GCC Energy Hydrologic Monitoring Data

Hay Gulch Ditch Upgradient

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	6	9	11	3	6	9	12	3	5	8	11	2	6	8	11	2	6	8	11	2	5	8
Sample Date		2/22	6/3	9/1	11/15	3/24	6/20	9/13	12/20	3/27	5/18	8/24	11/29	2/26	6/20	8/20	11/25	2/8	6/16	8/18	11/6	2/5	5/20	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Flow Rate	***cfs***	0.06	0.16	NM	0.67	0.16	0.07	0.01	0.07	NM	0.74	0.89	0.64	0.44	0.66	1.85	0.11	0.03	1.40	0.05	0.69	2.21	2.96	0.31
Temperature	***deg C***	5.8	11.3	15.5	7.1	8.6	17.8	15.0	2.7	0.1	17.8	16.0	3.2	5.5	13.6	16.6	5.9	6.5	16.1	25.0	10.0	6.4	11.5	19.1
pH	***SU***	7.83	7.75	8.07	6.94	7.11	7.94	7.15	6.19	7.85	8.01	7.70	7.76	7.68	7.73	8.05	7.68	7.58	7.90	8.08	8.26	8.11	8.43	8.53
Specific Conductance	***µS/cm***	1024	189	280	252	553	832	570	708	1508	442	764	1013	1058	532	306	989	1237	434	1176	563	455	270	369
Oxygen Reduction Potential	***mV***	51.6	86.6	58.3	109.2	3.2	97.8	-108.9	-148.2	13.3	-8.6	-27.5	-76.4	-117.6	-9.7	21.4	-121.4	-91.3	140.1	-44.1	325.1	311.4	302.1	447.7
Dissolved Oxygen	***mg/L***	8.7	8.5	7.1	9.2	8.5	8.5	8.1	10.4	9.0	7.3	6.0	8.0	6.7	6.1	6.7	8.6	7.8	7.5	5.7	9.2	9.1	8.7	7.2
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	588	93	131	120	280	383	273	336	697	293	342	434	458	245	141	460	532	204	533	255	203	112	139
pH (Lab)	***SU***	7.57	7.72	7.44	7.52	7.81	7.87	7.81	7.98	7.56	7.91	7.56	7.85	7.96	7.76	7.96	7.70	7.70	7.88	8.02	8.04	8.22	8.43	8.34
Total Dissolved Solids (Lab)	***mg/L***	685	210	185	140	380	520	355	410	955	380	480	600	615	295	150	600	685	225	790	325	310	185	210
Total Suspended Solids	***mg/L***	55.00	133.00	51.00	13.20	13.40	5.07	45.40	*<2.50*	121.00	38.00	9.79	*< 2.50*	10.00	57.30	4.92	26.70	12.40	29.40	10.40	2.78	34.00	13.80	6.17
Calcium	***mg/L***	113.0	25.8	35.8	34.2	61.7	70.8	55.0	69.9	124.0	63.5	70.2	86.3	90.2	50.0	37.0	90.1	102.0	46.6	94.1	57.0	48.5	28.1	34.1
Magnesium	***mg/L***	74.3	6.9	10.1	8.4	30.5	50.1	33.1	39.2	93.9	32.6	40.5	53.0	56.6	29.1	11.8	57.1	67.5	21.2	72.3	27.3	19.8	10.1	13.2
Sodium	***mg/L***	34.30	2.71	3.97	3.53	13.80	19.30	12.40	15.10	36.80	18.10	20.60	31.60	30.50	16.90	5.13	21.80	25.50	9.71	33.60	11.50	8.83	4.97	5.77
Potassium	***mg/L***	4.74	*<1.00*	3.28	*<1.00*	3.39	3.58	2.18	2.82	6.20	2.79	2.97	6.33	4.89	3.32	1.30	4.39	6.08	1.48	4.64	2.01	1.62	1.22	1.13
Alkalinity, Total	***mg/L***	340	68	98	87	162	330	209	231	365	179	247	300	326	175	111	301	425	133	420	183	146	89	123
Alkalinity, Bicarbonate	***mg/L***	340	68	98	87	162	330	209	231	365	179	247	300	326	175	111	301	425	133	420	183	146	89	117
Alkalinity, Carbonate	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	85.90	3.17	5.23	3.44	32.30	33.60	21.90	29.20	108.00	36.10	41.70	45.80	51.20	21.60	7.84	55.70	65.80	18.30	82.80	24.70	15.60	5.38	9.16
Fluoride	***mg/L***	0.235	0.188	0.227	0.179	0.178	0.260	0.238	0.227	0.266	0.185	0.235	0.189	*< 0.200*	0.223	0.215	0.271	0.303	0.205	0.270	0.227	0.199	0.193	0.224
Sulfate as SO4	***mg/L***	211.0	26.4	42.2	40.0	95.5	121.0	85.1	99.4	314.0	116.0	114.0	152.0	159.0	76.6	38.8	146.0	179.0	59.8	200.0	78.0	60.2	34.6	47.2
Total Organic Carbon (TOC)	***mg/L***	2.69	1.39	2.80	0.83	1.86	5.18	1.74	0.90	3.93	6.04	4.35	6.45	8.35	8.72	1.41	2.59	4.03	1.55	3.26	1.55	1.43	1.89	1.59
Oil & Grease	***mg/L***	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*
Nitrate/Nitrite as N	***mg/L***	0.282	0.049	0.026	*<0.02*	0.118	0.165	*<0.02*	0.066	0.850	0.133	0.298	0.113	0.038	0.085	0.024	0.070	0.082	0.107	0.069	0.035	0.020	*< 0.020*	*< 0.020*
Sodium Adsorption Ratio (SAR)	***no unit***	0.62	0.12	0.15	0.14	0.36	0.43	0.33	0.37	0.61	0.46	0.48	0.66	0.63	0.47	0.19	0.44	0.48	0.30	0.63	0.31	0.27	0.20	0.21
Aluminum	***mg/L***	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.250*	*<0.050*	*< 0.050*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*
Arsenic	***mg/L***	0.0012	*<0.0005*	0.0010	*<0.0005*	0.0005	0.0010	0.0007	0.0009	*<0.0025*	0.0006	0.0008	*< 0.0010*	0.0011	*< 0.0010*	*< 0.0010*	*< 0.0010*	0.0011	*< 0.0010*	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*
Cadmium	***mg/L***	*<0.0001*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	***mg/L***	0.0007	0.0009	0.0012	0.0006	0.0011	0.0011	0.0007	0.0069	0.0102	0.0036	0.0020	*< 0.0040*	0.0031	0.0036	0.0053	0.0084	0.0186	0.0196	0.0095	0.0043	0.0105	0.0046	0.0020
Iron	***mg/L***	0.1030	*<0.0500*	*<0.0500*	*<0.0500*	*<0.0500*	*<0.0500*	*<0.0500*	*<0.0500*	0.2720	*<0.0500*	0.2370	*< 0.1000*	0.5280	0.0810	*<0.0500*	0.4060	1.2100	*<0.0500*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*
Lead	***mg/L***	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	0.0007	0.0015	0.0013	*< 0.0010*	*< 0.0005*	0.0007	*< 0.0005*	*< 0.0005*
Manganese	***mg/L***	0.1490	0.0042	0.0156	0.0074	0.0337	0.0761	0.0241	0.0398	0.4320	0.0989	0.1400	0.3170	0.7540	0.1020	0.0157	0.1720	0.5000	0.0113	0.0432	0.0144	0.0304	0.0101	0.0160
Mercury (total)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																			
Mercury (total low-level)	***ng/L***			*<10.0*	*<10.0*	*<0.200*	*<100*	*<100*	*<100*	*<100*	*<100*	*<100*	*<100*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*<10.0*	*< 10.0*
Molybdenum	***mg/L***	0.0007	0.0009	0.0011	0.0008	0.0009	0.0014	0.0012	0.0012	*<0.0025*	0.0008	0.0013	*< 0.0010*	0.0009	0.0012	0.0010	0.0009	0.0010	0.0009	0.0012	0.0009	0.0009	0.0010	0.0013
Selenium	***mg/L***	0.0018	*<0.0010*	*<0.0010*	*<0.001*	*<0.0010*	0.0012	*<0.001*	0.0011	*<0.0050*	*<0.0010*	*< 0.0010*	*< 0.0020*	0.0013	0.0018	*< 0.0010*	0.0013	0.0016	*< 0.0010*	0.0031	0.0014	*< 0.0010*	*< 0.0010*	*< 0.0010*
Silica (Si02)	***mg/L***	13.40	7.18	9.33	8.95	9.73	13.90	10.60	11.30	12.30	12.00	11.90	14.00	13.20	10.50	9.51	12.00	12.80	9.78	12.40	9.73	8.66	7.80	7.41
Silicon	***mg/L***	6.26	3.36	4.36	4.18	4.55	6.49	4.96	5.30	5.77	5.61	5.59	6.53	6.19	4.90	4.44	5.61	5.99	4.57	5.78	4.55	4.05	3.65	3.47
Uranium	***mg/L***	0.0013	*<0.0005*	*<0.0005*	*<0.0005*	0.0005	0.0008	0.0006	0.0006	*<0.0025*	*<0.0005*	0.0010	*< 0.0010*	0.0005	0.0005	*< 0.0005*	0.0009	0.0011	*< 0.0005*	0.0015	0.0005	*< 0.0005*	*< 0.0005*	*< 0.0005*
Zinc	***mg/L***	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0020*	0.0050	*<0.0100*	0.0047	0.0022	*< 0.0040*	0.0056	0.0095	0.0123	0.0116	0.0243	0.0249	0.0160	0.0139	0.0130	0.0051	0.0038

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N yes or no
gpm gallons per minute
deg C degrees Celsius
SU standard pH units
µS/cm microsiemens per centimeter
mV millivolts
mg/L milligram per liter
pCi/L picocuries per liter
NM not measured (field)
NA not analyzed (lab)
ng/L nanogram per liter

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

Hay Gulch Ditch Downgradient

Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	6	9	11	3	6	9	12	3	5	8	11	2	6	8	11	2	6	8	11	2	5	8
Sample Date		2/22	6/3	9/1	11/15	3/24	6/20	9/13	12/20	3/27	5/18	8/18	11/21	2/26	6/20	8/20	11/25	2/8	6/16	8/18	11/6	2/5	5/20	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Flow Rate	***cfs***	0.00	0.40	NM	0.67	0.06	0.04	0.01	0.07	0.10	1.34	0.20	0.08	0.06	0.57	0.43	0.02	0.02	0.14	0.23	0.13	0.59	0.24	0.19
Temperature	***deg C***	10.4	13.4	10.5	4.0	9.2	17.7	18.0	4.1	4.5	15.5	14.5	7.4	5.9	15.0	14.5	8.4	6.8	12.6	20.0	10.0	4.5	13.7	17.8
pH	***SU***	7.76	8.12	8.26	7.00	7.22	7.53	6.50	6.42	8.43	8.30	7.68	8.29	8.23	8.35	8.14	8.00	8.01	8.12	7.90	7.96	8.25	8.41	8.49
Specific Conductance	***µS/cm***	815	131	184	311	636	150	248	292	891	762	835	976	984	358	378	845	1044	471	177	348	518	169	397
Oxygen Reduction Potential	***mV***	-26.5	85.1	119.5	122.7	-85.2	136.1	39.9	-132.7	66.9	79.6	-148.0	-29.4	-12.0	47.6	79.7	-28.0	21.1	146.3	-37.0	328.3	326.0	364.4	492.5
Dissolved Oxygen	***mg/L***	6.8	7.8	6.7	9.8	NM	7.2	7.0	9.7	10.2	6.8	7.3	9.0	9.8	7.2	6.8	7.7	9.3	7.8	6.3	8.3	9.9	8.0	7.0
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	419	65	91	143	346	66	96	138	433	337	497	467	439	180	184	411	461	227	78	163	255	69	202
pH (Lab)	***SU***	7.83	7.74	7.58	7.39	8.01	7.86	7.68	7.97	7.95	8.09	8.28	8.07	8.04	8.20	8.04	8.00	8.04	8.01	8.15	7.79	8.15	8.06	8.28
Total Dissolved Solids (Lab)	***mg/L***	435	175	90	120	410	30	90	225	555	475	625	575	570	195	225	545	565	250	100	215	365	115	235
Total Suspended Solids	***mg/L***	28.00	8.40	4.80	5.44	18.30	29.20	3.67	8.00	17.80	62.00	16.00	3.38	25.70	31.30	9.15	6.39	11.00	8.25	4.44	5.26	3.71	12.60	3.80
Calcium	***mg/L***	98.2	21.2	29.8	39.3	82.1	21.4	30.2	39.0	101.0	75.8	114.0	110.0	99.9	42.9	47.0	97.9	108.0	55.4	23.4	46.3	64.2	21.5	52.5
Magnesium	***mg/L***	42.2	2.9	3.9	11.0	34.2	3.0	5.0	9.7	43.8	35.8	51.9	47.1	46.0	17.6	16.3	40.4	46.7	21.6	4.7	11.6	23.0	3.7	17.3
Sodium	***mg/L***	15.80	1.14	1.75	4.71	16.40	1.58	2.04	4.08	18.60	18.50	29.60	21.70	21.60	8.83	6.83	19.90	23.00	10.90	3.26	5.67	11.10	2.14	7.42
Potassium	***mg/L***	3.75	*<1.00*	1.02	1.30	2.89	*<1.00*	*<1.00*	1.07	2.94	2.77	6.45	4.82	3.73	1.36	1.53	3.62	3.74	1.89	*< 1.00*	1.33	1.92	*< 1.00*	1.19
Alkalinity, Total	***mg/L***	315	52	72	116	282	46	73	103	303	218	293	325	312	129	139	345	360	155	59	122	180	59	135
Alkalinity, Bicarbonate	***mg/L***	315	52	72	116	282	46	73	103	293	218	265	325	296	129	139	345	360	155	59	122	180	59	135
Alkalinity, Carbonate	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	28.0	*< 10.0*	16.0	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	59.00	1.16	1.21	5.07	15.00	1.23	1.69	6.57	39.60	39.40	50.50	42.70	51.60	12.70	11.90	46.30	53.90	20.40	2.02	9.93	18.50	1.51	8.31
Fluoride	***mg/L***	0.246	0.195	0.216	0.185	0.257	0.191	0.221	0.213	0.274	0.202	0.231	0.201	0.201	0.216	0.223	0.273	0.287	0.201	0.225	0.226	0.222	0.185	0.225
Sulfate as SO4	***mg/L***	90.1	17.3	25.7	46.3	74.7	18.8	26.4	42.2	138.0	127.0	168.0	138.0	142.0	47.6	48.6	125.0	148.0	58.6	21.4	45.5	70.4	20.5	50.5
Total Organic Carbon (TOC)	***mg/L***	2.31	1.18	1.48	1.12	1.42	1.10	1.13	1.01	*<5.00*	6.19	6.17	4.04	3.74	2.01	2.35	2.43	2.13	1.63	1.46	1.55	1.32	1.01	1.41
Oil & Grease	***mg/L***	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*< 5.00*	*< 5.00 ~*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*
Nitrate/Nitrite as N	***mg/L***	0.148	0.021	*<0.020*	*<0.020*	0.041	*<0.02*	*<0.02*	*<0.02*	0.361	0.170	0.078	*< 0.020*	0.072	0.056	0.025	0.099	0.065	0.028	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Sodium Adsorption Ratio (SAR)	***no unit***	0.34	0.06	0.08	0.17	0.38	0.08	0.90	0.15	0.39	0.44	0.58	0.44	0.46	0.29	0.22	0.42	0.47	0.31	0.16	0.19	0.30	0.11	0.22
Aluminum	***mg/L***	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*< 0.100*	*<0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	0.054
Arsenic	***mg/L***	0.0013	*<0.0005*	0.0007	*<0.0005*	*<0.0005*	0.0010	0.0007	0.0005	*<0.001*	0.0009	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	0.0010	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*
Cadmium	***mg/L***	*<0.0001*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.001*	*<0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	***mg/L***	0.0006	0.0011	0.0010	0.0007	0.0009	0.0034	0.0010	0.0045	0.0070	0.0026	0.0029	0.0025	0.0028	0.0022	0.0194	0.0058	0.0051	0.0067	0.0083	0.0078	0.0022	*< 0.0040*	*< 0.0010*
Iron	***mg/L***	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.100*	*<0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*
Lead	***mg/L***	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*< 0.0010*	*<0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	0.0016	*< 0.0005*	0.0006	*< 0.0005*	*< 0.0005*	0.0007	*< 0.0005*	*< 0.0005*	*< 0.0005*
Manganese	***mg/L***	0.1330	0.0011	0.0021	0.0124	0.0082	0.0024	0.0175	0.0315	0.0552	0.0233	0.0156	0.0490	0.0844	0.0055	0.0153	0.0428	0.0220	0.0143	0.0090	0.0110	0.0213	0.0015	0.0019
Mercury (total)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	0																			
Mercury (total low-level)	***ng/L***			*<10.0*	*<10.0*	*<0.2*	*<100*	*<100*	*<100*	*<100*	*<100*	*<100*	*<100*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*<10.0*	*< 10.0*
Molybdenum	***mg/L***	0.0009	0.0009	0.0010	0.0009	0.0010	0.0010	0.0011	0.0009	*<0.001*	0.0009	0.0010	0.0008	0.0009	0.0010	0.0009	0.0008	0.0008	0.0009	0.0010	0.0009	0.0009	0.0012	0.0009
Selenium	***mg/L***	0.0015	*<0.0010*	*<0.0010*	*<0.0010*	0.0010	0.0011	*<0.0010*	*<0.0010*	*< 0.0020*	0.0010	*< 0.0020*	0.0013	0.0014	0.0014	*< 0.0010*	0.0014	0.0012	*< 0.0010*	*< 0.0010*	*< 0.0012*	*< 0.0010*	*< 0.0010*	*< 0.0010*
Silica (Si02)	***mg/L***	12.90	6.68	8.84	9.38	12.00	6.98	7.96	8.75	11.30	11.80	13.40	13.80	11.30	9.03	9.95	12.60	12.10	9.69	4.67	9.20	9.42	7.31	8.88
Silicon	***mg/L***	6.01	3.12	4.13	4.38	5.59	3.26	3.72	4.09	5.26	5.50	6.25	6.47	5.27	4.22	4.65	5.90	5.64	4.53	2.18	4.30	4.40	3.42	4.15
Uranium	***mg/L***	0.0009	*<0.0005*	*<0.0005*	*<0.0005*	0.0008	*<0.0005*	*<0.0005*	*<0.0005*	0.0010	0.0007	0.0010	0.0009	0.0011	*< 0.0005*	*< 0.0005*	0.0011	0.0013	*< 0.0005*	*< 0.0005*	*< 0.0005*	0.0006	*< 0.0005*	*< 0.0005*
Zinc	***mg/L***	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0020*	0.0020	0.0022	*<0.0020*	0.0065	0.0042	*<0.0020*	*< 0.0040*	0.0032	0.0026	0.0031	0.0260	0.0154	0.0328	0.0190	0.0166	0.0231	0.0050	0.0039	*< 0.0020*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

~ re-sample on 12/19/23 following detection of 9.10 mg/L on 11/21/23

Y/N yes or no
gpm gallons per minute
deg C degrees Celsius
SU standard pH units
µS/cm microsiemens per centimeter
mV millivolts
mg/L milligram per liter
pCi/L picocuries per liter
NM not measured (field)
NA not analyzed (lab)
ng/L nanogram per liter

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

Well #2 Downgradient

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	8	12	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/11	5/19	8/12	11/10	2/28	5/9	8/9	12/13	3/28	5/19	8/18	11/21	2/26	6/20	8/20	11/24	2/8	5/27	8/18	11/6	2/5	5/21	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.6	0.3	0.2	0.2	0.4	0.2	0.4	0.2	0.3	0.5	0.3	0.4	0.3	0.5
Total Purged	*gal*	12	9	7	12	6	9	19	0	5	8	5	5	5	4	4	3	3	4	3	3	4	5	5
Depth to Water	*ft bgs*	8.10	8.70	8.32	8.75	9.14	9.70	10.25	9.65	8.55	8.65	8.95	10.07	9.70	10.50	11.75	12.78	12.70	11.20	12.70	13.10	11.91	8.95	9.10
Temperature	*deg C*	9.8	9.4	11.2	12.1	10.1	9.5	11.1	11.2	9.2	8.7	11.3	11.4	9.8	9.2	10.3	11.2	9.9	9.3	11.2	11.7	10.7	9.9	11.3
pH	*SU*	7.50	7.54	7.57	7.53	7.53	7.50	7.45	7.79	7.72	7.52	7.59	7.47	7.57	7.32	7.42	7.40	7.35	7.41	7.45	7.40	7.36	7.45	7.34
Specific Conductance	*µS/cm*	964	939	1038	1073	1050	1019	1063	1201	1193	1253	1184	1202	1139	1093	1109	1119	1184	1143	1174	1201	1184	1239	1251
Oxygen Reduction Potential	*mV*	-4.8	-48.3	-26.0	-33.5	-94.0	-13.3	-207.6	-266.7	15.1	2.1	-18.4	-115.3	-112.5	-67.6	-39.7	-78.7	34.8	53.5	-189.2	251.0	336.6	354.9	538.1
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	624	529	503	521	500	527	551	557	503	641	646	582	500	540	553	555	532	539	570	599	607	494	651
pH (Lab)	*SU*	7.17	7.15	7.32	7.24	7.57	7.53	7.71	7.54	7.40	NA*	7.40	7.45	7.57	7.51	7.61	7.50	7.56	7.47	7.55	7.49	7.66	7.60	7.72
Total Dissolved Solids (Lab)	*mg/L*	660	655	685	655	605	645	680	695	770	775	855	745	660	670	680	690	660	725	740	745	715	820	813
Calcium	*mg/L*	97.9	81.2	76.8	80.1	76.0	79.1	84.6	84.1	76.4	101.0	98.9	88.3	73.4	80.4	84.3	82.6	78.6	78.0	82.7	89.5	89.3	74.0	96.2
Magnesium	*mg/L*	92.2	79.2	75.6	77.9	75.3	80.0	82.5	84.3	75.8	94.7	97.0	87.8	76.8	82.3	83.2	84.7	81.4	83.7	88.2	91.1	93.3	75.2	99.7
Sodium	*mg/L*	26.9	23.4	23.1	23.3	23.3	24.9	26.1	62.7	24.6	30.7	33.8	29.3	27.0	28.6	30.1	30.7	29.1	30.1	31.5	33.7	34.3	29.6	32.8
Potassium	*mg/L*	*<5.00*	1.94	*<5.00*	2.12	2.01	1.99	2.28	2.42	*<2.00*	2.51	2.80	2.26	2.02	2.07	2.30	2.39	2.27	2.51	2.38	2.85	2.79	2.30	2.80
Alkalinity, Total	*mg/L*	385	375	380	540	372	385	288	358	379	395	379	390	372	385	400	420	415	390	340	435	415	384	390
Alkalinity, Bicarbonate	*mg/L*	385	375	380	540	372	385	288	358	379	395	379	390	372	385	400	420	415	390	340	435	415	384	390
Alkalinity, Carbonate	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	46.00	45.90	37.00	44.30	41.10	38.10	41.90	53.10	49.20	54.40	52.00	46.90	43.00	44.10	43.40	41.30	46.10	50.70	52.00	53.30	53.20	57.70	57.50
Fluoride	*mg/L*	0.216	0.236	*<0.500*	0.210	0.251	0.217	0.229	0.268	0.262	0.210	0.220	*< 0.200*	*< 0.200*	0.236	0.234	0.244	0.268	0.222	0.217	0.231	0.219	0.184	0.205
Sulfate as SO4	*mg/L*	190.0	199.0	186.0	176.0	187.0	160.0	190.0	235.0	224.0	258.0	239.0	214.0	195.0	199.0	196.0	185.0	193.0	208.0	213.0	217.0	222.0	248.0	237.0
Total Organic Carbon (TOC)	*mg/L*	2.18	1.74	1.77	1.73	1.73	1.56	1.68	1.04	1.77	3.14	1.88	1.65	1.79	1.71	1.93	1.65	1.59	1.52	1.54	1.58	1.52	1.67	1.85
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	0.029	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	*mg/L*	*<0.250*	*<0.050*	*<0.250*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.100*	*<0.100*	*<0.100*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*
Arsenic	*mg/L*	*<0.0025*	0.0009	0.0012	*<0.0025*	0.0007	0.0005	0.0009	0.0015	*<0.001*	*<0.001*	*< 0.0010*	*< 0.0010*	0.0011	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0020*	*< 0.0020*	0.0010	*< 0.0010*	*< 0.0010*	*< 0.0010*
Cadmium	*mg/L*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.001*	*<0.001*	*<0.001*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	*mg/L*	*<0.0025*	0.0006	0.0005	*<0.0025*	*<0.0005*	0.0006	0.0006	0.0032	0.0050	0.0017	0.0215	0.0023	0.0025	*< 0.0020*	0.0096	0.0044	0.0018	0.0053	0.0067	0.0073	0.0022	*< 0.0040*	0.0011
Iron	*mg/L*	*<0.250*	*<0.050*	*<0.250*	0.076	*<0.050*	0.069	0.054	0.134	*<0.100*	*<0.100*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*
Lead	*mg/L*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*	0.0008	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	0.0008	*< 0.0005*	*< 0.0005*	*< 0.0005*
Manganese	*mg/L*	0.4220	0.4010	0.3890	0.4380	0.4030	0.3840	0.3970	0.4770	0.4310	0.2930	0.4160	0.4640	0.3990	0.4400	0.3730	0.3650	0.3310	0.3990	0.4210	0.3740	0.3790	0.3600	0.3970
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	0.0026	0.0026	0.0028	0.0027	0.0029	0.0029	0.0032	0.0033	0.0030	0.0027	0.0032	0.0032	0.0032	0.0032	0.0029	0.0031	0.0031	0.0031	0.0030	0.0030	0.0031	0.0030	0.0030
Selenium	*mg/L*	0.0069	0.0012	0.0012	*<0.010*	0.0013	*<0.001*	0.0013	*<0.002*	*<0.002*	*<0.002*	*< 0.0020*	*< 0.0020*	0.0013	0.0082	0.0019	0.0011	0.0010	*< 0.0020*	0.0020	0.0061	0.0015	0.0014	0.0017
Silica (Si02)	*mg/L*	11.20	10.90	11.30	12.20	11.10	11.30	12.30	11.70	9.61	11.40	12.50	12.20	10.40	11.00	11.70	11.80	11.20	11.00	11.70	11.20	11.00	11.40	12.00
Silicon	*mg/L*	5.24	5.09	5.30	5.72	5.17	5.29	5.76	5.46	4.49	5.35	5.85	5.70	4.84	5.12	5.47	5.52	5.22	5.12	5.45	5.24	5.14	5.34	5.59
Uranium	*mg/L*	*<0.0025*	0.0015	0.0015	*<0.0025*	0.0017	0.0016	0.0015	0.0017	0.0017	0.0022	0.0020	0.0019	0.0017	0.0018	0.0018	0.0018	0.0018	0.0019	0.0019	0.0018	0.0019	0.0020	0.0023
Zinc	*mg/L*	*<0.0100*	*<0.0020*	*<0.0020*	*<0.0100*	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0040*	*<0.0040*	*<0.0040*	0.0198	*< 0.0040*	*< 0.0020*	*< 0.0040*	0.0113	0.0119	0.0021	0.0133	0.0146	0.0138	*< 0.0020*	*< 0.0020*	*< 0.0020*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

* **sample out of holding time**

Y/N **yes or no**

gpm **gallons per minute**

deg C **degrees Celsius**

SU **standard pH units**

µS/cm **microsiemens per centimeter**

mV **millivolts**

mg/L **milligram per liter**

pCi/L **picocuries per liter**

NM **not measured (field)**

NA **not analyzed (lab)**

ng/L **nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

Well #1 Upgradient																							
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	8	12	3	5	8	11	2	6	8	11	2	5	8	11	2	5	10
Sample Date		2/11	5/19	8/12	11/12	3/1	6/2	8/17	12/16	3/29	5/19	8/21	11/21	2/26	6/20	8/20	11/25	2/8	5/27	8/18	11/6	2/5	5/21	10/5
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	8.0	8.0	8.0	4.0	8.0	5.0	9.0	6.0	7.1	10.2	8.8	6.1	8.1	8.7	4.8	6.5	6.4	7.4	7.8	0.1	8.4	7.7	8.8
Total Purged	*gal*	302	324	300	400	300	300	400	350	270	280	304	264	270	265	263	262	265	266	260	261	265	267	264
Depth to Water	*ft bgs*	6.48	5.82	7.25	6.55	6.47	6.80	6.80	6.30	4.92	4.42	6.15	6.40	5.70	6.10	6.40	6.70	6.00	5.91	7.10	6.90	6.05	5.50	6.25
Temperature	*deg C*	11.6	12.2	12.3	12.0	12.0	12.3	12.0	11.7	11.8	11.7	12.7	12.3	12.3	11.7	12.7	11.8	11.4	12.2	14.2	11.9	18.1	12.4	13.2
pH	*SU*	7.54	7.56	7.59	7.57	7.46	7.54	7.49	6.84	7.67	7.53	7.67	7.52	7.59	7.36	7.46	7.47	7.41	7.42	7.48	7.54	7.51	7.50	7.61
Specific Conductance	*µS/cm*	1142	1235	1212	1301	1235	1301	1235	1282	1313	1375	1201	1287	1312	1238	1265	1225	1361	1275	1237	1286	3	1297	1202
Oxygen Reduction Potential	*mV*	-153.4	-208.9	-202.5	-272.2	-306.3	-231.9	-351.0	-306.7	-162.0	-126.9	-157.9	-238.5	-260.6	-174.9	-212.8	-300.6	-211.5	-203.6	-227.8	-163.3	11.1	-100.8	-98.2
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	298	313	236	286	271	311	281	317	334	561	301	303	330	304	321	301	316	350	288	324	474	338	303
pH (Lab)	*SU*	7.39	7.33	7.47	7.23	7.51	7.67	7.46	7.39	7.43	NA*	7.62	7.44	7.67	7.52	7.57	7.54	7.55	7.42	7.58	7.45	7.63	7.71	7.76
Total Dissolved Solids (Lab)	*mg/L*	755	785	750	745	725	790	735	745	765	835	740	755	745	750	730	730	640	770	730	765	775	815	735
Calcium	*mg/L*	58.1	60.9	45.4	54.8	53.3	60.3	52.1	60.2	64.2	107.0	58.1	58.1	61.3	58.9	61.4	57.6	59.3	64.2	53.6	59.2	89.5	64.1	56.9
Magnesium	*mg/L*	37.2	39.1	29.8	36.1	33.5	39.0	36.6	40.5	42.2	71.2	37.7	38.4	43.0	38.1	40.7	38.3	40.7	46.0	37.4	42.9	60.8	43.2	38.9
Sodium	*mg/L*	204.0	172.0	177.0	182.0	185.0	172.0	179.0	166.0	168.0	106.0	192.0	174.0	158.0	173.0	177.0	182.0	164.0	160.0	175.0	180.0	150.0	145.0	164.0
Potassium	*mg/L*	*<5.00*	3.00	*<5.00*	*<5.00*	2.93	3.09	2.94	*<5.00*	*<5.00*	3.04	*< 5.00*	2.89	2.80	3.00	3.03	2.97	2.99	*< 5.00*	3.01	3.39	3.43	3.01	*< 5.00*
Alkalinity, Total	*mg/L*	570	620	600	770	640	650	570	615	640	590	602	610	590	625	630	635	635	640	590	655	640	625	640
Alkalinity, Bicarbonate	*mg/L*	570	620	600	770	640	590	570	615	640	590	602	610	590	625	630	635	635	640	590	655	600	625	640
Alkalinity, Carbonate	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	60.0	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	40.0	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	4.27	4.91	4.89	4.93	4.46	4.50	4.75	4.78	4.77	6.43	4.76	4.83	5.05	5.38	4.84	4.71	4.87	4.86	4.63	5.01	5.00	4.92	4.70
Fluoride	*mg/L*	0.311	0.338	0.350	0.284	0.349	0.268	0.332	0.334	0.340	0.320	0.304	0.268	0.266	0.352	0.340	0.436	0.389	0.342	0.322	0.338	0.333	0.294	0.305
Sulfate as SO4	*mg/L*	102.0	110.0	98.5	122.0	96.4	114.0	103.0	114.0	122.0	174.0	90.8	102.0	117.0	108.0	112.0	101.0	120.0	130.0	100.0	115.0	158.0	140.0	98.6
Total Organic Carbon (TOC)	*mg/L*	3.26	3.27	3.23	3.23	3.04	3.46	3.45	1.82	3.36	4.62	3.17	2.99	5.09	3.46	3.44	3.46	3.59	3.35	3.16	3.33	3.78	3.59	2.68
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.040*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	*mg/L*	*<0.250*	*<0.050*	*<0.250*	*<0.250*	*<0.050*	*<0.050*	*<0.050*	*<0.250*	*<0.250*	*<0.100*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*
Arsenic	*mg/L*	*<0.0025*	0.0005	*<0.0005*	*<0.0025*	*<0.0005*	0.0006	*<0.0005*	*<0.0025*	*<0.0025*	0.0013	*< 0.0010*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0020*	*< 0.0050*	*< 0.0020*	*< 0.0020*	0.0013	*< 0.0010*	*< 0.0010*	*< 0.0010*
Cadmium	*mg/L*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	*mg/L*	*<0.0025*	0.0039	0.0038	0.0059	0.0053	0.0067	0.0069	0.0067	0.0031	0.0022	0.0016	0.0035	0.0055	0.0067	0.0052	0.0112	0.0056	0.0058	0.0077	0.0062	0.0061	0.0071	0.0051
Iron	*mg/L*	1.660	1.690	1.190	1.430	1.250	1.650	1.320	2.070	1.700	4.630	1.560	1.810	2.030	1.650	2.010	1.690	1.880	0.454	1.790	1.880	2.940	2.170	1.780
Lead	*mg/L*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0100*	*< 0.0050*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Manganese	*mg/L*	0.4140	0.3880	0.3080	0.3870	0.3250	0.4100	0.3490	0.5010	0.4710	0.9220	0.1620	0.4220	0.5170	0.4510	0.4020	0.4180	0.4660	0.5220	0.4390	0.3940	0.5970	0.4700	0.4170
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0005*	0.0005	*<0.0025*	*<0.0025*	0.0013	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	0.0006	0.0009	0.0006	*< 0.0005*
Selenium	*mg/L*	0.0902	0.0324	0.0331	0.0439	0.0021	0.0089	0.0131	*<0.005*	0.0406	*<0.002*	0.0022	0.0113	0.0075	0.0640	0.0055	*< 0.0020*	*< 0.0050*	0.0160	0.0129	0.0321	0.0127	0.0086	0.0190
Silica (Si02)	*mg/L*	13.00	13.90	12.50	13.20	14.20	13.30	13.40	12.90	13.20	14.40	14.00	13.90	12.90	13.30	13.60	13.60	13.10	2.58	13.40	12.50	13.20	12.90	11.70
Silicon	*mg/L*	6.10	6.50	5.84	6.17	6.62	6.21	6.28	6.01	6.17	6.74	6.55	6.51	6.05	6.22	6.34	6.37	6.14	1.20	6.26	5.82	6.15	6.03	5.48
Uranium	*mg/L*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0100*	*< 0.0050*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Zinc	*mg/L*	*<0.0100*	*<0.0020*	*<0.0020*	*<0.0100*	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0100*	*<0.0100*	*<0.0040*	*< 0.0040*	*< 0.0040*	*< 0.0040*	*< 0.0040*	*< 0.0020*	0.0144	*< 0.0100*	0.0086	*< 0.0040*	0.0119	*< 0.0020*	*< 0.0020*	*< 0.0500*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

* **sample out of holding time**

Y/N **yes or no**

gpm **gallons per minute**

deg C **degrees Celsius**

SU **standard pH units**

µS/cm **microsiemens per centimeter**

mV **millivolts**

mg/L **milligram per liter**

pCi/L **picocuries per liter**

NM **not measured (field)**

NA **not analyzed (lab)**

ng/L **nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

Wiltse Well

		2021				2022				2023				2024				2025				2026		
Year		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Quarter		2	5	8	11	3	6	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2	5	10
Month		2/24	5/21	8/11	11/3	3/1	6/1	8/10	11/26	3/28	5/19	8/18	11/29	2/23	6/21	8/20	11/25	2/11	5/30	8/19	11/7	2/9	5/21	10/5
Sample Date		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lab Analysis (Y/N)																								
Field Parameters:																								
Purge Flow Rate	***gpm***	15.0	12.5	8.5	24.0	18.0	25.0	25.0	16.7	34.8	38.5	46.9	14.3	19.2	11.5	11.8	10.8	19.4	23.6	18.1	11.6	14.9	23.7	71.0
Total Purged	***gal***	2920	3000	1800	2800	2900	2950	3000	3000	4000	4000	3100	2612	3753	3100	3199	3861	3678	3467	3044	3354	3489	3917	3875
Depth to Water	***ft bgs***	3.64	3.70	4.55	4.10	4.70	3.70	2.82	1.60	0.30	0.20	3.35	3.10	0.80	3.30	2.65	0.30	0.95	1.70	3.20	2.10	1.62	0.10	0.25
Temperature	***deg C***	8.9	9.9	11.3	10.8	9.5	10.8	12.4	9.7	7.2	9.0	11.3	11.9	7.3	10.5	11.9	8.5	7.7	10.3	11.1	9.8	7.6	10.0	12.1
pH	***SU***	7.25	7.23	7.33	7.23	7.17	7.21	7.14	7.07	7.46	7.26	7.22	7.12	7.20	6.96	6.99	7.07	6.87	7.08	7.30	7.23	6.87	7.12	7.45
Specific Conductance	***µS/cm***	1739	1789	2012	2038	1965	2039	2285	2268	2518	2449	2332	2571	2651	2336	2542	2368	2490	2140	2047	2263	2235	2181	2138
Oxygen Reduction Potential	***mV***	6.9	31.2	41.5	50.5	-26.1	32.4	-76.3	41.4	34.4	39.9	5.5	45.5	-30.9	12.7	10.7	-51.8	41.8	64.1	-142.2	218.7	247.3	271.2	307.8
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	1090	1070	1080	1080	1070	1070	1300	1200	1330	1340	1380	1320	1340	1320	1350	1280	1210	1190	1070	1320	1190	1110	1140
pH (Lab)	***SU***	7.27	6.98	7.25	7.52	7.25	7.15	7.39	7.42	7.17	NA*	7.03	7.45	7.18	7.10	7.15	7.11	7.12	7.07	7.32	7.15	7.54	7.37	7.30
Total Dissolved Solids (Lab)	***mg/L***	1550	1500	1580	1640	1520	1580	1850	1740	2120	1980	1920	2050	2080	1900	2070	1880	1900	1700	1590	1810	1820	1800	1390
Calcium	***mg/L***	208.0	199.0	206.0	209.0	208.0	206.0	255.0	232.0	261.0	269.0	273.0	251.0	255.0	259.0	265.0	252.0	229.0	230.0	212.0	258.0	228.0	220.0	224.0
Magnesium	***mg/L***	138.0	140.0	136.0	136.0	133.0	135.0	160.0	151.0	164.0	162.0	170.0	168.0	170.0	163.0	167.0	157.0	155.0	149.0	130.0	164.0	150.0	137.0	140.0
Sodium	***mg/L***	65.1	61.1	61.6	63.6	61.0	60.1	77.8	71.6	99.0	94.2	82.4	78.9	87.4	66.5	73.9	72.9	63.1	61.4	55.4	70.9	66.0	62.2	60.5
Potassium	***mg/L***	*<5.00*	4.35	*<5.00*	4.41	4.42	4.41	4.92	4.20	5.43	5.12	5.74	5.31	4.52	4.98	5.29	4.85	*< 5.00*	4.84	4.37	*< 5.00*	4.95	4.81	5.26
Alkalinity, Total	***mg/L***	480	480	480	520	505	485	530	468	485	435	460	465	480	495	530	525	457	480	435	535	475	495	510
Alkalinity, Bicarbonate	***mg/L***	480	480	480	520	505	485	530	468	485	435	460	465	480	495	530	525	457	480	435	535	475	495	510
Alkalinity, Carbonate	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	54.80	52.30	49.00	52.40	49.80	45.70	57.50	52.20	79.00	73.00	59.00	62.20	70.50	57.20	59.10	48.60	48.30	44.90	44.10	47.40	43.30	45.90	49.90
Fluoride	***mg/L***	0.276	0.280	*<0.500*	0.280	0.286	0.240	0.288	0.288	*<0.500*	*<0.500*	*< 0.500*	*< 0.500*	*< 0.500*	*< 0.500*	*< 0.500*	0.356	0.338	*< 0.500*	0.276	0.302	0.251	0.258	0.270
Sulfate as SO4	***mg/L***	683.0	661.0	679.0	697.0	688.0	702.0	818.0	873.0	1070.0	1060.0	960.0	1020.0	1140.0	947.0	1040.0	930.0	1050.0	868.0	732.0	861.0	956.0	794.0	898.0
Total Organic Carbon (TOC)	***mg/L***	3.29	3.33	3.48	3.37	3.21	3.19	3.72	1.95	5.38	5.82	6.11	3.96	4.72	3.76	3.87	4.11	3.64	3.77	3.57	3.51	3.27	4.29	3.82
Nitrate/Nitrite as N	***mg/L***	1.820	1.490	2.060	1.870	1.690	1.530	1.160	1.010	0.469	0.619	2.320	2.850	2.090	0.469	1.530	1.100	1.470	1.090	1.320	1.050	0.846	0.227	0.553
Aluminum	***mg/L***	*<0.250*	*<0.050*	*<0.250*	*<0.100*	*<0.050*	*<0.100*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*< 0.250*	*< 0.250*	*< 0.150*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.050*
Arsenic	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0005*	0.0007	*<0.001*	*<0.001*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0020*	*< 0.0010*	*< 0.0020*	*< 0.0050*	*< 0.0020*	*< 0.0010*	*< 0.0020*	*< 0.0010*	*< 0.0020*	*< 0.0010*
Cadmium	***mg/L***	*<0.0005*	*<0.0025*	*<0.0025*	*<0.001*	*<0.0005*	*<0.0005*	*<0.001*	*<0.001*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*
Copper	***mg/L***	0.0028	*<0.0025*	*<0.0025*	0.0033	0.0031	0.0049	0.0038	0.0060	0.0119	0.0043	0.0035	*< 0.0100*	0.0090	0.0052	0.0190	0.0216	*< 0.0050*	*< 0.0040*	0.0028	0.0029	0.0046	0.0037	*< 0.0050*
Iron	***mg/L***	*<0.250*	0.304	*<0.250*	0.154	0.129	0.212	0.161	0.178	0.255	0.252	*< 0.250*	*< 0.250*	*< 0.150*	0.194	0.220	*< 0.250*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.250*	0.137	0.201	0.285
Lead	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.001*	*<0.0025*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	0.0017	0.0013	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*
Manganese	***mg/L***	1.2100	0.9800	1.4000	1.3400	1.2600	1.3500	0.9740	0.9820	0.5070	0.8420	1.6400	1.3300	0.6350	1.2200	1.1400	0.9630	1.0200	0.2780	1.4600	0.9740	0.6300	0.8710	0.9810
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	0.0017	0.0017	0.0018	0.0019	0.0017	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	0.0020	0.0022	0.0021	*< 0.0025*	*< 0.0010*	0.0028	0.0020	0.0016	0.0025	0.0023
Selenium	***mg/L***	*<0.0050*	*<0.0050*	*<0.0050*	*<0.0020*	0.0015	0.0019	0.0020	0.0029	*<0.0050*	*<0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0020*	0.0019	*< 0.0020*	*< 0.0050*	*< 0.0020*	0.0028	0.0027	0.0016	*< 0.0020*	*< 0.0025*
Silica (Si02)	***mg/L***	14.60	14.80	15.40	16.00	15.20	14.50	15.90	14.30	12.70	14.70	15.80	14.70	12.40	14.90	15.20	14.00	12.70	13.10	13.40	13.50	12.50	13.00	13.70
Silicon	***mg/L***	6.82	6.91	7.19	7.50	7.13	6.76	7.43	6.69	5.91	6.85	7.37	6.89	5.80	6.96	7.09	6.56	5.94	6.13	6.27	6.33	5.87	6.07	6.38
Uranium	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	0.0025	0.0022	0.0025	0.0034	0.0035	0.0048	0.0036	0.0026	0.0030	0.0043	0.0031	0.0034	0.0039	0.0028	*< 0.0010*	0.0026	0.0034	0.0032	0.0031	0.0033
Zinc	***mg/L***	0.0130	0.0116	0.0311	0.0276	0.0162	0.0180	0.0157	0.0157	0.0156	0.0152	0.0255	0.0164	0.0143	0.0173	0.0290	0.0391	0.0232	0.0070	0.0165	0.0125	0.0137	0.0127	*< 0.0500*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-HGA-4																							
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	8	12	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/22	5/19	8/12	11/12	2/28	5/9	8/9	12/16	3/28	5/18	8/18	11/29	2/26	6/20	8/20	11/24	2/8	5/30	8/18	11/6	2/5	5/21	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	***gpm***	0.3	0.1	0.3	0.3	0.3	0.3	0.3	0.50	0.08	0.23	0.10	0.05	0.08	0.08	0.06	0.05	0.08	0.01	0.03	0.08	0.04	0.04	0.04
Total Purged	***gal***	21	21	20	22	21	21	22	0.5	0.4	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Depth to Water	***ft bgs***	0.90	2.91	3.95	2.33	0.95	2.02	1.61	0.92	0.47	1.03	4.05	0.85	0.35	3.05	0.65	1.29	0.85	1.62	4.85	1.72	0.56	0.50	2.15
Temperature	***deg C***	7.8	8.2	8.9	9.2	8.3	8.1	9.2	9.1	8.2	10.0	11.5	8.3	8.8	10.0	13.5	8.9	9.0	11.6	12.6	9.7	10.2	11.4	10.5
pH	***SU***	7.29	7.34	7.37	7.31	7.25	7.28	7.19	6.93	7.62	7.45	7.53	7.49	7.49	7.26	7.29	7.32	7.21	7.24	7.49	7.54	7.26	7.32	7.32
Specific Conductance	***µS/cm***	975	1093	1108	1160	1197	1102	1198	970	1003	955	908	993	970	917	909	955	1005	876	930	1001	917	852	1093
Oxygen Reduction Potential	***mV***	-67.9	-116.8	-104.9	-105.8	-185.5	-113.0	-273.0	-198.3	-129.2	-125.2	-165.3	-212.7	-216.3	-155.2	-167.8	-219.3	-156.2	-140.1	-238.5	-88.7	-81.9	-44.0	-25.8
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	630	582	515	627	598	574	653	328	423	448	467	424	410	430	438	446	432	460	416	434	449	412	558
pH (Lab)	***SU***	7.38	6.89	7.05	7.03	7.22	7.26	7.20	7.63	7.08	7.37	7.33	7.41	7.39	7.38	7.34	7.36	7.31	7.29	7.28	7.42	7.39	7.38	7.40
Total Dissolved Solids (Lab)	***mg/L***	685	680	735	790	790	785	745	400	555	545	525	555	570	525	575	535	505	290	555	570	585	580	630
Calcium	***mg/L***	126.0	114.0	98.7	125.0	119.0	110.0	130.0	65.8	78.5	84.9	88.1	79.3	75.3	81.1	81.7	83.6	81.2	84.8	77.4	81.7	82.7	76.1	106.0
Magnesium	***mg/L***	76.8	72.0	65.2	76.6	72.9	72.5	79.9	39.7	55.1	57.2	59.9	54.9	54.0	55.3	56.8	57.7	55.6	60.3	54.2	56.0	58.9	54.0	71.1
Sodium	***mg/L***	28.4	27.4	26.4	23.1	23.9	28.1	27.1	14.9	36.9	39.4	41.5	38.0	37.3	38.1	38.5	40.4	38.6	40.6	39.0	40.5	41.5	36.8	34.8
Potassium	***mg/L***	2.24	2.03	*<5.00*	*<5.00*	1.82	2.02	2.13	3.07	2.16	2.40	2.56	2.21	2.14	2.17	2.22	2.24	2.21	2.45	2.30	2.44	*< 5.00*	2.29	2.91
Alkalinity, Total	***mg/L***	475	465	470	580	470	435	500	245	460	420	361	370	390	410	425	410	415	410	355	415	395	405	415
Alkalinity, Bicarbonate	***mg/L***	475	465	470	580	470	435	500	245	460	420	361	370	390	410	425	410	415	410	355	415	395	405	415
Alkalinity, Carbonate	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	9.65	9.41	11.10	13.90	12.00	10.20	14.60	28.70	3.40	3.41	3.62	3.56	3.63	3.72	3.58	3.45	3.55	3.39	3.33	3.56	3.42	3.54	10.70
Fluoride	***mg/L***	0.424	0.434	*<0.500*	0.420	0.472	0.413	0.450	0.231	0.397	0.357	0.374	0.331	0.342	0.403	0.403	0.408	0.469	0.413	0.384	0.408	0.393	0.347	0.361
Sulfate as SO4	***mg/L***	191.0	184.0	194.0	199.0	216.0	183.0	215.0	99.5	150.0	161.0	158.0	143.0	142.0	146.0	145.0	151.0	155.0	152.0	136.0	146.0	142.0	136.0	170.0
Total Organic Carbon (TOC)	***mg/L***	4.31	4.36	4.55	4.84	5.47	4.21	4.64	0.96	4.32	6.87	4.55	3.84	4.98	4.00	4.52	4.12	4.72	3.88	4.08	4.05	4.16	5.08	4.91
Nitrate/Nitrite as N	***mg/L***	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	0.073	*<0.020*	*<5.00*	*< 0.100*	*< 0.020*	*< 0.020*	0.423	*< 0.020*	*< 0.100*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	***mg/L***	*<0.050*	*<0.050*	*<0.250*	*<0.250*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.100*	*<0.050*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.050*	*< 0.050*
Arsenic	***mg/L***	0.0036	0.0033	0.0034	0.0027	0.0036	0.0031	0.0034	0.0005	0.0041	0.0040	0.0040	0.0039	0.0040	0.0027	0.0039	0.0033	0.0031	0.0032	0.0031	0.0035	0.0031	0.0029	0.0033
Cadmium	***mg/L***	*<0.0001*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	***mg/L***	0.0006	0.0007	0.0009	*<0.0025*	*<0.0005*	0.0010	0.0005	0.0068	*<0.0010*	0.0027	*< 0.0010*	*< 0.0040*	0.0018	*< 0.0020*	0.0013	0.0023	0.0012	0.0027	0.0036	0.0011	0.0027	0.0016	0.0010
Iron	***mg/L***	9.600	9.290	8.520	8.440	8.250	9.410	9.730	*<0.05*	9.760	10.500	9.390	9.530	9.070	9.600	10.400	9.060	9.530	9.380	9.470	9.650	9.540	8.870	11.100
Lead	***mg/L***	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Manganese	***mg/L***	2.5400	2.5100	1.7900	2.8600	3.0300	2.2900	3.0000	0.0622	0.4790	0.4410	0.4220	0.4540	0.4160	0.4370	0.3920	0.3920	0.4120	0.3820	0.4070	0.3970	0.3940	0.4090	0.8400
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	***mg/L***	0.0027	0.0030	0.0033	0.0024	0.0026	0.0030	0.0030	0.0011	0.0054	0.0055	0.0057	0.0055	0.0058	0.0058	0.0054	0.0052	0.0056	0.0050	0.0050	0.0050	0.0052	0.0058	0.0040
Selenium	***mg/L***	*<0.0010*	0.0010	0.0057	0.0017	0.0011	*<0.0010*	0.0010	0.0011	*<0.0020*	*<0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0010*	0.0024	*< 0.0010*	*< 0.0010*	*< 0.0010*	0.0020	0.0014	0.0078	*< 0.0010*	*< 0.0010*	0.0011
Silica (Si02)	***mg/L***	16.90	16.30	14.30	17.70	16.70	16.00	17.80	11.70	12.60	14.10	14.00	13.00	12.50	12.70	13.00	12.80	12.60	13.00	12.70	12.00	2.26	12.30	14.10
Silicon	***mg/L***	7.88	7.61	6.68	8.29	7.81	7.50	8.34	5.48	5.89	6.59	6.57	6.06	5.85	5.95	6.10	5.99	5.88	6.09	5.96	5.60	1.06	5.75	6.60
Uranium	***mg/L***	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	0.0006	*<0.0010*	*<0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Zinc	***mg/L***	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0100*	*<0.0020*	*<0.0020*	*<0.0020*	0.0056	*<0.0040*	*<0.0020*	*< 0.0040*	*< 0.0040*	*< 0.0020*	*< 0.0040*	*< 0.0020*	*< 0.0020*	*< 0.0020*	0.0113	0.0123	*< 0.0020*	*< 0.0020*	*< 0.0020*	*< 0.0020*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. **"<"** *values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-1-A																							
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/15	5/20	8/23	11/17	3/17	6/14	9/12	12/4	3/18	6/14	8/16	11/14	3/17	6/19	8/6	11/18	1/25	5/13	8/15	11/4	2/6	5/14	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	gpm	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Total Purged	gal	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	ft bgs	215.60	215.53	215.71	215.65	215.55	216.15	215.65	215.70	215.60	215.20	215.35	215.30	215.25	215.15	215.55	215.23	215.22	214.70	215.45	215.55	215.55	215.50	215.70
Temperature	deg C	8.4	9.6	10.1	9.2	9.5	10.2	10.5	9.0	8.6	10.8	11.0	9.0	7.8	10.4	10.0	8.8	8.1	10.0	13.5	10.7	8.6	10.7	14.2
pH	SU	7.19	7.30	7.35	7.17	7.22	7.31	7.29	6.82	7.34	7.49	7.37	7.54	7.60	6.97	7.14	7.05	7.15	7.22	7.35	6.61	6.90	7.15	7.21
Specific Conductance	µS/cm	1550	1647	1691	1792	1707	1717	1770	1733	1780	1676	1745	1738	1754	1656	1722	1710	1785	1436	1388	1690	1708	1665	1735
Oxygen Reduction Potential	mV	23.8	-13.4	-6.5	38.2	-110.5	-51.9	-159.7	-29.9	4.8	93.8	4.0	-32.1	-63.1	-27.3	-59.6	-64.5	-11.5	-32.8	94.2	242.1	163.9	182.9	380.4
Lab Analytical Results:																								
Hardness as CaCO3	mg/L	168	150	158	157	152	149	146	172	174	158	150	166	160	171	161	154	163	167	159	151	162	161	168
pH (Lab)	SU	7.22	7.13	7.10	7.05	7.30	7.15	7.36	7.37	7.01	7.20	7.38	7.39	6.95	7.24	7.32	7.27	7.34	7.18	7.35	7.26	7.29	7.81	7.44
Total Dissolved Solids (Lab)	mg/L	1250	1150	1190	1150	1140	1140	1150	1050	1150	1180	1200	1110	1120	1110	1100	1060	1100	990	1100	1150	1170	1140	1100
Calcium	mg/L	32.1	28.3	29.9	30.0	28.5	28.0	27.4	32.6	33.2	29.9	27.7	31.2	30.4	33.0	30.6	28.8	30.8	31.5	29.8	28.8	30.0	30.1	31.2
Magnesium	mg/L	21.4	19.2	20.3	20.0	19.7	19.2	18.7	21.9	22.0	20.2	19.6	21.3	20.3	21.5	20.6	19.9	20.9	21.4	20.5	19.3	21.2	20.8	21.9
Sodium	mg/L	357.0	314.0	333.0	340.0	321.0	319.0	318.0	361.0	351.0	345.0	333.0	324.0	336.0	358.0	327.0	341.0	331.0	333.0	335.0	340.0	389.0	344.0	310.0
Potassium	mg/L	<5.00	2.18	<5.00	2.34	2.23	2.01	2.12	2.11	<5.00	2.15	< 5.00	< 2.00	2.14	2.22	2.35	2.15	< 5.00	< 5.00	2.31	2.27	3.12	< 5.00	2.60
Alkalinity, Total	mg/L	400	400	370	440	405	425	410	361	372	391	368	375	370	385	410	420	425	387	360	435	420	385	385
Alkalinity, Bicarbonate	mg/L	400	400	370	440	405	425	410	361	372	391	368	375	370	385	410	420	425	387	360	435	420	385	385
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L	2.73	2.34	2.78	<5.00	2.80	2.46	2.59	2.40	2.49	2.71	2.55	2.50	2.57	2.59	< 5.00	2.52	< 5.00	2.45	2.35	2.70	2.52	2.50	2.20
Fluoride	mg/L	0.212	0.223	0.240	<0.5	<0.200	0.250	0.254	0.246	0.262	0.198	0.224	< 0.200	0.250	0.248	< 0.500	0.290	< 0.500	0.227	0.231	0.232	0.230	0.199	0.220
Sulfate as SO4	mg/L	553.0	531.0	507.0	458.0	503.0	516.0	532.0	517.0	562.0	607.0	587.0	510.0	557.0	552.0	493.0	477.0	537.0	507.0	465.0	482.0	515.0	606.0	490.0
Total Organic Carbon (TOC)	mg/L	1.58	1.49	1.57	1.51	1.56	1.41	1.39	1.41	1.63	1.76	1.55	1.55	1.66	1.53	1.49	1.61	1.83	1.46	1.90	1.67	1.56	1.59	1.69
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	0.036	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	< 0.020	< 0.020	< 0.020	< 0.020	0.722	< 0.020	< 0.020	< 0.020	< 0.020	0.033	< 0.020	< 0.020	0.305
Aluminum	mg/L	<0.250	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.250	<0.250	< 0.250	< 0.100	< 0.100	< 0.100	< 0.050	< 0.050	< 0.250	< 0.250	< 0.050	< 0.050	< 0.050	< 0.250	< 0.050
Arsenic	mg/L	<0.0015	<0.0015	<0.0025	<0.001	<0.0005	<0.0005	<0.001	<0.001	<0.0025	<0.0025	< 0.0025	< 0.0010	< 0.0020	< 0.0020	< 0.0010	< 0.0010	< 0.0050	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0010	< 0.0010
Cadmium	mg/L	<0.0003	<0.0015	<0.0025	<0.001	<0.0005	<0.0005	<0.001	<0.001	<0.0025	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0005
Copper	mg/L	0.0026	0.0059	0.0068	0.0086	0.0145	0.0112	0.0096	0.0078	0.0121	0.0193	0.0046	0.0079	0.0130	0.0149	0.0142	0.0201	0.0164	0.0154	0.0254	0.0168	0.0143	0.0123	0.0106
Iron	mg/L	0.572	0.610	0.592	0.647	0.533	0.544	0.451	0.406	<0.250	<0.250	< 0.250	0.437	0.155	0.412	< 0.050	0.319	< 0.250	0.440	0.396	< 0.050	0.467	0.512	< 0.050
Lead	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.001	<0.001	<0.0025	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	0.0007	< 0.0025	< 0.0010	0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0005
Manganese	mg/L	0.0367	0.0316	0.0328	0.0287	0.0289	0.0295	0.0359	0.0260	0.0149	0.0027	0.0128	0.0400	0.0125	0.0306	0.0009	0.0297	0.0219	0.0507	0.0316	< 0.0010	0.0327	0.0299	0.0036
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																		
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	0.0005	< 0.0005
Selenium	mg/L	<0.0030	<0.0030	<0.0050	<0.0020	<0.0010	<0.0010	<0.0020	<0.0020	<0.0050	<0.0050	< 0.0050	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0010	< 0.0050	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0010	< 0.0010
Silica (Si02)	mg/L	11.30	10.70	10.70	11.60	11.20	10.80	10.40	11.20	10.60	10.60	9.44	11.30	10.50	10.80	10.80	10.20	10.60	10.70	11.30	9.96	10.60	10.40	10.90
Silicon	mg/L	5.27	5.00	5.01	5.42	5.25	5.07	4.85	5.24	4.94	4.95	4.41	5.28	4.89	5.05	5.07	4.79	4.94	5.00	5.27	4.66	4.94	4.86	5.11
Uranium	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0005
Zinc	mg/L	<0.0060	<0.0060	<0.0100	<0.0040	<0.0020	<0.0020	<0.0040	<0.0040	<0.0100	0.0051	< 0.0100	< 0.0040	0.0043	< 0.0040	< 0.0020	0.0179	0.0143	0.0161	0.0204	0.0131	< 0.0020	< 0.0020	< 0.0020

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	yes or no
gpm	gallons per minute
deg C	degrees Celsius
SU	standard pH units
µS/cm	microsiemens per centimeter
mV	millivolts
mg/L	milligram per liter
pCi/L	picocuries per liter
NM	not measured (field)
NA	not analyzed (lab)
ng/L	nanogram per liter

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-1-MI																								
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/15	5/20	8/23	11/17	3/17	6/14	9/12	12/4	3/18	6/14	8/16	11/14	3/17	6/19	8/6	11/18	1/25	5/13	8/15	11/4	2/6	5/14	8/16
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	*gpm*																							
Total Purged	*gal*																							
Depth to Water	*ft bgs*																							
Temperature	*deg C*	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	*SU*																							
Specific Conductance	*µS/cm*																							
Oxygen Reduction Potential	*mV*																							
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*																							
pH (Lab)	*SU*																							
Total Dissolved Solids (Lab)	*mg/L*																							
Calcium	*mg/L*																							
Magnesium	*mg/L*																							
Sodium	*mg/L*																							
Potassium	*mg/L*																							
Alkalinity, Total	*mg/L*																							
Alkalinity, Bicarbonate	*mg/L*																							
Alkalinity, Carbonate	*mg/L*																							
Alkalinity, Hydroxide	*mg/L*																							
Chloride	*mg/L*																							
Fluoride	*mg/L*																							
Sulfate as SO4	*mg/L*																							
Total Organic Carbon (TOC)	*mg/L*																							
Nitrate/Nitrite as N	*mg/L*																							
Aluminum	*mg/L*																							
Arsenic	*mg/L*																							
Cadmium	*mg/L*																							
Copper	*mg/L*																							
Iron	*mg/L*																							
Lead	*mg/L*																							
Manganese	*mg/L*																							
Mercury (dissolved)	*mg/L*																							
Mercury (dissolved low-level)	*ng/L*																							
Molybdenum	*mg/L*																							
Selenium	*mg/L*																							
Silica (Si02)	*mg/L*																							
Silicon	*mg/L*																							
Uranium	*mg/L*																							
Zinc	*mg/L*																							

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-1-C

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/15	5/20	8/23	11/17	3/17	6/14	9/12	12/4	3/19	6/14	8/16	11/14	3/17	6/19	8/6	11/18	1/25	5/13	8/15	11/4	2/6	5/14	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	***gpm***	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2															
Total Purged	***gal***	1	2	1	1	1	1	1	1															
Depth to Water	***ft bgs***	216.66	216.66	216.66	216.66	216.66	216.66	216.66	216.04															
Temperature	***deg C***	7.0	10.7	12.1	10.1	7.7	12.3	12.7	7.4	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	***SU***	7.40	7.18	7.16	7.15	7.12	7.20	7.23	6.67															
Specific Conductance	***µS/cm***	2410	2249	2290	2554	2223	2362	2278	2104															
Oxygen Reduction Potential	***mV***	57.5	-16.8	0.0	-7.0	-92.9	-49.3	-191.8	-77.0															
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	1320	953	975	920	750	766	638	640															
pH (Lab)	***SU***	7.08	6.86	7.04	6.89	7.22	7.06	7.40	6.98															
Total Dissolved Solids (Lab)	***mg/L***	2330	1910	1850	1840	1680	1770	1640	1490															
Calcium	***mg/L***	241.0	175.0	178.0	168.0	142.0	137.0	113.0	117.0															
Magnesium	***mg/L***	173.0	126.0	129.0	122.0	95.7	103.0	86.6	84.4															
Sodium	***mg/L***	206.0	196.0	214.0	234.0	229.0	240.0	261.0	266.0															
Potassium	***mg/L***	*<5.00*	2.68	*<5.00*	*<3.00*	2.68	2.48	*<5.00*	2.27															
Alkalinity, Total	***mg/L***	580	480	485	640	510	530	570	454															
Alkalinity, Bicarbonate	***mg/L***	580	480	485	640	510	530	570	454															
Alkalinity, Carbonate	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*															
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*															
Chloride	***mg/L***	7.13	5.30	5.04	7.12	4.87	5.55	5.59	4.32															
Fluoride	***mg/L***	0.804	0.654	0.716	0.755	0.712	1.040	1.240	0.916															
Sulfate as SO4	***mg/L***	1150.0	940.0	872.0	886.0	805.0	908.0	821.0	728.0															
Total Organic Carbon (TOC)	***mg/L***	2.26	1.92	1.93	1.91	1.79	1.80	1.74	1.77															
Nitrate/Nitrite as N	***mg/L***	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*															
Aluminum	***mg/L***	*<0.250*	*<0.100*	*<0.250*	*<0.150*	*<0.050*	*<0.100*	*<0.250*	*<0.100*															
Arsenic	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0010*	0.0009	0.0024	0.0028	*<0.0010*															
Cadmium	***mg/L***	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.001*	*<0.0025*	*<0.0010*															
Copper	***mg/L***	*<0.0025*	0.0042	0.0043	0.0064	0.0093	0.0086	0.0104	0.0120															
Iron	***mg/L***	0.769	0.552	0.573	0.724	0.630	0.671	0.679	*<0.100*															
Lead	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.0025*	*<0.0010*															
Manganese	***mg/L***	0.0482	0.0419	0.0383	0.0346	0.0362	0.0342	0.0304	0.0295															
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5*	*<100*	*<100*															
Molybdenum	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.0025*	*<0.0010*															
Selenium	***mg/L***	*<0.0050*	*<0.0050*	*<0.0050*	*<0.0020*	*<0.0010*	*<0.0020*	*<0.005*	*<0.002*															
Silica (Si02)	***mg/L***	14.40	15.00	14.50	14.80	14.20	13.00	11.70	13.40															
Silicon	***mg/L***	6.75	7.00	6.79	6.94	6.66	6.07	5.47	6.26															
Uranium	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	0.0010	0.0008	*<0.0010*	*<0.0025*	*<0.0010*															
Zinc	***mg/L***	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0040*	0.0021	*<0.0040*	*<0.0100*	0.0071															

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

^	**one-time analysis**
Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-2-A

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/15	5/20	8/24	11/17	3/23	6/14	9/8	12/4	3/31	6/14	8/18	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	*gpm*																							
Total Purged	*gal*																							
Depth to Water	*ft bgs*																							
Temperature	*deg C*	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	*SU*																							
Specific Conductance	*µS/cm*																							
Oxygen Reduction Potential	*mV*																							
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*																							
pH (Lab)	*SU*																							
Total Dissolved Solids (Lab)	*mg/L*																							
Calcium	*mg/L*																							
Magnesium	*mg/L*																							
Sodium	*mg/L*																							
Potassium	*mg/L*																							
Alkalinity, Total	*mg/L*																							
Alkalinity, Bicarbonate	*mg/L*																							
Alkalinity, Carbonate	*mg/L*																							
Alkalinity, Hydroxide	*mg/L*																							
Chloride	*mg/L*																							
Fluoride	*mg/L*																							
Sulfate as SO4	*mg/L*																							
Total Organic Carbon (TOC)	*mg/L*																							
Nitrate/Nitrite as N	*mg/L*																							
Aluminum	*mg/L*																							
Arsenic	*mg/L*																							
Cadmium	*mg/L*																							
Copper	*mg/L*																							
Iron	*mg/L*																							
Lead	*mg/L*																							
Manganese	*mg/L*																							
Mercury (dissolved)	*mg/L*																							
Mercury (dissolved low-level)	*ng/L*																							
Molybdenum	*mg/L*																							
Selenium	*mg/L*																							
Silica (Si02)	*mg/L*																							
Silicon	*mg/L*																							
Uranium	*mg/L*																							
Zinc	*mg/L*																							

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

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3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-2-MI

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/15	5/20	8/24	11/17	3/23	6/14	9/8	12/4	3/31	6/14	8/18	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	*gpm*																							
Total Purged	*gal*																							
Depth to Water	*ft bgs*																							
Temperature	*deg C*	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	*SU*																							
Specific Conductance	*µS/cm*																							
Oxygen Reduction Potential	*mV*																							
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*																							
pH (Lab)	*SU*																							
Total Dissolved Solids (Lab)	*mg/L*																							
Calcium	*mg/L*																							
Magnesium	*mg/L*																							
Sodium	*mg/L*																							
Potassium	*mg/L*																							
Alkalinity, Total	*mg/L*																							
Alkalinity, Bicarbonate	*mg/L*																							
Alkalinity, Carbonate	*mg/L*																							
Alkalinity, Hydroxide	*mg/L*																							
Chloride	*mg/L*																							
Fluoride	*mg/L*																							
Sulfate as SO4	*mg/L*																							
Total Organic Carbon (TOC)	*mg/L*																							
Nitrate/Nitrite as N	*mg/L*																							
Aluminum	*mg/L*																							
Arsenic	*mg/L*																							
Cadmium	*mg/L*																							
Copper	*mg/L*																							
Iron	*mg/L*																							
Lead	*mg/L*																							
Manganese	*mg/L*																							
Mercury (dissolved)	*mg/L*																							
Mercury (dissolved low-level)	*ng/L*																							
Molybdenum	*mg/L*																							
Selenium	*mg/L*																							
Silica (Si02)	*mg/L*																							
Silicon	*mg/L*																							
Uranium	*mg/L*																							
Zinc	*mg/L*																							

Notes & Definitions:

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Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
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GCC Energy Hydrologic Monitoring Data

MW-2-C

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/15	5/20	8/24	11/17	3/23	6/14	9/8	12/4	3/31	6/14	8/18	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	*gpm*																							
Total Purged	*gal*																							
Depth to Water	*ft bgs*																							
Temperature	*deg C*	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	*SU*																							
Specific Conductance	*µS/cm*																							
Oxygen Reduction Potential	*mV*																							
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*																							
pH (Lab)	*SU*																							
Total Dissolved Solids (Lab)	*mg/L*																							
Calcium	*mg/L*																							
Magnesium	*mg/L*																							
Sodium	*mg/L*																							
Potassium	*mg/L*																							
Alkalinity, Total	*mg/L*																							
Alkalinity, Bicarbonate	*mg/L*																							
Alkalinity, Carbonate	*mg/L*																							
Alkalinity, Hydroxide	*mg/L*																							
Chloride	*mg/L*																							
Fluoride	*mg/L*																							
Sulfate as SO4	*mg/L*																							
Total Organic Carbon (TOC)	*mg/L*																							
Nitrate/Nitrite as N	*mg/L*																							
Aluminum	*mg/L*																							
Arsenic	*mg/L*																							
Cadmium	*mg/L*																							
Copper	*mg/L*																							
Iron	*mg/L*																							
Lead	*mg/L*																							
Manganese	*mg/L*																							
Mercury (dissolved)	*mg/L*																							
Mercury (dissolved low-level)	*ng/L*																							
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Zinc	*mg/L*																							

Notes & Definitions:

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Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
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GCC Energy Hydrologic Monitoring Data

MW-3-A																							
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/10	5/18	8/10	11/9	2/24	5/11	9/6	11/18	3/16	6/15	8/8	11/16	2/21	6/20	8/13	11/24	2/7	5/14	8/17	11/3	2/3	5/20	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.1	0.1	0.2	0.1	0.3	0.3	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.4
Total Purged	*gal*	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	*ft bgs*	296.97	296.72	297.47	297.46	296.67	296.74	296.96	296.62	295.59	295.32	295.97	295.81	295.22	295.07	295.12	294.87	294.57	294.34	294.97	294.67	294.32	294.27	294.57
Temperature	*deg C*	12.1	12.4	13.6	12.2	11.4	13.0	15.6	12.2	11.8	12.7	15.2	11.8	11.8	14.0	13.3	11.7	12.3	13.0	14.5	11.6	11.7	12.5	12.5
pH	*SU*	8.53	8.46	8.42	8.47	8.35	8.21	8.12	8.66	8.06	7.97	8.63	8.50	8.48	8.37	8.48	8.58	8.60	8.56	6.69	8.85	8.53	8.51	8.49
Specific Conductance	*µS/cm*	1930	1525	2091	2127	2121	2055	2066	2057	2094	2050	1374	903	937	560	748	899	1670	1552	1898	1000	809	1832	873
Oxygen Reduction Potential	*mV*	-101.3	-157.1	-149.0	-156.8	-221.2	-124.2	-269.9	-199.6	-43.5	-91.0	-162.4	-256.7	-162.8	-151.5	-172.6	-267.5	-198.5	-151.2	-248.3	-183.7	-69.7	-73.3	14.3
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	11	8	9	9	9	9	9	8	8	9	6	9	8	9	9	8	7	8	7	9	5	7	7
pH (Lab)	*SU*	8.13	8.22	8.21	8.19	8.17	8.28	8.09	8.15	7.63	7.97	8.40	8.37	8.20	8.44	8.50	8.23	8.42	8.48	6.66	6.78	8.44	8.41	8.10
Total Dissolved Solids (Lab)	*mg/L*	1410	1350	1420	1360	1220	1400	1320	1280	1390	1310	1300	1290	1320	1280	1340	1190	1260	1260	1250	1200	1150	1190	567
Calcium	*mg/L*	3.1	2.5	2.6	2.5	2.4	2.6	2.6	2.2	2.4	2.5	2.4	2.6	2.3	2.5	2.6	2.3	1.9	2.0	2.0	2.6	1.6	1.8	1.9
Magnesium	*mg/L*	0.7	0.5	0.6	0.6	0.6	0.6	0.7	0.5	0.6	0.6	*< 0.500*	0.7	0.6	0.6	0.7	0.6	0.5	0.7	0.5	0.7	0.4	0.7	0.5
Sodium	*mg/L*	536.0	471.0	462.0	448.0	462.0	473.0	476.0	420.0	440.0	456.0	450.0	459.0	436.0	458.0	454.0	455.0	454.0	438.0	457.0	456.0	441.0	397.0	392.0
Potassium	*mg/L*	*<5.00*	*<3.00*	*<5.00*	*<2.00*	1.34	*<2.00*	*<2.00*	*<5.00*	*<5.00*	*<5.00*	*< 5.00*	*< 3.00*	*< 3.00*	*< 2.00*	1.36	1.34	*< 5.00*	*< 5.00*	1.46	*< 2.00*	*< 2.00*	*< 2.00*	1.73
Alkalinity, Total	*mg/L*	520	530	465	485	495	560	500	400	454	458	447	465	465	510	580	520	525	510	510	575	585	551	575
Alkalinity, Bicarbonate	*mg/L*	520	530	465	435	455	480	500	400	454	458	415	455	465	510	580	520	485	330	510	575	505	517	535
Alkalinity, Carbonate	*mg/L*	*<10.0*	*<10.0*	*<10.0*	50.0	40.0	80.0	*<10.0*	*<10.0*	*<10.0*	*<10.0*	32.0	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	40.0	180.0	*< 10.0*	*< 10.0*	80.0	34.0	40.0
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	13.50	14.00	14.10	14.60	14.20	14.20	15.90	15.40	16.00	16.10	16.90	16.20	17.30	17.50	18.20	17.60	20.10	20.60	22.90	22.10	26.50	28.90	30.50
Fluoride	*mg/L*	0.336	0.352	0.366	0.314	0.356	0.324	0.362	*<0.500*	*<0.500*	0.316	*< 0.500*	0.284	*< 0.500*	0.368	0.390	0.388	0.446	*< 0.500*	0.395	0.413	0.440	0.355	0.376
Sulfate as SO4	*mg/L*	600.0	601.0	599.0	515.0	584.0	555.0	557.0	565.0	571.0	573.0	560.0	552.0	545.0	545.0	525.0	520.0	512.0	441.0	417.0	486.0	362.0	366.0	338.0
Total Organic Carbon (TOC)	*mg/L*	3.16	3.18	3.01	3.02	2.96	2.84	3.02	1.54	3.04	*<2.5*	4.44	2.93	3.25	2.96	3.93	2.94	2.89	2.86	3.89	3.40	3.01	3.16	3.16
Nitrate/Nitrite as N	*mg/L*	*<0.020*	0.024	*<0.020*	*<0.020*	0.022	0.030	*<0.020*	*<0.020*	0.117	0.061	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	0.060	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	0.089	*< 0.020*	*< 0.020*
Aluminum	*mg/L*	*<0.250*	*<0.150*	*<0.250*	*<0.100*	*<0.050*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*<0.250*	*< 0.250*	*< 0.150*	*< 0.150*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.250*
Arsenic	*mg/L*	0.0026	0.0006	0.0010	0.0018	0.0009	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0010*	0.0010	*< 0.0020*	*< 0.0020*	*< 0.0020*	0.0013	0.0011	*< 0.0020*
Cadmium	*mg/L*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*
Copper	*mg/L*	0.0037	0.0157	0.0156	0.0113	0.0088	0.0114	0.0189	0.0106	0.0155	0.0196	0.0065	0.0096	0.0159	0.0180	0.0255	0.0203	0.0176	0.0135	0.0208	0.0152	0.0165	0.0183	0.0163
Iron	*mg/L*	*<0.250*	*<0.150*	*<0.250*	*<0.100*	*<0.050*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*<0.250*	*< 0.250*	*< 0.150*	*< 0.150*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.050*	0.114	*< 0.100*	*< 0.100*	*< 0.050*
Lead	*mg/L*	*<0.0025*	*<0.001*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.001*	*<0.002*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*
Manganese	*mg/L*	0.0128	0.0121	0.0096	0.0101	0.0113	0.0100	0.0097	0.0108	0.0119	0.0096	0.0098	0.0091	*< 0.0010*	0.0091	0.0076	0.0069	0.0071	0.0069	0.0088	0.0157	0.0060	0.0050	0.0052
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	*<0.0025*	0.0015	0.0013	*<0.001*	0.0012	*<0.001*	0.0017	0.0012	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	0.0018	0.0016	0.0009	0.0024	0.0009	*< 0.0010*	0.0010	0.0013	0.0005	0.0008	*< 0.0010*
Selenium	*mg/L*	0.1290	0.0276	0.0167	0.0855	0.0162	0.0029	0.0106	*<0.0020*	0.0236	0.0174	*< 0.0050*	0.0094	0.0063	0.0427	*< 0.0010*	*< 0.0010*	0.0194	0.0350	0.0042	0.0219	0.0298	0.0209	0.0089
Silica (Si02)	*mg/L*	11.30	10.10	10.70	10.90	10.80	10.70	11.10	9.39	9.32	9.89	9.16	10.90	9.34	10.10	10.10	10.30	10.20	10.40	10.40	9.99	9.58	9.86	10.30
Silicon	*mg/L*	5.28	4.73	4.98	5.11	5.07	5.01	5.19	4.39	4.36	4.63	4.28	5.09	4.36	4.73	4.72	4.83	4.78	4.87	4.84	4.67	4.48	4.61	4.81
Uranium	*mg/L*	*<0.0025*	*<0.0010*	*<0.0010*	*<0.0010*	0.0005	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*
Zinc	*mg/L*	*<0.0100*	*<0.0020*	*<0.0040*	*<0.0040*	*<0.0020*	*<0.0040*	*<0.0040*	0.0041	*<0.0100*	*<0.0100*	*< 0.0100*	*< 0.0100*	*< 0.0040*	*< 0.0040*	0.0028	0.0042	0.0032	0.0092	0.0096	0.0054	*< 0.0020*	*< 0.0020*	*< 0.0040*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-3-MI																								
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/10	5/18	8/10	11/9	2/24	5/11	9/6	11/18	3/16	6/15	8/8	11/16	2/21	6/20	8/13	11/24	2/7	5/14	8/17	11/3	2/3	5/20	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Total Purged	*gal*	1	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	*ft bgs*	243.93	244.25	244.28	244.15	242.90	244.05	244.65	244.30	243.83	249.55	242.86	242.65	242.35	242.40	242.35	242.90	242.27	242.27	242.45	252.65	242.50	242.50	242.75
Temperature	*deg C*	11.5	12.8	13.0	11.9	11.4	13.2	13.7	11.6	11.7	12.5	13.1	12.3	11.7	13.1	12.5	11.6	11.9	11.7	16.1	12.3	11.8	12.6	12.4
pH	*SU*	9.03	9.06	9.13	9.11	9.07	9.04	9.03	8.81	9.06	9.03	9.00	8.89	8.97	8.80	8.73	8.89	8.91	8.90	7.01	7.50	7.80	7.80	8.35
Specific Conductance	*µS/cm*	1519	1232	1647	1765	1705	1686	1720	1739	1609	1737	1702	1784	1788	1704	1753	1764	1860	1738	1725	1704	1748	1827	1908
Oxygen Reduction Potential	*mV*	-94.6	-120.4	-142.9	-163.3	-207.2	-104.2	-184.3	-158.9	-186.8	-192.3	-213.0	-263.6	-279.2	-222.1	-156.7	-213.9	-136.5	-94.5	-236.2	22.9	-60.0	-50.1	-108.1
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	7	5	5	5	5	5	*<3.31*	*<3.31*	*<3.31*	*<3.31*	*< 3.31*	5	4	5	6	5	5	5	5	16	20	15	16
pH (Lab)	*SU*	8.72	8.84	8.81	8.88	8.78	8.87	8.76	8.78	8.63	8.71	8.84	8.85	8.76	8.76	8.71	8.79	8.87	8.78	8.69	6.94	7.50	7.97	8.35
Total Dissolved Solids (Lab)	*mg/L*	1120	1110	1180	1130	1070	1140	1080	1070	1140	1100	1070	1050	1120	1060	1120	1100	1060	1110	1070	1100	1150	1140	1210
Calcium	*mg/L*	1.7	1.3	1.3	1.3	1.3	1.3	1.1	1.2	1.2	1.1	1.1	1.3	1.1	1.3	1.4	1.2	1.3	1.2	1.2	4.8	6.3	4.8	5.2
Magnesium	*mg/L*	0.6	0.5	0.5	0.5	0.5	0.4	*<0.500*	*<0.500*	*<0.500*	*<0.500*	*< 0.500*	0.4	0.3	0.5	0.5	0.5	0.4	0.5	0.4	1.0	1.0	0.7	0.8
Sodium	*mg/L*	468.0	410.0	403.0	390.0	413.0	415.0	374.0	389.0	397.0	408.0	398.0	405.0	388.0	413.0	411.0	413.0	436.0	408.0	431.0	468.0	482.0	364.0	371.0
Potassium	*mg/L*	*<5.00*	*<2.00*	*<2.00*	*<2.00*	1.27	*<2.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*< 5.00*	*< 2.00*	*< 2.00*	*< 2.00*	1.23	1.25	1.49	*< 5.00*	1.35	*< 2.00*	1.63	1.22	1.89
Alkalinity, Total	*mg/L*	690	690	705	705	740	740	780	760	680	700	660	630	670	730	700	685	720	650	670	695	740	700	735
Alkalinity, Bicarbonate	*mg/L*	450	550	555	565	580	580	480	540	620	572	590	510	590	630	670	555	600	450	670	695	740	690	675
Alkalinity, Carbonate	*mg/L*	240.0	140.0	150.0	140.0	160.0	160.0	300.0	220.0	60.0	128.0	70.0	120.0	80.0	100.0	30.0	130.0	120.0	200.0	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	60.0
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	9.84	10.50	10.40	10.40	10.60	10.20	11.20	10.70	10.90	10.80	10.80	10.70	10.70	10.60	10.30	9.63	10.20	10.30	9.92	9.29	9.34	9.88	8.02
Fluoride	*mg/L*	1.030	1.090	1.070	0.980	1.100	0.982	1.110	1.080	1.100	1.020	0.862	0.924	0.940	1.120	1.090	1.110	1.180	1.040	1.000	0.912	0.950	0.847	0.694
Sulfate as SO4	*mg/L*	223.0	227.0	228.0	230.0	233.0	213.0	240.0	238.0	240.0	243.0	242.0	241.0	245.0	255.0	247.0	239.0	256.0	239.0	236.0	241.0	255.0	248.0	268.0
Total Organic Carbon (TOC)	*mg/L*	5.34	5.33	5.40	5.26	5.14	4.94	5.06	2.89	5.14	4.22	4.72	4.52	5.37	4.49	4.50	4.32	4.33	3.86	4.82	3.97	3.75	4.08	3.34
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	2.420	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	0.038	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	*mg/L*	*<0.250*	*<0.100*	*<0.100*	*<0.100*	*<0.050*	*<0.100*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*
Arsenic	*mg/L*	0.0083	0.0091	0.0091	0.0078	0.0095	0.0082	0.0084	0.0085	0.0078	0.0094	0.0076	0.0084	0.0067	0.0049	0.0040	0.0041	0.0044	0.0036	0.0035	0.0021	0.0022	*< 0.0050*	0.0028
Cadmium	*mg/L*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0025*	*< 0.0010*
Copper	*mg/L*	0.0031	0.0131	0.0143	0.0097	0.0072	0.0126	0.0170	0.0089	0.0143	0.0187	0.0080	0.0081	0.0136	0.0167	0.0243	0.0197	0.0181	0.0135	0.0199	0.0153	0.0160	0.0291	0.0174
Iron	*mg/L*	*<0.250*	*<0.100*	*<0.100*	*<0.100*	*<0.050*	*<0.100*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.050*	1.520	0.795	0.135	0.169
Lead	*mg/L*	*<0.0025*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.0020*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0025*	*< 0.0010*
Manganese	*mg/L*	0.0069	0.0057	0.0058	0.0054	0.0051	0.0049	0.0047	0.0058	0.0063	0.0058	0.0055	0.0059	0.0057	0.0066	0.0064	0.0058	0.0061	0.0062	0.0062	0.0346	0.0376	0.0335	0.0329
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	0.0162	0.0160	0.0149	0.0140	0.0148	0.0143	0.0150	0.0150	0.0136	0.0143	0.0125	0.0139	0.0130	0.0135	0.0126	0.0117	0.0117	0.0109	0.0114	0.0073	0.0081	0.0073	0.0091
Selenium	*mg/L*	0.0462	0.0033	*<0.0020*	0.0091	0.0018	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.005*	*< 0.0050*	0.0032	0.0023	0.0155	*< 0.0010*	*< 0.0010*	0.0049	0.0111	0.0025	0.0078	0.0030	0.0054	*< 0.0020*
Silica (Si02)	*mg/L*	9.64	8.11	8.77	8.82	9.04	8.63	7.45	7.80	7.62	7.81	7.47	9.17	7.98	8.30	8.86	9.24	9.59	9.21	9.35	9.61	9.89	9.44	10.50
Silicon	*mg/L*	4.51	3.79	4.10	4.12	4.22	4.03	3.48	3.65	3.56	3.65	3.49	4.29	3.73	3.88	4.14	4.32	4.48	4.30	4.37	4.49	4.62	4.42	4.90
Uranium	*mg/L*	0.0049	0.0043	0.0041	0.0033	0.0035	0.0032	0.0034	0.0032	0.0025	*<0.0025*	*< 0.0025*	0.0026	0.0021	0.0030	0.0022	0.0020	0.0023	0.0018	0.0019	*< 0.0010*	0.0012	*< 0.0025*	0.0015
Zinc	*mg/L*	*<0.0100*	*<0.0020*	*<0.0040*	*<0.0040*	*<0.0020*	*<0.0040*	*<0.0040*	*<0.0040*	*<0.0100*	*<0.0100*	*< 0.0100*	*< 0.0040*	*< 0.0040*	0.0078	*< 0.0020*	0.0023	0.0106	0.0106	0.0086	0.0146	*< 0.0020*	*< 0.0100*	*< 0.0040*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-3-C

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	9	12	3	6	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/10	5/18	8/10	11/10	2/24	5/11	9/6	12/13	3/29	6/15	8/8	11/16	2/21	6/20	8/13	11/24	2/7	5/14	8/17	11/3	2/3	5/20	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	***gpm***	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Purged	***gal***	1	2	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	***ft bgs***	295.97	295.25	295.70	295.68	294.45	295.11	295.45	295.10	294.25	293.70	294.46	294.41	293.85	293.66	293.60	293.43	293.15	292.93	293.20	292.45	292.80	292.65	294.95
Temperature	***deg C***	9.9	12.3	15.6	9.6	9.4	13.2	14.4	1.9	13.2	12.9	14.6	11.7	12.7	13.8	12.1	11.7	11.9	12.4	14.8	11.6	12.6	11.3	12.2
pH	***SU***	8.71	8.50	8.71	8.85	8.62	8.43	8.29	9.15	8.44	8.42	8.37	8.26	8.24	8.17	8.24	8.25	8.24	8.23	8.46	7.61	8.21	8.30	8.31
Specific Conductance	***µS/cm***	4426	3755	4571	5244	4564	4694	5306	2397	5300	5353	5283	5584	2560	5377	5484	5498	5799	5361	5232	5447	5362	5537	5519
Oxygen Reduction Potential	***mV***	-202.7	-149.6	-255.3	-227.4	-325.6	-223.4	-307.9	-277.2	57.8	-199.5	-202.4	-275.0	-231.2	-199.2	-210.9	-266.8	-206.2	-211.1	-178.1	-82.8	-143.1	-150.8	-160.8
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	19	15	17	17	16	17	20	16	17	14	16	18	16	19	19	19	18	20	18	20	19	18	23
pH (Lab)	***SU***	8.43	8.38	8.47	8.87	8.44	8.47	8.18	8.49	8.81	8.29	8.21	8.27	8.39	8.20	8.26	8.23	8.30	8.21	8.25	8.48	8.15	8.43	8.43
Total Dissolved Solids (Lab)	***mg/L***	3200	3230	3300	3200	3270	3250	3280	3140	3150	2310	3220	3300	3360	3270	3390	3340	3350	3350	3400	3380	3400	3430	3430
Calcium	***mg/L***	4.3	3.6	3.8	3.8	3.7	4.1	4.5	3.7	3.9	3.3	3.6	4.0	3.7	4.3	4.3	4.4	4.1	4.5	4.0	4.4	4.1	4.1	4.4
Magnesium	***mg/L***	1.9	1.4	1.8	1.8	1.7	1.7	2.2	1.8	1.8	1.3	1.7	1.9	1.7	2.0	2.0	2.0	1.9	2.1	1.9	2.1	2.1	2.0	3.0
Sodium	***mg/L***	1360.0	1220.0	1220.0	1170.0	1200.0	1260.0	1360.0	1170.0	1260.0	906.0	1240.0	1270.0	1240.0	1300.0	1320.0	1310.0	1360.0	1340.0	1340.0	1420.0	1390.0	1390.0	1270.0
Potassium	***mg/L***	*<10.0*	*<6.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<10.0*	*<5.00*	*< 10.0*	*< 10.0*	*< 6.00*	*< 10.0*	3.97	4.42	*< 5.00*	*< 5.00*	4.26	*< 5.00*	*< 5.00*	*< 5.00*	10.00
Alkalinity, Total	***mg/L***	2170	2130	2140	2230	2180	2170	2110	2120	2220	1410	2140	2140	2180	2280	2160	2190	2170	2130	2060	2070	2150	2170	2180
Alkalinity, Bicarbonate	***mg/L***	1710	1910	1950	1950	1820	1870	1990	2120	1920	1410	2070	2060	2060	2040	2000	1930	1970	1770	1880	1950	1960	1930	2080
Alkalinity, Carbonate	***mg/L***	460.0	220.0	190.0	280.0	360.0	300.0	120.0	*<10.0*	300.0	*<10.0*	70.0	80.0	120.0	240.0	160.0	260.0	200.0	360.0	180.0	120.0	190.0	240.0	100.0
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	574.00	577.00	582.00	462.00	608.00	605.00	613.00	604.00	622.00	360.00	639.00	644.00	646.00	649.00	634.00	628.00	664.00	593.00	661.00	658.00	632.00	644.00	663.00
Fluoride	***mg/L***	3.370	3.340	3.360	3.160	3.370	3.060	3.510	3.250	3.380	1.960	2.590	2.910	3.140	3.590	3.390	3.570	3.930	3.160	3.230	3.020	3.440	3.500	2.960
Sulfate as SO4	***mg/L***	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<10.0*	252.0	*< 10.0*	*< 10.0*	*< 5.00*	2.4	*< 10.0*	*< 5.00*	*< 5.00*	*< 10.0*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*
Total Organic Carbon (TOC)	***mg/L***	15.70	16.30	15.70	16.40	17.90	16.20	16.10	10.40	19.20	5.72	18.90	19.20	20.50	19.90	19.90	21.40	19.60	15.10	20.00	20.90	21.10	19.00	21.20
Nitrate/Nitrite as N	***mg/L***	*<0.020*	*<0.020*	*<0.020*	*<0.040*	*<0.020*	*<0.020*	*<0.100*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	***mg/L***	*<0.500*	*<0.300*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*<0.500*	*<0.250*	*< 0.500*	*< 0.500*	*< 0.300*	*< 0.500*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.150*	*< 0.250*	*< 0.250*	*< 0.250*	*< 0.500*
Arsenic	***mg/L***	0.0113	0.0163	0.0195	0.0170	0.0157	0.0130	0.0151	0.0146	0.0194	0.0206	0.0149	0.0170	0.0171	0.0211	0.0204	0.0205	0.0193	0.0210	0.0223	0.0181	0.0246	0.0251	0.0227
Cadmium	***mg/L***	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.005*	*<0.0035*	*< 0.0050*	*< 0.0050*	*< 0.0025*	*< 0.0050*	0.0007	*< 0.0015*	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0025*	0.0006	0.0008	*< 0.0025*
Copper	***mg/L***	0.0102	0.0499	0.0434	0.0323	0.0287	0.0347	0.0555	0.0268	0.0220	0.0571	0.0185	0.0293	0.0460	0.0522	0.0742	0.0784	0.0534	0.0540	0.0747	0.0492	0.0522	0.0537	0.0527
Iron	***mg/L***	*<0.500*	*<0.300*	0.464	0.310	0.260	0.305	0.427	*<0.250*	*<0.500*	*<0.25*	*< 0.500*	*< 0.500*	*< 0.300*	*< 0.500*	0.293	0.238	*< 0.250*	0.333	0.301	0.513	0.390	0.334	0.609
Lead	***mg/L***	*<0.0050*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.005*	*<0.0025*	*<0.005*	*<0.0035*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	0.0016	*< 0.0015*	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0025*	*< 0.0005*	*< 0.0005*	*< 0.0025*
Manganese	***mg/L***	0.0052	0.0046	0.0034	0.0032	0.0028	0.0040	0.0025	0.0034	0.0054	0.0065	*< 0.0050*	*< 0.0050*	*< 0.0025*	*< 0.0050*	0.0023	0.0027	*< 0.0025*	*< 0.0025*	*< 0.0050*	0.0072	0.0027	0.0023	0.0029
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5*	*<500*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	***mg/L***	0.0080	0.0069	0.0061	0.0061	0.0059	0.0065	0.0058	0.0056	0.0111	0.0093	0.0065	0.0059	0.0057	*< 0.0050*	0.0052	0.0042	0.0043	0.0037	*< 0.0050*	0.0073	0.0045	0.0052	0.0043
Selenium	***mg/L***	0.0270	0.0411	0.0372	0.0319	0.0335	0.0185	0.0247	0.0199	0.0259	0.0396	0.0242	0.0282	0.0241	0.0580	0.0355	0.0305	0.0368	0.0475	0.0459	0.0407	0.0439	0.0415	0.0363
Silica (Si02)	***mg/L***	*<10.7*	7.48	8.40	8.33	7.79	7.59	8.75	7.04	*<10.7*	8.03	*< 10.7*	*< 10.7*	7.28	*< 10.7*	7.65	8.69	8.55	8.57	7.89	7.77	8.19	8.39	*< 10.7*
Silicon	***mg/L***	*<5.00*	3.50	3.93	3.89	3.64	3.55	4.09	3.29	*<5.00*	3.75	*< 5.00*	*< 5.00*	3.41	*< 5.00*	3.58	4.06	4.00	4.01	3.69	3.63	3.83	3.92	*< 5.00*
Uranium	***mg/L***	*<0.0050*	0.0025	0.0025	*<0.0025*	*<0.0025*	*<0.0025*	0.0025	0.0025	0.0051	0.0044	*< 0.0050*	*< 0.0050*	*< 0.0025*	*< 0.0050*	0.0029	0.0025	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0025*	0.0024	0.0023	*< 0.0025*
Zinc	***mg/L***	0.0294	0.0363	0.0347	0.0377	0.0404	0.0181	0.0385	0.0228	*<0.0200*	0.0229	*< 0.0200*	*< 0.0200*	*< 0.0100*	*< 0.0200*	0.0161	0.0258	*< 0.0100*	0.0256	0.0215	0.0173	0.0140	0.0028	*< 0.0100*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. ***"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.***

2. ***Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.***

3. ***Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.***

GCC Energy Hydrologic Monitoring Data

MW-4-A																								
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/10	5/18	8/10	11/10	2/23	5/11	9/1	11/17	3/9	6/15	8/7	11/16	2/12	6/20	8/13	11/22	2/7	5/14	8/17	11/3	2/2	5/15	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Purged	*gal*	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	*ft bgs*	335.46	335.72	335.93	336.16	336.01	336.31	336.74	337.16	337.66	330.46	335.36	335.49	335.38	335.96	335.81	337.98	337.81	337.86	337.87	337.73	337.41	337.56	337.86
Temperature	*deg C*	10.3	11.2	12.1	11.6	9.4	12.4	15.6	12.4	11.6	15.0	15.2	12.4	10.9	14.1	12.8	12.3	11.4	12.2	17.0	15.0	11.8	15.0	13.6
pH	*SU*	8.25	8.30	8.38	8.38	8.35	8.34	8.33	8.77	8.41	8.38	8.33	8.25	8.25	8.12	7.18	7.43	8.01	8.06	8.11	7.84	8.15	8.18	7.99
Specific Conductance	*µS/cm*	2052	1618	2205	2268	2294	2244	2236	2236	2090	2246	2171	2298	2291	2212	2249	2261	2394	2220	2269	2168	2241	2215	2262
Oxygen Reduction Potential	*mV*	29.0	-63.4	-48.7	-77.3	-153.2	-78.6	-203.9	-66.6	35.8	-41.9	-76.5	-167.0	-207.3	-80.1	4.7	-93.1	-37.0	-16.9	-156.9	265.7	211.7	257.6	281.0
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	9	7	6	8	8	8	8	7	8	8	7	7	8	9	8	8	7	8	7	8	7	8	9
pH (Lab)	*SU*	8.04	8.15	8.09	8.21	8.24	8.24	8.50	8.29	8.10	8.12	8.23	8.30	8.07	8.21	7.62	7.92	8.03	8.05	8.02	7.99	8.17	8.20	8.06
Total Dissolved Solids (Lab)	*mg/L*	1370	1430	1510	1470	1400	1540	1480	1430	1390	1480	1480	1400	1350	1430	1500	1470	1420	1470	1230	1470	1420	1480	1470
Calcium	*mg/L*	2.0	1.7	1.4	1.8	1.9	1.9	2.0	1.7	1.7	1.8	1.6	1.8	1.8	2.1	2.0	1.9	1.6	1.6	1.5	1.7	1.5	1.7	2.0
Magnesium	*mg/L*	0.9	0.7	0.6	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.6	0.8	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.9
Sodium	*mg/L*	565.0	507.0	411.0	488.0	504.0	523.0	520.0	482.0	559.0	535.0	503.0	509.0	538.0	520.0	564.0	513.0	525.0	508.0	513.0	563.0	537.0	511.0	504.0
Potassium	*mg/L*	*<5.00*	*<3.00*	*<5.00*	*<2.00*	*<2.00*	*<2.00*	*<2.00*	*<5.00*	*<5.00*	1.24	*< 5.00*	*< 5.00*	*< 3.00*	*< 2.00*	1.53	1.53	*< 5.00*	*< 5.00*	*< 2.00*	*< 2.00*	*< 2.00*	*< 2.00*	*< 5.00*
Alkalinity, Total	*mg/L*	620	590	580	670	535	605	590	480	569	579	562	515	555	585	615	590	590	555	530	590	505	560	550
Alkalinity, Bicarbonate	*mg/L*	620	530	580	670	485	455	590	480	531	579	524	515	545	585	615	590	590	465	530	590	495	560	550
Alkalinity, Carbonate	*mg/L*	*<10.0*	60.0	*<10.0*	*<10.0*	50.0	150.0	*<10.0*	*<10.0*	38.0	*<10.0*	38.0	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	90.0	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	8.79	9.15	9.17	9.04	9.04	8.97	9.89	9.61	9.72	10.30	10.60	10.30	11.30	*< 25.0*	10.10	10.10	10.00	10.10	9.57	9.97	9.69	9.67	9.13
Fluoride	*mg/L*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.500*	*<0.500*	0.165	*< 0.500*	*< 0.500*	*< 1.00*	*< 2.50*	*< 0.500*	*< 0.500*	*< 0.200*	*< 0.500*	*< 0.200*	*< 0.200*	*< 0.200*	*< 0.200*	*< 0.200*
Sulfate as SO4	*mg/L*	561.0	577.0	593.0	551.0	581.0	525.0	580.0	590.0	602.0	594.0	571.0	583.0	586.0	576.0	586.0	570.0	592.0	552.0	535.0	543.0	545.0	553.0	549.0
Total Organic Carbon (TOC)	*mg/L*	3.42	3.42	3.23	3.28	3.31	3.32	3.40	1.99	3.78	3.35	3.44	2.86	3.69	3.34	3.53	3.47	3.34	3.13	3.51	3.21	3.34	3.32	3.46
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	0.255	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	0.025	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	0.050	0.423	*< 0.020*	*< 0.020*	0.307
Aluminum	*mg/L*	*<0.250*	*<0.150*	*<0.250*	*<0.100*	*<0.100*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*<0.250*	*< 0.250*	*< 0.250*	*< 0.150*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.250*
Arsenic	*mg/L*	*<0.0025*	0.0005	*<0.0010*	*<0.0010*	0.0008	*<0.0010*	*<0.001*	*<0.001*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0020*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0020*	*< 0.0050*	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0020*
Cadmium	*mg/L*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.001*	*<0.001*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*
Copper	*mg/L*	0.0036	0.0135	0.0161	0.0126	0.0097	0.0133	0.0215	0.0213	0.0207	0.0201	0.0044	0.0108	0.0185	0.0204	0.0290	0.0303	0.0339	0.0273	0.0367	0.0236	0.0199	0.0191	0.0216
Iron	*mg/L*	*<0.250*	*<0.150*	*<0.250*	*<0.100*	*<0.100*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*<0.250*	*< 0.250*	*< 0.250*	*< 0.150*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.250*
Lead	*mg/L*	*<0.0025*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.001*	*<0.002*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0025*	0.0015	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*
Manganese	*mg/L*	0.0029	0.0029	0.0030	0.0030	0.0032	0.0033	0.0035	0.0031	0.0036	0.0030	0.0032	0.0029	0.0029	0.0029	0.0027	0.0046	0.0029	0.0026	0.0030	0.0012	0.0025	0.0033	0.0027
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	*<0.0025*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	0.0007	*< 0.0010*
Selenium	*mg/L*	*<0.0050*	*<0.0010*	*<0.0020*	*<0.0040*	0.0010	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0050*	*<0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0020*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0020*	*< 0.0050*	0.0023	*< 0.0020*	*< 0.0010*	*< 0.0020*
Silica (Si02)	*mg/L*	10.40	8.98	8.57	10.00	9.75	9.80	10.30	8.80	10.30	9.55	8.45	9.58	9.79	9.45	9.93	9.87	9.94	9.71	9.37	9.32	9.71	9.61	9.63
Silicon	*mg/L*	4.87	4.20	4.01	4.67	4.56	4.58	4.80	4.11	4.82	4.46	3.95	4.48	4.58	4.42	4.64	4.62	4.64	4.54	4.38	4.36	4.54	4.49	4.50
Uranium	*mg/L*	*<0.0025*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0010*
Zinc	*mg/L*	*<0.0100*	0.0021	*<0.0040*	*<0.0040*	*<0.0020*	*<0.0040*	*<0.0040*	*<0.0040*	*<0.0100*	*<0.0100*	*< 0.0100*	*< 0.0100*	*< 0.0100*	0.0088	0.0058	0.0224	0.0323	0.0262	0.0290	0.0518	0.0097	0.0288	0.0652

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-4-MI																							
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	9	11	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/10	5/18	8/10	11/10	2/23	5/11	9/1	11/17	3/9	5/31	8/7	11/16	2/12	6/20	8/13	11/22	2/7	5/14	8/17	11/3	2/2	5/15	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	gpm	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Total Purged	gal	2	1	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	ft bgs	333.22	329.27	333.57	333.65	333.45	333.80	334.22	334.15	334.35	334.85	335.30	335.55	335.18	335.80	335.72	335.30	335.00	334.71	334.76	334.40	334.40	334.25	334.40
Temperature	deg C	10.8	11.6	12.1	11.7	11.0	12.0	13.0	11.5	11.5	12.9	12.5	12.1	10.9	12.5	12.7	12.4	11.2	11.7	15.0	12.7	11.8	16.1	12.4
pH	SU	8.57	8.60	8.59	8.59	8.46	8.56	8.51	7.87	8.62	8.62	8.62	8.53	8.08	7.63	7.61	8.20	8.49	8.56	8.31	8.31	8.34	8.42	8.46
Specific Conductance	µS/cm	1605	1258	1711	1761	1745	1727	1718	1749	1673	1728	1710	1791	1784	1695	1712	1780	1866	1726	1419	1649	1710	1731	1772
Oxygen Reduction Potential	mV	-53.9	-105.9	-97.8	-118.1	-141.5	-128.8	-247.1	-131.9	85.0	-139.7	-81.2	-267.6	-266.9	-140.8	-93.9	-157.0	-182.8	-142.8	-308.6	21.8	128.5	122.3	-18.7
Lab Analytical Results:																								
Hardness as CaCO3	mg/L	5	4	5	5	4	4	5	<3.31	4	4	< 3.31	4	4	5	5	5	5	< 3.31	4	5	7	4	5
pH (Lab)	SU	8.21	8.38	8.28	8.59	8.35	8.42	8.68	8.48	8.25	8.41	8.44	8.59	7.39	8.23	8.26	8.37	8.49	8.40	8.18	7.94	8.27	8.45	8.21
Total Dissolved Solids (Lab)	mg/L	1130	1100	1130	1090	1100	1140	1070	1060	1030	1030	1060	1050	1000	1030	1120	1070	1030	1110	1060	1070	1070	1110	1090
Calcium	mg/L	2.0	1.1	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.8	1.0	1.0	1.4	1.3	1.4	1.3	1.2	1.1	1.3	1.6	1.0	1.3
Magnesium	mg/L	<0.500	0.3	0.4	0.4	0.4	0.3	0.4	<0.500	0.3	0.4	< 0.500	0.4	0.3	0.4	0.4	0.4	0.4	< 0.500	0.4	0.4	0.7	0.4	0.6
Sodium	mg/L	476.0	431.0	427.0	418.0	430.0	443.0	448.0	384.0	468.0	427.0	428.0	424.0	439.0	427.0	440.0	450.0	466.0	443.0	462.0	487.0	490.0	429.0	467.0
Potassium	mg/L	<5.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<5.00	<2.00	<2.00	< 5.00	< 2.00	< 2.00	< 2.00	1.39	1.33	1.81	< 5.00	1.45	< 2.00	1.88	< 2.00	1.26
Alkalinity, Total	mg/L	990	1020	985	1140	935	1020	1180	920	1040	965	955	985	975	1040	1070	1090	1020	980	960	1030	1020	1010	965
Alkalinity, Bicarbonate	mg/L	910	900	865	1020	825	870	1040	720	980	865	907	945	975	995	1020	905	920	840	940	1030	960	935	875
Alkalinity, Carbonate	mg/L	80.0	120.0	120.0	120.0	110.0	150.0	140.0	200.0	60.0	100.0	48.0	40.0	< 10.0	40.0	50.0	180.0	100.0	140.0	20.0	< 10.0	60.0	70.0	90.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L	4.89	4.85	4.91	4.98	4.55	4.36	4.29	<5.00	25.40	3.91	< 5.00	3.62	< 5.00	3.46	3.36	< 5.00	3.25	< 5.00	3.14	3.23	3.15	3.28	3.01
Fluoride	mg/L	4.920	5.030	5.200	4.780	5.160	4.730	5.420	5.130	5.420	5.310	4.320	4.830	5.080	5.660	5.570	5.740	5.810	5.180	5.000	4.620	4.840	5.310	5.000
Sulfate as SO4	mg/L	17.1	16.1	16.4	13.7	13.4	12.4	12.7	11.7	21.8	10.1	< 5.00	8.2	8.5	9.0	8.9	9.3	9.4	8.4	7.8	6.4	7.0	7.8	8.2
Total Organic Carbon (TOC)	mg/L	5.78	5.36	5.29	5.09	4.80	4.28	4.73	2.31	4.82	4.52	4.06	4.05	4.07	3.57	3.53	3.66	3.51	3.14	4.49	3.69	3.75	3.44	3.36
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Aluminum	mg/L	<0.250	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.250	<0.100	<0.100	< 0.250	< 0.100	< 0.100	< 0.100	< 0.050	< 0.050	< 0.050	< 0.250	< 0.050	< 0.100	0.081	< 0.050	< 1.00
Arsenic	mg/L	0.0088	0.0110	0.0099	0.0093	0.0120	0.0092	0.0094	0.0090	0.0100	0.0074	0.0090	0.0101	0.0079	0.0082	0.0078	0.0088	0.0093	0.0059	0.0074	0.0059	0.0079	0.0072	0.0073
Cadmium	mg/L	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0005	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0005
Copper	mg/L	0.0040	0.0103	0.0134	0.0107	0.0116	0.0107	0.0177	0.0177	0.0196	0.0049	0.0039	0.0086	0.0159	0.0165	0.0258	0.0191	0.0147	0.0146	0.0207	0.0169	0.0161	0.0160	0.0144
Iron	mg/L	<0.250	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.250	<0.100	<0.100	< 0.250	< 0.100	< 0.100	< 0.100	< 0.050	< 0.050	< 0.050	< 0.250	< 0.050	< 0.100	0.143	< 0.050	0.084
Lead	mg/L	<0.0025	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.002	<0.0010	<0.001	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0005	< 0.0005	< 0.0005
Manganese	mg/L	0.0094	0.0073	0.0075	0.0077	0.0076	0.0080	0.0078	0.0084	0.0076	0.0077	0.0079	0.0074	0.0080	0.0116	0.0079	0.0103	0.0093	0.0086	0.0116	0.0117	0.0103	0.0078	0.0118
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																		
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L	0.0082	0.0076	0.0068	0.0065	0.0065	0.0062	0.0064	0.0064	0.0060	0.0052	0.0051	0.0050	0.0048	0.0046	0.0045	0.0041	0.0043	0.0043	0.0354	0.0183	0.0067	0.0048	0.0053
Selenium	mg/L	0.0143	<0.0010	<0.0020	<0.0040	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0050	< 0.0050	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0010	0.0023	< 0.0020	< 0.0020	0.0153	< 0.0010	< 0.0010	0.0031
Silica (Si02)	mg/L	9.26	7.82	8.69	8.54	8.49	8.30	8.76	6.89	9.27	8.23	6.72	8.64	8.09	8.08	8.97	9.45	9.81	9.23	8.81	8.56	9.42	9.16	7.11
Silicon	mg/L	4.33	3.66	4.06	3.99	3.97	3.88	4.09	3.22	4.34	3.85	3.14	4.04	3.78	3.78	4.20	4.42	4.59	4.31	4.12	4.00	4.40	4.28	3.32
Uranium	mg/L	0.0137	0.0115	0.0112	0.0097	0.0089	0.0086	0.0084	0.0088	0.0075	0.0063	0.0063	0.0070	0.0079	0.0051	0.0065	0.0052	0.0052	0.0050	0.0045	0.0035	0.0047	0.0046	0.0064
Zinc	mg/L	<0.0100	<0.0020	<0.0040	<0.0040	<0.0020	<0.0040	<0.0040	<0.0040	0.0044	<0.0100	< 0.0100	< 0.0040	< 0.0040	< 0.0040	< 0.0020	0.0036	< 0.0020	0.0085	0.0094	0.0117	< 0.0020	< 0.0020	< 0.0020

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	yes or no
gpm	gallons per minute
deg C	degrees Celsius
SU	standard pH units
µS/cm	microsiemens per centimeter
mV	millivolts
mg/L	milligram per liter
pCi/L	picocuries per liter
NM	not measured (field)
NA	not analyzed (lab)
ng/L	nanogram per liter

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-4-C																								
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	9	11	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/10	5/18	8/10	11/10	2/23	5/11	9/1	11/17	3/9	5/31	8/18	11/16	2/12	6/20	8/13	11/22	2/7	5/14	8/18	11/3	2/24	5/15	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Purged	*gal*	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	*ft bgs*	308.65	308.58	309.32	309.90	309.80	311.45	310.88	311.37	310.15	311.45	311.85	311.55	311.35	310.24	311.74	311.77	312.30	311.85	312.05	312.60	313.50	313.81	313.60
Temperature	*deg C*	10.0	11.4	12.3	11.7	10.3	12.2	13.8	12.1	11.1	13.8	13.7	12.4	11.0	12.8	12.7	11.3	11.1	12.1	15.6	11.9	11.9	14.1	15.0
pH	*SU*	8.02	8.05	8.12	8.11	8.06	8.05	8.06	8.28	8.15	8.09	8.17	8.02	8.00	7.91	7.98	7.96	7.90	7.96	8.15	8.09	7.89	8.02	8.83
Specific Conductance	*µS/cm*	5106	4047	5454	5687	5698	5645	5589	5649	5116	5678	5560	5842	5792	5580	5751	5761	6075	5662	5619	5468	5642	6186	836
Oxygen Reduction Potential	*mV*	-106.2	-100.6	-142.3	-173.0	-255.6	-178.7	-278.7	-161.3	-158.1	-168.9	-182.7	-255.3	-250.2	-190.4	-194.8	-231.9	-182.9	-190.8	-93.6	-134.6	-83.6	-110.5	308.5
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	26	20	22	21	22	21	26	20	21	21	24	22	24	21	24	24	22	23	23	24	20	26	20
pH (Lab)	*SU*	7.96	7.97	7.96	8.08	8.01	8.07	8.19	8.15	7.98	8.12	8.04	8.13	7.65	8.01	8.05	7.94	7.99	7.97	8.13	8.11	8.16	8.25	8.31
Total Dissolved Solids (Lab)	*mg/L*	3720	3540	3600	3630	3520	3580	3670	3530	3620	3450	3390	3560	3420	3490	3590	3510	3500	3510	3570	3590	3620	3590	543
Calcium	*mg/L*	6.0	4.6	5.1	4.8	5.0	5.1	6.0	4.7	4.8	4.8	5.7	5.2	5.5	4.9	5.5	5.6	5.2	5.2	5.3	5.6	4.6	5.7	4.9
Magnesium	*mg/L*	2.6	2.0	2.3	2.2	2.3	2.1	2.7	2.1	2.2	2.2	2.5	2.2	2.4	2.1	2.4	2.4	2.2	2.4	2.3	2.5	2.1	2.9	2.0
Sodium	*mg/L*	1520.0	1310.0	1340.0	1270.0	1360.0	1350.0	1530.0	1290.0	1410.0	1360.0	1440.0	1360.0	1410.0	1370.0	1480.0	1370.0	1440.0	1370.0	1390.0	1560.0	1300.0	1320.0	1130.0
Potassium	*mg/L*	*<10.0*	*<6.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 6.00*	4.13	4.32	4.71	*< 5.00*	*< 5.00*	4.33	*< 5.00*	*< 5.00*	5.21	6.19
Alkalinity, Total	*mg/L*	2470	2500	2410	2630	2360	2500	2430	2250	2580	2240	2460	2460	2350	2580	2620	2410	2460	2420	2470	2440	2550	2470	1980
Alkalinity, Bicarbonate	*mg/L*	2430	2360	2290	2410	2180	2300	2430	2250	2490	2240	2330	2420	2330	2380	2280	2410	2320	2160	2310	2340	2390	2330	1980
Alkalinity, Carbonate	*mg/L*	40.0	140.0	120.0	220.0	180.0	200.0	*<10.0*	*<10.0*	90.0	*<10.0*	130.0	40.0	20.0	200.0	340.0	*< 10.0*	140.0	260.0	160.0	100.0	160.0	140.0	*< 10.0*
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	557.00	553.00	572.00	561.00	562.00	563.00	570.00	583.00	576.00	581.00	566.00	586.00	575.00	579.00	573.00	548.00	597.00	515.00	571.00	586.00	571.00	592.00	449.00
Fluoride	*mg/L*	2.210	2.160	2.280	2.040	2.260	2.020	2.340	2.220	2.230	2.150	2.100	2.020	1.750	2.740	2.370	3.200	2.730	2.230	2.290	2.200	2.240	2.080	1.600
Sulfate as SO4	*mg/L*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<5.00*	*<10.0*	*<10.0*	*<5.00*	*< 10.0*	*< 10.0*	11.1	*< 10.0*	*< 10.0*	*< 2.00*	*< 5.00*	*< 10.0*	*< 5.00*	*< 5.00*	*< 5.00*	*< 5.00*	148.0
Total Organic Carbon (TOC)	*mg/L*	4.57	4.92	4.81	4.70	5.93	4.91	4.39	3.19	4.75	5.54	7.10	19.60	6.25	5.89	6.08	6.76	6.52	4.21	6.16	5.76	7.59	6.97	6.39
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.040*	*<0.020*	*<0.100*	*<0.020*	*<0.020*	*<0.02*	*< 0.020*	*< 0.020*	0.252	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	*mg/L*	*<0.500*	*<0.300*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*<0.500*	*<0.500*	*<0.500*	*< 0.500*	*< 0.500*	*< 0.300*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	0.541	0.342	*< 0.250*	0.673	*< 0.250*
Arsenic	*mg/L*	0.0177	0.0212	0.0248	0.0213	0.0213	0.0172	0.0219	0.0207	0.0218	0.0155	0.0237	0.0179	0.0181	0.0221	0.0215	0.0211	0.0221	0.0202	0.0255	0.0259	0.0261	0.0228	0.0159
Cadmium	*mg/L*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0050*	*<0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	0.0008	*< 0.0015*	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0025*	0.0008	*< 0.0025*	*< 0.0025*
Copper	*mg/L*	0.0111	0.0464	0.0499	0.0370	0.0302	0.0371	0.0618	0.0573	0.0606	0.0160	0.0731	0.0292	0.0487	0.0566	0.0641	0.0624	0.0656	0.0492	0.0612	0.0580	0.0544	0.0541	0.0468
Iron	*mg/L*	0.837	0.355	0.793	0.551	0.598	0.801	0.795	*<0.500*	0.731	0.572	0.630	0.604	*< 0.300*	0.604	0.682	0.722	0.551	0.579	0.234	0.446	0.337	0.886	*< 0.250*
Lead	*mg/L*	*<0.0050*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0050*	*<0.0025*	*<0.0050*	*<0.005*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0005*	*< 0.0015*	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0025*	*< 0.0005*	*< 0.0025*	*< 0.0025*
Manganese	*mg/L*	0.0059	0.0063	0.0050	0.0047	0.0051	0.0046	0.0049	0.0046	*<0.0050*	*<0.005*	*< 0.0050*	*< 0.0050*	0.0067	*< 0.0050*	0.0034	0.0081	0.0041	0.0034	0.0064	0.0059	0.0030	0.0118	0.0064
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<500*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	*<0.0050*	0.0037	0.0031	0.0031	0.0033	0.0031	0.0036	0.0034	*<0.0050*	*<0.005*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	0.0028	0.0035	0.0027	*< 0.0025*	0.0118	0.0112	0.0029	0.0036	0.0028
Selenium	*mg/L*	*<0.0100*	0.0186	0.0280	0.0269	0.0219	0.0146	0.0218	0.0256	0.0258	0.0194	0.0119	0.0216	0.0271	0.0303	0.0276	0.0274	0.0250	0.0377	0.0397	0.0353	0.0338	0.0338	0.0244
Silica (Si02)	*mg/L*	10.80	8.35	9.54	9.37	9.28	8.56	10.40	*<10.7*	*<10.7*	*<10.7*	*< 10.7*	*< 10.7*	9.10	8.50	10.90	9.87	9.77	9.37	11.20	12.20	8.56	13.30	9.61
Silicon	*mg/L*	5.06	3.91	4.46	4.38	4.34	4.00	4.87	*<5.00*	*<5.00*	*<5.00*	*< 5.00*	*< 5.00*	4.24	3.95	5.10	4.61	4.57	4.38	5.23	5.68	4.00	6.22	4.49
Uranium	*mg/L*	*<0.0050*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0050*	*<0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	*< 0.0050*	0.0009	*< 0.0015*	*< 0.0025*	*< 0.0025*	*< 0.0050*	*< 0.0025*	0.0007	*< 0.0025*	*< 0.0025*
Zinc	*mg/L*	*<0.0200*	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0200*	*<0.0200*	*< 0.0200*	*< 0.0200*	*< 0.0200*	*< 0.0200*	*< 0.0020*	*< 0.0060*	0.0183	*< 0.0100*	0.0205	0.0157	*< 0.0020*	*< 0.0100*	*< 0.0100*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-6-A

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/9	5/17	8/9	11/9	2/15	5/10	8/31	11/25	3/13	5/18	8/8	11/16	2/5	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/24	5/15	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	***gpm***	0.1	0.0	0.1	0.0	0.1	0.1																	
Total Purged	***gal***	1	1	1	1	1	1																	
Depth to Water	***ft bgs***	319.66	319.66	319.64	319.66	320.30	320.68																	
Temperature	***deg C***	9.7	12.6	19.4	10.7	11.5	17.3	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	***SU***	7.03	7.10	7.11	7.11	7.02	7.05																	
Specific Conductance	***µS/cm***	4051	3198	4238	4465	4486	4477																	
Oxygen Reduction Potential	***mV***	73.5	83.5	5.2	26.5	-56.1	2.4																	
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	2660	2550	2740	2510	2440	2490																	
pH (Lab)	***SU***	7.20	6.93	7.10	6.98	7.19	7.26																	
Total Dissolved Solids (Lab)	***mg/L***	4480	4390	4440	4310	4440	4450																	
Calcium	***mg/L***	398.0	378.0	415.0	370.0	359.0	365.0																	
Magnesium	***mg/L***	404.0	390.0	413.0	385.0	374.0	383.0																	
Sodium	***mg/L***	272.0	266.0	263.0	254.0	257.0	268.0																	
Potassium	***mg/L***	11.10	10.70	11.00	10.40	10.70	10.60																	
Alkalinity, Total	***mg/L***	245	290	255	295	285	270																	
Alkalinity, Bicarbonate	***mg/L***	245	290	255	295	285	270																	
Alkalinity, Carbonate	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*																	
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*																	
Chloride	***mg/L***	24.90	25.80	26.00	26.60	26.20	26.10																	
Fluoride	***mg/L***	*<0.500*	*<0.500*	*<0.500*	*<0.500*	*<0.500*	*<0.500*																	
Sulfate as SO4	***mg/L***	2620.0	2740.0	2780.0	2790.0	2870.0	2820.0																	
Total Organic Carbon (TOC)	***mg/L***	1.71	3.82	3.33	3.25	3.26	3.14																	
Nitrate/Nitrite as N	***mg/L***	0.039	0.156	0.118	0.096	0.131	0.103																	
Aluminum	***mg/L***	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*<0.250*	*<0.250*																	
Arsenic	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0020*	*<0.0025*																	
Cadmium	***mg/L***	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0020*	*<0.0025*																	
Copper	***mg/L***	*<0.0025*	0.0068	0.0082	0.0063	0.0065	0.0093																	
Iron	***mg/L***	1.170	0.890	1.480	1.150	1.410	1.370																	
Lead	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0020*	*<0.0025*																	
Manganese	***mg/L***	0.4370	0.3970	0.4070	0.3910	0.4200	0.4310																	
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5.00*																	
Molybdenum	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0020*	*<0.0025*																	
Selenium	***mg/L***	*<0.0050*	*<0.0050*	*<0.0050*	*<0.0100*	*<0.0040*	*<0.0050*																	
Silica (Si02)	***mg/L***	11.90	13.20	14.30	13.60	12.70	12.30																	
Silicon	***mg/L***	5.58	6.17	6.67	6.36	5.96	5.73																	
Uranium	***mg/L***	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0020*	*<0.0025*																	
Zinc	***mg/L***	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0100*	*<0.0080*	*<0.0100*																	

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

*	**Anomalous value under review**
Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-6-MI

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/9	5/17	8/9	11/9	2/15	5/10	8/1	11/25	3/13	5/31	8/8	11/16	2/5	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/24	5/15	8/15
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	*gpm*																							
Total Purged	*gal*																							
Depth to Water	*ft bgs*																							
Temperature	*deg C*	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	*SU*																							
Specific Conductance	*µS/cm*																							
Oxygen Reduction Potential	*mV*																							
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*																							
pH (Lab)	*SU*																							
Total Dissolved Solids (Lab)	*mg/L*																							
Calcium	*mg/L*																							
Magnesium	*mg/L*																							
Sodium	*mg/L*																							
Potassium	*mg/L*																							
Alkalinity, Total	*mg/L*																							
Alkalinity, Bicarbonate	*mg/L*																							
Alkalinity, Carbonate	*mg/L*																							
Alkalinity, Hydroxide	*mg/L*																							
Chloride	*mg/L*																							
Fluoride	*mg/L*																							
Sulfate as SO4	*mg/L*																							
Total Organic Carbon (TOC)	*mg/L*																							
Nitrate/Nitrite as N	*mg/L*																							
Aluminum	*mg/L*																							
Arsenic	*mg/L*																							
Cadmium	*mg/L*																							
Copper	*mg/L*																							
Iron	*mg/L*																							
Lead	*mg/L*																							
Manganese	*mg/L*																							
Mercury (dissolved)	*mg/L*																							
Mercury (dissolved low-level)	*ng/L*																							
Molybdenum	*mg/L*																							
Selenium	*mg/L*																							
Silica (Si02)	*mg/L*																							
Silicon	*mg/L*																							
Uranium	*mg/L*																							
Zinc	*mg/L*																							

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-6-C

Year		**2021**				**2022**				**2023**				**2024**				**2025**				**2026**		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/9	5/17	8/9	11/9	2/15	5/10	8/1	11/25	3/13	5/18	8/8	11/16	2/5	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/2	5/15	8/15
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																								
Purge Flow Rate	***gpm***																							
Total Purged	***gal***																							
Depth to Water	***ft bgs***																							
Temperature	***deg C***	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	***SU***																							
Specific Conductance	***µS/cm***																							
Oxygen Reduction Potential	***mV***																							
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***																							
pH (Lab)	***SU***																							
Total Dissolved Solids (Lab)	***mg/L***																							
Calcium	***mg/L***																							
Magnesium	***mg/L***																							
Sodium	***mg/L***																							
Potassium	***mg/L***																							
Alkalinity, Total	***mg/L***																							
Alkalinity, Bicarbonate	***mg/L***																							
Alkalinity, Carbonate	***mg/L***																							
Alkalinity, Hydroxide	***mg/L***																							
Chloride	***mg/L***																							
Fluoride	***mg/L***																							
Sulfate as SO4	***mg/L***																							
Total Organic Carbon (TOC)	***mg/L***																							
Nitrate/Nitrite as N	***mg/L***																							
Aluminum	***mg/L***																							
Arsenic	***mg/L***																							
Cadmium	***mg/L***																							
Copper	***mg/L***																							
Iron	***mg/L***																							
Lead	***mg/L***																							
Manganese	***mg/L***																							
Mercury (dissolved)	***mg/L***																							
Mercury (dissolved low-level)	***ng/L***																							
Molybdenum	***mg/L***																							
Selenium	***mg/L***																							
Silica (Si02)	***mg/L***																							
Silicon	***mg/L***																							
Uranium	***mg/L***																							
Zinc	***mg/L***																							

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-6-LM

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2	5	8
Sample Date		2/9	5/17	8/9	11/9	2/15	5/10	8/31	11/25	3/13	5/31	8/8	11/16	2/12	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/2	5/15	8/15
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Purged	*gal*	2	2	2	2	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	*ft bgs*	539.78	540.20	541.25	541.34	541.00	541.30	542.20	541.30	541.37	541.50	541.88	541.85	541.65	541.65	541.97	542.05	541.85	541.80	542.10	542.10	542.00	541.95	542.10
Temperature	*deg C*	10.2	11.6	14.4	11.1	11.0	11.8	13.1	10.4	8.7	14.4	13.5	10.9	8.7	12.2	16.0	9.3	11.0	11.5	14.8	13.0	11.3	19.9	12.2
pH	*SU*	7.44	7.54	7.52	7.49	7.46	7.56	7.64	7.70	7.77	7.58	7.67	7.55	7.65	7.36	7.49	7.48	7.57	7.39	7.72	7.50	7.50	7.62	7.59
Specific Conductance	*µS/cm*	2136	1629	2531	2478	2362	2297	2053	1889	1599	1321	1525	1655	1498	1153	1030	997	886	770	729	718	771	781	740
Oxygen Reduction Potential	*mV*	3.5	-188.8	-2.6	-36.6	-135.8	-112.6	-181.6	-132.5	-80.3	-41.7	-75.3	-173.0	-249.9	-122.1	-77.2	-229.4	-157.6	-62.9	-261.4	91.6	78.5	338.4	51.5
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	1120	1010	1280	1130	1030	954	971	870	687	456	573	621	535	414	335	282	213	200	190	174	211	239	219
pH (Lab)	*SU*	7.49	7.45	7.37	7.57	7.54	7.60	7.90	7.60	7.75	7.58	7.79	7.76	7.48	7.24	7.73	7.54	7.65	7.82	7.90	7.71	7.66	7.81	7.96
Total Dissolved Solids (Lab)	*mg/L*	1990	1830	2290	2050	1990	1840	1870	1620	1290	940	1030	1060	940	755	680	575	440	445	425	410	400	465	420
Calcium	*mg/L*	176.0	154.0	201.0	174.0	159.0	145.0	152.0	133.0	109.0	76.8	91.5	99.1	86.9	70.5	58.1	49.2	39.8	38.2	35.6	33.1	42.0	46.5	42.0
Magnesium	*mg/L*	166.0	152.0	189.0	170.0	154.0	144.0	143.0	131.0	101.0	64.2	83.5	90.6	77.2	57.8	46.2	38.6	27.5	25.4	24.5	22.1	25.7	29.9	27.6
Sodium	*mg/L*	188.0	169.0	177.0	166.0	162.0	158.0	163.0	150.0	139.0	125.0	128.0	132.0	131.0	123.0	122.0	119.0	115.0	105.0	102.0	106.0	92.5	81.6	88.8
Potassium	*mg/L*	5.96	5.22	5.69	4.99	5.22	*<5.00*	4.84	4.34	4.04	3.14	*< 5.00*	3.34	3.47	3.11	2.89	2.63	2.48	2.55	2.94	2.65	3.53	3.78	3.61
Alkalinity, Total	*mg/L*	336	346	330	380	365	365	337	310	368	470	390	355	355	360	430	410	440	405	400	410	360	375	365
Alkalinity, Bicarbonate	*mg/L*	336	346	330	380	365	365	337	310	368	470	390	355	355	360	430	410	440	405	400	410	360	375	355
Alkalinity, Carbonate	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	11.00	10.50	12.60	11.10	10.50	10.90	10.70	9.29	6.75	5.09	5.75	6.09	6.04	4.47	3.61	3.06	2.18	*< 1.00*	2.08	2.06	2.23	2.38	1.86
Fluoride	*mg/L*	0.318	0.340	0.418	0.306	0.328	*<0.500*	0.310	0.322	0.328	0.254	*< 0.200*	0.240	*< 0.500*	0.306	0.316	0.335	0.344	*< 0.100*	0.259	0.266	0.227	0.197	0.223
Sulfate as SO4	*mg/L*	1020.0	978.0	1300.0	1100.0	555.0	931.0	1010.0	848.0	563.0	366.0	500.0	534.0	451.0	298.0	209.0	144.0	63.0	8.5	46.3	30.2	56.0	67.8	47.4
Total Organic Carbon (TOC)	*mg/L*	3.17	1.81	1.91	1.94	1.83	1.74	2.08	1.29	2.13	*<2.5*	1.66	0.76	1.70	1.74	1.36	1.36	1.13	1.21	1.28	1.35	1.14	1.61	1.65
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	0.022	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	0.026	0.031	*< 0.020*	0.023
Aluminum	*mg/L*	*<0.250*	*<0.150*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*<0.100*	*<0.100*	*<0.100*	*<0.100*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*
Arsenic	*mg/L*	0.0038	0.0038	0.0039	0.0038	0.0042	0.0034	0.0034	0.0043	0.0054	0.0030	*< 0.0025*	0.0040	0.0052	0.0030	0.0030	0.0030	0.0027	0.0020	0.0017	0.0015	0.0032	0.0026	0.0038
Cadmium	*mg/L*	*<0.0005*	*<0.0015*	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.001*	*<0.0010*	*<0.0025*	*<0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	*mg/L*	*<0.0025*	0.0042	0.0046	0.0040	0.0044	0.0038	0.0054	0.0030	0.0100	0.0016	*< 0.0025*	0.0032	0.0060	0.0050	0.0135	0.0088	0.0106	0.0031	0.0232	0.0074	0.0031	0.0032	0.0076
Iron	*mg/L*	*<0.250*	*<0.150*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*<0.100*	*<0.100*	0.152	*<0.1*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*
Lead	*mg/L*	*<0.0025*	*<0.0015*	*<0.0010*	*<0.0010*	*<0.0010*	*<0.0025*	*<0.001*	*<0.0010*	*<0.0025*	*<0.001*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	0.0008	0.0011	*< 0.0005*	0.0021	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0025*
Manganese	*mg/L*	0.2530	0.2030	0.2570	0.2630	0.3390	0.2490	0.1740	0.2200	0.2210	0.0961	0.1110	0.0727	0.2150	0.0820	0.0359	0.0719	0.0411	0.0302	*< 0.0010*	0.0009	0.0315	0.0954	0.0077
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	*<0.0025*	*<0.0015*	0.0016	0.0013	0.0013	*<0.0025*	0.0014	0.0011	*<0.0025*	*<0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	0.0007	0.0005	*< 0.0005*	*< 0.0005*	0.0005	*< 0.0005*	0.0005	0.0005	*< 0.0005*
Selenium	*mg/L*	0.0151	*<0.0030*	*<0.0020*	*<0.0040*	*<0.0020*	*<0.0050*	0.0028	0.0026	0.0060	0.0028	*< 0.0050*	0.0031	*< 0.0020*	0.0241	*< 0.0010*	*< 0.0010*	0.0132	0.0244	*< 0.0010*	*< 0.0010*	0.0034	*< 0.0010*	0.0011
Silica (Si02)	*mg/L*	15.60	16.40	16.80	16.60	16.00	15.50	17.30	16.70	16.80	17.40	16.30	17.20	16.40	17.20	18.20	16.90	17.70	18.00	19.10	17.00	18.90	21.20	19.50
Silicon	*mg/L*	7.30	7.68	7.85	7.75	7.49	7.24	8.07	7.80	7.84	8.12	7.64	8.06	7.68	8.02	8.52	7.92	8.27	8.42	8.91	7.93	8.81	9.92	9.10
Uranium	*mg/L*	0.0039	0.0030	0.0037	0.0032	0.0028	0.0025	0.0026	0.0025	*<0.0025*	0.0011	*< 0.0025*	0.0020	*< 0.0025*	0.0012	0.0009	0.0006	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	0.0005
Zinc	*mg/L*	*<0.0100*	*<0.0060*	*<0.0040*	*<0.0040*	*<0.0040*	*<0.0100*	*<0.0040*	*<0.0040*	*<0.0100*	*<0.0040*	*< 0.0100*	*< 0.0040*	*< 0.0040*	*< 0.0040*	*< 0.0020*	0.0160	0.0217	0.0080	0.0181	0.0122	*< 0.0020*	*< 0.0020*	*< 0.0100*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N **yes or no**
gpm **gallons per minute**
deg C **degrees Celsius**
SU **standard pH units**
µS/cm **microsiemens per centimeter**
mV **millivolts**
mg/L **milligram per liter**
pCi/L **picocuries per liter**
NM **not measured (field)**
NA **not analyzed (lab)**
ng/L **nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-7-EAA

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	***gpm***	0.3	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Total Purged	***gal***	15	17	17	18	18	17	17	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Depth to Water	***ft bgs***	36.20	35.33	36.91	35.92	35.90	35.70	36.71	36.40	35.85	29.10	28.40	25.60	27.45	25.40	26.30	25.00	25.00	23.10	28.10	28.10	27.50	26.90	29.80
Temperature	***deg C***	10.1	10.5	10.9	10.6	10.5	10.7	10.8	11.1	13.1	11.7	11.8	11.4	10.1	12.9	11.6	9.0	9.8	12.3	13.5	10.9	10.4	12.7	10.6
pH	***SU***	7.14	7.19	7.24	7.23	7.12	7.15	7.14	6.28	7.28	7.16	7.11	7.16	7.24	6.90	6.89	6.94	6.88	6.96	7.11	7.02	6.78	6.99	6.84
Specific Conductance	***µS/cm***	1672	1805	1814	1878	1882	1896	1880	1808	1754	1785	1831	1966	2082	1905	1932	2069	2062	1610	2977	1739	1927	1822	1958
Oxygen Reduction Potential	***mV***	2.2	-55.8	-41.9	-20.4	-133.6	-73.8	-196.7	-86.9	-10.9	-32.4	-60.3	-117.9	-133.9	-102.0	-59.0	-160.4	-70.9	-45.1	-190.6	73.4	96.0	111.5	191.2
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	9	9	8	9	1040	958	916	962	1020	952	902	1010	1080	1080	1030	997	993	1110	952	939	932	1040	1010
pH (Lab)	***SU***	8.37	8.28	8.31	8.20	7.11	7.12	7.24	7.18	6.95	6.95	7.25	7.16	6.84	7.07	7.10	7.13	7.09	7.08	7.47	7.27	7.73	7.17	7.31
Total Dissolved Solids (Lab)	***mg/L***	955	945	1010	945	1500	1500	1490	1420	1500	1400	1450	1560	1570	1550	1550	1650	1540	1490	1490	1470	1360	1570	1500
Calcium	***mg/L***	2.4	2.3	2.1	2.3	173.0	166.0	154.0	165.0	174.0	161.0	151.0	173.0	184.0	186.0	177.0	170.0	169.0	185.0	161.0	162.0	161.0	179.0	175.0
Magnesium	***mg/L***	0.8	0.8	0.6	0.9	149.0	132.0	129.0	134.0	143.0	134.0	127.0	141.0	150.0	149.0	141.0	139.0	139.0	157.0	133.0	130.0	129.0	145.0	139.0
Sodium	***mg/L***	435.0	380.0	402.0	391.0	77.8	71.9	71.6	72.3	76.3	75.6	69.2	77.1	80.6	80.5	77.1	78.1	75.6	82.7	77.2	76.2	78.4	83.7	80.1
Potassium	***mg/L***	*<3.00*	1.16	*<5.00*	*<2.00*	3.88	3.59	3.71	3.66	*<5.00*	3.63	*< 5.00*	3.46	3.62	3.84	3.78	3.65	*< 5.00*	*< 5.00*	3.91	3.91	4.36	5.97	5.56
Alkalinity, Total	***mg/L***	935	935	930	1000	425	425	400	310	378	410	437	425	440	455	437	460	440	430	390	435	415	435	405
Alkalinity, Bicarbonate	***mg/L***	825	825	820	920	425	425	400	310	378	410	437	425	440	455	437	460	440	430	390	435	415	435	405
Alkalinity, Carbonate	***mg/L***	110.0	110.0	110.0	80.0	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	5.27	4.93	4.78	6.80	10.10	10.30	11.20	11.00	11.10	10.80	11.80	11.90	11.50	11.40	11.60	11.20	12.80	11.30	10.80	11.30	10.80	10.80	10.80
Fluoride	***mg/L***	0.250	0.272	0.304	*<0.500*	0.292	*<0.200*	0.310	0.306	0.340	0.262	*< 0.200*	0.238	0.282	0.298	*< 0.500*	0.314	*< 0.500*	*< 0.500*	0.300	0.313	0.297	0.272	0.272
Sulfate as SO4	***mg/L***	6.8	6.4	6.3	6.9	755.0	743.0	759.0	761.0	827.0	709.0	719.0	828.0	842.0	821.0	790.0	747.0	867.0	798.0	734.0	821.0	716.0	879.0	884.0
Total Organic Carbon (TOC)	***mg/L***	2.64	2.50	2.66	2.40	3.50	3.42	3.38	2.12	3.68	3.31	5.57	4.24	5.38	5.12	4.40	4.99	5.11	3.91	4.42	10.90	4.53	4.23	6.90
Nitrate/Nitrite as N	***mg/L***	*<0.020*	0.042	0.039	0.104	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.100*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	***mg/L***	*<0.150*	*<0.050*	*<0.250*	*<0.100*	*<0.050*	*<0.050*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*< 0.250*	*< 0.100*	*< 0.150*	*< 0.100*	*< 0.050*	0.197	*< 0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.250*	*< 0.250*
Arsenic	***mg/L***	0.0143	0.0142	0.0117	0.0076	0.0009	0.0014	*<0.0025*	0.0013	*<0.0025*	*<0.0025*	*< 0.0025*	0.0010	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0050*	*< 0.0010*	*< 0.0020*	*< 0.0020*	0.0016	0.0012	*< 0.0020*
Cadmium	***mg/L***	*<0.0003*	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*
Copper	***mg/L***	0.0030	0.0088	0.0083	0.0095	0.0021	0.0036	*<0.0025*	0.0030	*<0.0025*	0.0028	0.0032	0.0018	0.0048	0.0044	0.0045	0.0186	*< 0.0050*	0.0077	0.0108	0.0076	0.0098	0.0031	0.0045
Iron	***mg/L***	*<0.150*	*<0.050*	*<0.250*	*<0.100*	2.050	1.690	1.750	1.570	1.990	0.265	*< 0.250*	0.251	0.259	0.421	0.379	0.404	1.750	1.900	2.740	2.230	2.680	2.540	2.770
Lead	***mg/L***	*<0.0015*	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0005*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	0.0015	*< 0.0025*	0.0005	*< 0.0010*	*< 0.0010*	0.0008	*< 0.0005*	*< 0.0025*
Manganese	***mg/L***	0.0215	0.0188	0.0187	0.0181	4.4800	4.5800	4.6100	4.7500	4.6900	4.2200	4.4600	4.4000	4.6500	4.6100	4.6500	4.6900	4.4400	4.8100	4.6700	4.4700	4.6400	4.6500	4.7300
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	***mg/L***	0.0006	*<0.0025*	*<0.0025*	*<0.0010*	0.0007	0.0007	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	0.0008	0.0007	*< 0.0025*	*< 0.0005*	*< 0.0010*	*< 0.0010*	0.0009	0.0009	*< 0.0010*
Selenium	***mg/L***	*<0.0010*	*<0.0050*	*<0.0050*	*<0.0020*	*<0.0010*	0.0012	*<0.0050*	*<0.0020*	*<0.0050*	*<0.0050*	*< 0.0050*	*< 0.0020*	*< 0.0020*	*< 0.0020*	0.0010	*< 0.0010*	*< 0.0050*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0010*	0.0013	*< 0.0020*
Silica (Si02)	***mg/L***	17.70	17.10	16.70	17.20	18.30	16.80	16.10	16.90	17.50	17.00	15.20	16.50	16.30	17.10	16.50	16.70	15.80	17.30	17.20	15.10	15.60	16.80	14.90
Silicon	***mg/L***	8.28	7.97	7.81	8.03	8.57	7.86	7.54	7.92	8.16	7.95	7.11	7.72	7.60	8.00	7.70	7.80	7.41	8.09	8.02	7.08	7.32	7.87	6.98
Uranium	***mg/L***	0.0018	*<0.0025*	*<0.0025*	0.0015	*<0.0025*	0.0018	*<0.0025*	0.0016	*<0.0025*	0.0018	*< 0.0025*	0.0025	0.0025	0.0025	0.0025	0.0025	*< 0.0025*	0.0010	0.0018	0.0018	0.0019	0.0020	0.0021
Zinc	***mg/L***	0.0022	*<0.0100*	*<0.0100*	*<0.0040*	*<0.0020*	0.0041	*<0.0100*	*<0.0040*	*<0.0100*	*<0.0100*	*< 0.0100*	*< 0.0040*	*< 0.0040*	*< 0.0040*	0.0033	0.0170	*< 0.0100*	0.0123	0.0166	0.0092	0.0166	0.0028	*< 0.0100*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N **yes or no**
gpm **gallons per minute**
deg C **degrees Celsius**
SU **standard pH units**
µS/cm **microsiemens per centimeter**
mV **millivolts**
mg/L **milligram per liter**
pCi/L **picocuries per liter**
NM **not measured (field)**
NA **not analyzed (lab)**
ng/L **nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-8-EAA

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	***gpm***	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.4	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Total Purged	***gal***	15.0	16.0	15.0	14.0	15.0	15.0	16.0	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Depth to Water	***ft bgs***	41.22	41.00	40.98	48.04	40.95	41.00	41.30	41.30	41.50	37.19	37.40	34.90	36.45	31.78	32.91	33.00	32.52	31.73	33.45	33.90	33.60	33.30	34.75
Temperature	***deg C***	10.9	11.0	11.2	10.7	10.7	10.8	10.7	9.7	11.0	11.6	12.2	12.3	9.8	11.7	12.2	10.9	9.9	11.2	11.7	10.8	10.6	11.8	11.2
pH	***SU***	7.20	7.27	7.31	7.30	7.18	7.23	7.23	6.59	7.20	7.27	7.23	7.07	7.35	6.97	7.02	7.06	6.92	7.11	7.24	7.15	6.91	7.14	7.11
Specific Conductance	***µS/cm***	1570	1642	1671	1746	1750	1763	1763	1793	1665	1766	1742	1761	1955	1849	1851	1848	1971	1577	1752	1754	1862	1808	1846
Oxygen Reduction Potential	***mV***	-20.2	-63.3	-57.4	-37.2	-156.9	-111.7	-230.9	-23.9	182.6	-81.5	-86.6	-103.6	-175.8	-96.2	-99.4	-147.0	-73.2	-82.7	-162.9	73.0	93.3	116.0	185.2
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	914	838	859	859	937	867	831	871	940	932	887	901	962	975	957	936	918	960	872	897	908	927	987
pH (Lab)	***SU***	7.03	6.97	7.06	6.81	7.19	7.16	7.27	7.25	7.05	7.03	7.33	7.43	7.02	7.20	7.17	7.30	7.19	7.10	7.25	7.19	7.40	7.34	7.52
Total Dissolved Solids (Lab)	***mg/L***	1400	1320	1320	1340	1380	1330	1360	1300	1320	1350	1400	1430	1480	1420	1460	1470	1460	1230	1430	1390	1430	1500	1460
Calcium	***mg/L***	156.0	146.0	146.0	149.0	158.0	150.0	143.0	149.0	163.0	159.0	152.0	156.0	168.0	169.0	167.0	162.0	158.0	164.0	148.0	155.0	157.0	159.0	170.0
Magnesium	***mg/L***	127.0	115.0	120.0	118.0	131.0	119.0	115.0	121.0	130.0	130.0	123.0	125.0	132.0	134.0	131.0	129.0	127.0	134.0	122.0	124.0	125.0	129.0	137.0
Sodium	***mg/L***	80.9	76.1	75.8	74.9	81.2	75.0	75.0	75.3	80.5	79.8	75.5	77.4	79.4	80.3	78.8	81.2	77.7	80.3	75.4	79.1	84.3	82.2	80.1
Potassium	***mg/L***	3.63	3.49	*<5.00*	3.36	3.65	3.35	3.45	3.42	*<5.00*	3.73	*< 5.00*	3.24	3.58	3.61	3.69	3.70	*< 5.00*	*< 5.00*	*< 5.00*	3.50	4.47	3.48	3.95
Alkalinity, Total	***mg/L***	450	445	385	490	460	465	480	430	417	448	417	415	435	475	480	470	465	465	380	460	419	419	430
Alkalinity, Bicarbonate	***mg/L***	450	445	385	490	460	465	480	430	417	448	417	415	435	475	480	470	465	465	380	460	419	419	430
Alkalinity, Carbonate	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	10.40	10.20	10.30	10.50	10.50	10.60	11.70	11.40	11.60	11.80	12.20	12.20	12.30	11.80	12.20	12.50	12.60	12.00	11.90	13.90	11.90	12.00	11.80
Fluoride	***mg/L***	0.292	0.306	0.350	0.272	0.304	0.204	0.332	0.316	0.358	0.284	*< 0.200*	0.266	0.330	0.312	*< 0.500*	*< 0.500*	*< 0.500*	0.315	0.308	0.345	0.309	0.275	0.287
Sulfate as SO4	***mg/L***	609.0	595.0	615.0	599.0	608.0	597.0	627.0	619.0	686.0	675.0	685.0	748.0	768.0	731.0	713.0	697.0	732.0	693.0	673.0	787.0	681.0	793.0	677.0
Total Organic Carbon (TOC)	***mg/L***	3.04	3.65	3.71	3.48	3.49	3.56	3.64	1.82	3.63	3.25	5.64	3.64	4.76	4.00	4.20	5.82	5.25	3.47	5.60	6.27	3.77	3.95	4.49
Nitrate/Nitrite as N	***mg/L***	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	0.493	*<0.020*	*< 0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	***mg/L***	*<0.150*	*<0.050*	*<0.250*	*<0.100*	*<0.050*	*<0.050*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*
Arsenic	***mg/L***	0.0018	0.0018	*<0.0025*	0.0017	0.0015	0.0019	*<0.0025*	0.0020	0.0027	*<0.0025*	*< 0.0025*	0.0020	*< 0.0020*	*< 0.0020*	0.0015	0.0016	*< 0.0050*	0.0025	*< 0.0050*	0.0024	0.0018	0.0017	*< 0.0020*
Cadmium	***mg/L***	*<0.0003*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*
Copper	***mg/L***	*<0.0015*	*<0.0015*	*<0.0025*	0.0017	0.0021	0.0031	*<0.0025*	0.0021	*<0.0025*	0.0084	*< 0.0025*	0.0020	0.0048	0.0030	0.0033	0.0160	*< 0.0050*	0.0146	0.0083	0.0165	0.0035	0.0029	0.0024
Iron	***mg/L***	2.330	2.250	2.200	2.220	2.520	2.220	2.280	2.270	2.430	2.430	2.190	2.240	2.340	2.370	2.320	2.230	2.230	2.300	2.590	2.850	2.500	2.490	2.700
Lead	***mg/L***	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	0.0012	*< 0.0025*	*< 0.0010*	*< 0.0025*	0.0019	*< 0.0005*	*< 0.0005*	*< 0.0010*
Manganese	***mg/L***	3.5500	3.5000	3.6000	3.6600	3.7700	3.7000	3.7700	3.8700	3.9800	3.8500	3.9100	4.1600	3.8800	4.2600	4.2300	4.2400	4.0400	4.3700	4.0100	3.7400	4.1600	4.1600	3.9600
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	***mg/L***	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	0.0009	0.0009	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	0.0009	0.0009	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	0.0009	0.0010	*< 0.0010*
Selenium	***mg/L***	0.0046	*<0.0030*	*<0.0050*	0.0035	*<0.0010*	0.0015	*<0.0050*	*<0.0020*	*<0.0050*	*<0.0050*	*< 0.0050*	*< 0.0020*	*< 0.0020*	0.0037	*< 0.0010*	*< 0.0010*	*< 0.0050*	*< 0.0020*	*< 0.0050*	*< 0.0020*	*< 0.0010*	0.0015	*< 0.0020*
Silica (Si02)	***mg/L***	16.00	16.50	15.50	16.40	17.30	16.00	15.40	16.20	16.90	16.60	15.40	16.50	15.90	16.30	16.10	16.20	14.90	15.00	15.80	14.90	15.10	16.10	15.80
Silicon	***mg/L***	7.48	7.72	7.24	7.68	8.10	7.47	7.18	7.60	7.89	7.75	7.22	7.72	7.44	7.61	7.54	7.56	6.97	7.02	7.40	6.99	7.05	7.50	7.41
Uranium	***mg/L***	0.0016	0.0016	*<0.0025*	0.0015	*<0.0025*	*<0.0025*	*<0.0025*	0.0016	*<0.0025*	0.0017	*< 0.0025*	0.0019	0.0019	0.0020	0.0021	0.0019	*< 0.0025*	0.0018	*< 0.0025*	0.0017	0.0018	0.0019	0.0018
Zinc	***mg/L***	*<0.0060*	*<0.0060*	*<0.0100*	*<0.0040*	*<0.0020*	0.0021	*<0.0100*	*<0.0040*	*<0.0100*	0.0063	*< 0.0100*	*< 0.0040*	*< 0.0040*	*< 0.0040*	0.0024	0.0227	*< 0.0100*	0.0236	0.0174	0.0164	*< 0.0020*	0.0024	*< 0.0040*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. **"<"** *values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*
2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*
3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-8-MI																							
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.3	0.1	0.3	0.3	0.3	0.1	0.2	0.5	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.0	0.3	0.1	0.1	0.1
Total Purged	*gal*	2.0	3.0	1.0	1.0	1.0	0.8	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Depth to Water	*ft bgs*	46.38	46.54	47.27	46.84	47.69	48.00	48.00	48.25	47.75	44.65	44.52	42.85	43.51	39.90	40.52	40.62	40.25	39.60	50.94*	41.42	41.36	41.34	42.25
Temperature	*deg C*	10.0	11.6	11.9	11.1	10.9	12.5	14.3	9.9	11.7	11.5	11.9	12.1	10.3	12.3	12.6	11.2	10.4	12.0	11.5	11.0	11.0	11.4	11.5
pH	*SU*	7.47	7.59	7.55	7.56	7.41	7.54	7.59	6.92	7.52	7.54	7.51	7.52	7.66	7.33	7.28	7.35	7.21	7.41	7.57	7.44	7.18	7.40	7.57
Specific Conductance	*µS/cm*	1468	1616	1554	1629	1596	1575	1505	1631	1632	1607	1538	1544	1642	1526	1580	1578	1673	1327	158	1534	1597	1589	1625
Oxygen Reduction Potential	*mV*	-72.0	-131.9	-123.1	-115.9	-195.3	-150.6	-262.2	-172.4	-79.7	-134.6	-148.3	-178.2	-22.8	-160.5	-118.0	-249.6	-122.3	-173.2	-244.0	4.7	33.2	-12.4	200.7
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	376	288	377	317	406	378	374	390	405	388	363	361	366	388	389	386	389	394	340	377	393	373	391
pH (Lab)	*SU*	7.33	7.36	7.31	7.06	7.36	7.38	7.70	7.45	7.30	7.36	7.67	7.66	7.11	7.47	7.44	7.48	7.42	7.31	7.54	7.40	7.51	7.57	7.73
Total Dissolved Solids (Lab)	*mg/L*	1060	1040	1000	1100	1050	1040	1050	990	1050	995	1060	1050	995	985	1030	995	1040	895	1020	965	1050	1040	1030
Calcium	*mg/L*	69.7	54.0	70.3	59.8	75.5	71.2	69.2	72.3	76.0	72.1	67.4	66.3	68.4	72.9	73.5	71.3	70.3	72.1	61.0	69.5	73.4	69.1	71.1
Magnesium	*mg/L*	49.1	37.2	48.9	40.8	52.7	48.7	48.8	50.8	52.3	50.4	47.1	47.5	47.4	50.1	50.0	50.6	51.9	52.0	45.6	49.3	51.0	48.7	51.9
Sodium	*mg/L*	237.0	256.0	229.0	238.0	226.0	220.0	213.0	210.0	230.0	236.0	216.0	215.0	219.0	221.0	228.0	217.0	207.0	220.0	208.0	220.0	237.0	234.0	225.0
Potassium	*mg/L*	5.88	5.05	5.69	5.14	5.98	5.47	5.59	5.63	5.44	6.18	5.09	5.12	5.38	5.65	5.73	5.73	5.70	6.00	5.58	5.59	1.53	5.45	5.99
Alkalinity, Total	*mg/L*	590	575	570	605	590	590	500	540	550	568	553	560	555	595	580	610	585	590	540	590	595	575	545
Alkalinity, Bicarbonate	*mg/L*	590	575	570	605	590	590	500	540	550	568	553	560	555	595	580	610	585	590	540	590	595	575	545
Alkalinity, Carbonate	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	7.96	8.07	7.85	7.91	7.70	8.36	8.88	8.60	8.56	8.39	8.80	8.35	8.67	8.73	9.13	8.77	9.71	8.39	8.08	8.61	8.19	8.35	8.06
Fluoride	*mg/L*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	*<0.200*	0.112	*< 0.200*	*< 0.200*	*< 0.200*	*< 0.200*	*< 0.500*	*< 0.500*	*< 0.500*	0.118	0.123	0.127	0.119	0.103	0.120
Sulfate as SO4	*mg/L*	326.0	314.0	324.0	312.0	325.0	322.0	352.0	351.0	335.0	327.0	323.0	320.0	329.0	329.0	356.0	319.0	378.0	336.0	312.0	360.0	318.0	376.0	330.0
Total Organic Carbon (TOC)	*mg/L*	2.60	2.74	2.97	2.66	2.77	2.77	2.96	1.66	2.75	2.62	4.25	2.76	3.44	2.70	2.80	2.93	3.02	2.60	3.31	2.63	2.69	3.17	2.51
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	*mg/L*	*<0.150*	*<0.050*	*<0.250*	*<0.100*	*<0.050*	*<0.050*	*<0.100*	*<0.100*	*<0.250*	*<0.250*	*< 0.250*	*< 0.100*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.250*	*< 0.050*	*< 0.050*
Arsenic	*mg/L*	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0005*	0.0006	*<0.0025*	0.0010	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0050*	*< 0.0020*	*< 0.0050*	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0050*
Cadmium	*mg/L*	*<0.0003*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*
Copper	*mg/L*	0.0015	0.0046	0.0047	0.0054	0.0055	0.0087	0.0038	0.0044	0.0025	0.0104	0.0031	0.0044	0.0088	0.0083	0.0081	0.0086	0.0083	0.0089	0.0080	0.0094	0.0093	0.0085	0.0310
Iron	*mg/L*	*<0.150*	0.113	*<0.250*	0.168	0.113	0.090	*<0.100*	*<0.100*	*<0.250*	0.082	*< 0.250*	*< 0.100*	0.135	0.127	0.078	0.051	*< 0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.250*	0.112	0.145
Lead	*mg/L*	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*
Manganese	*mg/L*	0.0579	0.0412	0.0544	0.0443	0.0603	0.0553	0.0597	0.0693	0.0569	0.0560	0.0562	0.0562	0.0595	0.0632	0.0521	0.0578	0.0619	0.0623	0.0610	0.0577	0.0550	0.0528	0.0528
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*
Selenium	*mg/L*	0.0425	0.0037	0.0072	0.0264	0.0016	0.0040	*<0.0050*	0.0183	0.0119	0.0049	0.0050	0.0076	0.0057	0.0274	0.0023	*< 0.0010*	*< 0.0050*	0.0099	*< 0.0050*	0.0080	0.0076	0.0051	0.0095
Silica (Si02)	*mg/L*	13.50	13.20	13.60	13.70	15.20	14.00	13.60	14.00	13.70	13.90	12.50	13.80	13.20	13.80	14.00	13.70	13.50	13.30	13.50	12.60	2.53	13.70	13.90
Silicon	*mg/L*	6.32	6.17	6.35	6.39	7.08	6.57	6.35	6.52	6.42	6.48	5.85	6.45	6.16	6.45	6.54	6.38	6.29	6.22	6.30	5.87	1.18	6.39	6.52
Uranium	*mg/L*	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*	*< 0.0010*	*< 0.0025*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0025*
Zinc	*mg/L*	*<0.0060*	*<0.0060*	*<0.0100*	*<0.0040*	*<0.0020*	*<0.0020*	*<0.0100*	*<0.0040*	*<0.0100*	0.0047	*< 0.0100*	*< 0.0040*	*< 0.0040*	*< 0.0040*	*< 0.0020*	*< 0.0020*	*< 0.0100*	0.0199	0.0109	0.0095	0.0060	*< 0.0020*	*< 0.0020*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

*	**suspected field measurement error**
Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-8-LM

		2021				2022				2023				2024				2025				2026		
Year																								
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	***gpm***	0.1	0.1	0.3	0.3	0.3	0.3	0.2	NM	0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Purged	***gal***	2.0	1.5	1.0	1.0	1.0	1.0	1.0	NM	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Depth to Water	***ft bgs***	126.72	126.13	125.25	123.55	124.10	123.75	126.81	NM	126.10	125.80	126.12	125.92	124.95	125.05	125.12	125.05	126.05	127.25	127.80	128.20	128.90	129.40	134.55
Temperature	***deg C***	12.1	12.8	13.5	12.5	12.3	14.1	13.4	11.9	12.7	13.0	13.1	13.2	11.5	12.8	13.8	12.3	10.4	12.6	13.5	12.1	12.1	12.6	13.1
pH	***SU***	8.82	8.90	8.90	8.91	8.79	8.84	8.82	8.29	8.88	8.88	8.83	8.84	8.94	8.66	8.67	8.44	8.62	8.71	8.83	8.82	8.66	8.80	8.78
Specific Conductance	***µS/cm***	1132	1121	1196	1262	1260	1232	1255	1276	1233	1252	1241	1224	1305	1229	1227	1261	1365	1255	1215	1227	1269	1252	1255
Oxygen Reduction Potential	***mV***	-87.8	-164.1	-106.1	-99.3	-241.3	-149.4	-247.4	-66.9	-58.6	-137.0	-147.9	-210.0	-26.4	-149.5	-106.3	-179.2	-77.9	-71.2	-176.4	15.6	132.4	62.5	297.3
Lab Analytical Results:																								
Hardness as CaCO3	***mg/L***	7	7	5	7	7	7	6	6	4	6	4	7	7	7	8	7	6	7	6	7	7	10	7
pH (Lab)	***SU***	8.54	8.57	8.48	8.31	8.61	8.63	8.99	8.59	8.47	8.51	8.71	8.84	8.42	8.66	8.70	8.73	8.64	8.60	8.71	8.21	8.69	8.72	8.68
Total Dissolved Solids (Lab)	***mg/L***	795	720	740	760	740	795	755	685	765	745	805	755	755	760	760	750	775	740	760	775	775	780	770
Calcium	***mg/L***	1.9	1.9	1.9	1.9	2.0	1.8	1.7	1.7	1.6	1.7	1.6	1.9	1.8	1.8	2.1	1.8	1.6	1.9	1.7	1.8	1.9	2.4	1.9
Magnesium	***mg/L***	0.6	0.6	*<0.500*	0.6	0.6	0.5	0.5	0.5	*<0.500*	0.5	*< 0.500*	0.6	0.5	0.6	0.7	0.5	0.5	0.7	0.5	0.6	0.6	1.1	0.6
Sodium	***mg/L***	319.0	315.0	308.0	291.0	316.0	298.0	298.0	301.0	287.0	315.0	289.0	299.0	304.0	311.0	304.0	310.0	300.0	312.0	291.0	316.0	359.0	311.0	312.0
Potassium	***mg/L***	*<3.00*	2.24	*<5.00*	2.12	2.31	2.06	*<2.00*	2.12	*<5.00*	1.85	*< 5.00*	2.07	2.00	2.13	2.22	2.07	*< 5.00*	*< 5.00*	2.08	2.08	3.30	2.05	2.25
Alkalinity, Total	***mg/L***	730	755	750	770	780	765	760	750	714	732	714	700	690	760	745	765	740	740	730	730	750	735	740
Alkalinity, Bicarbonate	***mg/L***	630	645	650	620	640	655	580	510	666	732	646	620	640	640	665	665	670	600	630	640	600	665	660
Alkalinity, Carbonate	***mg/L***	100.0	110.0	100.0	150.0	140.0	110.0	180.0	240.0	48.0	*<10.0*	68.0	80.0	50.0	120.0	80.0	100.0	70.0	140.0	100.0	90.0	150.0	70.0	80.0
Alkalinity, Hydroxide	***mg/L***	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	***mg/L***	2.50	2.48	2.55	2.47	2.47	2.49	2.64	2.65	2.66	2.76	2.67	2.75	2.66	2.64	2.57	*< 5.00*	*< 5.00*	2.50	2.41	2.72	2.55	2.58	2.24
Fluoride	***mg/L***	3.580	3.480	3.670	3.400	3.440	3.250	3.790	3.730	3.840	3.650	3.150	3.420	3.930	3.940	3.860	3.920	4.130	3.800	3.710	3.630	3.700	3.590	3.520
Sulfate as SO4	***mg/L***	*<1.00*	*<1.00*	*<1.00*	*<1.00*	*<1.00*	*<1.00*	*<2.00*	*<2.00*	*<2.00*	0.9	*< 2.00*	*< 2.00*	*< 2.00*	*< 2.00*	*< 2.00*	*< 5.00*	*< 5.00*	*< 1.00*	*< 1.00*	*< 1.00*	*< 1.00*	*< 1.00*	*< 1.00*
Total Organic Carbon (TOC)	***mg/L***	1.20	1.71	1.79	1.60	1.70	1.72	1.77	1.13	1.73	1.43	1.89	1.70	2.43	1.70	1.72	1.61	1.94	1.49	1.74	1.80	1.57	1.74	1.50
Nitrate/Nitrite as N	***mg/L***	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	***mg/L***	*<0.150*	*<0.050*	*<0.250*	*<0.100*	*<0.050*	*<0.050*	*<0.100*	*<0.050*	*<0.250*	*<0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*
Arsenic	***mg/L***	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	0.0008	0.0008	*<0.0025*	*<0.0005*	*<0.0025*	*<0.0015*	*< 0.0025*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*
Cadmium	***mg/L***	*<0.0003*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0025*	*<0.0015*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	***mg/L***	0.0025	0.0057	0.0068	0.0065	0.0075	0.0167	0.0052	0.0079	0.0043	0.0155	0.0040	0.0068	0.0128	0.0132	0.0130	0.0143	0.0130	0.0128	0.0139	0.0142	0.0126	0.0127	0.0089
Iron	***mg/L***	*<0.150*	*<0.050*	*<0.250*	*<0.100*	*<0.050*	*<0.050*	*<0.100*	*<0.050*	*<0.250*	*<0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.250*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.050*
Lead	***mg/L***	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0005*	*<0.0025*	0.0002	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	0.0005	*< 0.0005*	*< 0.0005*	*< 0.0005*
Manganese	***mg/L***	0.0024	0.0021	0.0025	0.0023	0.0022	0.0027	*<0.0025*	0.0027	0.0028	0.0027	0.0028	0.0027	0.0034	0.0031	0.0029	0.0027	0.0022	0.0024	0.0023	0.0023	0.0025	0.0019	0.0035
Mercury (dissolved)	***mg/L***	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	***ng/L***						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	***mg/L***	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0005*	*<0.0025*	*<0.0015*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	0.0005	0.0006	*< 0.0005*	*< 0.0005*
Selenium	***mg/L***	0.0031	*<0.0030*	*<0.0050*	*<0.0020*	*<0.0010*	*<0.0010*	*<0.0050*	*<0.0010*	*<0.0050*	*<0.0030*	*< 0.0050*	*< 0.0020*	*< 0.0020*	*< 0.0020*	0.0013	*< 0.0010*	*< 0.0010*	*< 0.0020*	*< 0.0020*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*
Silica (Si02)	***mg/L***	8.17	8.21	7.82	8.28	8.44	8.13	7.63	8.45	6.83	7.53	6.17	8.14	7.52	7.80	7.80	8.31	8.23	8.27	7.35	7.67	8.60	8.40	8.30
Silicon	***mg/L***	3.82	3.84	3.66	3.87	3.95	3.80	3.56	3.95	3.19	3.52	2.89	3.80	3.51	3.65	3.65	3.89	3.85	3.87	3.44	3.59	4.02	3.93	3.88
Uranium	***mg/L***	*<0.0015*	*<0.0015*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0025*	*<0.0005*	*<0.0025*	*<0.0015*	*< 0.0025*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Zinc	***mg/L***	*<0.0060*	*<0.0060*	*<0.0100*	*<0.0040*	*<0.0020*	0.0079	*<0.0100*	0.0022	*<0.0100*	0.0032	*< 0.0100*	*< 0.0040*	*< 0.0040*	*< 0.0040*	*< 0.0020*	0.0107	0.0089	0.0135	0.0120	0.0108	*< 0.0020*	*< 0.0020*	*< 0.0020*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. **"<"** *values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*

GCC Energy Hydrologic Monitoring Data

MW-8-PL																							
Year		2021				2022				2023				2024				2025				2026		
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2	5	8
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6	5/14	8/16
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																								
Purge Flow Rate	*gpm*	0.8	0.3	0.3	0.3	0.3	0.3	0.1	1.0	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
Total Purged	*gal*	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	*ft bgs*	127.50	127.83	127.89	127.90	128.30	128.40	128.53	128.75	128.10	128.05	128.48	128.50	128.25	128.19	128.36	128.10	127.75	127.80	128.06	128.05	127.90	136.50	128.25
Temperature	*deg C*	12.9	14.6	14.8	13.4	14.1	14.1	14.3	12.8	13.2	14.2	13.4	13.3	12.2	13.1	13.5	12.6	11.8	13.2	14.3	13.0	13.0	13.5	12.9
pH	*SU*	7.53	7.58	7.55	7.57	7.43	7.49	7.44	7.67	7.61	7.56	7.53	7.57	7.69	7.33	7.34	7.38	7.24	7.37	7.53	7.55	7.29	7.52	7.38
Specific Conductance	*µS/cm*	760	813	816	836	817	826	822	848	853	825	814	815	854	813	824	830	880	822	792	803	838	827	839
Oxygen Reduction Potential	*mV*	-11.5	-76.6	-64.4	-53.5	-161.9	-94.6	-215.9	-104.0	-36.3	-87.6	-113.8	-140.3	-210.9	-141.2	-101.5	-189.8	-90.2	-93.1	-204.7	4.2	97.9	11.4	122.4
Lab Analytical Results:																								
Hardness as CaCO3	*mg/L*	281	283	280	272	292	276	275	274	303	282	274	269	279	282	296	281	268	292	266	276	295	282	301
pH (Lab)	*SU*	7.36	7.41	7.29	7.16	7.42	7.47	7.88	7.39	7.33	7.36	7.51	7.70	7.26	7.52	7.56	7.55	7.54	7.47	7.55	7.54	7.65	7.63	7.77
Total Dissolved Solids (Lab)	*mg/L*	525	505	475	465	485	505	500	430	500	465	540	505	460	490	480	490	450	275	490	475	475	510	505
Calcium	*mg/L*	52.2	53.3	53.0	51.1	55.7	53.1	52.4	52.0	57.9	53.3	52.4	51.4	53.5	55.1	57.7	53.4	50.6	54.8	50.0	52.3	55.7	53.5	56.8
Magnesium	*mg/L*	36.6	36.5	35.9	35.0	37.1	34.9	35.1	34.9	38.4	36.1	34.8	34.1	35.4	35.2	36.9	35.9	34.4	37.7	34.2	35.2	38.0	36.0	38.6
Sodium	*mg/L*	78.6	79.7	77.8	73.7	80.8	75.4	76.3	75.0	81.7	77.4	75.3	75.1	76.0	78.2	77.5	78.1	74.0	78.4	73.4	78.3	84.0	81.3	74.1
Potassium	*mg/L*	1.78	1.73	*<2.00*	1.54	1.71	1.48	1.53	1.55	*<2.00*	1.59	*< 2.00*	1.46	1.54	*< 2.00*	1.67	1.61	*< 5.00*	1.64	1.55	1.57	2.26	1.78	2.16
Alkalinity, Total	*mg/L*	370	385	360	385	362	380	356	410	350	388	350	335	370	375	375	405	365	390	360	395	375	375	350
Alkalinity, Bicarbonate	*mg/L*	370	385	360	385	362	380	340	410	338	388	350	335	370	375	375	405	365	390	360	395	375	375	344
Alkalinity, Carbonate	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	16.0	*<10.0*	12.0	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Alkalinity, Hydroxide	*mg/L*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*<10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*	*< 10.0*
Chloride	*mg/L*	3.39	3.30	3.33	3.38	3.33	3.34	3.66	3.51	3.70	3.61	3.67	3.58	3.56	3.56	3.48	3.37	3.62	3.52	3.46	3.86	3.54	3.52	3.19
Fluoride	*mg/L*	0.219	0.200	0.222	0.196	0.195	0.159	0.198	0.187	0.218	0.175	0.126	0.159	0.206	0.201	0.211	0.233	0.215	0.202	0.201	0.207	0.195	0.172	0.186
Sulfate as SO4	*mg/L*	101.0	96.3	102.0	98.4	100.0	94.7	106.0	107.0	107.0	106.0	104.0	104.0	106.0	107.0	106.0	102.0	108.0	108.0	105.0	105.0	102.0	105.0	102.0
Total Organic Carbon (TOC)	*mg/L*	0.93	1.42	1.54	1.40	1.54	1.36	1.60	0.77	1.44	1.15	1.59	*< 1.00*	1.45	1.46	1.40	1.47	1.50	1.26	1.35	1.44	1.36	1.46	*< 2.50*
Nitrate/Nitrite as N	*mg/L*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	0.052	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*<0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*	*< 0.020*
Aluminum	*mg/L*	*<0.050*	*<0.050*	*<0.100*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.050*	*<0.100*	*<0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.100*	*< 0.050*	*< 0.050*	*< 0.250*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*	*< 0.050*
Arsenic	*mg/L*	0.0074	0.0055	0.0017	0.0051	0.0046	0.0047	0.0042	0.0037	0.0033	0.0036	0.0029	0.0030	0.0029	0.0029	0.0030	0.0026	0.0026	0.0025	*< 0.0020*	0.0022	0.0021	0.0021	0.0016
Cadmium	*mg/L*	*<0.0001*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0005*	*<0.0025*	*<0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Copper	*mg/L*	0.0005	0.0013	*<0.0010*	0.0015	0.0023	0.0040	0.0014	0.0015	0.0028	0.0027	0.0020	0.0026	0.0030	0.0038	0.0039	0.0052	0.0029	0.0051	0.0070	0.0046	0.0073	0.0028	*< 0.0050*
Iron	*mg/L*	*<0.050*	*<0.050*	*<0.100*	0.070	0.079	*<0.050*	0.063	0.057	*<0.100*	0.062	*< 0.100*	0.051	0.066	*< 0.100*	0.064	0.051	*< 0.250*	0.063	0.056	0.075	0.136	0.087	0.119
Lead	*mg/L*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	0.0007	*< 0.0005*	*< 0.0005*
Manganese	*mg/L*	0.1960	0.1750	0.0772	0.1610	0.1630	0.1500	0.1450	0.1340	0.1220	0.1110	0.1200	0.1050	0.0976	0.1110	0.0906	0.0880	0.0822	0.0767	0.0769	0.0669	0.0675	0.0626	0.0817
Mercury (dissolved)	*mg/L*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*																		
Mercury (dissolved low-level)	*ng/L*						*<5*	*<100*	*<100*	*<100*	*<100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*	*< 100*
Molybdenum	*mg/L*	*<0.0005*	*<0.0010*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0010*	*<0.0005*	*<0.0025*	*<0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Selenium	*mg/L*	0.0038	*<0.0020*	*<0.0020*	0.0031	*<0.0010*	0.0014	*<0.0020*	0.0012	*<0.0050*	0.0006	*< 0.0020*	*< 0.0010*	0.0019	*< 0.0020*	0.0026	*< 0.0010*	*< 0.0010*	0.0014	*< 0.0020*	0.0016	*< 0.0010*	0.0048	0.0032
Silica (Si02)	*mg/L*	20.10	21.50	20.00	20.80	22.20	20.40	20.80	20.90	22.60	21.50	20.60	20.80	20.40	20.00	20.50	20.10	18.90	20.10	20.40	19.00	19.10	20.40	20.60
Silicon	*mg/L*	9.40	10.00	9.37	9.71	10.40	9.54	9.75	9.75	10.60	10.00	9.61	9.71	9.55	9.36	9.59	9.41	8.83	9.39	9.54	8.90	8.91	9.52	9.62
Uranium	*mg/L*	*<0.0005*	*<0.001*	*<0.0010*	*<0.0005*	*<0.0005*	*<0.0025*	*<0.0010*	*<0.0005*	*<0.0025*	0.0001	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0010*	*< 0.0005*	*< 0.0005*	*< 0.0005*	*< 0.0005*
Zinc	*mg/L*	*<0.0020*	*<0.004*	*<0.0040*	*<0.0020*	*<0.0020*	*<0.0020*	*<0.0040*	*<0.0020*	*<0.0100*	0.0009	*< 0.0040*	*< 0.0020*	0.0046	*< 0.0040*	*< 0.0020*	0.0039	*< 0.0020*	0.0128	0.0104	0.0106	0.0107	*< 0.0020*	*< 0.0100*

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

Y/N	**yes or no**
gpm	**gallons per minute**
deg C	**degrees Celsius**
SU	**standard pH units**
µS/cm	**microsiemens per centimeter**
mV	**millivolts**
mg/L	**milligram per liter**
pCi/L	**picocuries per liter**
NM	**not measured (field)**
NA	**not analyzed (lab)**
ng/L	**nanogram per liter**

1. *"<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.*

2. *Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.*

3. *Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.*