Job ID: 500-225046-2

Client Sample ID: MW-16

Lab Sample ID: 500-225046-6

Date Collected: 11/07/22 15:00

Matrix: Water

Date Received: 11/08/22 10:20

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	2.08		0.326	0.376	1.00	0.196	pCi/L	11/11/22 07:19	12/05/22 09:11	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	94.7		40 - 110					11/11/22 07:19	12/05/22 09:11	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	1.14		0.414	0.427	1.00	0.519	pCi/L	11/11/22 08:13	12/02/22 14:04	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	94.7		40 - 110					11/11/22 08:13	12/02/22 14:04	1
Y Carrier	90.1		40 - 110					11/11/22 08:13	12/02/22 14:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.23		0.527	0.569	5.00	0.519	pCi/L		12/13/22 16:59	1

Client Sample ID: MW-11

Lab Sample ID: 500-225046-7

Date Collected: 11/08/22 13:58

Matrix: Water

Date Received: 11/09/22 10:30

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	0.351		0.177	0.179	1.00	0.215	pCi/L	11/14/22 10:35	12/06/22 09:26	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	80.9		40 - 110					11/14/22 10:35	12/06/22 09:26	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.67		0.594	0.614	1.00	0.703	pCi/L	11/14/22 11:06	12/02/22 11:09	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	80.9		40 - 110					11/14/22 11:06	12/02/22 11:09	1
Y Carrier	83.7		40 - 110					11/14/22 11:06	12/02/22 11:09	1

Client Sample Results

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

Job ID: 500-225046-2

Client Sample ID: MW-11

Lab Sample ID: 500-225046-7

Date Collected: 11/08/22 13:58

Matrix: Water

Date Received: 11/09/22 10:30

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	2.02		0.620	0.640	5.00	0.703	pCi/L		12/08/22 00:18	1

Client Sample ID: MW-14

Lab Sample ID: 500-225046-8

Date Collected: 11/08/22 12:53

Matrix: Water

Date Received: 11/09/22 10:30

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	<0.240	U	0.157	0.158	1.00	0.240	pCi/L	11/14/22 10:35	12/06/22 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.0		40 - 110					11/14/22 10:35	12/06/22 09:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.87		0.649	0.671	1.00	0.770	pCi/L	11/14/22 11:06	12/02/22 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.0		40 - 110					11/14/22 11:06	12/02/22 11:09	1
Y Carrier	81.9		40 - 110					11/14/22 11:06	12/02/22 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.04		0.668	0.689	5.00	0.770	pCi/L		12/08/22 00:18	1

Client Sample ID: Duplicate

Lab Sample ID: 500-225046-9

Date Collected: 11/08/22 00:00

Matrix: Water

Date Received: 11/09/22 10:30

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	0.247		0.156	0.157	1.00	0.209	pCi/L	11/14/22 10:35	12/06/22 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					11/14/22 10:35	12/06/22 09:27	1

Client Sample Results

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

Job ID: 500-225046-2

Client Sample ID: Duplicate

Lab Sample ID: 500-225046-9

Date Collected: 11/08/22 00:00

Matrix: Water

Date Received: 11/09/22 10:30

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.63		0.612	0.630	1.00	0.773	pCi/L	11/14/22 11:06	12/02/22 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					11/14/22 11:06	12/02/22 11:09	1
Y Carrier	84.9		40 - 110					11/14/22 11:06	12/02/22 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.87		0.632	0.649	5.00	0.773	pCi/L		12/08/22 00:18	1



Definitions/Glossary

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

Job ID: 500-225046-2

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: 500-225046-2

Rad

Prep Batch: 589668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	PrecSep-21	
500-225046-2	MW-02	Total/NA	Water	PrecSep-21	
500-225046-3	MW-03	Total/NA	Water	PrecSep-21	
500-225046-4	MW-04	Total/NA	Water	PrecSep-21	
500-225046-5	MW-09	Total/NA	Water	PrecSep-21	
500-225046-6	MW-16	Total/NA	Water	PrecSep-21	
MB 160-589668/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-589668/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 589669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-1	MW-01	Total/NA	Water	PrecSep_0	
500-225046-2	MW-02	Total/NA	Water	PrecSep_0	
500-225046-3	MW-03	Total/NA	Water	PrecSep_0	
500-225046-4	MW-04	Total/NA	Water	PrecSep_0	
500-225046-5	MW-09	Total/NA	Water	PrecSep_0	
500-225046-6	MW-16	Total/NA	Water	PrecSep_0	
MB 160-589669/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-589669/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 589928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-7	MW-11	Total/NA	Water	PrecSep-21	
500-225046-8	MW-14	Total/NA	Water	PrecSep-21	
500-225046-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-589928/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-589928/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 589930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225046-7	MW-11	Total/NA	Water	PrecSep_0	
500-225046-8	MW-14	Total/NA	Water	PrecSep_0	
500-225046-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-589930/1-B	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-589930/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Sample Results

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

Job ID: 500-225046-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-589668/1-A
Matrix: Water
Analysis Batch: 592191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589668

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.151	U	0.0856	0.0857	1.00	0.151	pCi/L	11/11/22 07:19	12/05/22 08:58	1
Carrier	MB	MB	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110		11/11/22 07:19	12/05/22 08:58	1			
	91.5									

Lab Sample ID: LCS 160-589668/2-A
Matrix: Water
Analysis Batch: 592191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589668

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.35		1.17	1.00	0.150	pCi/L	91	75 - 125
Carrier	LCS	LCS	Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	40 - 110						
	88.9								

Lab Sample ID: MB 160-589928/1-A
Matrix: Water
Analysis Batch: 592518

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589928

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.154	U	0.0580	0.0582	1.00	0.154	pCi/L	11/14/22 10:35	12/06/22 09:22	1
Carrier	MB	MB	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110		11/14/22 10:35	12/06/22 09:22	1			
	85.0									

Lab Sample ID: LCS 160-589928/2-A
Matrix: Water
Analysis Batch: 592518

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589928

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.47		1.25	1.00	0.142	pCi/L	101	75 - 125
Carrier	LCS	LCS	Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	40 - 110						
	87.0								

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-589669/1-A
Matrix: Water
Analysis Batch: 592075

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589669

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	<0.706	U	0.337	0.337	1.00	0.706	pCi/L	11/11/22 08:13	12/02/22 17:35	1

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QC Sample Results

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

Job ID: 500-225046-2

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

Carrier	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	91.5		40 - 110	11/11/22 08:13	12/02/22 17:35	1
Y Carrier	87.1		40 - 110	11/11/22 08:13	12/02/22 17:35	1

Lab Sample ID: LCS 160-589669/2-A
Matrix: Water
Analysis Batch: 592075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589669

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	88.9		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: MB 160-589930/1-B
Matrix: Water
Analysis Batch: 592075

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589930

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac

Carrier	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Yield	Qualifier				
Ba Carrier	85.0		40 - 110	11/14/22 11:06	12/02/22 11:08	1
Y Carrier	84.1		40 - 110	11/14/22 11:06	12/02/22 11:08	1

Lab Sample ID: LCS 160-589930/2-A
Matrix: Water
Analysis Batch: 592075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589930

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits


Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	87.0		40 - 110
Y Carrier	86.4		40 - 110

Eurofins Chicago

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

Chain of Custody Record

eurofins | environment testing

Client Information		Sampler <i>Kaelyn Sperle</i>		Lab PM: Mockler, Diana J		Carrier Tracking No(s):		COC No: 500-106647-44027 1		
Client Contact: Mitchel Dolan		Phone: <i>262-278-1621</i>		E-Mail Diana Mockler@et.eurofins.com		State of Origin: <i>IL</i>		Page: Page 1 of 1		
Company KPRG and Associates, Inc				PWSID		Analysis Requested				
Address: 14665 West Lisbon Road, Suite 1A		Due Date Requested <i>Standard</i>		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500_F_C, SM4500_C1_E, SM4500_S04_E		 500-225046 COC		Job #: <i>500-225046</i>		
City: Brookfield		TAT Requested (days): <i>Standard</i>						Preservation Codes		
State, Zip WI, 53005		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						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 M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
Phone: 262-781-0475(Tel)		PO #: 4502102435						Other:		
Email: mitched@kprginc.com		WO #:								
Project Name: Waukegan CCR Event Desc: Quarterly Waukegan CCR		Project #: 50011597								
Site: Illinois		SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note	
				Preservation Code						
<i>1</i>	MW-01	<i>11/7/22</i>	<i>1026</i>	<i>G</i>	Water	<i>NN</i>	<i>XX</i>	<i>XX</i>		
<i>2</i>	MW-02	<i>11/7/22</i>	<i>1124</i>	<i>G</i>	Water	<i>NN</i>	<i>XX</i>	<i>XX</i>		
<i>3</i>	MW-03	<i>11/7/22</i>	<i>1220</i>	<i>G</i>	Water	<i>NN</i>	<i>XX</i>	<i>XX</i>		
<i>4</i>	MW-04	<i>11/7/22</i>	<i>1354</i>	<i>G</i>	Water	<i>NN</i>	<i>XX</i>	<i>XX</i>		
<i>5</i>	MW-09	<i>11/7/22</i>	<i>1558</i>	<i>G</i>	Water	<i>NN</i>	<i>XX</i>	<i>XX</i>		
	MW-10				Water					
	MW-11				Water					
<i>6</i>	MW-16	<i>11/7/22</i>	<i>1500</i>	<i>G</i>	Water	<i>NN</i>	<i>XX</i>	<i>XX</i>		
	MW-17				Water					
	MW-18				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:				
Relinquished by: <i>Kaelyn Sperle</i>		Date/Time: <i>11/7/22/1730</i>		Company: <i>KPRG</i>		Received by: <i>FedEx</i>		Date/Time: <i>11/7/22/1730</i>		Company: <i>FedEx</i>
Relinquished by:		Date/Time:		Company:		Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>11/8/22 1020</i>		Company: <i>EEIA</i>
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks		<i>6259.1-470.9</i>				

Eurofins Chicago

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

Chain of Custody Record



Environmental Testing

Client Information		Sampler: <u>Maelyn Sperie</u>		Lab PM: Mockler Diana J		Carrier Tracking No(s):		COC No. 500-106647-44027 1	
Client Contact: Mitchel Dolan		Phone: <u>262-278-1621</u>		E-Mail: Diana Mockler@et eurofinsus.com		State of Origin: <u>IL</u>		Page: Page 1 of 1	
Company: KPRG and Associates Inc				PWSID:		Analysis Requested			
Address: 14665 West Lisbon Road Suite 1A		Due Date Requested: <u>Standard</u>		Field Filtered Sample (Yes or No)		Perform. MS/MSD (Yes or No)		500-225046 COC	
City: Brookfield		TAT Requested (days): <u>Standard</u>							
State Zip: WI 53005		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 262-781-0475(Tel)		PO #: 4502102435		Total Number of containers		903.0, 904.0		16010C, 6020A, 7470A	
Email: mitcheld@kprginc.com		WO #:							
Project Name: Waukegan CCR Event Desc. Quarterly Waukegan CCR		Project #: 50011597		2540C, 4500_F_C, SM4500_CI_E, SM4500_S04_E		Total Number of containers		500-225046 COC	
Site: Illinois		SSOW#:							
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)		Perform. MS/MSD (Yes or No)	
						903.0, 904.0		16010C, 6020A, 7470A	
						2540C, 4500_F_C, SM4500_CI_E, SM4500_S04_E		Total Number of containers	
						Total Number of containers		Special Instructions/Note	
MW-04					Water	X X			
MW-02					Water	X X			
MW-03					Water	X X			
MW-05					Water	X X			
MW-06					Water	X X			
7 MW-11		11/8/22	1358	G	Water	N N X X X			
8 MW-14		11/8/22	1253	G	Water	N N X X X			
MW-07					Water	X X			
9 Duplicate		11/8/22	-	G	Water	N N X X X			
					Water	X X			
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:				
Relinquished by: <u>Maelyn Sperie</u>			Date/Time: <u>11/8/22/1600</u>	Company: <u>KPRG</u>	Received by: <u>FedEx</u>		Date/Time: <u>11/8/22/1600</u>	Company: <u>FedEx</u>	
Relinquished by:			Date/Time:	Company:	Received by: <u>Stephanie Homomony</u>		Date/Time: <u>11/9/22 1030</u>	Company: <u>EELA</u>	
Relinquished by:			Date/Time:	Company:	Received by:		Date/Time:	Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks: <u>12-7/12</u>				



ORIGIN ID: FEPA (262) 278-1621
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

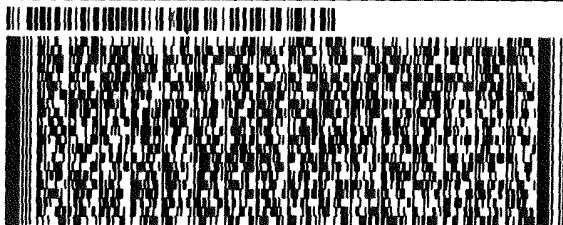
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CAD: 6894085/SSFE2341
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-433-444000-188-07/23

TO **ATTN: SAMPLE RECEIVING
EUROFINS CHICAGO
2417 BOND ST**

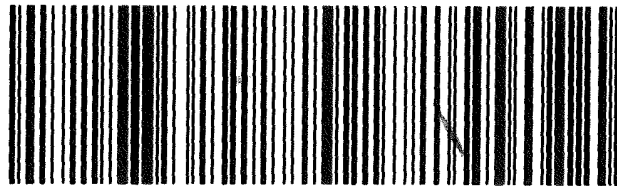
UNIVERSITY PARK IL 60484

(999) 999-9999 REF: INVT: PO: DEPT:



2 of 4
MPS# 3903 4021 9756
0263
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TUE - 08 NOV 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD



ORIGIN ID: FEPA (262) 278-1621
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 07NOV22
ACTWGT: 46.55 LB
CAD: 6894085/SSFE2341
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BILL THIRD PARTY

Part # 156297-433-444000-188-07/23

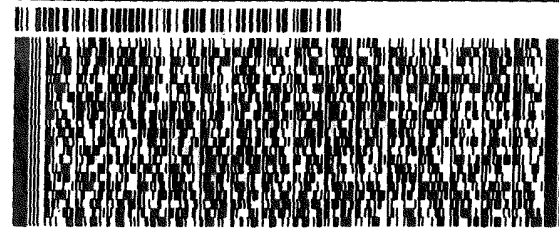
TO **ATTN: SAMPLE RECEIVING
EUROFINS CHICAGO
2417 BOND ST**



UNIVERSITY PARK IL 60484

500 225046 Waybl

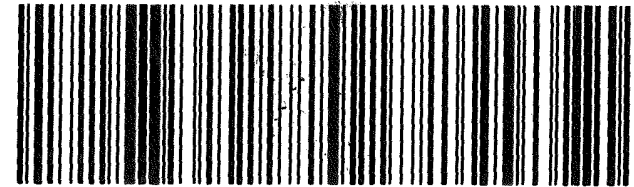
(999) 999-9999 REF: INVT: PO: DEPT:



4 of 4
MPS# 3903 4021 9778
0263
Mstr# 3903 4021 9745

TUE - 08 NOV 10:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD

79 JOTA



ORIGIN ID: FEPA (262) 278-1621
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 08NOV22
ACTWGT: 48.80 LB
CAD: 6994085/SSFE2341
DIMS: 24x13x14 IN
BILL THIRD PARTY

Part # 156297-453
EXP 07/23

TO **EUROFINS CHICAGO**

2417 BOND ST

UNIVERSITY PARK IL 60484

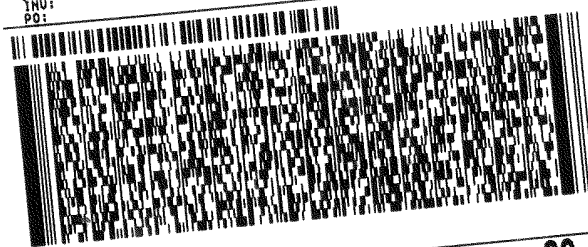


500-225046 Waybr

(999) 999-9999
INU:
PO:

REF:

DEPT:



4 of 4

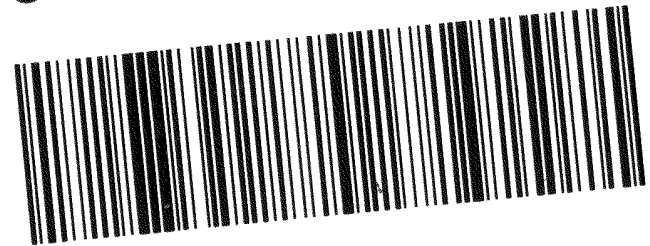
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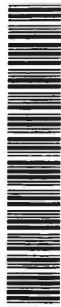
WED - 09 NOV 10:30A
PRIORITY OVERNIGHT

79 JOTA

0201

AHS
60484
IL-US ORD





Client Information (Sub Contract Lab) Client Contact: Mockler, Diana J Shipping/Receiving: Diana.Mockler@et.eurofins.com Company: Accreditations Required (See note): NELAP - Illinois		Lab PM: Mockler, Diana J E-Mail: Diana.Mockler@et.eurofins.com State of Origin: Illinois Carrier Tracking No(s): 500-167138-1 Page: Page 1 of 1 Job #: 500-225046-2									
Due Date Requested: 12/12/2022 TAT Requested (days):		Analysis Requested Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other:									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Swastion, S1-Tissue, A=Air)	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	Raz26Ra228 GPC	Total Number of Containers	Special Instructions/Note:
MW-01 (500-225046-1)	11/7/22	10:26 Central	Water	Water		X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-02 (500-225046-2)	11/7/22	11:24 Central	Water	Water		X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-03 (500-225046-3)	11/7/22	12:20 Central	Water	Water		X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-04 (500-225046-4)	11/7/22	13:54 Central	Water	Water		X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-09 (500-225046-5)	11/7/22	15:58 Central	Water	Water		X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-16 (500-225046-6)	11/7/22	15:00 Central	Water	Water		X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/mainx being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification

Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____
 Primary Deliverable Rank: 2
 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: *Shirley Leath* Date/Time: 11/8/22 1445
 Relinquished by: FEDEX Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks: _____



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J		Carrier Tracking No(s): 500-167211.1	
Client Contact: Diana Mockler@et.eurofins.com		E-Mail: Diana.Mockler@et.eurofins.com		Page: Page 1 of 1	
Shipping/Receiving Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-225046-1	
Address: 13715 Rider Trail North, Earth City, MO, 63045		Due Date Requested: 12/1/2022		Preservation Codes: M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):		Analysis Requested	
PO #: WO #:		Perform MS/MSD (Yes or No)		Total Number of Containers	
Project #: 50011597		Field Filtered Sample (Yes or No)		Special Instructions/Note:	
SSOW#: NRG Midwest Generation Waukegan		Matrix (Water, Swab, On-water, RT-Tissue, A-MAP)		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
Sample Identification - Client ID (Lab ID)		Sample Type (C=Comp, G=grab)		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-11 (500-225046-7)		Sample Time: 13:58 Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-14 (500-225046-8)		Sample Time: 12:53 Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
MW-01 (500-225046-9)		Sample Time: 11:58 Central		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
Sample Date: 11/8/22		Preservation Code:		Other:	
11/8/22		Water		903.0/PreSep_21 Standard Target List	
11/8/22		Water		904.0/PreSep_0 Standard Target List	
11/8/22		Water		Ra226Ra228_GFPc	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2
 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: <i>John Smith</i>	11/9/22 1550	FED EX
Relinquished by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Company: FEASTIC
Received by: <i>Autumn R. Johnson</i>		Date/Time: NOV 10 2022 0850
Received by: <i>Autumn R. Johnson</i>		Date/Time:
Cooler Temperature(s) °C and Other Remarks:		



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-225046-2

Login Number: 225046

List Number: 1

Creator: Hernandez, Stephanie

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	5.9,0.9,1.2
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: 500-225046-2

Login Number: 225046

List Number: 3

Creator: Booker, Autumn R

List Source: Eurofins St. Louis

List Creation: 11/09/22 04:53 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	



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-225046-2

Login Number: 225046

List Number: 4

Creator: Booker, Autumn R

List Source: Eurofins St. Louis

List Creation: 11/10/22 07:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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").	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: 500-225046-2

Client Sample ID: MW-01

Date Collected: 11/07/22 10:26

Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589668	DJP	EET SL	11/11/22 07:19
Total/NA	Analysis	903.0		1	592376	FLC	EET SL	12/05/22 09:09
Total/NA	Prep	PrecSep_0			589669	DJP	EET SL	11/11/22 08:13
Total/NA	Analysis	904.0		1	592071	FLC	EET SL	12/02/22 14:03
Total/NA	Analysis	Ra226_Ra228		1	593490	SCB	EET SL	12/13/22 16:59

Client Sample ID: MW-02

Date Collected: 11/07/22 11:24

Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589668	DJP	EET SL	11/11/22 07:19
Total/NA	Analysis	903.0		1	592376	FLC	EET SL	12/05/22 09:09
Total/NA	Prep	PrecSep_0			589669	DJP	EET SL	11/11/22 08:13
Total/NA	Analysis	904.0		1	592071	FLC	EET SL	12/02/22 14:03
Total/NA	Analysis	Ra226_Ra228		1	593490	SCB	EET SL	12/13/22 16:59

Client Sample ID: MW-03

Date Collected: 11/07/22 12:20

Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589668	DJP	EET SL	11/11/22 07:19
Total/NA	Analysis	903.0		1	592376	FLC	EET SL	12/05/22 09:10
Total/NA	Prep	PrecSep_0			589669	DJP	EET SL	11/11/22 08:13
Total/NA	Analysis	904.0		1	592071	FLC	EET SL	12/02/22 14:03
Total/NA	Analysis	Ra226_Ra228		1	593490	SCB	EET SL	12/13/22 16:59

Client Sample ID: MW-04

Date Collected: 11/07/22 13:54

Date Received: 11/08/22 10:20

Lab Sample ID: 500-225046-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589668	DJP	EET SL	11/11/22 07:19
Total/NA	Analysis	903.0		1	592376	FLC	EET SL	12/05/22 09:10
Total/NA	Prep	PrecSep_0			589669	DJP	EET SL	11/11/22 08:13
Total/NA	Analysis	904.0		1	592071	FLC	EET SL	12/02/22 14:04
Total/NA	Analysis	Ra226_Ra228		1	593490	SCB	EET SL	12/13/22 16:59

Lab Chronicle

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

Job ID: 500-225046-2

Client Sample ID: MW-09

Lab Sample ID: 500-225046-5

Date Collected: 11/07/22 15:58

Matrix: Water

Date Received: 11/08/22 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589668	DJP	EET SL	11/11/22 07:19
Total/NA	Analysis	903.0		1	592376	FLC	EET SL	12/05/22 09:10
Total/NA	Prep	PrecSep_0			589669	DJP	EET SL	11/11/22 08:13
Total/NA	Analysis	904.0		1	592071	FLC	EET SL	12/02/22 14:04
Total/NA	Analysis	Ra226_Ra228		1	593490	SCB	EET SL	12/13/22 16:59

Client Sample ID: MW-16

Lab Sample ID: 500-225046-6

Date Collected: 11/07/22 15:00

Matrix: Water

Date Received: 11/08/22 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589668	DJP	EET SL	11/11/22 07:19
Total/NA	Analysis	903.0		1	592376	FLC	EET SL	12/05/22 09:11
Total/NA	Prep	PrecSep_0			589669	DJP	EET SL	11/11/22 08:13
Total/NA	Analysis	904.0		1	592071	FLC	EET SL	12/02/22 14:04
Total/NA	Analysis	Ra226_Ra228		1	593490	SCB	EET SL	12/13/22 16:59

Client Sample ID: MW-11

Lab Sample ID: 500-225046-7

Date Collected: 11/08/22 13:58

Matrix: Water

Date Received: 11/09/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589928	DJP	EET SL	11/14/22 10:35
Total/NA	Analysis	903.0		1	592515	FLC	EET SL	12/06/22 09:26
Total/NA	Prep	PrecSep_0			589930	DJP	EET SL	11/14/22 11:06
Total/NA	Analysis	904.0		1	592075	FLC	EET SL	12/02/22 11:09
Total/NA	Analysis	Ra226_Ra228		1	592744	EMH	EET SL	12/08/22 00:18

Client Sample ID: MW-14

Lab Sample ID: 500-225046-8

Date Collected: 11/08/22 12:53

Matrix: Water

Date Received: 11/09/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			589928	DJP	EET SL	11/14/22 10:35
Total/NA	Analysis	903.0		1	592515	FLC	EET SL	12/06/22 09:27
Total/NA	Prep	PrecSep_0			589930	DJP	EET SL	11/14/22 11:06
Total/NA	Analysis	904.0		1	592075	FLC	EET SL	12/02/22 11:09
Total/NA	Analysis	Ra226_Ra228		1	592744	EMH	EET SL	12/08/22 00:18

Lab Chronicle

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

Job ID: 500-225046-2

Client Sample ID: Duplicate

Lab Sample ID: 500-225046-9

Date Collected: 11/08/22 00:00

Matrix: Water

Date Received: 11/09/22 10:30

<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			589928	DJP	EET SL	11/14/22 10:35
Total/NA	Analysis	903.0		1	592515	FLC	EET SL	12/06/22 09:27
Total/NA	Prep	PrecSep_0			589930	DJP	EET SL	11/14/22 11:06
Total/NA	Analysis	904.0		1	592075	FLC	EET SL	12/02/22 11:09
Total/NA	Analysis	Ra226_Ra228		1	592744	EMH	EET SL	12/08/22 00:18

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: 500-225046-2

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
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Tracer/Carrier Summary

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

Job ID: 500-225046-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	
500-225046-1	MW-01	92.3	
500-225046-2	MW-02	82.1	
500-225046-3	MW-03	90.6	
500-225046-4	MW-04	92.3	
500-225046-5	MW-09	76.6	
500-225046-6	MW-16	94.7	
500-225046-7	MW-11	80.9	
500-225046-8	MW-14	78.0	
500-225046-9	Duplicate	83.8	
LCS 160-589668/2-A	Lab Control Sample	88.9	
LCS 160-589928/2-A	Lab Control Sample	87.0	
MB 160-589668/1-A	Method Blank	91.5	
MB 160-589928/1-A	Method Blank	85.0	
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 (40-110)	Y (40-110)
500-225046-1	MW-01	92.3	91.6
500-225046-2	MW-02	82.1	87.5
500-225046-3	MW-03	90.6	91.6
500-225046-4	MW-04	92.3	92.7
500-225046-5	MW-09	76.6	91.6
500-225046-6	MW-16	94.7	90.1
500-225046-7	MW-11	80.9	83.7
500-225046-8	MW-14	78.0	81.9
500-225046-9	Duplicate	83.8	84.9
LCS 160-589669/2-A	Lab Control Sample	88.9	84.9
LCS 160-589930/2-A	Lab Control Sample	87.0	86.4
MB 160-589669/1-A	Method Blank	91.5	87.1
MB 160-589930/1-B	Method Blank	85.0	84.1
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

PROJECT NAME	NRG - WAUKEGAN STATION		DATE	11/7/22
Sample Name	MW-01	Start Time	1014	
Condition of Well	good			
Water Level	22.17	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	clear	
Volume Removed	6 gts	WL at Sample Time	22.19	
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	clear	
Sample Analysis	CCR & permit	Sample Time	1026	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1016	22.17	7.59	13.8	.575	5.02	170.5	37.19
1019	-	7.97	13.9	.572	2.18	163.0	2.10
1022	-	8.19	13.9	.568	2.26	154.8	1.85
1025	-	8.37	13.9	.567	1.95	139.4	26.29
1028	22.19	8.45	13.9	.566	2.67	120.2	41.21

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION		DATE	11/7/22
Sample Name	MW-02	Start Time	1112	
Condition of Well	good			
Water Level	22.22	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	clear	
Volume Removed	4.5 gts	WL at Sample Time	22.99	
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	clear	
Sample Analysis	CCR & permit	Sample Time	1124	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1114	22.22	7.27	13.8	.852	7.29	136.0	26.81
1117	-	7.35	13.6	.917	2.47	127.4	26.59
1120	-	7.38	13.6	.893	1.62	116.5	24.62
1123	22.99	7.40	13.6	.873	1.26	102.0	23.82

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION		DATE	11/7/22
Sample Name	MW-03	Start Time	1209	
Condition of Well	good			
Water Level	22.22	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	clear	
Volume Removed	3.5 gts	WL at Sample Time	22.31	
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	clear	
Sample Analysis	CCR & permit	Sample Time	1220	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1210	22.22	7.15	14.0	.640	5.25	127.5	2.63
1213	-	7.31	13.9	.640	1.90	120.3	2.64
1216	-	7.35	14.0	.639	1.31	115.2	2.66
1219	22.31	7.35	14.0	.645	1.08	110.7	2.27

SAMPLING NOTES:

permit duplicate:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG – WAUKEGAN STATION		DATE	11/7/22
Sample Name	MW-04	Start Time	1342	
Condition of Well	good			
Water Level	22.13	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	clear	
Volume Removed	4.5 gts	WL at Sample Time	22.15	
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	clear	
Sample Analysis	CCR & permit	Sample Time	1354	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1344	22.13	7.13	13.2	.513	5.55	131.6	62.55
1347	-	7.47	13.2	.4592	2.00	125.7	46.69
1350	-	7.49	13.2	.4595	1.44	123.5	43.44
1353	22.15	7.47	13.1	.4646	1.10	120.6	41.15

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION		DATE	11/7/22
Sample Name	MW-09	Start Time	1544	
Condition of Well	good			
Water Level	10.71	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	Sl. cloudy	
Volume Removed	2 gts	WL at Sample Time	10.75	
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	clear w/ slight brown tint	
Sample Analysis	CCR & permit	Sample Time	1558	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1548	10.71	7.07	13.5	1.324	4.69	115.2	61.41
1551	-	6.98	13.4	1.352	1.99	9.0	123.58
1554	-	6.97	13.4	1.360	1.44	-39.8	31.85
1557	10.75	6.98	13.4	1.366	0.99	-70.1	195.02

SAMPLING NOTES:

sampled permit at 11/8/22

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION		DATE	11/8/22
Sample Name	MW-11 (ELUC)	Start Time	1345	
Condition of Well	good			
Water Level	6.38	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	clear	
Volume Removed	2 qts	WL at Sample Time	6.38	
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	clear	
Sample Analysis	CCR & permit	Sample Time	1358	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1348	6.38	7.07	14.4	1.174	7.85	123.6	36.57
1351	-	6.86	14.3	1.224	6.86	108.4	185.77
1354	-	6.86	14.4	1.237	6.86	59.6	407.69
1357	6.38	6.87	14.4	1.241	6.87	9.1	7771.57

SAMPLING NOTES:

CCR duplicate

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION		DATE	11/8/22
Sample Name	MW-14 (ELUC)	Start Time	1241	
Condition of Well	good			
Water Level	5.85	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	cloudy, orange	
Volume Removed	2 gts	WL at Sample Time		
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	sl. cloudy, orange	
Sample Analysis	permit & CCR	Sample Time	1253	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1243	5.85	7.28	13.1	.974	9.50	101.6	21.59
1246	-	7.12	12.8	.814	4.55	105.2	675.66
1249	-	7.03	12.7	.825	2.51	103.9	656.54
1252		6.99	12.6	.850	1.79	101.7	311.78

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION		DATE	11/7/22
Sample Name	MW-16	Start Time	1449	
Condition of Well	good			
Water Level	28.09	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow Bladder Pump	Purge Characteristics	clear	
Volume Removed	2.5 gts	WL at Sample Time	28.11	
Method of Sample	Low-Flow Bladder Pump	Sample Characteristics	clear w/ orange tint	
Sample Analysis	CCR	Sample Time	1500	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1450	28.09	6.93	14.4	.877	8.09	137.2	22.55
1453	-	6.98	13.5	.844	3.77	134.0	43.28
1456	-	7.15	13.2	.844	1.81	131.2	57.57
1459	28.11	7.20	13.2	.845	1.27	128.1	42.55

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS