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 3rd 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	NA	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
	5/26/2022	0.39	120	280	0.41	6.9	160	1,000	< 0.003	0.0013	0.046	< ^+ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0064	< 0.593	< 0.0025	< 0.002
	8/31/2022	0.33	110	240	0.41	6.58	160	970	< 0.003	0.0012	0.042	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0057	0.534	< 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	0.14	< 0.001	< 0.0005	< 0.005	0.0014	< 0.0005	0.012	< 0.0002	< 0.005	< 0.672	< 0.0025	< 0.002
	5/26/2022	0.39	120	280	0.41	6.98	160	1,100	< 0.003	0.002	0.13	< ^+ 0.001	< 0.0005	< 0.005	0.0011	< 0.0005	< 0.01	< 0.0002	< 0.005	0.557	0.0042	< 0.002
	8/31/2022	0.23	110	270	0.39	6.25	130	1,200	< 0.003	0.0018	0.11	< 0.001	< 0.0005	< 0.005	0.001	< 0.0005	0.011	< 0.0002	< 0.0050	0.525	< 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
	5/26/2022	0.26	110	290	0.44	6.94	150	1,100	< 0.003	0.0019	0.1	< ^+ 0.001	< 0.0005	< 0.005	0.0036	< 0.0005	< 0.01	< 0.0002	< 0.005	0.624	< 0.0025	< 0.002
	8/31/2022	0.32	120	240	0.45	6.38	150	870	< 0.003	0.0016	0.11	< 0.001	< 0.0005	< 0.005	0.0018	< 0.0005	0.012	< 0.0002	0.0055	0.804	< 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	< 0.0050	< 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
	5/26/2022	0.55	120	320	0.31	6.86	140	1100	< 0.003	0.003	0.082	< ^+ 0.001	< 0.0005	< 0.005	< 0.001	0.0018	0.015	< 0.0002	< 0.005	< 0.656	0.0029	< 0.002
	8/31/2022	0.43	110	240	0.32	6.5	130	1,100	< 0.003	0.0015	0.066	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.016	< 0.0002	< 0.005	< 0.421	< 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	0.00
	5/26/2022	4.26
	8/31/2022	4.10
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	2.80
	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	4.20
	3/3/2022	0.00
	5/26/2022	1.23
	8/31/2022	3.78
MW-05	2/25/2021	1.57
	4/10/2021	8.36
	4/25/2021	2.42
	5/17/2021	5.20
	6/11/2021	14.22
	6/29/2021	5.33
	7/19/2021	26.9
	8/9/2021	3.69
	8/27/2021	8.70
	9/27/2021	14.92
	11/16/2021	8.84
	3/3/2022	3.25
	5/26/2022	1.28
	8/31/2022	8.87
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
	5/26/2022	2.08
	8/31/2022	2.93

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 500-221617-1
Client Project/Site: Joliet #29 CCR

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

Attn: John Niedzwiecki

Authorized for release by:
9/29/2022 3:16:31 PM

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

Table of Contents

Job ID: 500-221617-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-221617-1

Comments
No additional comments.

Receipt
The samples were received on 9/1/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.9º C and 1.3º C.

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

General Chemistry
Method SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-674233 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Method Summary

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

Job ID: 500-221617-1

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

Protocol References:

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

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

Laboratory References:

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

Sample Summary

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

Job ID: 500-221617-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-221617-1	MW-03	Water	08/31/22 10:05	09/01/22 09:30
500-221617-2	MW-04	Water	08/31/22 11:07	09/01/22 09:30
500-221617-3	MW-05	Water	08/31/22 12:18	09/01/22 09:30
500-221617-4	MW-10	Water	08/31/22 13:17	09/01/22 09:30
500-221617-5	Duplicate	Water	08/31/22 00:00	09/01/22 09:30

Client Sample Results

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

Job ID: 500-221617-1

Client Sample ID: MW-03

Date Collected: 08/31/22 10:05
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-1

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		09/02/22 07:45	09/09/22 00:16	1
Arsenic	**0.0018**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:16	1
Barium	**0.11**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:16	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:16	1
Boron	**0.23**		0.050		mg/L		09/02/22 07:45	09/09/22 16:59	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:16	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Cobalt	**0.0011**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:16	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Lithium	**0.011**		0.010		mg/L		09/02/22 07:45	09/13/22 19:08	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:16	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		170		mg/L			09/07/22 18:57	1
Chloride	**270**		20		mg/L			09/12/22 13:16	10
Fluoride	**0.39**		0.10		mg/L			09/10/22 15:20	1
Sulfate	**130**		50		mg/L			09/12/22 15:44	10

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

Job ID: 500-221617-1

Client Sample ID: MW-04

Date Collected: 08/31/22 11:07
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-2

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		09/02/22 07:45	09/09/22 00:19	1
Arsenic	**0.0016**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:19	1
Barium	**0.11**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:19	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:19	1
Boron	**0.32**		0.050		mg/L		09/02/22 07:45	09/09/22 17:02	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Calcium	**120**		0.20		mg/L		09/02/22 07:45	09/09/22 00:19	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Cobalt	**0.0018**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:19	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Lithium	**0.012**		0.010		mg/L		09/02/22 07:45	09/13/22 19:11	1
Molybdenum	**0.0055**		0.0050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:19	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**870**		170		mg/L			09/07/22 18:59	1
Chloride	**240**		20		mg/L			09/12/22 13:17	10
Fluoride	**0.45**		0.10		mg/L			09/10/22 15:22	1
Sulfate	**150**		50		mg/L			09/12/22 15:45	10

Client Sample Results

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

Job ID: 500-221617-1

Client Sample ID: MW-05

Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3

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		09/02/22 07:45	09/09/22 00:23	1
Arsenic	**0.0015**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:23	1
Barium	**0.066**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:23	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:23	1
Boron	**0.43**		0.050		mg/L		09/02/22 07:45	09/09/22 17:05	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:23	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Cobalt	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:23	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Lithium	**0.016**		0.010		mg/L		09/02/22 07:45	09/13/22 19:15	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:23	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		170		mg/L			09/07/22 19:00	1
Chloride	**240**		20		mg/L			09/12/22 13:18	10
Fluoride	**0.32**		0.10		mg/L			09/10/22 15:24	1
Sulfate	**130**		50		mg/L			09/12/22 15:46	10

Client Sample Results

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

Job ID: 500-221617-1

Client Sample ID: MW-10

Date Collected: 08/31/22 13:17
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-4

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		09/02/22 07:45	09/09/22 00:26	1
Arsenic	**0.0012**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:26	1
Barium	**0.042**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:26	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:26	1
Boron	**0.33**		0.050		mg/L		09/02/22 07:45	09/09/22 17:09	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:26	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Cobalt	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:26	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Lithium	<0.010		0.010		mg/L		09/02/22 07:45	09/13/22 19:18	1
Molybdenum	**0.0057**		0.0050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:26	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**970**		170		mg/L			09/07/22 19:02	1
Chloride	**240**		20		mg/L			09/12/22 13:18	10
Fluoride	**0.41**		0.10		mg/L			09/10/22 15:27	1
Sulfate	**160**		50		mg/L			09/12/22 15:46	10

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

Job ID: 500-221617-1

Client Sample ID: Duplicate

Date Collected: 08/31/22 00:00
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-5

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		09/02/22 07:45	09/09/22 00:29	1
Arsenic	**0.0019**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:29	1
Barium	**0.11**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:29	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:29	1
Boron	**0.23**		0.050		mg/L		09/02/22 07:45	09/09/22 17:12	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:29	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Cobalt	**0.0011**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:29	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Lithium	**0.011**		0.010		mg/L		09/02/22 07:45	09/13/22 19:22	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:29	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		170		mg/L			09/07/22 19:03	1
Chloride	**270**		20		mg/L			09/12/22 13:18	10
Fluoride	**0.40**		0.10		mg/L			09/10/22 15:29	1
Sulfate	**130**		50		mg/L			09/12/22 15:46	10

Definitions/Glossary

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

Job ID: 500-221617-1

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: 672889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	3005A	
500-221617-2	MW-04	Total Recoverable	Water	3005A	
500-221617-3	MW-05	Total Recoverable	Water	3005A	
500-221617-4	MW-10	Total Recoverable	Water	3005A	
500-221617-5	Duplicate	Total Recoverable	Water	3005A	
MB 500-672889/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-672889/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 673884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	6020A	672889
500-221617-2	MW-04	Total Recoverable	Water	6020A	672889
500-221617-3	MW-05	Total Recoverable	Water	6020A	672889
500-221617-4	MW-10	Total Recoverable	Water	6020A	672889
500-221617-5	Duplicate	Total Recoverable	Water	6020A	672889
MB 500-672889/1-A	Method Blank	Total Recoverable	Water	6020A	672889
LCS 500-672889/2-A	Lab Control Sample	Total Recoverable	Water	6020A	672889

Analysis Batch: 674091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	6020A	672889
500-221617-2	MW-04	Total Recoverable	Water	6020A	672889
500-221617-3	MW-05	Total Recoverable	Water	6020A	672889
500-221617-4	MW-10	Total Recoverable	Water	6020A	672889
500-221617-5	Duplicate	Total Recoverable	Water	6020A	672889
MB 500-672889/1-A	Method Blank	Total Recoverable	Water	6020A	672889
LCS 500-672889/2-A	Lab Control Sample	Total Recoverable	Water	6020A	672889

Prep Batch: 674142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	7470A	
500-221617-2	MW-04	Total/NA	Water	7470A	
500-221617-3	MW-05	Total/NA	Water	7470A	
500-221617-4	MW-10	Total/NA	Water	7470A	
500-221617-5	Duplicate	Total/NA	Water	7470A	
MB 500-674142/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-674142/15-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 674381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	7470A	674142
500-221617-2	MW-04	Total/NA	Water	7470A	674142
500-221617-3	MW-05	Total/NA	Water	7470A	674142
500-221617-4	MW-10	Total/NA	Water	7470A	674142
500-221617-5	Duplicate	Total/NA	Water	7470A	674142
MB 500-674142/12-A	Method Blank	Total/NA	Water	7470A	674142
LCS 500-674142/15-A	Lab Control Sample	Total/NA	Water	7470A	674142

Analysis Batch: 674538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	6020A	672889

Metals (Continued)

Analysis Batch: 674538 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-2	MW-04	Total Recoverable	Water	6020A	672889
500-221617-3	MW-05	Total Recoverable	Water	6020A	672889
500-221617-4	MW-10	Total Recoverable	Water	6020A	672889
500-221617-5	Duplicate	Total Recoverable	Water	6020A	672889

General Chemistry

Analysis Batch: 673533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 2540C	
500-221617-2	MW-04	Total/NA	Water	SM 2540C	
500-221617-3	MW-05	Total/NA	Water	SM 2540C	
500-221617-4	MW-10	Total/NA	Water	SM 2540C	
500-221617-5	Duplicate	Total/NA	Water	SM 2540C	
MB 500-673533/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-673533/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 674042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 4500 F C	
500-221617-2	MW-04	Total/NA	Water	SM 4500 F C	
500-221617-3	MW-05	Total/NA	Water	SM 4500 F C	
500-221617-4	MW-10	Total/NA	Water	SM 4500 F C	
500-221617-5	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-674042/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-674042/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 674220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-221617-2	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-221617-3	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-221617-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-221617-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-674220/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-674220/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 674233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-221617-2	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-221617-3	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-221617-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-221617-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-674233/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-674233/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-221617-1 MS	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-221617-1 MSD	MW-03	Total/NA	Water	SM 4500 SO4 E	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-672889/1-A
Matrix: Water
Analysis Batch: 673884

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/02/22 07:45	09/08/22 23:21	1
Arsenic	<0.0010		0.0010		mg/L		09/02/22 07:45	09/08/22 23:21	1
Barium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/08/22 23:21	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/08/22 23:21	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Calcium	<0.20		0.20		mg/L		09/02/22 07:45	09/08/22 23:21	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Cobalt	<0.0010		0.0010		mg/L		09/02/22 07:45	09/08/22 23:21	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/08/22 23:21	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/08/22 23:21	1

Lab Sample ID: MB 500-672889/1-A
Matrix: Water
Analysis Batch: 674091

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		09/02/22 07:45	09/09/22 15:39	1
Lithium	<0.010		0.010		mg/L		09/02/22 07:45	09/09/22 15:39	1

Lab Sample ID: LCS 500-672889/2-A
Matrix: Water
Analysis Batch: 673884

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.487		mg/L		97	80 - 120
Arsenic	0.100	0.0969		mg/L		97	80 - 120
Barium	0.500	0.514		mg/L		103	80 - 120
Beryllium	0.0500	0.0525		mg/L		105	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Chromium	0.200	0.207		mg/L		103	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.952		mg/L		95	80 - 120
Selenium	0.100	0.0982		mg/L		98	80 - 120
Thallium	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: LCS 500-672889/2-A
Matrix: Water
Analysis Batch: 674091

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.02		mg/L		102	80 - 120
Lithium	0.100	0.106		mg/L		106	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-674142/12-A
Matrix: Water
Analysis Batch: 674381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 07:49	1

Lab Sample ID: LCS 500-674142/15-A
Matrix: Water
Analysis Batch: 674381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00171		mg/L		86	80 - 120

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

Lab Sample ID: MB 500-673533/1
Matrix: Water
Analysis Batch: 673533

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			09/07/22 18:30	1

Lab Sample ID: LCS 500-673533/2
Matrix: Water
Analysis Batch: 673533

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

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

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-674220/16
Matrix: Water
Analysis Batch: 674220

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			09/12/22 13:15	1

Lab Sample ID: LCS 500-674220/17
Matrix: Water
Analysis Batch: 674220

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	20.0		mg/L		100	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-674042/31
Matrix: Water
Analysis Batch: 674042

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			09/10/22 14:28	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-674042/32
Matrix: Water
Analysis Batch: 674042

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	10.8		mg/L		108	90 - 119		

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-674233/16
Matrix: Water
Analysis Batch: 674233

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			09/12/22 15:43	1

Lab Sample ID: LCS 500-674233/17
Matrix: Water
Analysis Batch: 674233

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	21.3		mg/L		106	88 - 123		

Lab Sample ID: 500-221617-1 MS
Matrix: Water
Analysis Batch: 674233

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate	130		20.0	146	4	mg/L		79	75 - 125		

Lab Sample ID: 500-221617-1 MSD
Matrix: Water
Analysis Batch: 674233

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	130		20.0	146	4	mg/L		78	75 - 125	0	20

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: IAN, S. HOUKSON	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-91207-40679 1
Client Contact: Mitchel Dolan	Phone: 630 290 6850	E-Mail: Diana.Mockler@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: KPRG and Associates Inc	PWSID:	Analysis Requ		Job #: 500-221617
Address: 14665 West Lisbon Road, Suite 1A	Due Date Requested:		500-221617 COC	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, Z other (specify); Other:
City: Brookfield	TAT Requested (days):			
State, Zip: WI, 53005	Compliance Project: Δ Yes Δ No			
Phone: 262-781-0475	PO #: 4502042860			
Email: mitcheld@kprginc.com	WO #:			
Project Name: Quarterly MWG Joliet #29 CCR	Project #: 50011568			
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)	6010C - Lithium 6020A - *13 elemenets 7470A - Mercury	2540C - TDS	4500FC - Fluoride	SM00CLE - Chloride	SM4500SO4 - Sulfate	903- Rad 226	904 - Rad 228	Rad Combined	Total Number of containers	Special Instructions/Note
	Preservation Code:							D	N	N	N	N	D	D	D		
1	MW-03	8-31-22	10:05		W	N	N	X	X	X	X	X	X	X	X	5	Metals List Sb,As,Ba,Be,B,Cd,Ca,Cr,Co,Pb,Mo,SeTl
2	MW-04	8-31-22	11:07		W	N	N	X	X	X	X	X	X	X	X	5	
3	MW-05	8-31-22	12:18		W	N	N	X	X	X	X	X	X	X	X	5	
4	MW-10	8-31-22	13:17		W	N	N	X	X	X	X	X	X	X	X	5	
5	DUPLICATE	8-31-22	—		W	N	N	X	X	X	X	X	X	X	X	5	
	TRIP BLANK	~~8-31-22~~	—	—	—											2	

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
	[signature]	9-1-22 09:30	KPRG	Stephanie Hernandez	9/1/22 0930	EETA
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
	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: 18+13.1+0.9

9/29/2022

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-221617-1

Login Number: 221617
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	1.3,0.9
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: 500-221617-1

Client Sample ID: MW-03
Date Collected: 08/31/22 10:05
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:16
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 16:59
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:08
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:01
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 18:57
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:16
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:20
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:44

Client Sample ID: MW-04
Date Collected: 08/31/22 11:07
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:19
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:02
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:11
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:03
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 18:59
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:17
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:22
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:45

Client Sample ID: MW-05
Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:23
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:05
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:15
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:10

Lab Chronicle

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

Job ID: 500-221617-1

Client Sample ID: MW-05
Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 19:00
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:18
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:24
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:46

Client Sample ID: MW-10
Date Collected: 08/31/22 13:17
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:26
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:09
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:18
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:12
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 19:02
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:18
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:27
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:46

Client Sample ID: Duplicate
Date Collected: 08/31/22 00:00
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:29
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:12
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:22
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:14
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 19:03
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:18
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:29
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:46

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

Laboratory References:
EET 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: 500-221617-2
Client Project/Site: Joliet #29 CCR (RAD)

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

Attn: John Niedzwiecki

Authorized for release by:
9/30/2022 8:27:49 AM

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

Table of Contents

Case Narrative

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

Job ID: 500-221617-2

Job ID: 500-221617-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-221617-2

Comments
No additional comments.

Receipt
The samples were received on 9/1/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.9º C and 1.3º C.

RAD
Methods 903.0, 9315: Radium-226 batch 581076
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 (500-221617-1), MW-04 (500-221617-2), MW-05 (500-221617-3), MW-10 (500-221617-4), Duplicate (500-221617-5), (LCS 160-581076/2-A), (MB 160-581076/1-A), (500-221498-K-14-A) and (500-221498-L-14-D DU)

Methods 904.0, 9320: Radium-228 batch 583206
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 (500-221617-1), MW-04 (500-221617-2), MW-05 (500-221617-3), MW-10 (500-221617-4), Duplicate (500-221617-5), (LCS 160-583206/2-A), (MB 160-583206/1-A), (500-221498-J-14-A) and (500-221498-J-14-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 (RAD)

Job ID: 500-221617-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

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

Job ID: 500-221617-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-221617-1	MW-03	Water	08/31/22 10:05	09/01/22 09:30
500-221617-2	MW-04	Water	08/31/22 11:07	09/01/22 09:30
500-221617-3	MW-05	Water	08/31/22 12:18	09/01/22 09:30
500-221617-4	MW-10	Water	08/31/22 13:17	09/01/22 09:30
500-221617-5	Duplicate	Water	08/31/22 00:00	09/01/22 09:30

Client Sample ID: MW-03

Date Collected: 08/31/22 10:05
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-1

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	**0.185**		0.0876	0.0892	1.00	0.0939	pCi/L	09/07/22 12:48	09/29/22 08:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*09/07/22 12:48*	*09/29/22 08:04*	*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	0.340	U	0.316	0.317	1.00	0.503	pCi/L	09/22/22 15:49	09/29/22 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*1*
Y Carrier	*84.5*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*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	**0.525**		0.328	0.329	5.00	0.503	pCi/L		09/29/22 18:28	1

Client Sample ID: MW-04

Date Collected: 08/31/22 11:07
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-2

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	0.159		0.0963	0.0974	1.00	0.128	pCi/L	09/07/22 12:48	09/29/22 08:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.2*		*40 - 110*	*09/07/22 12:48*	*09/29/22 08:05*	*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	0.645		0.332	0.337	1.00	0.458	pCi/L	09/22/22 15:49	09/29/22 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.6*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*1*
Y Carrier	*84.1*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*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	0.804		0.346	0.351	5.00	0.458	pCi/L		09/29/22 18:28	1

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

Job ID: 500-221617-2

Client Sample ID: MW-05

Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3

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	0.0739	U	0.0682	0.0686	1.00	0.103	pCi/L	09/07/22 12:48	09/29/22 08:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.1*		*40 - 110*	*09/07/22 12:48*	*09/29/22 08:05*	*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	0.286	U	0.267	0.268	1.00	0.421	pCi/L	09/22/22 15:49	09/29/22 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.9*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*1*
Y Carrier	*84.9*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*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	0.360	U	0.276	0.277	5.00	0.421	pCi/L		09/29/22 18:28	1

Client Sample ID: MW-10

Date Collected: 08/31/22 13:17
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-4

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	**0.134**		0.0813	0.0822	1.00	0.106	pCi/L	09/07/22 12:48	09/29/22 08:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*09/07/22 12:48*	*09/29/22 08:08*	*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	0.400	U	0.301	0.304	1.00	0.460	pCi/L	09/22/22 15:49	09/29/22 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*1*
Y Carrier	*85.6*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:10*	*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**		0.312	0.315	5.00	0.460	pCi/L		09/29/22 18:28	1

Client Sample ID: Duplicate

Date Collected: 08/31/22 00:00
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-5

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	0.134		0.0829	0.0837	1.00	0.110	pCi/L	09/07/22 12:48	09/29/22 08:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*09/07/22 12:48*	*09/29/22 08:08*	*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	0.750		0.340	0.347	1.00	0.448	pCi/L	09/22/22 15:49	09/29/22 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:11*	*1*
Y Carrier	*84.9*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:11*	*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	0.884		0.350	0.357	5.00	0.448	pCi/L		09/29/22 18:28	1

Definitions/Glossary

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

Job ID: 500-221617-2

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 (RAD)

Job ID: 500-221617-2

Rad

Prep Batch: 581076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	PrecSep-21	
500-221617-2	MW-04	Total/NA	Water	PrecSep-21	
500-221617-3	MW-05	Total/NA	Water	PrecSep-21	
500-221617-4	MW-10	Total/NA	Water	PrecSep-21	
500-221617-5	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-581076/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-581076/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 583206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	PrecSep_0	
500-221617-2	MW-04	Total/NA	Water	PrecSep_0	
500-221617-3	MW-05	Total/NA	Water	PrecSep_0	
500-221617-4	MW-10	Total/NA	Water	PrecSep_0	
500-221617-5	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-583206/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-583206/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-581076/1-A
Matrix: Water
Analysis Batch: 583994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 581076

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08112	U	0.0644	0.0648	1.00	0.0908	pCi/L	09/07/22 12:48	09/29/22 08:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*09/07/22 12:48*	*09/29/22 08:01*	*1*

Lab Sample ID: LCS 160-581076/2-A
Matrix: Water
Analysis Batch: 583994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 581076

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	9.890		1.04	1.00	0.0923	pCi/L	87	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-583206/1-A
Matrix: Water
Analysis Batch: 584007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 583206

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.8641		0.401	0.409	1.00	0.531	pCi/L	09/22/22 15:49	09/29/22 12:04	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.0*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:04*	*1*
Y Carrier	*83.4*		*40 - 110*	*09/22/22 15:49*	*09/29/22 12:04*	*1*

Lab Sample ID: LCS 160-583206/2-A
Matrix: Water
Analysis Batch: 584007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 583206

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.24	8.492		1.15	1.00	0.472	pCi/L	103	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.8*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: IAN, S. HOUKSON	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-91207-40679 1
Client Contact: Mitchel Dolan	Phone: 630 290 6850	E-Mail: Diana.Mockler@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: KPRG and Associates Inc	PWSID:	Analysis Requ		Job #: 500-221617
Address: 14665 West Lisbon Road, Suite 1A	Due Date Requested:		500-221617 COC	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, Z other (specify); Other:
City: Brookfield	TAT Requested (days):			
State, Zip: WI, 53005	Compliance Project: Δ Yes Δ No			
Phone: 262-781-0475	PO #: 4502042860			
Email: mitcheld@kprginc.com	WO #:			
Project Name: Quarterly MWG Joliet #29 CCR	Project #: 50011568			
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)	6010C - Lithium 6020A - *13 elemenets 7470A - Mercury	2540C - TDS	4500FC - Fluoride	SM00CLE - Chloride	SM4500SO4 - Sulfate	903- Rad 226	904 - Rad 228	Rad Combined	Total Number of containers	Special Instructions/Note
	Preservation Code:							D	N	N	N	N	D	D	D		
1	MW-03	8-31-22	10:05		W	N	N	X	X	X	X	X	X	X	X	5	Metals List Sb,As,Ba,Be,B,Cd,Ca,Cr,Co,Pb,Mo,SeTl
2	MW-04	8-31-22	11:07		W	N	N	X	X	X	X	X	X	X	X	5	
3	MW-05	8-31-22	12:18		W	N	N	X	X	X	X	X	X	X	X	5	
4	MW-10	8-31-22	13:17		W	N	N	X	X	X	X	X	X	X	X	5	
5	DUPLICATE	8-31-22	—		W	N	N	X	X	X	X	X	X	X	X	5	
	TRIP BLANK	~~8-31-22~~	—	—	—											2	

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		9-1-22 09:30	KPRG	Stephanie Hernandez	9/1/22 0930	EETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
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	
		18+13.1+0.9	

9/30/2022

Ver. 01/16/2019

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-164824.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Diana.Mockler@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-221617-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/6/2022			
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 (RAD)	Project #: 50011568			
Site: NRG Midwest Generation LSQ Joliet#29 CCR	SSOW#:			

Analysis Requested

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 (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 (500-221617-1)	8/31/22	10:05 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-04 (500-221617-2)	8/31/22	11:07 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-05 (500-221617-3)	8/31/22	12:18 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-10 (500-221617-4)	8/31/22	13:17 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
Duplicate (500-221617-5)	8/31/22	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 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/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 complicance to Eurofins Chicago.

Possible Hazard Identification: Unconfirmed	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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Phillip Buckley	9/1/22 1600	EEA	FED EX		
2	Relinquished by: FED EX	Date/Time:	Company	Received by: Autumn R. Johnson	Date/Time: SEP 02 2022 0900	Company FEDEX
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:

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-221617-2

Login Number: 221617
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	1.3,0.9
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: 500-221617-2

Login Number: 221617
List Number: 2
Creator: Booker, Autumn R

List Source: Eurofins St. Louis
List Creation: 09/02/22 11:56 AM

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

Lab Chronicle

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

Job ID: 500-221617-2

Client Sample ID: MW-03
Date Collected: 08/31/22 10:05
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			581076	TJ	EET SL	09/07/22 12:48
Total/NA	Analysis	903.0		1	583994	FLC	EET SL	09/29/22 08:04
Total/NA	Prep	PrecSep_0			583206	ASG	EET SL	09/22/22 15:49
Total/NA	Analysis	904.0		1	583994	FLC	EET SL	09/29/22 12:10
Total/NA	Analysis	Ra226_Ra228		1	584089	CLP	EET SL	09/29/22 18:28

Client Sample ID: MW-04
Date Collected: 08/31/22 11:07
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			581076	TJ	EET SL	09/07/22 12:48
Total/NA	Analysis	903.0		1	583994	FLC	EET SL	09/29/22 08:05
Total/NA	Prep	PrecSep_0			583206	ASG	EET SL	09/22/22 15:49
Total/NA	Analysis	904.0		1	583994	FLC	EET SL	09/29/22 12:10
Total/NA	Analysis	Ra226_Ra228		1	584089	CLP	EET SL	09/29/22 18:28

Client Sample ID: MW-05
Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			581076	TJ	EET SL	09/07/22 12:48
Total/NA	Analysis	903.0		1	583994	FLC	EET SL	09/29/22 08:05
Total/NA	Prep	PrecSep_0			583206	ASG	EET SL	09/22/22 15:49
Total/NA	Analysis	904.0		1	583994	FLC	EET SL	09/29/22 12:10
Total/NA	Analysis	Ra226_Ra228		1	584089	CLP	EET SL	09/29/22 18:28

Client Sample ID: MW-10
Date Collected: 08/31/22 13:17
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			581076	TJ	EET SL	09/07/22 12:48
Total/NA	Analysis	903.0		1	584004	FLC	EET SL	09/29/22 08:08
Total/NA	Prep	PrecSep_0			583206	ASG	EET SL	09/22/22 15:49
Total/NA	Analysis	904.0		1	583994	FLC	EET SL	09/29/22 12:10
Total/NA	Analysis	Ra226_Ra228		1	584089	CLP	EET SL	09/29/22 18:28

Lab Chronicle

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

Job ID: 500-221617-2

Client Sample ID: Duplicate

Date Collected: 08/31/22 00:00
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			581076	TJ	EET SL	09/07/22 12:48
Total/NA	Analysis	903.0		1	584004	FLC	EET SL	09/29/22 08:08
Total/NA	Prep	PrecSep_0			583206	ASG	EET SL	09/22/22 15:49
Total/NA	Analysis	904.0		1	583994	FLC	EET SL	09/29/22 12:11
Total/NA	Analysis	Ra226_Ra228		1	584089	CLP	EET SL	09/29/22 18:28

Laboratory References:

EET 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 (RAD)

Job ID: 500-221617-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(40-110)
500-221617-1	MW-03	90.4
500-221617-2	MW-04	82.2
500-221617-3	MW-05	90.1
500-221617-4	MW-10	93.8
500-221617-5	Duplicate	95.3
LCS 160-581076/2-A	Lab Control Sample	95.3
MB 160-581076/1-A	Method Blank	95.6

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(40-110)	(40-110)
500-221617-1	MW-03	97.5	84.5
500-221617-2	MW-04	96.6	84.1
500-221617-3	MW-05	93.9	84.9
500-221617-4	MW-10	95.8	85.6
500-221617-5	Duplicate	96.8	84.9
LCS 160-583206/2-A	Lab Control Sample	94.8	85.6
MB 160-583206/1-A	Method Blank	80.0	83.4

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

PROJECT NAME	NRG – JOLIET #29 STATION (12313.0)		DATE	8-31-22
Sample Name	MW-03	Start Time	09:50	
Condition of Well	GOOD			
Water Level	33.55	Total Depth	—	
Well Diameter	PVC – 2 inch	Volume in Well	—	
Method of Purge	Low-Flow	Purge Characteristics	APPEAR CLEAR	
Volume Removed	4 QTS	W L at Sample Time	33.96	
Method of Sample	Low-Flow	Sample Characteristics	APPEAR CLEAR	
Sample Analysis	CCA + CCR + DUPS	Sample Time	10:05 CT	
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)
09:53	33.55	6.89	16.0	1.892	8.13	106.2	4.45
09:56	33.56	6.37	14.8	1.842	6.44	121.9	4.74
09:59	—	6.28	14.7	1.829	6.16	124.0	4.45
10:02	33.96	6.25	14.5	1.826	6.03	124.4	4.07
10:05	33.96	6.25	14.5	1.824	6.02	124.2	4.10

SAMPLING NOTES:

Sampler Name and Company: KPRG and Associates IAN J. HOWICSON

PROJECT NAME	NRG – JOLIET #29 STATION (12313.0)		DATE	8-31-22
Sample Name	MW-04	Start Time	10:55	
Condition of Well	GOOD			
Water Level	33.80	Total Depth	—	
Well Diameter	PVC – 2 inch	Volume in Well	—	
Method of Purge	Low-Flow	Purge Characteristics	APPEARS CLEAR	
Volume Removed	4.5 QTS	W L at Sample Time	33.81	
Method of Sample	Low-Flow	Sample Characteristics	APPEARS CLEAR	
Sample Analysis	CCA + CCR	Sample Time	11:07 CT	
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)
10:58	33.81	6.61	15.6	1.833	5.13	115.4	3.81
11:01	33.82	6.45	15.5	1.816	5.06	119.5	3.59
11:04	33.81	6.39	15.5	1.808	5.24	119.8	3.92
11:07	33.81	6.38	15.4	1.809	5.30	119.5	3.78

SAMPLING NOTES:

Sampler Name and Company: KPRG and Associates IAN. J. HOWISON

PROJECT NAME	NRG – JOLIET #29 STATION (12313.0)		DATE	8-31-22
Sample Name	MW-05	Start Time	12:00	
Condition of Well	GOOD			
Water Level	34.56	Total Depth	—	
Well Diameter	PVC – 2 inch	Volume in Well	—	
Method of Purge	Low-Flow	Purge Characteristics	APPEARS CLEAR	
Volume Removed	5 QTS	W L at Sample Time	34.58	
Method of Sample	Low-Flow	Sample Characteristics	APPEARS CLEAR	
Sample Analysis	ECA + CCR	Sample Time	12:18 CT	
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)
12:03	34.57	6.72	14.9	1.739	5.83	115.8	8.68
12:06	34.58	6.45	14.6	1.722	5.31	123.6	10.02
12:09	34.57	6.42	14.5	1.717	5.38	124.0	11.13
12:12	34.58	6.44	14.5	1.712	5.38	122.6	9.23
12:15	34.58	6.47	14.6	1.709	5.37	120.2	8.56
12:18	34.58	6.50	14.6	1.708	5.36	119.1	8.87

SAMPLING NOTES:

Sampler Name and Company: KPRG and Associates IAN. S. HOWIESON

PROJECT NAME	NRG – JOLIET #29 STATION (12313.0)		DATE	8-31-22
Sample Name	MW-10	Start Time	13:00	
Condition of Well	GOOD			
Water Level	34.76	Total Depth	—	
Well Diameter	PVC – 2 inch	Volume in Well	—	
Method of Purge	Low-Flow	Purge Characteristics	APPEARS CLEAR	
Volume Removed	6 QTS	W L at Sample Time	34.77	
Method of Sample	Low-Flow	Sample Characteristics	APPEARS CLEAR	
Sample Analysis	CCA + CCR	Sample Time	13:17 CT	
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)
13:03	34.77	6.89	13.8	1.795	7.07	119.7	3.92
13:06	34.77	6.48	13.4	1.719	6.07	131.4	3.68
13:09	34.77	6.48	13.4	1.718	6.01	128.9	3.17.
13:11	—	6.52	13.5	1.722	6.02	125.6	3.04
13:14	34.78	6.57	13.3	1.721	6.00	122.2	3.03
13:17	34.77	6.58	13.3	1.722	5.96	121.5	2.93

SAMPLING NOTES:

Sampler Name and Company: KPRG and Associates JAN J. HOWESON