DATA SUMMARY POSTING

Station: Midwest Generation Joliet #29 Generating Station

Regulated Unit(s): Pond 2 (IEPA ID No. W1970450047-02)

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 1st 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 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, Joliet Station #29, Joliet, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228	Selenium	Thallium
MW-10 up-gradient	10/28/2015	0.47	100	200	0.41	7.04	84	790	< 0.003	< 0.001	0.041	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0060	0.2981	< 0.0025	< 0.002
	2/10/2016	0.41	100	210	0.44	7.17	120	820	< 0.003	0.001	0.043	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0067	< 0.438	< 0.0025	< 0.002
	5/12/2016	0.29	100	300	0.42	7.02	110	920	< 0.003	< 0.001	0.046	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0051	< 0.414	< 0.0025	< 0.002
	8/31/2016	0.36	89	170	0.46	6.95	100	760	< 0.003	< 0.001	0.039	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.010	< 0.0002	0.0077	< 0.394	< 0.0025	< 0.002
	11/2/2016	0.48	100	130	0.45	6.99	95	720	< 0.003	0.0018	0.035	< 0.001	< 0.0005	< 0.005	< 0.001	0.0014	0.011	< 0.0002	0.0061	0.626	< 0.0025	< 0.002
	2/6/2017	0.44	120	190	0.36	6.99	88	820	< 0.003	0.0011	0.048	< 0.001	< 0.0005	< 0.005	< 0.001	0.00086	0.014	< 0.0002	0.0056	< 0.389	< 0.0025	< 0.002
	4/26/2017	0.35	120	200	0.35	7.27	87	760	< 0.003	0.0015	0.046	< 0.001	< 0.0005	< 0.005	< 0.001	0.0012	< 0.01	< 0.0002	0.006	< 0.34	< 0.0025	< 0.002
	6/14/2017	0.29	91	160	0.43	7.48	75	690	< 0.003	< 0.001	0.034	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0072	< 0.356	< 0.0025	< 0.002
	8/2/2017	0.45	97	170	0.38	7.23	110	750	< 0.003	0.0011	0.036	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0079	0.429	< 0.0025	< 0.002
	10/18/2017	0.61	120	140	0.41	7.11	130	820	< 0.003	0.0012	0.04	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.00059	0.013	< 0.0002	0.0066	< 0.422	< 0.0025	^ < 0.002
	4/24/2018	0.4	110	260	0.39	7.28	120	910	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.63	120	180	0.42	7.30	110	810	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/24/2018 R	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/2019	0.56	130	410	0.39	7.17	95	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	NA	NA	230	NA	NA	NA	830	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/2019	0.35	90	130	0.36	7.40	59	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.85	120	250	0.41	6.90	100	960	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/11/2020 R	0.26	NA	NA	NA	NA	NA	770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.34	110	230	0.41	7.11	93	850	< 0.003	0.001	0.043	< ^ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0057	NA	< 0.0025	< 0.002
	5/18/2021	0.33	140	350	0.39	7.16	210	1,200	< 0.003	0.0014	0.06	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.015	< 0.0002	0.0055	< 0.4800	< 0.0025	< 0.002
	6/29/2021 R	NA	160	420	NA	7.32	190	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190	NA	NA	NA
	8/30/2021	0.28	120	330	0.37	7.56	170	990	< ^+ 0.003	0.0012	0.051	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0065	0.51	< 0.0025	< 0.002
	11/16/2021	0.39	120	260	0.38	7.01	150	1,000	< 0.003	0.0012	0.049	< ^1+ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0066	0.692	< 0.0025	< 0.002
	3/3/2022	0.47	120	280	0.41	7.05	190	1,000	< 0.003	0.0014	0.055	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0066	< 0.4	< 0.0025	< 0.002
MW-03 down-gradient	10/28/2015	0.34	110	230	0.41	7.11	110	960	< 0.003	0.0015	0.100	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	< 0.0050	0.41	< 0.0025	< 0.002
	2/10/2016	0.49	100	220	0.44	7.31	130	790	< 0.003	0.0017	0.100	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0060	< 1.68	0.0045	< 0.002
	5/10/2016	0.48	95	240	0.44	7.07	130	800	< 0.003	0.0011	0.095	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0062	< 0.326	0.0030	< 0.002
	8/31/2016	0.49	100	250	0.45	7.18	120	920	< 0.003	0.0013	0.095	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0086	< 0.373	0.0051	< 0.002
	11/2/2016	0.34	87	190	0.44	7.45	94	780	< 0.003	0.0019	0.082	< 0.001	< 0.0005	0.0051	< 0.001	< 0.0005	< 0.010	< 0.0002	0.0059	0.965	0.0032	< 0.002
	2/6/2017	0.40	97	140	0.39	7.35	77	720	< 0.003	0.0019	0.093	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0066	< 0.356	0.0028	< 0.002
	4/26/2017	0.54	100	210	0.36	7.03	120	820	< 0.003	0.0017	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.010	< 0.0002	0.0088	< 0.411	0.0052	< 0.002
	6/14/2017	0.45	88	190	0.44	7.43	75	760	< 0.003	0.0014	0.09	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0072	< 0.358	0.0037	< 0.002
	8/2/2017	0.41	99	200	0.40	7.34	110	850	< 0.003	0.0022	0.10	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0065	0.414	0.005	< 0.002
	10/18/2017	0.35	93	160	0.42	7.11	100	850	< 0.003	0.0015	0.088	< ^ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0055	< 0.417	0.0026	^ < 0.002
	4/24/2018	0.52	100	220	0.42	7.2	150	930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/31/2018 R	NA	NA	NA	NA	NA	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.25	100	250	0.4	7.04	110	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/2019	0.43	120	280	0.4	7.27	140	880	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	NA	NA	NA	NA	NA	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/2019	0.34	100	150	0.4	7.32	65	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.38	100	230	0.42	7.56	78	960	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/11/2020 R	NA	NA	NA	NA	NA	NA	930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.32	110	180	0.43	7.23	90	770	< 0.003	0.0014	0.1	<^ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.01	< 0.0002	< 0.005	NA	< 0.0025	< 0.002
	5/18/2021	0.28	130	290	0.4	7.13	190	1,200	< 0.003	0.0016	0.14	< 0.001	< 0.0005	< 0.005	0.0011	< 0.0005	0.014	< 0.0002	< 0.0050	1.1000	< 0.0025	< 0.002
	6/29/2021 R	NA	NA	NA	NA	7.34	210	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/30/2021	0.23	120	290	0.36	7.33	140	800	< ^+ 0.003	0.0018	0.12	< 0.001	< 0.0005	< 0.005	0.0014	< 0.0005	0.012	< 0.0002	< 0.005	0.641	< 0.0025	< 0.002
	11/16/2021	0.3	130	280	0.37	7.11	150	1,000	< 0.003	0.0018	0.14	< ^1+ 0.001	< 0.0005	< 0.005	0.0018	< 0.0005	0.011	< 0.0002	< 0.005	1.15	< 0.0025	< 0.002
	3/3/2022	0.3	130	270	0.4	7.05	180	1,300	< 0.003	0.0019	0.140	< 0.001	< 0.0005	< 0.005	0.001	< 0.0005	0.012	< 0.0002	< 0.0050	< 0.672	< 0.0025	< 0.002
MW-04 down-gradient	10/28/2015	0.34	94	F1 200	0.45	7.07	83	740	< 0.003	0.0013	0.082	^ < 0.001	< 0.0005	< 0.005	0.0063	< 0.0005	0.013	< 0.0002	0.0065	0.741	< 0.0025	< 0.002
	2/10/2016	0.32	97	210	0.47	7.22	140	810	< 0.003	0.0018	0.088	< 0.001	< 0.0005	< 0.005	0.0074	0.00062	0.011	< 0.0002	0.0063	< 1.52	< 0.0025	< 0.002
	5/10/2016	0.47	100	260	0.46	6.71	150	900	< 0.003	0.0014	0.088	< 0.001	< 0.0005	< 0.005	0.0086	< 0.0005	0.012	< 0.0002	0.0088	< 0.365	< 0.0025	< 0.002
	8/31/2016	0.42	100	210	0.45	7.07	120	890	< 0.003	0.0014	0.086	^ < 0.001	< 0.0005	< 0.005	0.0035	< 0.0005	0.011	< 0.0002	0.0083	0.432	< 0.0025	< 0.002
	11/2/2016	0.32	98	160	0.43	7.25	83	750	< 0.003	0.0025	0.079	< 0.001	< 0.0005	< 0.005	0.0100	0.0012	0.012	< 0.0002	0.007	< 0.463	< 0.0025	< 0.002
	2/6/2017	0.40	110	200	0.37	7.19	98	790	< 0.003	0.0015	0.100	< 0.001	< 0.0005	< 0.005	0.0160	< 0.0005	0.013	< 0.0002	0.0071	< 0.356	< 0.0025	< 0.002
	4/26/2017	0.33	100	220	0.37	7.46	89	770	< 0.003	0.0021	0.095	< 0.001	< 0.0005	< 0.005	0.0078	0.00055	0.012	< 0.0002	0.0069	< 0.35	< 0.0025	< 0.002
	6/14/2017	0.37	92	190	0.47	7.45	80	770	< 0.003	0.0013	0.078	< 0.001	< 0.0005	< 0.005	0.0120	< 0.0005	0.013	< 0.0002	0.0085	< 0.309	< 0.0025	< 0.002
	8/2/2017	0.35	93	180	0.43	7.41	100	770	< 0.003	0.0013	0.077	< 0.001	< 0.0005	0.04	0.0031	< 0.0005	0.012	< 0.0002	0.0091	< 0.282	0.0029	< 0.002
	10/18/2017	0.54	97	140	0.45	7.2	120	790	< 0.003	0.0019	0.082	^ < 0.001	< 0.0005	< 0.005	0.0046	0.00077	0.015	< 0.0002	0.0071	0.423	0.003	^ < 0.002
	4/24/2018	0.4	110	240	0.43	7.21	160	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/31/2018 R	NA	NA	NA	NA	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.29	100	230	0.45	7.2	130	840	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/2019	0.76	120	340	0.42	7.27	120	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	0.23	NA	250	NA	NA	NA	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2019	0.3	77	140	0.41	7.33	53	670	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.79	110	250	0.45	7.3	110	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/11/2020 R	0.28	NA	NA	NA	NA	NA	850	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.33	100	190	0.48	7.15	83	770	< 0.003	0.0015	0.089	< ^ 0.001	< 0.0005	< 0.005	0.0082	< 0.0005	0.013	< 0.0002	0.0061	NA	< 0.0025	< 0.002
	5/18/2021	0.22	120	280	0.42	7.3	190	1,100	< 0.003	0.0019	0.12	< 0.001	< 0.0005	< 0.005	0.0037	< 0.0005	0.014	< 0.0002	< 0.005	< 0.4450	< 0.0025	< 0.002
	6/29/2021 R	NA	NA	NA	NA	7.36	190	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/30/2021	0.33	120	330	0.4	7.46	170	1,000	<^+ 0.003	0.0016	0.12	< 0.001	< 0.0005	< 0.005	0.0034	< 0.0005	0.013	< 0.0002	0.0057	0.877	0.003	< 0.002
	11/16/2021	0.3	130	290	0.42	7.11	140	1,000	< 0.003	0.0021	0.12	< ^1+ 0.001	< 0.0005	< 0.005	0.004	< 0.0005	0.011	< 0.0002	0.0059	0.892	< 0.0025	< 0.002
	3/3/2022	0.31	120	220	0.42	7.11	170	1,300	< 0.003	0.0018	0.12	< 0.001	< 0.0005	< 0.005	0.0029	< 0.0005	0.012	< 0.0002	0.0056	< 0.437	< 0.0025	< 0.002
MW-05 down-gradient	10/28/2015	0.64	100	160	0.39	7.12	120	790	< 0.003	0.0011	0.057	^ < 0.001	< 0.0005	< 0.005	0.0013	< 0.0005	0.018	< 0.0002	0.0088	0.6231	0.0031	< 0.002
	2/10/2016	0.46	110	220	0.39	7.25	120	790	< 0.003	0.0028	0.071	< 0.001	< 0.0005	0.0062	0.0013	0.0022	< 0.02	< 0.0002	F1 0.0053	1.09	< 0.0025	< 0.002
	5/10/2016	0.8	150	220	0.46	6.88	290	950	< 0.003	0.0023	0.075	< 0.001	< 0.0005	< 0.005	< 0.001	0.0022	0.014	< 0.0002	0.008	< 0.40	0.019	< 0.002
	8/31/2016	1.0	140	99	0.56	6.81	260	820	< 0.003	< 0.001	0.07	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.012	< 0.42	0.02	< 0.002
	11/2/2016	0.41	98	130	0.37	7.26	100	700	< 0.003	0.0022	0.056	< 0.001	< 0.0005	0.0051	< 0.001	0.0017	0.015	< 0.0002	0.0061	0.438	< 0.0025	< 0.002
	2/6/2017	0.48	150	180	0.30	7.22	120	790	< 0.003	0.0016	0.082	< 0.001	< 0.0005	< 0.005	< 0.001	0.0016	0.021	< 0.0002	< 0.005	0.564	0.0029	< 0.002
	4/26/2017	0.67	110	F1 190	0.37	7.28	170	770	< 0.003	0.0014	0.063	< 0.001	< 0.0005	< 0.005	< 0.001	0.0008	< 0.01	< 0.0002	0.0066	< 0.411	0.013	< 0.002
	6/14/2017	0.44	75	150	0.46	7.47	110	670	< 0.003	0.0012	0.044	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0076	< 0.316	0.0029	< 0.002
	8/2/2017	0.28	83	170	0.35	7.30	99	770	< 0.003	< 0.001	0.054	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.014	< 0.0002	0.0053	0.659	< 0.0025	< 0.002
	10/18/2017	0.42	110	110	0.38	7.16	95	720	< 0.003	0.002	0.067	< ^ 0.001	< 0.0005	< 0.005	< 0.001	0.0023	0.018	< 0.0002	< 0.005	< 0.371	0.0029	^ < 0.002
	4/24/2018	0.31	110	300	0.34	7.33	130	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/31/2018 R	NA	NA	NA	NA	NA	NA	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.31	110	210	0.36	7.29	93	810	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/6/2019	0.38	130	500	0.31	7.11	84	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	NA	NA	150	NA	NA	NA	890	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/2019	0.31	180	130	0.3	7.44	64	590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/4/2019 R	NA	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.32	100	270	0.37	7.03	67	890	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.52	92	180	0.38	7.16	85	720	< 0.003	0.0012	0.069	<^ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0054	NA	0.003	< 0.002
	5/18/2021	0.37	130	410	0.3	7.00	160	1,300	< 0.003	0.0015	0.1	< 0.001	< 0.0005	< 0.005	< 0.0010	< 0.0005	0.023	< 0.0002	< 0.005	< 0.5970	< 0.0025	< 0.002
	6/29/2021 R	NA	NA	430	NA	7.33	150	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/27/2021	0.36	100	300	0.3	6.94	140	960	< ^+ 0.003	0.0014	0.069	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.015	< 0.0002	< 0.005	0.528	0.0027	< 0.002
	11/16/2021	0.44	120	260	0.3	7.08	140	970	< 0.003	0.0016	0.079	< ^1+ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.014	< 0.0002	0.0069	0.738	< 0.0025	< 0.002
	3/3/2022	0.43	110	230	0.3	7.04	140	900	< 0.003	0.0015	0.074	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.017	< 0.0002	< 0.005	0.514	< 0.0025	< 0.002

Notes: All units are in mg/l except pH is in standard units and radium is in pCi/L.
DNYA - Data not yet available.
F1 - MS and/or MSD Recovery outside of limits.
NA - Not analyzed. No confirmation resample required.
^+ - Continuing calibration verification is outside acceptance limits, high biased.

Table 2.Turbidity Measurement Data, Midwest Generation, LLC, Joliet #29 Generating Station

Well ID	Date	Turbidity (NTU)
MW-03	3/2/2021	0.45
	4/10/2021	22.9
	4/25/2021	2.40
	5/18/2021	2.53
	6/11/2021	2.34
	6/29/2021	2.86
	7/19/2021	37.40
	8/9/2021	2.71
	8/30/2021	5.70
	9/27/2021	10.27
	11/16/2021	0.80
	3/3/2022	0.0
MW-04	3/2/2021	81.89
	4/10/2021	5.96
	4/25/2021	3.02
	5/18/2021	2.52
	6/11/2021	2.8
	6/29/201	3.34
	7/19/2021	47.4
	8/9/2021	4.13
	8/30/2021	18.3
	9/27/2021	1.76
	11/16/2021	4.2
	3/3/2022	0.0
MW-05	2/25/2021	1.57
	4/10/2021	8.36
	4/25/2021	2.42
	5/17/2021	5.2
	6/11/2021	14.22
	6/29/2021	5.33
	7/19/2021	26.9
	8/9/2021	3.69
	8/27/2021	8.7
	9/27/2021	14.92
	11/16/2021	8.84
	3/3/2022	3.25
MW-10	3/2/2021	26.07
	4/10/2021	7.31
	4/25/2021	5.21
	5/18/2021	3.73
	6/11/2021	6.65
	6/29/2021	9.49
	7/19/2021	14.5
	8/9/2021	10.08
	8/30/2021	9.3
	9/27/2021	16.3
	11/16/2021	5.59
	3/3/2022	2.86

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-213202-1
Client Project/Site: Joliet #29 CCR

For:
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Attn: DeAndre Cooley

Diana Mockler

Authorized for release by:
3/23/2022 2:55:18 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

Table of Contents

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Job ID: 500-213202-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-213202-1

Comments
No additional comments.

Receipt
The samples were received on 3/4/2022 1:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

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

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

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

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

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-213202-1	MW-03	Water	03/03/22 10:50	03/04/22 13:51
500-213202-2	MW-04	Water	03/03/22 11:58	03/04/22 13:51
500-213202-3	MW-05	Water	03/03/22 14:00	03/04/22 13:51
500-213202-4	MW-10	Water	03/03/22 13:02	03/04/22 13:51
500-213202-5	Duplicate	Water	03/03/22 00:00	03/04/22 13:51

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-03

Date Collected: 03/03/22 10:50
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 18:55	1
Arsenic	**0.0019**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:55	1
Barium	**0.14**		0.0025		mg/L		03/15/22 09:04	03/15/22 18:55	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:55	1
Boron	**0.30**		0.050		mg/L		03/15/22 09:04	03/16/22 12:56	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Calcium	**130**		0.20		mg/L		03/15/22 09:04	03/15/22 18:55	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Cobalt	**0.0014**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:55	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Lithium	**0.012**		0.0020		mg/L		03/15/22 09:04	03/15/22 18:55	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:55	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:55	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		10		mg/L			03/10/22 04:39	1
Chloride	**270**		20		mg/L			03/22/22 11:01	10
Fluoride	**0.40**		0.10		mg/L			03/14/22 11:34	1
Sulfate	**180**		25		mg/L			03/22/22 13:10	5

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-04
Date Collected: 03/03/22 11:58
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 18:58	1
Arsenic	**0.0018**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:58	1
Barium	**0.12**		0.0025		mg/L		03/15/22 09:04	03/15/22 18:58	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:58	1
Boron	**0.31**		0.050		mg/L		03/15/22 09:04	03/16/22 12:59	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Calcium	**120**		0.20		mg/L		03/15/22 09:04	03/15/22 18:58	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Cobalt	**0.0029**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:58	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Lithium	**0.012**		0.0020		mg/L		03/15/22 09:04	03/15/22 18:58	1
Molybdenum	**0.0056**		0.0050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:58	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		10		mg/L			03/10/22 04:45	1
Chloride	**220**		20		mg/L			03/22/22 11:02	10
Fluoride	**0.42**		0.10		mg/L			03/14/22 11:38	1
Sulfate	**170**		25		mg/L			03/22/22 13:10	5

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-05

Date Collected: 03/03/22 14:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 19:02	1
Arsenic	**0.0015**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:02	1
Barium	**0.074**		0.0025		mg/L		03/15/22 09:04	03/15/22 19:02	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:02	1
Boron	**0.43**		0.050		mg/L		03/15/22 09:04	03/16/22 13:02	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Calcium	**110**		0.20		mg/L		03/15/22 09:04	03/15/22 19:02	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Cobalt	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:02	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Lithium	**0.017**		0.0020		mg/L		03/15/22 09:04	03/15/22 19:02	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 19:02	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 19:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**900**		10		mg/L			03/10/22 04:47	1
Chloride	**230**		20		mg/L			03/22/22 11:02	10
Fluoride	**0.30**		0.10		mg/L			03/14/22 11:42	1
Sulfate	**140**		25		mg/L			03/22/22 13:10	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-10

Date Collected: 03/03/22 13:02
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 19:05	1
Arsenic	**0.0014**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:05	1
Barium	**0.055**		0.0025		mg/L		03/15/22 09:04	03/15/22 19:05	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:05	1
Boron	**0.47**		0.050		mg/L		03/15/22 09:04	03/16/22 13:06	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Calcium	**120**		0.20		mg/L		03/15/22 09:04	03/15/22 19:05	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Cobalt	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:05	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Lithium	**0.013**		0.0020		mg/L		03/15/22 09:04	03/15/22 19:05	1
Molybdenum	**0.0066**		0.0050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 19:05	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 19:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			03/10/22 04:50	1
Chloride	**280**		20		mg/L			03/22/22 11:02	10
Fluoride	**0.41**		0.10		mg/L			03/14/22 11:46	1
Sulfate	**190**		25		mg/L			03/22/22 13:11	5

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: Duplicate

Date Collected: 03/03/22 00:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 19:09	1
Arsenic	**0.0020**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:09	1
Barium	**0.14**		0.0025		mg/L		03/15/22 09:04	03/15/22 19:09	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:09	1
Boron	**0.31**		0.050		mg/L		03/15/22 09:04	03/16/22 13:10	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Calcium	**130**		0.20		mg/L		03/15/22 09:04	03/15/22 19:09	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Cobalt	**0.0013**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:09	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Lithium	**0.012**		0.0020		mg/L		03/15/22 09:04	03/15/22 19:09	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 19:09	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 19:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			03/10/22 04:52	1
Chloride	**270**		20		mg/L			03/22/22 11:30	10
Fluoride	**0.39**		0.10		mg/L			03/14/22 12:00	1
Sulfate	**180**		25		mg/L			03/22/22 13:11	5

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Qualifiers

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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

Metals

Prep Batch: 647021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total Recoverable	Water	3005A	
500-213202-2	MW-04	Total Recoverable	Water	3005A	
500-213202-3	MW-05	Total Recoverable	Water	3005A	
500-213202-4	MW-10	Total Recoverable	Water	3005A	
500-213202-5	Duplicate	Total Recoverable	Water	3005A	
MB 500-647021/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-647021/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 647036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	7470A	
500-213202-2	MW-04	Total/NA	Water	7470A	
500-213202-3	MW-05	Total/NA	Water	7470A	
500-213202-4	MW-10	Total/NA	Water	7470A	
500-213202-5	Duplicate	Total/NA	Water	7470A	
MB 500-647036/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-647036/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-213202-4 MS	MW-10	Total/NA	Water	7470A	
500-213202-4 MSD	MW-10	Total/NA	Water	7470A	
500-213202-4 DU	MW-10	Total/NA	Water	7470A	

Analysis Batch: 647251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total Recoverable	Water	6020A	647021
500-213202-2	MW-04	Total Recoverable	Water	6020A	647021
500-213202-3	MW-05	Total Recoverable	Water	6020A	647021
500-213202-4	MW-10	Total Recoverable	Water	6020A	647021
500-213202-5	Duplicate	Total Recoverable	Water	6020A	647021
MB 500-647021/1-A	Method Blank	Total Recoverable	Water	6020A	647021
LCS 500-647021/2-A	Lab Control Sample	Total Recoverable	Water	6020A	647021

Analysis Batch: 647320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	7470A	647036
500-213202-2	MW-04	Total/NA	Water	7470A	647036
500-213202-3	MW-05	Total/NA	Water	7470A	647036
500-213202-4	MW-10	Total/NA	Water	7470A	647036
500-213202-5	Duplicate	Total/NA	Water	7470A	647036
MB 500-647036/12-A	Method Blank	Total/NA	Water	7470A	647036
LCS 500-647036/13-A	Lab Control Sample	Total/NA	Water	7470A	647036
500-213202-4 MS	MW-10	Total/NA	Water	7470A	647036
500-213202-4 MSD	MW-10	Total/NA	Water	7470A	647036
500-213202-4 DU	MW-10	Total/NA	Water	7470A	647036

Analysis Batch: 647348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total Recoverable	Water	6020A	647021
500-213202-2	MW-04	Total Recoverable	Water	6020A	647021
500-213202-3	MW-05	Total Recoverable	Water	6020A	647021
500-213202-4	MW-10	Total Recoverable	Water	6020A	647021
500-213202-5	Duplicate	Total Recoverable	Water	6020A	647021

Metals (Continued)

Analysis Batch: 647348 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-647021/1-A	Method Blank	Total Recoverable	Water	6020A	647021
LCS 500-647021/2-A	Lab Control Sample	Total Recoverable	Water	6020A	647021

General Chemistry

Analysis Batch: 646338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 2540C	
500-213202-2	MW-04	Total/NA	Water	SM 2540C	
500-213202-3	MW-05	Total/NA	Water	SM 2540C	
500-213202-4	MW-10	Total/NA	Water	SM 2540C	
500-213202-5	Duplicate	Total/NA	Water	SM 2540C	
MB 500-646338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-646338/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-213202-1 DU	MW-03	Total/NA	Water	SM 2540C	

Analysis Batch: 646928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 4500 F C	
500-213202-2	MW-04	Total/NA	Water	SM 4500 F C	
500-213202-3	MW-05	Total/NA	Water	SM 4500 F C	
500-213202-4	MW-10	Total/NA	Water	SM 4500 F C	
500-213202-5	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-646928/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-646928/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 648185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-213202-2	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-213202-3	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-213202-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-213202-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-648185/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-648185/58	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-648185/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-648185/59	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-213202-5 MS	Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-213202-5 MSD	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 648186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-213202-2	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-213202-3	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-213202-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-213202-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-648186/42	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-648186/43	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-213202-5 MS	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-213202-5 MSD	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-647021/1-A
Matrix: Water
Analysis Batch: 647251

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 18:13	1
Arsenic	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:13	1
Barium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:13	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:13	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Calcium	<0.20		0.20		mg/L		03/15/22 09:04	03/15/22 18:13	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Cobalt	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:13	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Lithium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:13	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:13	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:13	1

Lab Sample ID: MB 500-647021/1-A
Matrix: Water
Analysis Batch: 647348

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		03/15/22 09:04	03/16/22 12:48	1

Lab Sample ID: LCS 500-647021/2-A
Matrix: Water
Analysis Batch: 647251

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.542		mg/L		108	80 - 120
Arsenic	0.100	0.103		mg/L		103	80 - 120
Barium	0.500	0.531		mg/L		106	80 - 120
Beryllium	0.0500	0.0493		mg/L		99	80 - 120
Cadmium	0.0500	0.0516		mg/L		103	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Chromium	0.200	0.211		mg/L		105	80 - 120
Cobalt	0.500	0.531		mg/L		106	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Lithium	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.996		mg/L		100	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: LCS 500-647021/2-A
Matrix: Water
Analysis Batch: 647348

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-647036/12-A
Matrix: Water
Analysis Batch: 647320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647036

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 09:36	1

Lab Sample ID: LCS 500-647036/13-A
Matrix: Water
Analysis Batch: 647320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00204		mg/L		102	80 - 120

Lab Sample ID: 500-213202-4 MS
Matrix: Water
Analysis Batch: 647320

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 647036

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.00102		mg/L		102	75 - 125

Lab Sample ID: 500-213202-4 MSD
Matrix: Water
Analysis Batch: 647320

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 647036

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000954		mg/L		95	75 - 125	6	20

Lab Sample ID: 500-213202-4 DU
Matrix: Water
Analysis Batch: 647320

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 647036

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

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

Lab Sample ID: MB 500-646338/1
Matrix: Water
Analysis Batch: 646338

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			03/10/22 04:27	1

Lab Sample ID: LCS 500-646338/2
Matrix: Water
Analysis Batch: 646338

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	254		mg/L		102	80 - 120

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

Lab Sample ID: 500-213202-1 DU
Matrix: Water
Analysis Batch: 646338

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1240		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-648185/16
Matrix: Water
Analysis Batch: 648185

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			03/22/22 10:55	1

Lab Sample ID: MB 500-648185/58
Matrix: Water
Analysis Batch: 648185

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			03/22/22 11:30	1

Lab Sample ID: LCS 500-648185/17
Matrix: Water
Analysis Batch: 648185

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.9		mg/L		100	85 - 115

Lab Sample ID: LCS 500-648185/59
Matrix: Water
Analysis Batch: 648185

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	20.4		mg/L		102	85 - 115

Lab Sample ID: 500-213202-5 MS
Matrix: Water
Analysis Batch: 648185

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	270		20.0	277	4	mg/L		43	75 - 125

Lab Sample ID: 500-213202-5 MSD
Matrix: Water
Analysis Batch: 648185

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	270		20.0	280	4	mg/L		55	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-646928/3
Matrix: Water
Analysis Batch: 646928

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			03/14/22 10:33	1

Lab Sample ID: LCS 500-646928/4
Matrix: Water
Analysis Batch: 646928

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			10.0	10.6		mg/L		106	90 - 119		

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-648186/42
Matrix: Water
Analysis Batch: 648186

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			03/22/22 13:09	1

Lab Sample ID: LCS 500-648186/43
Matrix: Water
Analysis Batch: 648186

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	18.1		mg/L		91	88 - 123		

Lab Sample ID: 500-213202-5 MS
Matrix: Water
Analysis Batch: 648186

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	180		20.0	193	4	mg/L		69	75 - 125		

Lab Sample ID: 500-213202-5 MSD
Matrix: Water
Analysis Batch: 648186

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	180		20.0	193	4	mg/L		69	75 - 125	0	20

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

Chain of Custody Record

MKE 282

eurofins Environment Testing Ameri

Client Information	Sampler: M. Ress	Lab PM: Mockler Diana J	Carrier Tracking No(s):	COC No: 500-98806-43325 1
Client Contact: Mitchel Dolan	Phone: 630.203.7240	E-Mail: Diana.Mockler@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: KPRG and Associates Inc.	PWS ID:	Analysis Requested		Job #: 500-213202

Address: 414 Plaza Drive Suite 106
City: Westmont
State, Zip: IL 60559
Phone: 779-279-2321(Tel)
Email: mitchell@kprginc.com
500-213202 COC

Due Date Requested:
TAT Requested (days):
Compliance Project: Δ Yes Δ No
PO #: 4502042860
WO #:
Project #: 50011568
SSOW#:

Project Name: Joliet #29 CCR/ Event Desc Quarterly MWG Joliet #29 CCR
Site: Illinois

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

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)	6010C 6020A, 7470A	2540C 4500_F_C, SM4500_Cl_E, SM4500_SO4_E	903.0, 904.0	Total Number of containers	Special Instructions/Note
			Preservation Codes:				D	N	D		
1 MW-03	3/3/22	10:50	G	Water			X	X	X		
2 MW-04	3/3/22	11:58	G	Water			X	X	X		
3 MW-05	3/3/22	14:00	G	Water			X	X	X		
4 ~~MW 10~~	3/3/22	13:07	G	Water			X	X	X		
5 Duplicate	3/3/22	↓	G	Water			X	X	X		

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

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

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
M. Ress	3/4/22 9:00	KPRG	J. Neal	3/4/22 0900	EA
J. Neal	3/4/22 1125	EA		3/4/22 1125	EAP
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No:
Cooler Temperature(s) °C and Other Remarks: 3.1

Ver 06/08/2021

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-213202-1

Login Number: 213202
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-03
Date Collected: 03/03/22 10:50
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 18:55	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 12:56	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 09:59	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:39	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:01	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:10	LP	TAL CHI

Client Sample ID: MW-04
Date Collected: 03/03/22 11:58
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 18:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 12:59	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:01	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:45	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:02	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:10	LP	TAL CHI

Client Sample ID: MW-05
Date Collected: 03/03/22 14:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 19:02	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 13:02	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:03	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:47	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:02	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:10	LP	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-10

Lab Sample ID: 500-213202-4

Date Collected: 03/03/22 13:02

Matrix: Water

Date Received: 03/04/22 13:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 19:05	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 13:06	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:05	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:02	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:11	LP	TAL CHI

Client Sample ID: Duplicate

Lab Sample ID: 500-213202-5

Date Collected: 03/03/22 00:00

Matrix: Water

Date Received: 03/04/22 13:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 19:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 13:10	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:18	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:52	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:30	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 12:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:11	LP	TAL CHI

Laboratory References:

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-213202-2
Client Project/Site: Joliet #29 CCR

For:
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Attn: DeAndre Cooley

Diana Mockler

Authorized for release by:
4/4/2022 12:34:26 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

Table of Contents

Job ID: 500-213202-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-213202-2

Comments
No additional comments.

Receipt
The samples were received on 3/4/2022 1:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

RAD
Methods 903.0, 9315: Radium 226 batch 554072
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-03 (500-213202-1), MW-04 (500-213202-2), MW-05 (500-213202-3), MW-10 (500-213202-4), Duplicate (500-213202-5), (LCS 160-554072/1-A), (MB 160-554072/18-A) and (500-213202-C-1-A DU)

Methods 904.0, 9320: Radium 228 batch 554704
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-03 (500-213202-1), MW-04 (500-213202-2), MW-05 (500-213202-3), MW-10 (500-213202-4), Duplicate (500-213202-5), (LCS 160-554074/1-A), (MB 160-554074/18-A) and (500-213202-C-1-B DU)

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

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-213202-1	MW-03	Water	03/03/22 10:50	03/04/22 13:51
500-213202-2	MW-04	Water	03/03/22 11:58	03/04/22 13:51
500-213202-3	MW-05	Water	03/03/22 14:00	03/04/22 13:51
500-213202-4	MW-10	Water	03/03/22 13:02	03/04/22 13:51
500-213202-5	Duplicate	Water	03/03/22 00:00	03/04/22 13:51

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Client Sample ID: MW-03

Date Collected: 03/03/22 10:50
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.408	U	0.286	0.288	1.00	0.410	pCi/L	03/08/22 09:40	03/30/22 12:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*61.8*		*40 - 110*	*03/08/22 09:40*	*03/30/22 12:38*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.126	U	0.388	0.388	1.00	0.672	pCi/L	03/08/22 10:07	03/29/22 14:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*61.8*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:10*	*1*
Y Carrier	*80.4*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:10*	*1*

Method: 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	0.534	U	0.482	0.483	5.00	0.672	pCi/L		04/01/22 17:15	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Client Sample ID: MW-04

Date Collected: 03/03/22 11:58
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-2

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0817	U	0.196	0.197	1.00	0.352	pCi/L	03/08/22 09:40	03/30/22 12:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*40 - 110*	*03/08/22 09:40*	*03/30/22 12:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.219	U	0.264	0.265	1.00	0.437	pCi/L	03/08/22 10:07	03/29/22 14:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:10*	*1*
Y Carrier	*82.6*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:10*	*1*

Method: 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	0.301	U	0.329	0.330	5.00	0.437	pCi/L		04/01/22 17:15	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Client Sample ID: MW-05

Date Collected: 03/03/22 14:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.143	U	0.206	0.206	1.00	0.349	pCi/L	03/08/22 09:40	03/30/22 12:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*03/08/22 09:40*	*03/30/22 12:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.371	U	0.263	0.265	1.00	0.408	pCi/L	03/08/22 10:07	03/29/22 14:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:10*	*1*
Y Carrier	*82.6*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:10*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.514**		0.334	0.336	5.00	0.408	pCi/L		04/01/22 17:15	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Client Sample ID: MW-10

Date Collected: 03/03/22 13:02
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0461	U	0.133	0.133	1.00	0.250	pCi/L	03/08/22 09:40	03/30/22 12:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*03/08/22 09:40*	*03/30/22 12:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.109	U	0.233	0.233	1.00	0.400	pCi/L	03/08/22 10:07	03/29/22 14:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:11*	*1*
Y Carrier	*85.2*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:11*	*1*

Method: 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	0.155	U	0.268	0.268	5.00	0.400	pCi/L		04/01/22 17:15	1

Client Sample ID: Duplicate

Date Collected: 03/03/22 00:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.154	U	0.208	0.208	1.00	0.349	pCi/L	03/08/22 09:40	03/30/22 12:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*03/08/22 09:40*	*03/30/22 12:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.294	U	0.241	0.242	1.00	0.382	pCi/L	03/08/22 10:07	03/29/22 14:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:11*	*1*
Y Carrier	*86.0*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:11*	*1*

Method: 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	**0.448**		0.318	0.319	5.00	0.382	pCi/L		04/01/22 17:15	1

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

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.
¤	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: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Rad

Prep Batch: 554072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	PrecSep-21	
500-213202-2	MW-04	Total/NA	Water	PrecSep-21	
500-213202-3	MW-05	Total/NA	Water	PrecSep-21	
500-213202-4	MW-10	Total/NA	Water	PrecSep-21	
500-213202-5	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-554072/18-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-554072/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-213202-1 DU	MW-03	Total/NA	Water	PrecSep-21	

Prep Batch: 554074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	PrecSep_0	
500-213202-2	MW-04	Total/NA	Water	PrecSep_0	
500-213202-3	MW-05	Total/NA	Water	PrecSep_0	
500-213202-4	MW-10	Total/NA	Water	PrecSep_0	
500-213202-5	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-554074/18-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-554074/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-213202-1 DU	MW-03	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-554072/18-A
Matrix: Water
Analysis Batch: 557860

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554072

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2469	U	0.187	0.188	1.00	0.272	pCi/L	03/08/22 09:40	03/30/22 12:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*40 - 110*	*03/08/22 09:40*	*03/30/22 12:39*	*1*

Lab Sample ID: LCS 160-554072/1-A
Matrix: Water
Analysis Batch: 557860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554072

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.18		1.25	1.00	0.293	pCi/L	90	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.6*		*40 - 110*

Lab Sample ID: 500-213202-1 DU
Matrix: Water
Analysis Batch: 557860

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 554072

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.408	U		0.3676	U	0.327	1.00	0.498	pCi/L			0.07	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*50.0*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-554074/18-A
Matrix: Water
Analysis Batch: 557757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554074

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1819	U	0.266	0.267	1.00	0.445	pCi/L	03/08/22 10:07	03/29/22 14:11	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:11*	*1*
Y Carrier	*84.5*		*40 - 110*	*03/08/22 10:07*	*03/29/22 14:11*	*1*

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

Lab Sample ID: LCS 160-554074/1-A
Matrix: Water
Analysis Batch: 557757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554074

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.75	8.723		1.03	1.00	0.367	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.6*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: 500-213202-1 DU
Matrix: Water
Analysis Batch: 557757

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 554074

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.126	U		0.2714	U	0.470	1.00	0.795	pCi/L			0.17	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*50.0*		*40 - 110*
Y Carrier	*82.6*		*40 - 110*

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

Chain of Custody Record

MKE 282

eurofins Environment Testing Ameri

Client Information	Sampler: M. Ress	Lab PM: Mockler Diana J	Carrier Tracking No(s):	COC No: 500-98806-43325 1
Client Contact: Mitchel Dolan	Phone: 630.203.7240	E-Mail: Diana.Mockler@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: KPRG and Associates Inc.	PWS ID:	Analysis Requested		Job #: 500-213202

Address: 414 Plaza Drive Suite 106
City: Westmont
State Zip: IL 60559
Phone: 779-279-2321(Tel)
Email: mitchell@kprginc.com
Project Name: Joliet #29 CCR/ Event Desc Quarterly MWG Joliet #29 CCR
Site: Illinois

500-213202 COC

Due Date Requested:
TAT Requested (days):
Compliance Project: Δ Yes Δ No
PO #: 4502042860
WO #:
Project #: 50011568
SSOW#:

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

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)	6010C 6020A, 7470A	2540C 4500_F_C, SM4500_Cl_E, SM4500_SO4_E	903.0, 904.0	Total Number of containers	Special Instructions/Note
			Preservation Codes:				D	N	D		
1 MW-03	3/3/22	10:50	G	Water			X	X	X		
2 MW-04	3/3/22	11:58	G	Water			X	X	X		
3 MW-05	3/3/22	14:00	G	Water			X	X	X		
4 ~~MW 10~~	3/3/22	13:07	G	Water			X	X	X		
5 Duplicate	3/3/22	"	G	Water			X	X	X		

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

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

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	M. Ress	3/4/22 9:00	KPRG	J. Neal	3/4/22 0900	EA
2	J. Neal	3/4/22 1125	EA		3/4/22 1125	EAP
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No:
Cooler Temperature(s) °C and Other Remarks: 3.1

Ver 06/08/2021

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 (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-157770.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Diana.Mockler@Eurofinset.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-213202-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/24/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #29 CCR	Project #: 50011568			
Site: NRG Midwest Generation LSQ Joliet#29 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	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/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-03 (500-213202-1)	3/3/22	10:50 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-04 (500-213202-2)	3/3/22	11:58 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-05 (500-213202-3)	3/3/22	14:00 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-10 (500-213202-4)	3/3/22	13:02 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
Duplicate (500-213202-5)	3/3/22	Central		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 Environment Testing North Central, LLC 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/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by: [signature]	Date/Time: 3/4/22 1615	Company: EDA	Received by: FED EX	Date/Time:	Company
Relinquished by: FED EX	Date/Time:	Company	Received by: Sierra Worthington	Date/Time: MAR 07 2022 0830	Company ETAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-213202-2

Login Number: 213202
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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: Midwest Generation EME LLC

Job Number: 500-213202-2

Login Number: 213202
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 03/07/22 12:42 PM

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

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Client Sample ID: MW-03
Date Collected: 03/03/22 10:50
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			554072	03/08/22 09:40	LPS	TAL SL
Total/NA	Analysis	903.0		1	557860	03/30/22 12:38	FLC	TAL SL
Total/NA	Prep	PrecSep_0			554074	03/08/22 10:07	LPS	TAL SL
Total/NA	Analysis	904.0		1	557757	03/29/22 14:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	558296	04/01/22 17:15	EMH	TAL SL

Client Sample ID: MW-04
Date Collected: 03/03/22 11:58
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			554072	03/08/22 09:40	LPS	TAL SL
Total/NA	Analysis	903.0		1	557860	03/30/22 12:39	FLC	TAL SL
Total/NA	Prep	PrecSep_0			554074	03/08/22 10:07	LPS	TAL SL
Total/NA	Analysis	904.0		1	557757	03/29/22 14:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	558296	04/01/22 17:15	EMH	TAL SL

Client Sample ID: MW-05
Date Collected: 03/03/22 14:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			554072	03/08/22 09:40	LPS	TAL SL
Total/NA	Analysis	903.0		1	557860	03/30/22 12:39	FLC	TAL SL
Total/NA	Prep	PrecSep_0			554074	03/08/22 10:07	LPS	TAL SL
Total/NA	Analysis	904.0		1	557757	03/29/22 14:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	558296	04/01/22 17:15	EMH	TAL SL

Client Sample ID: MW-10
Date Collected: 03/03/22 13:02
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			554072	03/08/22 09:40	LPS	TAL SL
Total/NA	Analysis	903.0		1	557860	03/30/22 12:39	FLC	TAL SL
Total/NA	Prep	PrecSep_0			554074	03/08/22 10:07	LPS	TAL SL
Total/NA	Analysis	904.0		1	557757	03/29/22 14:11	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	558296	04/01/22 17:15	EMH	TAL SL

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

Client Sample ID: Duplicate

Date Collected: 03/03/22 00:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			554072	03/08/22 09:40	LPS	TAL SL
Total/NA	Analysis	903.0		1	557860	03/30/22 12:39	FLC	TAL SL
Total/NA	Prep	PrecSep_0			554074	03/08/22 10:07	LPS	TAL SL
Total/NA	Analysis	904.0		1	557757	03/29/22 14:11	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	558296	04/01/22 17:15	EMH	TAL SL

Laboratory References:

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

Tracer/Carrier Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-2

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)
500-213202-1	MW-03	61.8
500-213202-1 DU	MW-03	50.0
500-213202-2	MW-04	87.7
500-213202-3	MW-05	91.1
500-213202-4	MW-10	90.4
500-213202-5	Duplicate	95.3
LCS 160-554072/1-A	Lab Control Sample	95.6
MB 160-554072/18-A	Method Blank	91.6

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)
500-213202-1	MW-03	61.8	80.4
500-213202-1 DU	MW-03	50.0	82.6
500-213202-2	MW-04	87.7	82.6
500-213202-3	MW-05	91.1	82.6
500-213202-4	MW-10	90.4	85.2
500-213202-5	Duplicate	95.3	86.0
LCS 160-554074/1-A	Lab Control Sample	95.6	85.2
MB 160-554074/18-A	Method Blank	91.6	84.5

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

PROJECT NAME	**12313.0 – Midwest Generation - Joliet Station #29**		DATE 3/3/22
Well Name	MW-3	Condition of Well	Good
Depth to Water (*i*)	10.34	Total Depth	44.1
Volume in Well		Volume Removed	1.2 gal
Method of Purge	Dedicated Pump	Purge Description	Clear
Method of Sample	Dedicated Pump	Sample Description	clear
Depth to Water (*a*)	32.94	Sample Time	10:50

	Time (CST)	Depth to Water (ft)	Temp (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	ph (SU)	ORP (mV)	Turb
Initial / Before Purge	10:34	32.92	12.0	1853	10.06	7.23	152.20	7.52
	10:39		12.8	1855	5.96	7.05	162.2	2.70
	10:44		12.9	1853	5.90	7.05	163.9	0.0
	10:49	32.94	12.9	1852	5.88	7.05	163.9	0.0
Historic Readings	Date							
Before Purging	May/2013	32.91	13.45	1.55	5.31	7	-20.4	
Before Purging	Mar/2013	33.4	11.2	1.18	7.03	7.66	196.6	

SAMPLING NOTES / COMMENTS / OBSERVATIONS:

CCR Dup taken

Sampler Name: Michael Ross

PROJECT NAME	**12313.0 – Midwest Generation - Joliet Station #29**		DATE 3/3
Well Name	MW-4	Condition of Well	good
Depth to Water (*i*)	33.17	Total Depth	42.9
Volume in Well		Volume Removed	1.2 gal
Method of Purge	Dedicated Pump	Purge Description	clear / colorless
Method of Sample	Dedicated Pump	Sample Description	clear / colorless
Depth to Water (*a*)	33.22	Sample Time	11:58

	Time (CST)	Depth to Water (ft)	Temp (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	ph (SU)	ORP (mV)	Turb
Initial / Before Purge	11:42	33.17	10.6	1822	11.03	7.41	159.9	0.0
	11:47		11.3	1855	5.78	7.13	160.6	0.0
	11:52		11.4	1850	5.92	7.12	160.6	0.0
	11:57	33.22	11.1	1839	6.68	7.11	162.8	0.0
Historic Readings	Date							
Before Purging	12/2012	33.78	12.98	1.24	8.19	7.38	132	
Before Purging	3/2013	33.64	9.9	1.05	7.6	7.44	140.9	

SAMPLING NOTES / COMMENTS / OBSERVATIONS:

Sampler Name: 

PROJECT NAME	**12313.0 – Midwest Generation - Joliet Station #29**		DATE 3/3/2022
Well Name	MW-5	Condition of Well	good
Depth to Water (*i*)	33.93	Total Depth	45.05
Volume in Well		Volume Removed	1.2gal
Method of Purge	Dedicated Pump	Purge Description	Colorless clear
Method of Sample	Dedicated Pump	Sample Description	Colorless clear
Depth to Water (*a*)	33.94	Sample Time	14:00

	Time (CST)	Depth to Water (ft)	Temp (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	ph (SU)	ORP (mV)	Turb
Initial / Before Purge	13:44	33.93	12.1	1714	9.11	7.39	172.8	2.03
	13:49		12.9	1624	3.43	7.05	170.3	7.47
	13:54		12.8	1622	3.41	7.05	169.3	6.04
	13:59	33.94	12.8	1619	3.38	7.04	169.9	3.25
Historic Readings	Date							
Before Purging	12/2012	34.47	13.64	1.25	4.27	7.36	112	
Before Purging	3/2013	34.45	10.9	1.08	4.49	7.34	160.5	

SAMPLING NOTES / COMMENTS / OBSERVATIONS:

CCR
↖
CCK

Sampler Name: 

PROJECT NAME	**12313.0 – Midwest Generation - Joliet Station #29**		DATE 3/3/22
Well Name	MW-10	Condition of Well	good
Depth to Water (*i*)	34.10	Total Depth	43.93
Volume in Well		Volume Removed	1.2 gal
Method of Purge	Dedicated Pump	Purge Description	cloudy / light yellow
Method of Sample	Dedicated Pump	Sample Description	clear / light yellow
Depth to Water (*a*)	34.11	Sample Time	13:02

	Time (CST)	Depth to Water (ft)	Temp (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	ph (SU)	ORP (mV)	Turb
Initial / Before Purge	12:46	34.10	11.4	1757	10.44	7.19	171.3	0.0
	12:51	~~34.10~~ mr	12.5	1834	7.05	7.05	176.0	8.6
	12:56	~~34.11~~ mr	12.7	1831	6.98	7.05	175.2	3.52
	13:01	34.11	~~12.7~~ mr	~~1831~~ mr	~~6.98~~ mr	~~7.05~~ mr	~~175.2~~ mr	~~3.5~~
			12.8	1830	6.96	7.05	175.1	2.86
Historic Readings	Date							
Before Purging	12/2012	34.76	12.6	1.07	8.74	7.38	112	
Before Purging	3/2013	34.62	10.4	1.04	9.16	7.55	129.5	

SAMPLING NOTES / COMMENTS / OBSERVATIONS:

CCR
&
CCA

Sampler Name: