11783 Highway 337 S.
PO Box 100, Tijeras, NM 87123
505.286.6081
skretz@gcc.com

January 27th, 2025

State of Colorado
Division of Reclamation, Mining & Safety
1313 Sherman St., Room 215
Denver, CO 80203

Attn: Clayton Wein, Environmental Protection Specialist

Re: GCC Energy, LLC, King II Mine
CDRMS Permit # C-1981-035
Water Monitoring Analysis; King I & King II
4th Quarter 2024

Mr. Wein:

Please find enclosed a copy of quarterly water analysis reports for the 4th quarter of 2024 for the following water monitoring locations:

Wiltse Well
#1 Up-gradient Monitoring Well & Blind Duplicate MW-98
#2 Down-gradient Monitoring Well
Hay Gulch Irrigation Ditch, Down-gradient & Resample
Hay Gulch Irrigation Ditch, Up-gradient
MW-1-A
MW-3-MI, MW-3-A, MW-3-C
MW-4-MI & Blind Duplicate MW-99, MW-4-A, MW-4-C
MW-5-MI
MW-HGA-4
MW-6-LM
MW-7-EAA
MW-8-EAA, MW-8-MI, MW-8-LM, MW-8-PL
Seep 1
Seep 3

Also enclosed are summary sheets for the above water monitoring locations which include field collection data.

Please contact me at 505.286.6081 or skretz@gcc.com if you have any questions or require any additional information.

Sincerely,

Samantha Kretz

Samantha Kretz
Environmental Manager, South Region
Energy, LLC

GCC Energy Hydrologic Monitoring Data

Hay Gulch Ditch Upgradient

Year		2018				2019				2020				2021				2022				2023				2024			
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		2	5	8	11	2	5	8	11	2	5	8	12	2	6	9	11	3	6	9	12	3	5	8	11	2	6	8	11
Sample Date		2/22	5/14	8/9	11/8	2/28	5/23	8/16	11/13	2/13	5/13	8/13	12/3	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
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	Y	Y	Y	Y	Y
Field Parameters:																													
Flow Rate	cfs	NM	0.60	0.70	0.70	0.25	3.63	1.17	NM	NM	0.92	0.13	1.02	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
Temperature	deg C	4.7	11.3	22.1	1.1	5.9	5.9	16.9	5.7	1.5	16.5	18.1	2.0	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
pH	SU	7.9	7.58	9.07	7.16	6.4	7.53	8.03	7.33	7.75	8.39	8.65	8.08	7.83	7.75	8.07	6.94	7.11	7.94	7.15	6.19	7.85	8.01	7.7	7.76	7.68	7.73	8.05	7.68
Specific Conductance	µS/cm	1041	304	307	307	752	306	275	682	902	314	528	434	1024	189	280	252	553	832	570	708	1508	442	764	1013	1058	532	306	989
Oxygen Reduction Potential	mV	-164.1	111.4	-181.3	13.9	103.7	-24.0	24.4	-22.4	-4.5	81.7	118.9	120.3	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
Dissolved Oxygen	mg/L	9.4	8.5	6.4	10.2	8.0	8.9	7.8	7.9	7.0	7.5	8.4	10.4	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
Lab Analytical Results:																													
Hardness as CaCO3	mg/L	489	101	153	149	393	136	125	372	405	150	287	213	588	92.6	131	120	280	383	273	336	697	293	342	434	458	245	141	460
pH (Lab)	SU	8.39	7.99	9.07	7.86	7.45	7.69	7.83	7.40	7.22	7.60	8.01	7.92	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
Total Dissolved Solids (Lab)	mg/L	700	140	215	175	535	205	225	635	587	255	340	160	685	210	185	140	380	520	355	410	955	380	480	600	615	295	150	600
Total Suspended Solids	mg/L	6.01	106	6.25	14.8	22.0	113	20.0	5.38	<4.0	140	19.5	13.2	55	133	51	13.2	13.4	5.07	45.4	<2.5	121	38.0	9.79	< 2.50	10.0	57.3	4.92	26.7
Calcium	mg/L	87.3	26.3	39.1	40.3	79.8	34.6	32.4	79.3	81.5	36.1	63.2	49.9	113	25.8	35.8	34.2	61.7	70.8	55.0	69.9	124	63.5	70.2	86.3	90.2	50	37	90.1
Magnesium	mg/L	65.9	8.61	13.5	11.9	47.0	12.1	10.8	42.2	49	14.5	31.3	21.5	74.3	6.87	10.1	8.35	30.5	50.1	33.1	39.2	93.9	32.6	40.5	53.0	56.6	29.1	11.8	57.1
Sodium	mg/L	34.6	3.31	5.33	5.00	19.1	7.24	5.81	25.4	30.9	7.67	10.9	8.39	34.3	2.71	3.97	3.53	13.8	19.3	12.4	15.1	36.8	18.1	20.6	31.6	30.5	16.9	5.13	21.8
Potassium	mg/L	3.52	1.18	1.24	<1.00	3.89	1.57	1.07	3.25	3.65	1.86	1.85	1.53	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	1.3	4.39
Alkalinity, Total	mg/L	244	67	111	120	260	390	103	233	315	102	220	137	340	68	98	87.0	162	330	209	231	365	179	247	300	326	175	111	301
Alkalinity, Bicarbonate	mg/L	244	67	107	120	260	390	103	233	295	102	220	131	340	68	98	87.0	162	330	209	231	365	179	247	300	326	175	111	301
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	< 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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L	46.7	3.12	6.70	5.58	48.1	7.75	6.04	22.8	31.6	9.64	24.5	14.8	85.9	3.17	5.23	3.44	32.3	33.6	21.9	29.2	108	36.1	41.7	45.8	51.2	21.6	7.84	55.7
Fluoride	mg/L	0.285	0.224	0.272	0.224	0.252	0.208	0.214	<0.500	0.239	<0.500	0.226	0.226	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
Sulfate as SO4	mg/L	229	34	49.7	45.0	128	47.2	35.6	107	151	44.0	86.3	64.4	211	26.4	42.2	40.0	95.5	121	85.1	99.4	314	116	114	152	159	76.6	38.8	146
Total Organic Carbon (TOC)	mg/L	1.81	2.31	1.61	1.09	4.94	3.08	1.84	4.54	5.45	2.93	1.65	1.22	2.69	1.39	2.8	0.832	1.86	5.18	1.74	0.897	3.93	6.04	4.35	6.45	8.35	8.72	1.41	2.59
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	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Nitrate/Nitrite as N	mg/L	0.105	0.026	<0.020	<0.020	0.263	0.050	0.072	0.104	0.044	0.302	0.042	0.026	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	0.07
Sodium Adsorption Ratio (SAR)	no unit	0.68	0.14	0.18	0.16	0.42	0.26	0.22	0.55	0.65	0.26	0.29	0.25	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
Ammonia as N ^	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<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
Arsenic	mg/L	<0.0025	<0.0005	0.0009	<0.0005	0.0007	0.0006	0.0007	0.0005	0.0006	<0.0005	0.0007	<0.0005	0.0012	<0.0005	0.001	<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
Cadmium	mg/L	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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
Copper	mg/L	0.0007	0.0011	0.0011	0.0013	0.0026	0.0013	0.0012	0.0005	0.0005	0.0010	0.0006	0.0005	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
Iron	mg/L	<0.0500	<0.0500	<0.0500	<0.0500	0.255	0.055	<0.0500	0.316	0.551	<0.0500	<0.0500	<0.0500	0.103	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.272	<0.0500	0.237	< 0.100	0.528	0.081	< 0.050	0.406
Lead	mg/L	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<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
Manganese	mg/L	0.0049	0.0093	0.0016	0.0043	0.127	0.0349	0.0096	0.113	0.368	0.0297	0.0087	0.0047	0.149	0.0042	0.0156	0.0074	0.0337	0.0761	0.0241	0.0398	0.432	0.0989	0.140	0.317	0.754	0.102	0.0157	0.172
Mercury (total)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002												
Mercury (total low-level)	ng/L															<10.0	<10.0	<200	<100	<100	<100	<100	<100	<100	<100	<10.0	<10.0	<10.0	< 10.0
Molybdenum	mg/L	<0.0025	0.001	0.0012	0.0009	0.0011	0.0009	0.0011	0.0007	0.0005	0.0009	0.0009	0.0009	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	0.001	0.0009
Selenium	mg/L	<0.0050	<0.0010	<0.0010	<0.0010	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	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
Silica (Si02)	mg/L	11.0	8.4	8.64	8.31	11.3	8.55	9.17	13.4	13	7.57	7.36	9.86	13.4	7.18	9.33	8.95	9.73	13.9	10.6	11.3	12.3	12.0	11.9	14.0	13.2	10.5	9.51	12
Silicon	mg/L	5.14	3.93	4.04	3.88	5.29	3.99	4.29	6.25	6.06	3.54	3.44	4.61	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
Uranium	mg/L	0.0013	0.0001	0.0002	0.0003	0.0009	0.0003	0.0004	0.0007	<0.0005	<0.0005	0.0006	<0.0005	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
Zinc	mg/L	<0.0100	<0.0020	0.0033	<0.0020	0.0044	<0.0020	<0.0020	0.0033	0.0087	<0.0020	<0.0020	<0.0020	<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

Notes & Definitions:

Historical data prior to 2018 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

Hay Gulch Ditch Downgradient

Year		2018				2019				2020				2021				2022				2023				2024			
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		2	5	8	11	2	5	8	11	2	6	8	12	2	6	9	11	3	6	9	12	3	5	8	11	2	6	8	11
Sample Date		2/22	5/7	8/9	11/7	2/28	5/23	8/16	11/13	2/6	6/1	8/13	12/3	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
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	Y	Y	Y	Y	Y
Field Parameters:																													
Flow Rate	*cfs*	NM	NM	NM	0.50	0.25	0.30	1.05	NM	NM	1.50	0.13	NM	0.001	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
Temperature	*deg C*	6.3	11.3	20.6	4.7	6.88	8.23	15.15	3.51	3.73	14.21	20.4	6.83	10.37	13.35	10.47	4.00	9.21	17.71	18.02	4.05	4.52	15.48	14.54	7.36	5.85	15.03	14.51	8.37
pH	*SU*	8.33	7.58	7.43	7.48	6.42	7.77	7.61	8.38	7.94	8.24	8.00	7.7	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
Specific Conductance	*µS/cm*	742	304	356	309	577	202	295	554	882	137	237	478	815	131	184	311	636	150	248	292	891	762	835	976	984	358	378	845
Oxygen Reduction Potential	*mV*	51.6	111.4	-10.0	-88.9	125.6	50.6	111.6	-108.1	124.2	104.8	103.0	127.8	-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
Dissolved Oxygen	*mg/L*	9.8	8.5	6.3	9.1	7.6	8.8	7.2	9.6	9.5	8.0	6.4	9.6	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
Lab Analytical Results:																													
Hardness as CaCO3	*mg/L*	329	140	182	167	281	91.9	137	295	416	63.6	120	232	419	64.8	90.7	143	346	65.7	95.9	138	433	337	497	467	439	180	184	411
pH (Lab)	*SU*	8.17	8.05	8.09	7.95	7.84	7.68	7.73	7.73	7.80	7.49	7.59	7.85	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
Total Dissolved Solids (Lab)	*mg/L*	420	220	260	185	390	185	195	355	573	120	135	370	435	175	90	120	410	29.9	89.9	225	555	475	625	575	570	195	225	545
Total Suspended Solids	*mg/L*	49.5	<2.00	5.67	4.40	18.4	153.0	22.5	<4.00	4.20	17.5	28.6	10.5	28.0	8.4	4.8	5.44	18.3	29.2	3.67	8.00	17.8	62.0	16.0	3.38	25.7	31.3	9.15	6.39
Calcium	*mg/L*	75.4	37.5	49.0	44.7	61.6	26.0	34.5	67.2	85.6	20.3	34.2	55.6	98.2	21.2	29.8	39.3	82.1	21.4	30.2	39.0	101	75.8	114	110	99.9	42.9	47	97.9
Magnesium	*mg/L*	34.2	11.2	14.4	13.4	31	6.54	12.3	30.8	49.0	3.15	8.38	22.7	42.2	2.86	3.94	11.0	34.2	2.96	5.01	9.73	43.8	35.8	51.9	47.1	46.0	17.6	16.3	40.4
Sodium	*mg/L*	18.1	5.42	6.49	5.15	16.5	5.03	6.62	17.0	28.5	1.90	3.68	9.03	15.8	1.14	1.75	4.71	16.4	1.58	2.04	4.08	18.6	18.5	29.6	21.7	21.6	8.83	6.83	19.9
Potassium	*mg/L*	2.84	1.14	1.58	1.34	3.13	1.31	1.27	2.60	3.81	<1.00	1.36	1.89	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
Alkalinity, Total	*mg/L*	265	112	170	140	150	340	140	194	297	48	110	158	315	52	72	116	282	46.0	73.0	103	303	218	293	325	312	129	139	345
Alkalinity, Bicarbonate	*mg/L*	259	104	170	140	150	340	140	188	283	48	110	154	315	52	72	116	282	46.0	73.0	103	293	218	265	325	296	129	139	345
Alkalinity, Carbonate	*mg/L*	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	14.0	<10.0	<10.0	<10.0	<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
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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	*mg/L*	23.1	7.54	7.47	5.69	40.2	16.9	7.65	14.8	30.7	1.87	4.42	17.1	59	1.16	1.21	5.07	15.0	1.23	1.69	6.57	39.6	39.4	50.5	42.7	51.6	12.7	11.9	46.3
Fluoride	*mg/L*	0.308	0.228	0.295	0.228	0.232	0.205	0.218	0.252	0.272	0.185	0.224	0.244	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
Sulfate as SO4	*mg/L*	86.5	40.2	46.8	45.0	91.4	18.5	42.7	83.3	143	14.2	32.4	70.2	90.1	17.3	25.7	46.3	74.7	18.8	26.4	42.2	138	127	168	138	142	47.6	48.6	125
Total Organic Carbon (TOC)	*mg/L*	1.56	1.28	1.33	1.76	2.90	2.37	2.10	3.26	4.53	1.39	1.47	1.55	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
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	< 5.00 ~	< 5.00	< 5.00	< 5.00	< 5.00
Nitrate/Nitrite as N	*mg/L*	<0.020	<0.020	<0.020	<0.020	0.17	0.146	0.090	<0.020	0.056	0.031	0.053	<0.020	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
Sodium Adsorption Ratio (SAR)	*no unit*	0.43	0.2	0.20	0.17	0.43	0.22	0.24	0.41	0.61	0.10	0.14	0.26	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
Ammonia as N ^	*mg/L*	NA	NA	NA	NA	NA	NA	NA	<0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	*mg/L*	NA	NA	NA	NA	NA	NA	NA	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	*mg/L*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<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
Arsenic	*mg/L*	0.0005	0.0005	0.0008	<0.0005	0.0006	0.0006	0.0006	0.0005	0.0006	<0.0005	0.0007	<0.0005	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
Cadmium	*mg/L*	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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
Copper	*mg/L*	0.0005	0.0008	0.0008	0.0008	<0.0010	0.0021	0.0009	0.0007	0.0006	0.0014	0.0009	0.0005	0.0006	0.0011	0.001	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
Iron	*mg/L*	<0.050	<0.050	<0.050	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<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
Lead	*mg/L*	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<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
Manganese	*mg/L*	0.0962	0.0038	0.0445	0.0102	0.048	0.0125	0.0033	0.0102	0.0286	0.0012	0.0046	0.0116	0.133	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
Mercury (total)	*mg/L*	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00002												
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
Molybdenum	*mg/L*	0.0010	0.0011	0.0012	0.0010	0.001	0.0011	0.0012	0.0007	0.0006	0.0008	0.0012	0.0009	0.0009	0.0009	0.001	0.0009	0.0010	0.0010	0.0011	0.0009	<0.001	0.0009	0.0010	0.0008	0.0009	0.001	0.0009	0.0008
Selenium	*mg/L*	0.0011	<0.0010	<0.0010	<0.001	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	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
Silica (Si02)	*mg/L*	10.7	8.41	8.77	8.66	8.46	5.70	8.86	11.8	12.3	6.38	7.14	10.6	12.9	6.68	8.84	9.38	12.0	6.98	7.96	8.75	11.3	11.8	13.4	13.8	11.3	9.03	9.95	12.6
Silicon	*mg/L*	5.01	3.93	4.10	4.05	3.95	2.67	4.14	5.50	5.75	2.98	3.34	4.94	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	5.9
Uranium	*mg/L*	0.0012	0.0004	0.0005	0.0003	0.0009	0.0002	0.0004	0.0007	0.0006	<0.0005	<0.0005	0.0005	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
Zinc	*mg/L*	<0.0020	0.0074	0.0048	0.0035	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<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	0.026	0.0154

Notes & Definitions:

Historical data prior to 2018 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

^ 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

Well #1 Upgradient

Year		2018				2019				2020				2021				2022				2023				2024			
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		2	5	8	11	2	5	8	11	2	6	8	12	2	5	8	11	3	6	8	12	3	5	8	11	2	6	8	11
Sample Date		2/22	5/14	8/9	11/7	2/25	5/23	8/16	11/14	2/13	6/1	8/31	12/14	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
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	Y	Y	Y	Y	Y
Field Parameters:																													
Purge Flow Rate	gpm	7.2	7.2	10	7.2	10.0	8.3	11.0	6.5	8.0	10.0	8.0	8.0	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
Total Purged	gal	268	280	267	305	300	321	327	293	314	300	291	280	302	324	300	400	300	300	400	350	270	280	304	264	270	265	263	262
Depth to Water	ft bgs	5.40	5.77	5.65	6.50	5.98	4.50	5.68	6.08	5.55	4.17	6.25	3.72	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
Temperature	deg C	11.5	11.7	12.0	12.5	11.7	11.5	11.8	12.9	11.6	12.1	12.3	11.5	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
pH	SU	7.56	7.49	7.35	7.34	7.44	7.39	7.37	7.32	7.37	7.38	7.57	7.6	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
Specific Conductance	µS/cm	1278	1218	1289	1204	1235	1308	1253	1232	1277	1268	1067	1190	1142	1235	1212	1301	1235	1301	1235	1282	1313	1375	1201	1287	1312	1238	1265	1225
Oxygen Reduction Potential	mV	-185.3	-219.3	-251.6	-273.0	-232.0	-194.0	-192.0	-159.9	-193.0	-221.7	-187.2	-138.1	-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
Lab Analytical Results:																													
Hardness as CaCO3	mg/L	274	275	369	287	252	350	303	263	290	319	255	247	298	313	236	286	271	311	281	317	334	561	301	303	330	304	321	301
pH (Lab)	SU	7.75	7.95	7.48	7.50	7.77	7.56	7.23	7.35	7.12	7.26	7.53	7.72	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
Total Dissolved Solids (Lab)	mg/L	745	770	835	730	735	860	780	705	700	775	710	690	755	785	750	745	725	790	735	745	765	835	740	755	745	750	730	730
Calcium	mg/L	53.4	53.8	71.5	56.7	49.1	67.8	58.2	51.5	56.5	61.6	49.6	47.4	58.1	60.9	45.4	54.8	53.3	60.3	52.1	60.2	64.2	107	58.1	58.1	61.3	58.9	61.4	57.6
Magnesium	mg/L	34.2	34.1	46.4	35.4	31.4	43.8	38.3	32.7	36.1	40.0	31.7	31.1	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
Sodium	mg/L	183	191	154	212	196	172	167	198	183	178	193	196	204	172	177	182	185	172	179	166	168	106	192	174	158	173	177	182
Potassium	mg/L	3.09	3.03	3.16	3.15	3.01	3.32	3.01	3.01	<5	3.05	3.05	3.02	<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
Alkalinity, Total	mg/L	620	595	630	640	610	615	615	590	600	576	520	605	570	620	600	770	640	650	570	615	640	590	602	610	590	625	630	635
Alkalinity, Bicarbonate	mg/L	620	595	630	640	610	615	615	590	600	576	520	587	570	620	600	770	640	590	570	615	640	590	602	610	590	625	630	635
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	18	<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
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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L	4.30	4.35	4.34	4.23	4.35	4.59	4.36	6.19	4.76	4.76	4.62	4.34	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
Fluoride	mg/L	0.354	0.335	0.390	0.359	0.355	0.349	0.335	<0.500	0.348	0.366	0.356	0.342	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
Sulfate as SO4	mg/L	106	97.2	147	89.9	91.4	131	112	92.1	104	110	79.6	87.9	102	110	98.5	122	96.4	114	103	114	122	174	90.8	102	117	108	112	101
Total Organic Carbon (TOC)	mg/L	3.37	3.5	3.94	3.35	3.31	3.70	3.53	3.14	3.29	3.37	3.32	3.17	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
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	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Ammonia as N ^	mg/L	NA	NA	NA	NA	NA	NA	NA	0.931	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L	NA	NA	NA	NA	NA	NA	NA	0.0590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.250	<0.050	<0.150	<0.050	<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
Arsenic	mg/L	0.0005	0.0005	0.0005	<0.0005	0.0005	0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0010	0.0008	<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
Cadmium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<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
Copper	mg/L	0.0035	0.0030	0.0022	0.0025	0.0042	0.0015	0.0019	0.0012	0.0017	0.0017	0.0021	0.0007	<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
Iron	mg/L	1.44	1.39	1.98	1.52	1.26	1.74	1.58	1.41	1.49	1.53	1.24	1.7	1.66	1.69	1.19	1.43	1.25	1.65	1.32	2.07	1.70	4.63	1.56	1.81	2.03	1.65	2.01	1.69
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0010	<0.0005	<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
Manganese	mg/L	0.307	0.306	0.498	0.286	0.355	0.439	0.428	0.354	0.366	0.369	0.297	0.297	0.414	0.388	0.308	0.387	0.325	0.410	0.349	0.501	0.471	0.922	0.162	0.422	0.517	0.451	0.402	0.418
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																		<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L	<0.0005	<0.0005	0.0006	<0.0005	0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0010	0.0005	<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
Selenium	mg/L	<0.0010	0.0171	0.0120	0.0022	0.0032	0.0024	<0.0010	<0.0020	<0.001	<0.0010	0.0095	0.0171	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	0.064	0.0055	< 0.0020
Silica (Si02)	mg/L	13.4	14.6	13.8	13.7	13.5	13.1	13.1	14.3	13.1	13.1	13.6	14.3	13	13.9	12.5	13.2	14.2	13.3	13.4	12.9	13.2	14.4	14.0	13.9	12.9	13.3	13.6	13.6
Silicon	mg/L	6.27	6.81	6.45	6.41	6.30	6.13	6.11	6.68	6.13	6.14	6.37	6.67	6.10	6.5	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
Uranium	mg/L	0.0002	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0010	<0.0005	<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
Zinc	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0040	<0.0020	<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

Notes & Definitions:

Historical data prior to 2018 can be found in earlier posted versions of this table

^ one-time analysis

* 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 #2 Downgradient																													
Year		2018					2019				2020				2021				2022				2023				2024			
Quarter		Q1	Q2	Q3	Q4	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		2	5	8	8	11	2	5	8	11	2	6	8	12	2	5	8	11	2	5	8	12	3	5	8	11	2	6	8	11
Sample Date		2/22	5/7	8/8	8/9	11/7	2/27	5/22	8/16	11/13	2/6	6/1	8/26	12/14	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
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	Y	Y	Y	Y	Y	Y
Field Parameters:																														
Purge Flow Rate	*gpm*	0.1	1.00	0.10	1.00	0.50	0.25	0.50	0.25	0.50	0.25	0.25	0.25	0.13	0.50	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.33	0.60	0.34	0.19	0.23	0.38	0.23	0.35
Total Purged	*gal*	6	11	2	6.5	7.5	13.0	10.0	9.0	7.5	12.0	8.0	7.0	7.0	12.0	9.0	7.0	12.0	6.0	9.0	19.0	0.4	5.4	8.0	5.2	4.6	4.8	4.4	3.6	3.3
Depth to Water	*ft bgs*	6.68	7.4	6.65	6.59	5.17	5.85	0.92	3.60	5.20	5.60	4.00	6.29	7.48	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
Temperature	*deg C*	9.8	8.9	14.0	11.1	11.9	9.1	8.1	10.5	11.5	10.4	9.1	11.5	11.0	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
pH	*SU*	7.59	7.48	7.84	7.20	7.15	7.41	7.34	7.23	7.19	7.32	7.41	7.44	7.56	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
Specific Conductance	*µS/cm*	887	847	828	895	955	960	1091	1051	1083	1083	1134	1017	1099	964	939	1038	1073	1050	1019	1063	1201	1193	1253	1184	1202	1139	1093	1109	1119
Oxygen Reduction Potential	*mV*	-44.9	-34	-75.6	-127	-91.9	48.4	-57.8	-30.1	-5.5	25.3	-51.3	19.9	3.2	-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
Lab Analytical Results:																														
Hardness as CaCO3	*mg/L*	412	415	422	415	465	488	537	513	603	540	575	560	569	624	529	503	521	500	527	551	557	503	641	646	582	500	540	553	555
pH (Lab)	*SU*	7.62	7.6	7.61	7.45	7.50	7.50	7.4	7.04	7.12	7.20	7.09	7.30	7.2	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	7.5
Total Dissolved Solids (Lab)	*mg/L*	515	545	545	575	550	575	695	655	690	695	730	665	685	660	655	685	655	605	645	680	695	770	775	855	745	660	670	680	690
Calcium	*mg/L*	70.1	70.2	72.7	70.4	78.7	81.3	87.1	83.3	99.4	87.2	92.2	90.1	90	97.9	81.2	76.8	80.1	76.0	79.1	84.6	84.1	76.4	101	98.9	88.3	73.4	80.4	84.3	82.6
Magnesium	*mg/L*	57.4	58.2	58.4	58.2	65.2	69.2	77.6	74.0	86.3	78.2	83.7	81.3	83.7	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
Sodium	*mg/L*	19.4	19.2	19.6	19.1	21.3	22.1	23.4	21.4	25.5	23.3	24.5	23.8	24.5	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
Potassium	*mg/L*	1.76	1.68	2.00	1.82	2.08	1.97	1.94	2.06	2.40	2.04	2.00	2.06	2.22	<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	2.3	2.39
Alkalinity, Total	*mg/L*	333	350	380	328	340	395	460	365	348	324	324	345	341	385	375	380	540	372	385	288	358	379	395	379	390	372	385	400	420
Alkalinity, Bicarbonate	*mg/L*	333	350	380	328	340	395	460	365	348	324	324	345	333	385	375	380	540	372	385	288	358	379	395	379	390	372	385	400	420
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	< 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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	*mg/L*	24.7	27.2	34.5	34.1	39.3	40.1	42.9	45.2	47.2	48.9	50.3	44.8	44.6	46	45.9	37	44.3	41.1	38.1	41.9	53.1	49.2	54.4	52.0	46.9	43.0	44.1	43.4	41.3
Fluoride	*mg/L*	0.244	0.224	0.259	0.281	0.263	0.244	0.246	0.221	<0.500	<0.500	<0.500	0.254	0.248	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
Sulfate as SO4	*mg/L*	104	102	112	111	137	138	196	189	182	199	230	204	219	190	199	186	176	187	160	190	235	224	258	239	214	195	199	196	185
Total Organic Carbon (TOC)	*mg/L*	2.10	2.02	2.06	1.93	2.08	1.87	2.69	2.28	1.99	1.80	1.84	1.87	1.74	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
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	0.029	<0.020	<0.020	<0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Ammonia as N ^	*mg/L*	NA	NA	NA	NA	NA	NA	NA	NA	<0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	*mg/L*	NA	NA	NA	NA	NA	NA	NA	NA	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	*mg/L*	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050	<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
Arsenic	*mg/L*	0.0010	0.0009	0.0012	0.0012	0.0010	0.0012	0.0011	0.0012	0.0012	0.0011	0.0009	<0.001	0.0013	<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
Cadmium	*mg/L*	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<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
Copper	*mg/L*	0.0056	0.0002	0.0006	0.0004	0.0003	0.001	0.0016	0.0003	0.0002	<0.0005	<0.0005	<0.0010	<0.0005	<0.0025	0.0006	0.0005	<0.0025	<0.0005	0.0006	0.0006	0.0032	0.005	0.0017	0.0215	0.0023	0.0025	< 0.0020	0.0096	0.0044
Iron	*mg/L*	0.060	0.073	0.089	0.163	0.082	0.062	0.116	0.105	0.119	0.094	0.107	0.109	0.159	<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
Lead	*mg/L*	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<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
Manganese	*mg/L*	0.304	0.306	0.349	0.375	0.320	0.423	0.504	0.404	0.427	0.454	0.444	0.412	0.441	0.422	0.401	0.389	0.438	0.403	0.384	0.397	0.477	0.431	0.293	0.416	0.464	0.399	0.440	0.373	0.365
Mercury (dissolved)	*mg/L*	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	*ng/L*																			<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	*mg/L*	0.0024	0.0022	0.0024	0.0029	0.0024	0.0029	0.0026	0.0019	0.0024	0.0021	0.0023	0.0024	0.0027	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
Selenium	*mg/L*	0.0012	<0.001	0.0012	0.0015	0.0013	0.0021	0.001	0.0011	0.0011	<0.010	0.0012	<0.002	0.0012	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
Silica (Si02)	*mg/L*	11.1	11.5	11.4	11.5	11.0	11.2	10.5	11.6	12.8	11.2	10.6	11.5	12.7	11.2	10.9	11.3	12.2	11.1	11.3	12.3	11.7	9.61	11.4	12.5	12.2	10.4	11.0	11.7	11.8
Silicon	*mg/L*	5.19	5.39	5.34	5.38	5.15	5.26	4.93	5.44	5.99	5.22	4.98	5.39	5.94	5.24	5.09	5.3	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
Uranium	*mg/L*	0.0013	0.0013	0.0013	0.0015	0.0014	0.0019	0.0016	0.0012	0.0015	0.0016	0.0016	0.0013	0.0017	<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
Zinc	*mg/L*	0.0053	0.0022	0.0028	<0.0020	<0.0020	0.0025	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<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

Notes & Definitions:

Historical data prior to 2018 can be found in earlier posted versions of this table

^	**one-time analysis**
*	**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

Year		2018				2019				2020				2021				2022				2023				2024			
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		2	5	8	11	2	5	8	11	2	5	8	12	2	5	8	11	3	6	8	11	3	5	8	11	2	6	8	11
Sample Date		2/22	5/16	8/9	11/8	2/28	5/23	8/19	11/11	2/17	5/13	8/12	12/15	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
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	Y	Y	Y	Y	Y
Field Parameters:																													
Purge Flow Rate	gpm	11.9	12.0	18.5	12.3	28.0	38.0	18.0	17.0	35.0	24.4	16.0	18.0	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
Total Purged	gal	2700	2890	2783	2747	3017	3200	3010	3058	3825	3495	3200	3030	2920	3000	1800	2800	2900	2950	3000	3000	4000	4000	3100	2612	3753	3100	3199	3861
Depth to Water	ft bgs	3.35	3.93	4.13	3.78	2.40	0.05	2.47	2.68	0.43	1.60	3.18	5.65	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
Temperature	deg C	8.0	10.2	11.7	10.4	8.0	9.3	10.7	9.9	6.7	9.8	11.7	8.7	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
pH	SU	7.26	7.13	7.04	7.07	7.17	7.08	7.09	7.09	7.01	7.12	7.22	7.26	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
Specific Conductance	µS/cm	2232	2144	2072	2167	2170	2151	1964	1970	2171	2017	1450	1984	1739	1789	2012	2038	1965	2039	2285	2268	2518	2449	2332	2571	2651	2336	2542	2368
Oxygen Reduction Potential	mV	14.3	29.9	-52.7	-18.8	22.7	-10.6	-23.7	51.9	49.33	71.9	72.2	73.7	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
Lab Analytical Results:																													
Hardness as CaCO3	mg/L	1090	1160	1130	1180	1150	1080	1080	1060	982	1060	1070	1130	1090	1070	1080	1080	1070	1070	1300	1200	1330	1340	1380	1320	1340	1320	1350	1280
pH (Lab)	SU	7.70	8.35	7.22	7.42	7.38	7.35	7.11	7.09	7.12	7.09	7.29	6.86	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	7.1	7.15	7.11
Total Dissolved Solids (Lab)	mg/L	1740	1740	1750	1720	1710	1670	1520	1480	1600	1560	1580	1540	1550	1500	1580	1640	1520	1580	1850	1740	2120	1980	1920	2050	2080	1900	2070	1880
Calcium	mg/L	211	216	221	230	226	214	214	208	191	206	206	215	208	199	206	209	208	206	255	232	261	269	273	251	255	259	265	252
Magnesium	mg/L	136	150	139	147	143	132	132	132	123	132	136	144	138	140	136	136	133	135	160	151	164	162	170	168	170	163	167	157
Sodium	mg/L	80.4	82.3	79.1	81.2	83.2	89.4	72.4	67.3	68.1	69.1	64	67.5	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
Potassium	mg/L	4.73	4.98	5.01	5.00	5.01	4.77	4.92	4.85	4.33	<5.00	4.48	4.54	<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
Alkalinity, Total	mg/L	445	435	463	505	515	469	474	460	460	431	475	470	480	480	480	520	505	485	530	468	485	435	460	465	480	495	530	525
Alkalinity, Bicarbonate	mg/L	445	435	463	505	515	469	474	460	460	431	475	470	480	480	480	520	505	485	530	468	485	435	460	465	480	495	530	525
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	< 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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L	66.7	60	57.2	57.5	67.2	67.8	49.9	48.2	57.7	51.8	58.1	57.9	54.8	52.3	49	52.4	49.8	45.7	57.5	52.2	79.0	73.0	59.0	62.2	70.5	57.2	59.1	48.6
Fluoride	mg/L	<0.500	<0.500	<0.500	0.298	0.324	0.306	<0.500	<0.500	<0.500	<0.500	0.304	0.292	0.276	0.28	<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
Sulfate as SO4	mg/L	832	714	733	741	801	709	627	627	711	633	704	728	683	661	679	697	688	702	818	873	1070	1060	960	1020	1140	947	1040	930
Total Organic Carbon (TOC)	mg/L	3.37	3.5	3.51	3.63	3.82	4.87	4.27	3.30	4.22	3.80	3.69	3.43	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
Nitrate/Nitrite as N	mg/L	2.26	2.48	2.26	1.99	1.95	0.651	0.896	1.31	1.05	0.865	1.25	1.48	1.82	1.49	2.06	1.87	1.69	1.53	1.16	1.01	0.469	0.619	2.32	2.85	2.09	0.469	1.53	1.1
Ammonia as N ^	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L	NA	NA	NA	NA	NA	NA	NA	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.100	<0.050	<0.050	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.250	<0.100	<0.050	<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
Arsenic	mg/L	0.0009	0.0006	<0.0025	<0.001	<0.0010	0.0006	<0.0010	<0.0010	<0.0010	<0.0025	<0.0010	0.0005	<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
Cadmium	mg/L	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0001	<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
Copper	mg/L	0.0020	0.0019	0.0018	0.0030	0.0020	0.0021	0.0021	0.0012	0.0020	<0.0025	0.0013	0.0006	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
Iron	mg/L	0.132	0.151	0.125	0.121	0.151	0.379	0.287	0.209	0.285	<0.250	<0.100	0.216	<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	0.22	< 0.250
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.001	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0010	<0.0005	<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
Manganese	mg/L	0.845	0.997	1.370	1.080	0.937	0.357	0.902	0.892	0.419	0.816	1.030	0.943	1.210	0.980	1.400	1.340	1.260	1.350	0.974	0.982	0.507	0.842	1.640	1.330	0.635	1.220	1.140	0.963
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																		<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L	0.0020	0.002	0.002	0.0019	0.0017	0.0014	0.0020	0.0017	0.0013	<0.0025	0.0018	0.0017	<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	0.002	0.0022	0.0021
Selenium	mg/L	0.0027	0.0025	0.0025	<0.002	0.0025	0.0016	<0.0020	<0.0020	<0.0020	<0.0050	<0.0020	0.0022	<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
Silica (Si02)	mg/L	14.1	15.9	16.2	15.9	14.1	13.2	15.4	14.9	12.2	12.9	13.8	15.7	14.6	14.8	15.4	16.0	15.2	14.5	15.9	14.3	12.7	14.7	15.8	14.7	12.4	14.9	15.2	14
Silicon	mg/L	6.58	7.42	7.58	7.44	6.6	6.19	7.20	6.96	5.72	6.05	6.43	7.33	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
Uranium	mg/L	0.0025	0.0024	0.0024	0.0032	0.0036	0.0044	0.0029	0.0023	0.0039	0.0032	0.0024	0.0032	<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
Zinc	mg/L	0.0216	0.0225	0.0214	0.0172	0.0175	0.0128	0.0138	0.0108	0.0122	0.0132	0.0118	0.0098	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

Notes & Definitions:

Historical data prior to 2018 can be found in earlier posted versions of this table

^ **one-time analysis**

* **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

MW-HGA-4

Year		2018					2019				2020				2021				2022				2023				2024			
Quarter		Q1		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	5	8	11	2	5	8	11	2	5	8	12	2	5	8	11	2	5	8	12	3	5	8	11	2	6	8	11
Sample Date		1/3	2/22	5/15	8/9	11/8	2/28	5/23	8/16	11/13	2/13	5/13	8/26	12/14	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
Lab Analysis (Y/N)		N	Y	Y	Y	Y	Y	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*	NM	0.1	1.5	2.00	1.00	1.12	1.00	1.00	0.25	1.00	0.25	0.25	0.13	0.25	0.13	0.25	0.25	0.25	0.25	0.25	0.50	0.08	0.23	0.10	0.05	0.08	0.08	0.06	0.05
Total Purged	*gal*	19	21	21	19	21	24	22	21	21	22	21	20	21	21	21	20	22	21	21	22	0.5	0.4	0.5	0.25	0.2	0.2	0.2	0.2	0.2
Depth to Water	*ft bgs*	1.37	0.55	2.60	3.98	1.90	0.49	0.42	1.95	1.15	0.38	2.36	3.80	1.75	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
Temperature	*deg C*	8.8	7.8	8.1	8.7	8.8	7.6	7.7	8.5	8.8	7.9	7.4	9.2	8.6	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
pH	*SU*	7.33	7.30	7.18	7.27	7.05	7.15	7.18	7.16	7.09	7.12	7.23	7.28	7.31	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
Specific Conductance	*µS/cm*	1141	1154	1098	1057	1167	1183	1102	1083	1127	1122	1093	1022	1158	975	1093	1108	1160	1197	1102	1198	970	1003	955	908	993	970	917	909	955
Oxygen Reduction Potential	*mV*	-96.6	-157.3	-130.9	-230.8	-190.9	-128.3	-140.7	-130.9	-104.9	-107.8	-86.7	-61.1	-64.7	-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
Lab Analytical Results:																														
Hardness as CaCO3	*mg/L*		561	555	524	625	613	563	544	624	563	528	571	612	630	582	515	627	598	574	653	328	423	448	467	424	410	430	438	446
pH (Lab)	*SU*		7.58	8.15	7.33	7.12	7.2	8.17	6.95	6.88	6.78	6.89	7.07	6.95	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
Total Dissolved Solids (Lab)	*mg/L*		740	730	695	770	795	695	695	715	705	685	700	665	685	680	735	790	790	785	745	400	555	545	525	555	570	525	575	535
Calcium	*mg/L*		110	108	102	124	122	110	106	123	112	101	111	122	126	114	98.7	125	119	110	130	65.8	78.5	84.9	88.1	79.3	75.3	81.1	81.7	83.6
Magnesium	*mg/L*		69.3	69	65.4	76.5	74.7	70.3	67.9	76.8	68.9	67.0	71.7	74.9	76.8	72	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
Sodium	*mg/L*		26.5	30.4	29.9	27.6	27	28.6	28.3	31.9	27.9	30.3	30.5	26.8	28.4	27.4	26.4	23.1	23.9	28.1	27.1	14.9	36.9	39.4	41.5	38	37.3	38.1	38.5	40.4
Potassium	*mg/L*		2.17	2.22	2.33	2.13	2.16	2.00	2.10	2.38	2.05	2.06	2.08	2.11	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
Alkalinity, Total	*mg/L*		460	425	410	460	455	445	455	432	435	416	485	457	475	465	470	580	470	435	500	245	460	420	361	370	390	410	425	410
Alkalinity, Bicarbonate	*mg/L*		460	425	410	460	455	445	455	432	435	416	485	457	475	465	470	580	470	435	500	245	460	420	361	370	390	410	425	410
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	< 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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	*mg/L*		8.43	7.57	6.47	9.40	10.5	8.06	8.44	9.46	8.39	7.64	8.78	10.1	9.65	9.41	11.1	13.9	12.0	10.2	14.6	28.7	3.40	3.41	3.62	3.56	3.63	3.72	3.58	3.45
Fluoride	*mg/L*		0.496	0.459	0.482	0.487	0.484	0.456	0.443	0.520	0.447	0.449	0.431	0.473	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
Sulfate as SO4	*mg/L*		222	190	169	201	221	186	212	190	193	181	179	187	191	184	194	199	216	183	215	99.5	150	161	158	143	142	146	145	151
Total Organic Carbon (TOC)	*mg/L*		4.56	4.57	4.30	4.72	4.82	4.45	4.58	4.35	4.8	4.30	4.56	4.67	4.31	4.36	4.55	4.84	5.47	4.21	4.64	0.964	4.32	6.87	4.55	3.84	4.98	4.00	4.52	4.12
Nitrate/Nitrite as N	*mg/L*		<0.020	<0.020	<0.020	<0.020	0.173	<0.020	<0.020	<0.020	<0.020	<0.100	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.073	<0.020	<5.00	< 0.100	< 0.020	< 0.020	0.423	< 0.020	< 0.100
Ammonia as N ^	*mg/L*		NA	NA	NA	NA	NA	NA	NA	0.528	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	*mg/L*		NA	NA	NA	NA	NA	NA	NA	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	*mg/L*		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.100	<0.100	<0.050	<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
Arsenic	*mg/L*		0.0037	0.0034	0.0036	0.0032	0.0031	0.0029	0.0028	0.0033	0.0022	0.0025	0.0026	0.0038	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
Cadmium	*mg/L*		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<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
Copper	*mg/L*		0.0006	0.0008	0.0004	0.0008	<0.0010	0.0003	0.0004	0.0002	0.0005	<0.0010	<0.0010	<0.0005	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
Iron	*mg/L*		7.60	7.92	8.55	8.44	8.35	7.98	8.38	9.76	8.59	8.22	8.95	9.31	9.6	9.29	8.52	8.44	8.25	9.41	9.73	<0.05	9.76	10.5	9.39	9.53	9.07	9.60	10.4	9.06
Lead	*mg/L*		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<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
Manganese	*mg/L*		1.99	1.81	1.58	2.13	2.56	2.12	1.84	1.78	1.77	1.49	1.66	2.36	2.54	2.51	1.79	2.86	3.03	2.29	3.00	0.0622	0.479	0.441	0.422	0.454	0.416	0.437	0.392	0.392
Mercury (dissolved)	*mg/L*		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	*ng/L*																			<5.00	<100	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100
Molybdenum	*mg/L*		0.003	0.0031	0.0038	0.0029	0.0026	0.0027	0.0029	0.0031	0.0025	0.003	0.0032	0.0029	0.0027	0.003	0.0033	0.0024	0.0026	0.003	0.003	0.0011	0.0054	0.0055	0.0057	0.0055	0.0058	0.0058	0.0054	0.0052
Selenium	*mg/L*		<0.0010	0.002	0.0016	<0.001	0.001	<0.0010	<0.0010	<0.0010	<0.001	<0.0020	<0.0020	<0.001	<0.0010	0.001	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
Silica (Si02)	*mg/L*		15.8	16.4	15.7	17.3	15.9	14.9	14.9	16.5	15.2	13.9	15.4	18.3	16.9	16.3	14.3	17.7	16.7	16.0	17.8	11.7	12.6	14.1	14.0	13.0	12.5	12.7	13.0	12.8
Silicon	*mg/L*		7.37	7.67	7.34	8.10	7.46	6.96	6.96	7.69	7.09	6.48	7.21	8.56	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
Uranium	*mg/L*		0.0004	0.0004	0.0003	0.0005	0.0005	0.0004	0.0004	0.0003	<0.0005	<0.0010	<0.0010	0.0005	<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
Zinc	*mg/L*		<0.002	<0.002	<0.002	<0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040	<0.0020	<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

Notes & Definitions:

Historical data prior to 2018 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-1-A																																	
Year		2018									2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2			Q3		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	6	7	8	11	2	5	8	11	2	5	9	11	2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11
Sample Date		1/2	2/9	3/22	4/11	5/10	--	7/23	8/7	11/1	2/20	5/30	8/14	11/5	2/12	5/28	9/1	11/16	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
Lab Analysis (Y/N)		N	Y	N	N	Y	N	N	Y	Y	Y	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	NM	0.1	NM	0.1	0.1	***	0.12	0.10	0.09	0.12	0.12	0.06	0.25	0.25	0.25	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.15	0.25	0.08	0.10	0.10	0.18	0.10	0.11	0.10	0.09
Total Purged	gal	1.5	2	1.5	1	1.3		1.5	1.5	1.6	1.0	1.5	1.1	1.5	1.0	1.0	1.0	1.3	1.0	2.0	1.0	1.3	1.0	1.0	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Depth to Water	ft bgs	216.21	216.47	216.47	216.54	216.54		216.63	216.63	216.65	216.55	216.43	216.33	216.13	216.05	215.85	215.56	215.80	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
Temperature	deg C	9.5	9.0	8.7	9.6	9.2		9.9	10.0	8.9	7.5	10.3	9.6	9.7	8.1	9.1	9.6	9.4	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
pH	SU	7.19	7.37	7.28	6.8	6.97		6.99	7.05	7.01	7.13	6.96	7.05	7.00	7.13	7.18	7.22	7.24	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
Specific Conductance	µS/cm	1700	1723	1735	1647	1761		1734	1815	1781	1776	1681	1757	1737	1797	1855	1664	1670	1550	1647	1691	1792	1707	1717	1770	1733	1780	1676	1745	1738	1754	1656	1722	1710
Oxygen Reduction Potential	mV	-44.6	-52.8	-37.5	142.4	0.4		-26.4	-33.2	101.4	-11.8	25.4	-18.7	3.6	12.7	4.2	-20.1	111.4	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
Lab Analytical Results:																																		
Hardness as CaCO3	mg/L		159			156			160	174	159	153	148	150	159	165	161	168	168	150	158	157	152	149	146	172	174	158	150	166	160	171	161	154
pH (Lab)	SU		7.22			7.45			7.17	7.27	7.13	7.03	7.14	6.92	7.19	6.91	7.23	7.17	7.22	7.13	7.1	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
Total Dissolved Solids (Lab)	mg/L		1100			1150			1040	1130	1160	1150	1150	1140	1190	1150	1150	1170	1250	1150	1190	1150	1140	1140	1150	1050	1150	1180	1200	1110	1120	1110	1100	1060
Calcium	mg/L		30.5			29.7			30.9	34.0	31.2	29.8	27.9	29.0	30.9	31.6	30.6	32.8	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
Magnesium	mg/L		20.1			19.9			20.1	21.5	19.7	19.1	18.9	18.8	19.9	20.8	20.6	20.9	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
Sodium	mg/L		348			327			333	358	357	319	348	333	337	349	348	353	357	314	333	340	321	319	318	361	351	345	333	324	336	358	327	341
Potassium	mg/L		<5.00			2.12			2.23	2.47	2.34	2.18	2.29	2.12	2.13	<5.00	2.29	<3.00	<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
Alkalinity, Total	mg/L		415			353			385	395	375	355	368	420	360	340	325	366	400	400	370	440	405	425	410	361	372	391	368	375	370	385	410	420
Alkalinity, Bicarbonate	mg/L		415			353			385	395	375	355	368	420	360	340	325	366	400	400	370	440	405	425	410	361	372	391	368	375	370	385	410	420
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	< 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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L		2.19			<5.00			2.12	2.20	2.74	2.33	2.72	2.66	2.74	2.71	2.74	2.88	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
Fluoride	mg/L		0.240			<0.5			0.260	0.240	0.266	0.242	0.252	0.246	0.234	0.228	0.24	0.264	0.212	0.223	0.24	<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
Sulfate as SO4	mg/L		518			522			515	511	508	494	537	495	506	532	510	508	553	531	507	458	503	516	532	517	562	607	587	510	557	552	493	477
Total Organic Carbon (TOC)	mg/L		1.51			1.54			1.60	1.75	1.61	1.67	1.59	1.50	1.55	1.55	1.49	1.57	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
Nitrate/Nitrite as N	mg/L		<0.020			<0.020			<0.020	0.028	<0.020	<0.020	<0.020	0.020	<0.020	0.046	<0.020	<0.020	<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
Ammonia as N ^	mg/L		NA			NA			NA	NA	NA	NA	NA	0.387	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L		NA			NA			NA	NA	NA	NA	NA	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L		<0.250			<0.050			<0.050	<0.100	<0.100	<0.050	<0.050	<0.050	<0.100	<0.250	<0.050	<0.050	<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
Arsenic	mg/L		<0.0025			<0.0005			<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0005	<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
Cadmium	mg/L		<0.0005			<0.0001			<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0005	<0.0001	<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
Copper	mg/L		0.0066			0.0041			0.0048	0.0048	0.0075	0.0064	0.004	0.0147	0.0034	0.0012	0.004	0.0024	0.0026	0.0059	0.0068	0.0086	0.0145	0.0112	0.0096	0.0078	0.0121	0.0193	0.0046	0.0079	0.013	0.0149	0.0142	0.0201
Iron	mg/L		0.590			0.614			0.644	0.647	0.581	0.589	0.613	0.510	0.614	0.559	0.637	0.579	0.572	0.61	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
Lead	mg/L		<0.0025			<0.0005			<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0015	<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
Manganese	mg/L		0.0279			0.026			0.0242	0.0282	0.0281	0.0235	0.0270	0.0248	0.0303	0.0329	0.032	0.0313	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
Mercury (dissolved)	mg/L		<0.0002			<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																							<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L		<0.0025			0.0009			0.0008	0.0007	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0015	<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
Selenium	mg/L		<0.0050			<0.0010			<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.0050	<0.0030	<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
Silica (Si02)	mg/L		11.2			11.2			11.4	12.0	11.1	11.2	11.6	11.0	11.1	10.4	11.1	11.5	11.3	10.7	10.7	11.6	11.2	10.8	10.4	11.2	10.6	10.6	9.44	11.3	10.5	10.8	10.8	10.2
Silicon	mg/L		5.24			5.25			5.31	5.62	5.2	5.23	5.43	5.13	5.19	4.85	5.17	5.37	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
Uranium	mg/L		<0.0005			0.0003			0.0002	0.0003	0.0002	0.0001	0.0001	0.0001	<0.0010	<0.0010	<0.0025	<0.0025	<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
Zinc	mg/L		<0.0100			0.0051			<0.0100	<0.002	<0.0040	0.0022	<0.0040	0.002	<0.0040	<0.0040	<0.0100	<0.0060	<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

Notes & Definitions:

Historical data prior to 2018 can be found in earlier posted versions of this table

*** ***La Plata County stage 3 fire restrictions prevented sampling activity***

^ **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-1-MI

Year		**2018**									**2019**				**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q1			Q2			Q3		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		**1**	2	3	4	5	6	7	8	11	2	5	8	11	2	5	9	11	2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11
Sample Date		**1/2**	2/9	3/22	4/11	5/10	--	7/23	8/7	11/1	2/20	5/30	8/14	11/5	2/12	5/28	9/1	11/16	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
Lab Analysis (Y/N)		**N**	N	N	N	N	N	N	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	N
Field Parameters:																																		
Purge Flow Rate	*gpm*	dry	dry	dry	dry	dry	***	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Total Purged	*gal*																																	
Depth to Water	*ft bgs*																																	
Temperature	*deg C*																																	
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*																																	
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Silica (Si02)	*mg/L*																																	
Silicon	*mg/L*																																	
Uranium	*mg/L*																																	
Zinc	*mg/L*																																	

Notes & Definitions:

Historical data prior to 2018 can be found in earlier posted versions of this table

*** *La Plata County stage 3 fire restrictions prevented sampling activity*

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-1-C

Year		2018									2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2			Q3		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	6	7	8	11	2	5	8	11	2	5	9	11	2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11
Sample Date		1/2	2/9	3/22	4/11	5/10	--	7/23	8/7	11/18	2/20	5/30	8/14	11/5	2/12	5/28	9/1	11/16	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
Lab Analysis (Y/N)		N	Y	N	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Field Parameters:																																		
Purge Flow Rate	gpm	MM	0.1	NM	0.1	0.1	***	0.05	0.1	0.10	0.06	0.02	0.03	0.01	0.01	0.10	0.05	0.05	0.05	0.05	0.01	0.13	0.13	0.13	0.13	0.15								
Total Purged	gal	1	1	1	1	1.25		1	1	1.10	1.00	1.10	1.00	1.00	1.00	0.75	0.80	1.00	1.00	2.00	1.00	1.25	1.00	1.00	1.00	1.00								
Depth to Water	ft bgs	216.38	216.38	216.37	216.35	216.41		216.41	216.05	216.04	216.41	216.20	216.02	216.04	216.12	216.10	216.41	216.66	216.66	216.66	216.66	216.66	216.66	216.66	216.66	216.04								
Temperature	deg C	9.7	9.6	6.7	9.2	10.5		20.0	14.1	9.7	5.4	9.8	10.4	11.1	6.4	9.5	11.2	9.7	7.0	10.7	12.1	10.1	7.7	12.3	12.7	7.4	dry	dry	dry	dry	dry	dry	dry	dry
pH	SU	7.11	7.19	7.32	7.03	7.05		6.91	6.97	6.93	7.09	6.80	6.65	6.70	6.79	6.85	6.93	6.99	7.40	7.18	7.16	7.15	7.12	7.20	7.23	6.67								
Specific Conductance	µS/cm	2778	2738	2751	2700	2749		2693	2675	2751	2621	3139	3172	3080	3005	3002	2653	2709	2410	2249	2290	2554	2223	2362	2278	2104								
Oxygen Reduction Potential	mV	6.2	-4.3	-29.6	-15.3	-42.3		-41.8	-32.5	-110.0	-23.4	27.6	10.5	51.0	50.7	-57.7	21.8	49.6	57.5	-16.8	0.0	-7.0	-92.9	-49.3	-191.8	-77.0								
Lab Analytical Results:																																		
Hardness as CaCO3	mg/L		1190			1130			1120	1180	1010	1820	1840	1700	1600	1590	1400	1420	1320	953	975	920	750	766	638	640								
pH (Lab)	SU		7.22			7.2			7.20	7.02	7.24	6.93	6.67	6.63	6.80	6.62	6.83	7.12	7.08	6.86	7.04	6.89	7.22	7.06	7.40	6.98								
Total Dissolved Solids (Lab)	mg/L		2360			2340			2170	2200	1960	2880	2890	2750	2610	2460	2420	2450	2330	1910	1850	1840	1680	1770	1640	1490								
Calcium	mg/L		219			203			203	219	188	340	342	318	301	294	248	265	241	175	178	168	142	137	113	117								
Magnesium	mg/L		156			150			148	154	131	237	240	219	207	207	189	183	173	126	129	122	95.7	103	86.6	84.4								
Sodium	mg/L		260			239			239	255	265	146	119	119	143	155	168	194	206	196	214	234	229	240	261	266								
Potassium	mg/L		<5.00			3.07			3.04	2.65	3.13	<5.00	<5.00	<5.00	3.05	<5.00	2.82	<5.00	<5.00	2.68	<5.00	<3.00	2.68	2.48	<5.00	2.27								
Alkalinity, Total	mg/L		570			580			560	410	525	530	518	505	515	490	445	520	580	480	485	640	510	530	570	454								
Alkalinity, Bicarbonate	mg/L		570			580			560	410	525	530	518	505	515	490	445	520	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	<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								
Chloride	mg/L		7.78			7.75			5.97	6.22	6.36	10.2	9.31	8.78	8.54	8.20	8.15	7.14	7.13	5.3	5.04	7.12	4.87	5.55	5.59	4.32								
Fluoride	mg/L		1.03			0.96			0.888	0.924	0.975	0.67	0.525	0.565	0.615	0.695	0.705	0.750	0.804	0.654	0.716	0.755	0.712	1.04	1.24	0.916								
Sulfate as SO4	mg/L		1160			1210			1090	1080	1070	1630	1730	1520	1400	1370	1280	1180	1150	940	872	886	805	908	821	728								
Total Organic Carbon (TOC)	mg/L		2.21			2.2			2.35	2.37	2.32	2.62	2.52	2.30	2.30	2.32	2.2	2.13	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			0.036	<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								
Ammonia as N ^	mg/L		NA			NA			NA	NA	NA	NA	NA	0.140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
Ortho-Phosphate as P ^	mg/L		NA			NA			NA	NA	NA	NA	NA	<0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
Aluminum	mg/L		<0.250			<0.05			<0.05	<0.100	<0.100	<0.250	<0.250	<0.250	<0.150	<0.250	<0.050	<0.050	<0.250	<0.100	<0.250	<0.150	<0.050	<0.100	<0.250	<0.100								
Arsenic	mg/L		<0.0025			0.0051			0.0052	0.0035	0.0038	0.0048	0.0034	<0.0025	<0.0025	0.0019	<0.0025	<0.0005	<0.0025	<0.0025	<0.0025	<0.0010	0.0009	0.0024	0.0028	<0.0010								
Cadmium	mg/L		<0.0005			<0.0001			<0.0001	<0.0001	<0.0002	<0.0001	<0.0002	<0.0005	<0.0005	<0.0003	<0.0005	<0.0001	<0.0005	<0.0025	<0.0025	<0.0010	<0.0005	<0.001	<0.0025	<0.0010								
Copper	mg/L		0.0052			0.003			0.0049	0.0033	0.0054	0.0057	0.0014	0.0096	<0.0025	<0.0015	<0.0025	<0.0005	<0.0025	0.0042	0.0043	0.0064	0.0093	0.0086	0.0104	0.0120								
Iron	mg/L		<0.250			0.643			1.01	1.12	0.988	2.3	0.819	0.543	0.570	0.606	0.619	0.855	0.769	0.552	0.573	0.724	0.630	0.671	0.679	<0.100								
Lead	mg/L		<0.0025			<0.0005			<0.0005	<0.0005	<0.0010	<0.0005	<0.0010	<0.0025	<0.0025	<0.0015	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010								
Manganese	mg/L		0.0989			0.153			0.140	0.106	0.0807	0.075	0.0562	0.0512	0.0537	0.0473	0.0445	0.0496	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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																							<5.00	<100	<100								
Molybdenum	mg/L		<0.0025			0.0006			<0.0025	<0.0005	<0.0010	<0.0005	<0.0010	<0.0025	<0.0025	<0.0015	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010								
Selenium	mg/L		<0.0050			<0.001			<0.0050	0.0011	<0.0020	0.0016	0.0023	<0.0050	<0.0050	<0.0030	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0020	<0.0010	<0.0020	<0.005	<0.002								
Silica (Si02)	mg/L		14.8			15.2			14.7	14.5	14	16.6	17.3	16.4	15.7	13.8	14.1	14.8	14.4	15.0	14.5	14.8	14.2	13.0	11.7	13.4								
Silicon	mg/L		6.94			7.09			6.87	6.78	6.55	7.75	8.07	7.65	7.35	6.47	6.6	6.93	6.75	7.00	6.79	6.94	6.66	6.07	5.47	6.26								
Uranium	mg/L		0.0024			0.0025			0.0022	0.0021	0.0016	0.002	0.0025	0.0023	<0.0025	0.0020	<0.0025	<0.0015	<0.0025	<0.0025	<0.0025	0.0010	0.0008	<0.0010	<0.0025	<0.0010								
Zinc	mg/L		<0.0100			0.0062			<0.0100	0.0055	<0.0040	0.0085	0.0077	<0.0100	<0.0100	<0.0060	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0040	0.0021	<0.0040	<0.0100	0.0071								

Notes & Definitions:

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*** ***La Plata County stage 3 fire restrictions prevented sampling activity***

^ **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)**

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ng/L **nanogram per liter**

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GCC Energy Hydrologic Monitoring Data

MW-2-A

Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	9	11	2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11
Sample Date		1/2	2/9	3/22	4/11	5/10	8/7	11/1	2/20	5/29	8/14	11/6	2/11	5/27	9/1	11/24	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
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	N	N	N	N	N	N	N	N
Field Parameters:																																
Purge Flow Rate	gpm	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Total Purged	gal																															
Depth to Water	ft bgs																															
Temperature	deg C																															
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																															

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GCC Energy Hydrologic Monitoring Data

MW-2-MI																															
Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	9	11	2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11
Sample Date		1/2	2/9	3/22	4/11	5/10	8/7	11/1	2/20	5/29	8/14	11/6	2/11	5/27	9/1	11/24	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
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	N	N	N	N	N	N	N	N
Field Parameters:																																
Purge Flow Rate	*gpm*	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Total Purged	*gal*																															
Depth to Water	*ft bgs*																															
Temperature	*deg C*																															
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*																															
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Fluoride	*mg/L*																															
Sulfate as SO4	*mg/L*																															
Total Organic Carbon (TOC)	*mg/L*																															
Nitrate/Nitrite as N	*mg/L*																															
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Cadmium	*mg/L*																															
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Iron	*mg/L*																															
Lead	*mg/L*																															
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Mercury (dissolved)	*mg/L*																															
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GCC Energy Hydrologic Monitoring Data

MW-2-C																															
Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	9	11	2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11
Sample Date		1/2	2/9	3/22	4/11	5/10	8/7	11/1	2/20	5/29	8/14	11/6	2/11	5/27	9/1	11/24	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
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	N	N	N	N	N	N	N	N
Field Parameters:																																
Purge Flow Rate	*gpm*	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Total Purged	*gal*																															
Depth to Water	*ft bgs*																															
Temperature	*deg C*																															
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 2018 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-A																															
Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	8	12	2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11
Sample Date		1/3	2/21	3/23	4/12	5/7	8/8	11/6	2/27	5/21	8/14	11/12	2/4	5/26	8/31	12/1	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
Lab Analysis (Y/N)		N	Y	N	N	Y	Y	Y	Y	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	NM	0.10	NM	0.10	0.10	0.10	0.10	0.12	0.15	0.06	0.25	0.12	0.13	0.13	0.13	0.05	0.13	0.15	0.13	0.25	0.25	0.13	0.04	0.13	0.11	0.15	0.15	0.22	0.31	0.33	0.17
Total Purged	gal	1.3	1.5	1.5	1.0	1.3	1.0	1.1	1.5	1.3	1.3	1.5	1.1	1.2	1.5	1.3	1.3	1.5	1.5	1.5	1.5	2.0	1.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Depth to Water	ft bgs	298.37	298.04	297.86	297.76	298.17	298.55	298.27	297.85	296.79	297.27	297.33	296.47	296.87	297.21	297.02	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
Temperature	deg C	11.8	11.7	12.2	11.9	13.5	13.5	11.9	11.8	12.1	NM	13.1	11.5	13.2	13.1	11.9	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
pH	SU	8.54	8.52	8.61	8.21	8.38	8.30	8.31	8.28	8.31	8.13	8.51	8.11	8.26	8.23	8.39	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
Specific Conductance	µS/cm	2528	2506	2458	2415	2253	2336	2391	2355	2309	NM	2204	2211	2249	2112	2192	1930	1525	2091	2127	2121	2055	2066	2057	2094	2050	1374	903	937	560	748	899
Oxygen Reduction Potential	mV	-120.3	-125.2	-181.6	-135.8	-138.2	-155.8	-164.6	-145.9	-132.3	-138.6	-120.1	-65.7	-156.8	-98.8	-89.3	-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
Lab Analytical Results:																																
Hardness as CaCO3	mg/L		11.5			11.2	12.6	14.1	11.9	10.7	10.4	11.1	10.8	10.3	11.1	9.41	10.5	8.14	8.89	8.68	8.56	9.01	9.33	7.59	8.38	8.76	5.89	9.30	8.16	8.68	9.42	8.11
pH (Lab)	SU		8.45			8.36	8.37	8.24	8.28	8.29	8.27	8.39	8.09	7.68	8.16	8.13	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
Total Dissolved Solids (Lab)	mg/L		1680			1670	1600	1540	1500	1530	1520	1510	1500	1460	1380	1460	1410	1350	1420	1360	1220	1400	1320	1280	1390	1310	1300	1290	1320	1280	1340	1190
Calcium	mg/L		3.33			3.2	3.71	4.15	3.55	3.16	3.08	3.34	3.14	3.07	3.02	2.83	3.07	2.48	2.59	2.53	2.42	2.63	2.59	2.21	2.42	2.51	2.36	2.57	2.25	2.48	2.61	2.26
Magnesium	mg/L		0.776			0.774	0.811	0.913	0.739	0.692	0.655	0.680	0.723	0.645	0.866	0.568	0.698	0.475	0.586	0.577	0.610	0.594	0.694	0.503	0.570	0.603	< 0.500	0.702	0.619	0.605	0.705	0.595
Sodium	mg/L		562			542	562	605	543	525	553	528	520	507	510	505	536	471	462	448	462	473	476	420	440	456	450	459	436	458	454	455
Potassium	mg/L		<2.00			1.8	<2.00	2.17	<2.00	1.92	<2.00	<5.00	<3.00	<5.00	<5.00	<5.00	<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
Alkalinity, Total	mg/L		430			480	480	475	540	450	459	420	460	430	440	470	520	530	465	485	495	560	500	400	454	458	447	465	465	510	580	520
Alkalinity, Bicarbonate	mg/L		360			480	420	385	330	430	423	420	460	400	440	450	520	530	465	435	455	480	500	400	454	458	415	455	465	510	580	520
Alkalinity, Carbonate	mg/L		70.0			<10.0	60.0	90.0	210	20	36.0	<10.0	<10.0	30.0	<10.0	20	<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
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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L		16.4			16.1	15.1	16.0	15.2	15	15.0	14.7	13.9	13.9	13.5	14	13.5	14	14.1	14.6	14.2	14.2	15.9	15.4	16.0	16.1	16.9	16.2	17.3	17.5	18.2	17.6
Fluoride	mg/L		<0.500			<0.5	NA	0.383	0.406	0.404	0.396	<0.500	0.370	0.374	0.366	0.372	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
Sulfate as SO4	mg/L		812			756	706	682	716	699	724	633	637	656	624	644	600	601	599	515	584	555	557	565	571	573	560	552	545	545	525	520
Total Organic Carbon (TOC)	mg/L		5.32			4.7	4.62	4.52	4.15	4.10	3.84	3.81	3.42	3.48	3.39	3.15	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
Nitrate/Nitrite as N	mg/L		<0.020			<0.020	<0.020	<0.020	0.266	<0.020	<0.020	<0.020	0.024	0.026	0.039	0.032	<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
Ammonia as N ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.354	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.0730	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L		<0.100			<0.050	<0.050	<0.100	<0.100	<0.050	<0.100	<0.250	<0.150	<0.250	<0.250	<0.250	<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
Arsenic	mg/L		<0.0025			0.0006	<0.0025	<0.0010	<0.0010	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	0.0026	0.0006	0.001	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
Cadmium	mg/L		<0.0005			<0.0001	<0.0001	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<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
Copper	mg/L		0.0236			0.0063	0.0117	0.0086	0.0137	0.0078	0.0067	0.0039	0.0037	0.0021	0.0051	0.0055	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	0.018	0.0255	0.0203
Iron	mg/L		<0.100			<0.05	<0.05	<0.100	<0.100	<0.050	<0.100	<0.250	<0.150	<0.250	<0.250	<0.250	<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
Lead	mg/L		<0.0025			<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<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
Manganese	mg/L		0.0232			0.018	0.0222	0.0187	0.0172	0.0185	0.0166	0.0140	0.0162	0.0136	0.0120	0.0125	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
Mercury (dissolved)	mg/L		<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																					<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L		0.0065			0.0046	0.0043	0.0033	0.003	0.003	0.0018	0.0027	0.0022	0.0015	<0.0025	<0.0025	<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
Selenium	mg/L		<0.0050			0.0109	<0.0050	0.0028	0.0039	<0.005	0.0020	<0.0020	<0.0020	0.0033	0.0086	<0.0050	0.129	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
Silica (Si02)	mg/L		11.1			11	12.0	12.8	11.7	11	12.7	11.8	11.6	10.5	11.0	11.2	11.3	10.1	10.7	10.9	10.8	10.7	11.1	9.39	9.32	9.89	9.16	10.9	9.34	10.1	10.1	10.3
Silicon	mg/L		5.18			5.17	5.62	5.97	5.46	5.16	5.95	5.53	5.43	4.92	5.14	5.22	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
Uranium	mg/L		0.0030			0.0026	0.0026	0.0027	0.0018	0.0014	0.0012	0.0011	0.0010	<0.0025	<0.0025	<0.0025	<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
Zinc	mg/L		<0.0100			<0.002	<0.002	<0.0040	<0.0040	<0.0100	<0.0080	<0.0040	<0.0040	<0.0040	<0.0100	<0.0100	<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

Notes & Definitions:

Historical data prior to 2018 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-3-MI

Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	8	12	2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11
Sample Date		1/3	2/21	3/23	4/12	5/7	8/8	11/6	2/27	5/21	8/21	11/12	2/4	5/26	8/31	12/1	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
Lab Analysis (Y/N)		N	Y	N	N	Y	Y	Y	Y	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	NM	0.10	NM	0.10	0.10	0.10	0.10	0.12	0.12	0.06	0.25	0.50	0.25	0.13	0.13	0.10	0.13	0.13	0.25	0.25	0.25	0.15	0.10	0.11	0.12	0.26	0.33	0.09	0.17	0.17	0.17
Total Purged	gal	1.3	1.5	1.5	1.0	1.3	1.0	1.1	1.5	1.3	2.0	1.0	1.5	1.3	1.8	1.3	1.3	1.5	1.5	1.3	1.5	2.0	1.3	1.3	1.1	1.1	1.1	1.1	1.1	1.3	1.1	1.1
Depth to Water	ft bgs	240.73	240.55	240.65	240.84	241.04	241.97	242.13	242.15	242.32	246.55	243.07	242.85	243.05	243.6	243.9	243.93	244.25	244.28	244.15	242.90	244.05	244.65	244.3	243.83	249.55	242.86	242.65	242.35	242.40	242.35	242.9
Temperature	deg C	11.9	11.3	11.9	11.8	12.6	13.0	12.4	11.6	11.3	13.2	12.3	11.6	12.6	12.8	11.7	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
pH	SU	8.84	8.83	8.84	8.51	8.48	8.49	8.46	8.51	8.55	8.71	8.75	8.71	8.92	9.01	9.09	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
Specific Conductance	µS/cm	1790	1810	1771	1772	1727	1709	1746	1753	1739	1691	1739	1758	1737	1560	1555	1519	1232	1647	1765	1705	1686	1720	1739	1609	1737	1702	1784	1788	1704	1753	1764
Oxygen Reduction Potential	mV	-136.0	-131.4	-160.7	-99.9	-103.9	-127.8	-176.5	-113.0	-84.5	43.9	-130.8	-104.3	-174.5	-111.0	-132.4	-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
Lab Analytical Results:																																
Hardness as CaCO3	mg/L		9.92			8.65	8.63	8.88	7.63	6.84	7.98	6.64	6.50	7.25	6.39	5.94	6.63	5.06	5.39	5.21	5.28	5.13	<3.31	<3.31	<3.31	<3.31	< 3.31	5.20	4.21	5.20	5.63	4.96
pH (Lab)	SU		8.66			8.56	8.58	8.34	8.5	8.45	8.58	8.62	8.61	8.59	8.87	8.77	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
Total Dissolved Solids (Lab)	mg/L		1170			1210	1110	1120	1120	1170	1010	1130	1130	1130	1060	1160	1120	1110	1180	1130	1070	1140	1080	1070	1140	1100	1070	1050	1120	1060	1120	1100
Calcium	mg/L		2.22			1.91	1.95	2.03	1.87	1.7	2.04	1.73	1.63	1.76	1.62	1.42	1.66	1.28	1.34	1.25	1.30	1.32	1.14	1.15	1.24	1.11	1.10	1.34	1.14	1.26	1.39	1.22
Magnesium	mg/L		1.07			0.945	0.911	0.926	0.715	0.629	0.703	0.561	0.591	0.694	0.570	0.579	0.606	0.454	0.5	0.508	0.496	0.442	<0.500	<0.500	<0.500	<0.500	< 0.500	0.449	0.332	0.501	0.522	0.463
Sodium	mg/L		459			417	446	476	434	419	454	437	437	427	431	431	468	410	403	390	413	415	374	389	397	408	398	405	388	413	411	413
Potassium	mg/L		<2.00			1.63	<2.00	<2.00	1.39	1.65	<2.00	<5.00	<2.00	<5.00	<3.00	<4.00	<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
Alkalinity, Total	mg/L		700			680	730	720	685	755	720	690	705	680	625	770	690	690	705	705	740	740	780	760	680	700	660	630	670	730	700	685
Alkalinity, Bicarbonate	mg/L		600			500	630	610	485	605	590	610	645	550	465	690	450	550	555	565	580	580	480	540	620	572	590	510	590	630	670	555
Alkalinity, Carbonate	mg/L		100			180	100	110	200	150	130	80.0	60.0	130	160	80	240	140	150	140	160	160	300	220	60.0	128	70.0	120	80.0	100	30.0	130
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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L		10.7			10.7	8.54	8.83	9.21	9.25	10.2	9.13	9.21	9.61	9.45	10	9.84	10.5	10.4	10.4	10.6	10.2	11.2	10.7	10.9	10.8	10.8	10.7	10.7	10.6	10.3	9.63
Fluoride	mg/L		1.30			1.2	1.16	1.19	1.21	1.22	1.19	1.19	1.13	1.13	1.09	1.12	1.03	1.09	1.07	0.980	1.10	0.982	1.11	1.08	1.10	1.02	0.862	0.924	0.940	1.12	1.09	1.11
Sulfate as SO4	mg/L		245			250	226	230	232	229	236	224	227	231	222	110	223	227	228	230	233	213	240	238	240	243	242	241	245	255	247	239
Total Organic Carbon (TOC)	mg/L		9.24			8.67	7.83	7.28	6.73	6.56	6.17	5.78	5.58	6.07	5.79	5.46	5.34	5.33	5.4	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
Nitrate/Nitrite as N	mg/L		<0.020			<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.034	<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	2.42	< 0.020	< 0.020	< 0.020	< 0.020
Ammonia as N ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.317	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.348	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L		<0.100			<0.050	<0.050	<0.10	<0.050	<0.050	0.167	<0.250	<0.100	<0.250	<0.150	<0.200	<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
Arsenic	mg/L		0.0160			0.0152	0.0127	0.0104	0.0149	0.0107	0.0142	0.0099	0.0093	0.0086	0.0061	0.007	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
Cadmium	mg/L		<0.0001			<0.0001	<0.0001	<0.0002	<0.0001	<0.0005	<0.0001	<0.0002	<0.0002	<0.0005	<0.0005	<0.0004	<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
Copper	mg/L		0.0122			0.0048	0.0071	0.0073	0.0068	0.0063	0.0049	0.0037	0.0024	<0.0025	0.0046	0.0045	0.0031	0.0131	0.0143	0.0097	0.0072	0.0126	0.017	0.0089	0.0143	0.0187	0.008	0.0081	0.0136	0.0167	0.0243	0.0197
Iron	mg/L		<0.100			<0.05	<0.05	<0.1	<0.050	<0.050	<0.100	<0.250	<0.100	<0.250	<0.150	<0.200	<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
Lead	mg/L		<0.0005			<0.0005	<0.0005	<0.0010	<0.0005	<0.0025	<0.0005	<0.0010	<0.0010	<0.0025	<0.0025	<0.0020	<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
Manganese	mg/L		0.0049			0.006	0.0054	0.0072	0.0078	0.0082	0.0079	0.0099	0.0095	0.0102	0.0072	0.007	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
Mercury (dissolved)	mg/L		<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																					<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L		0.0170			0.016	0.0149	0.0158	0.0157	0.0167	0.0277	0.0372	0.0204	0.0195	0.0149	0.0163	0.0162	0.016	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
Selenium	mg/L		0.0010			0.0019	<0.0050	<0.002	0.0034	<0.005	<0.0010	<0.0020	<0.0020	<0.0050	<0.0050	<0.004	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
Silica (Si02)	mg/L		9.33			8.83	9.49	10.2	8.95	8.85	9.73	9.46	8.80	8.24	8.84	9.11	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
Silicon	mg/L		4.36			4.13	4.44	4.76	4.18	4.14	4.55	4.42	4.11	3.85	4.13	4.26	4.51	3.79	4.1	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
Uranium	mg/L		0.0125			0.0126	0.0111	0.0110	0.011	0.0085	0.0080	0.0070	0.0063	0.0059	0.0043	0.0049	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	0.002
Zinc	mg/L		<0.0020			0.0023	0.0023	<0.0040	0.0028	<0.0100	0.0070	<0.0040	<0.0040	<0.0100	<0.0100	<0.0080	<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

Notes & Definitions:

Historical data prior to 2018 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-3-C

Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	9	11	3	5	8	12	2	5	8	11	2	5	9	12	3	6	8	11	2	6	8	11
Sample Date		1/3	2/21	3/23	4/12	5/7	8/8	11/6	2/27	5/21	9/17	11/12	3/13	5/26	8/31	12/1	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
Lab Analysis (Y/N)		N	Y	N	N	Y	Y	Y	Y	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	NM	0.10	NM	0.10	0.10	0.10	0.10	0.06	0.06	0.13	0.13	0.10	0.03	0.08	0.13	0.13	0.13	0.13	0.13	0.15	0.10	0.15	0.03	0.24	0.09	0.11	0.10	0.12	0.08	0.11	0.17
Total Purged	gal	1.5	1.5	1.5	1.0	1.3	1.3	1.1	1.3	1.5	10.0	1.5	11.0	1.1	1.3	1.5	1.3	1.5	1.3	1.5	1.5	1.5	1.5	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Depth to Water	ft bgs	297.01	296.66	296.57	296.62	296.78	297.12	296.80	296.39	295.56	295.70	295.50	299.35	294.99	294.60	295.26	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
Temperature	deg C	11.7	11.4	11.6	12.2	13.0	13.3	11.5	11.0	11.4	13.5	12.5	11.3	13.4	15.0	14.0	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
pH	SU	8.43	8.43	8.45	8.25	8.28	8.26	8.17	8.28	8.29	8.31	8.20	7.98	8.44	8.45	8.73	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
Specific Conductance	µS/cm	4923	4864	5063	5019	4916	4953	5127	5155	5184	5144	5144	4921	3143	5039	4251	4426	3755	4571	5244	4564	4694	5306	2397	5300	5353	5283	5584	2560	5377	5484	5498
Oxygen Reduction Potential	mV	-187.9	-183.5	-155.4	-154.7	-161.4	-180.5	-217.6	-185.4	-188.5	-151.8	-184.4	-155.0	-240.5	-174.4	-150.0	-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
Lab Analytical Results:																																
Hardness as CaCO3	mg/L		16.1			40.3	17.9	21.7	17.3	16.8	18.6	18.6	18.3	16.0	18.1	16.9	18.5	14.8	16.9	16.7	16.0	17.4	20.4	16.4	17.1	13.7	16.1	17.7	16.3	18.7	19.0	19.3
pH (Lab)	SU		8.35			8.34	8.31	8.24	8.2	8.23	8.31	8.12	7.98	8.41	8.36	8.36	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
Total Dissolved Solids (Lab)	mg/L		3540			3610	3520	3360	3300	3440	3500	3390	3220	3180	3170	3280	3200	3230	3300	3200	3270	3250	3280	3140	3150	2310	3220	3300	3360	3270	3390	3340
Calcium	mg/L		3.81			7.28	4.01	4.70	4.05	3.74	4.30	4.23	4.26	3.81	3.97	3.72	4.25	3.59	3.84	3.76	3.66	4.10	4.49	3.68	3.91	3.32	3.63	3.97	3.74	4.26	4.28	4.43
Magnesium	mg/L		1.59			5.38	1.92	2.41	1.75	1.8	1.91	1.94	1.86	1.58	1.98	1.84	1.92	1.42	1.77	1.78	1.67	1.74	2.23	1.75	1.77	1.33	1.70	1.89	1.70	1.97	2.03	2.00
Sodium	mg/L		1200			1350	1220	1460	1270	1100	1360	1300	1280	1240	1250	1250	1360	1220	1220	1170	1200	1260	1360	1170	1260	906	1240	1270	1240	1300	1320	1310
Potassium	mg/L		<10.0			<5.00	<5.00	<5.00	<5.00	5.24	<5.00	<10.0	<10.0	<10.0	<10.0	<10.0	<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
Alkalinity, Total	mg/L		1910			1760	1730	2050	2000	2110	2190	2130	2160	2050	1820	2090	2170	2130	2140	2230	2180	2170	2110	2120	2220	1410	2140	2140	2180	2280	2160	2190
Alkalinity, Bicarbonate	mg/L		1810			1600	1670	1900	1830	2000	2020	2070	2000	1800	1690	1970	1710	1910	1950	1950	1820	1870	1990	2120	1920	1410	2070	2060	2060	2040	2000	1930
Alkalinity, Carbonate	mg/L		100			160	60	150	170	110	170	60	160	250	130	120	460	220	190	280	360	300	120	<10.0	300	<10.0	70	80	120	240	160	260
Alkalinity, Hydroxide	mg/L		<10.0			<10.0	NA	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<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		549			544	524	561	577	575	620	542	549	555	552	578	574	577	582	462	608	605	613	604	622	360	639	644	646	649	634	628
Fluoride	mg/L		4.15			3.52	3.84	4.04	4.04	3.91	3.78	3.66	3.61	3.51	3.47	3.53	3.37	3.34	3.36	3.16	3.37	3.06	3.51	3.25	3.38	1.96	2.59	2.91	3.14	3.59	3.39	3.57
Sulfate as SO4	mg/L		<10.0			<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	<10.0	252	< 10.0	< 10.0	< 5.00	2.37	< 10.0	< 5.00
Total Organic Carbon (TOC)	mg/L		337			343	306	141	122	129	132	107	81.9	23.4	17.1	15.7	15.7	16.3	15.7	16.4	17.9	16.2	16.1	10.4	19.2	5.72	18.9	19.2	20.5	19.9	19.9	21.4
Nitrate/Nitrite as N	mg/L		<0.020			<0.02	<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	<0.100	<0.020	<0.020	<0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Ammonia as N ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.212	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L		<0.500			1.47	<0.500	<0.250	<0.250	<0.500	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<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
Arsenic	mg/L		0.0194			0.0168	0.0148	0.0155	0.0218	0.0171	0.0192	0.0188	0.0087	0.0133	0.0106	0.0125	0.0113	0.0163	0.0195	0.017	0.0157	0.013	0.0151	0.0146	0.0194	0.0206	0.0149	0.017	0.0171	0.0211	0.0204	0.0205
Cadmium	mg/L		<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.001	<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
Copper	mg/L		0.0409			0.0183	0.0257	0.0227	0.0223	0.0168	0.0102	0.0109	0.0069	0.0064	0.0136	0.0156	0.0102	0.0499	0.0434	0.0323	0.0287	0.0347	0.0555	0.0268	0.022	0.0571	0.0185	0.0293	0.046	0.0522	0.0742	0.0784
Iron	mg/L		<0.500			0.252	<0.500	<0.250	<0.250	0.344	0.328	<0.500	<0.500	<0.500	<0.500	<0.500	<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
Lead	mg/L		<0.0025			<0.0025	<0.0025	<0.0025	<0.0025	<0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0050	<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
Manganese	mg/L		0.0307			0.0275	0.0243	0.0252	0.0483	0.063	0.0378	0.0266	0.0245	0.0175	0.0102	0.0079	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
Mercury (dissolved)	mg/L		<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																					<5.00	<500	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L		0.0221			0.0189	0.0155	0.0140	0.0134	0.0121	0.0081	0.0075	0.0082	0.0085	0.0076	0.0075	0.008	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
Selenium	mg/L		0.0383			0.0268	0.0232	0.0261	0.0464	0.0203	0.0203	0.0173	0.0125	0.0129	0.0135	0.0191	0.027	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
Silica (Si02)	mg/L		<10.7			9.69	8.68	10.7	8.24	8.35	9.06	<10.7	<10.7	<10.7	<10.7	<10.7	<10.7	7.48	8.4	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
Silicon	mg/L		<5.00			4.53	4.06	5.01	3.85	3.9	4.24	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	3.5	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
Uranium	mg/L		0.0091			0.0087	0.0089	0.0113	0.0077	0.0046	0.0053	0.0034	0.0045	0.0033	<0.0050	<0.0050	<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
Zinc	mg/L		<0.0100			<0.0100	0.0664	0.0814	0.123	0.128	0.0567	0.0886	<0.0100	<0.0100	<0.0200	0.0332	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

Notes & Definitions:

Historical data prior to 2018 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-4-A																															
Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	8	11	2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11
Sample Date		1/3	2/21	3/23	4/12	5/14	8/8	11/5	2/27	5/22	8/15	11/12	2/6	5/26	8/27	11/25	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
Lab Analysis (Y/N)		N	Y	N	N	Y	Y	Y	Y	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	NM	0.10	NM	0.10	0.10	0.10	0.10	0.06	0.06	0.06	0.13	0.03	0.03	0.13	0.13	0.05	0.13	0.25	0.20	0.22	0.13	0.13	0.06	0.05	0.03	0.08	0.05	0.06	0.04	0.05	0.70
Total Purged	gal	1.3	1.5	1.5	1.0	1.5	1.5	1.1	1.5	1.3	1.1	1.0	1.5	1.2	1.3	1.3	1.3	1.3	1.5	1.3	1.8	1.5	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Depth to Water	ft bgs	334.31	334.73	334.81	335.07	335.58	336.06	336.73	335.6	335.07	335.21	335.16	336.35	337.16	336.88	336.13	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
Temperature	deg C	10.9	9.8	11.4	10.9	17.8	12.9	11.6	11.1	10.4	13.6	11.6	10.3	12.5	14.0	12.3	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
pH	SU	8.33	8.37	8.41	8.19	8.20	8.10	8.12	8.15	8.08	8.02	8.11	8.07	8.19	8.27	8.30	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
Specific Conductance	µS/cm	2259	2267	2207	2214	2183	2192	2246	2205	2237	2201	2211	2271	2273	2165	2249	2052	1618	2205	2268	2294	2244	2236	2236	2090	2246	2171	2298	2291	2212	2249	2261
Oxygen Reduction Potential	mV	-35.2	-75.9	-117.3	-77.9	-81.8	-137.5	-157.6	-92.3	-89.3	-54.3	-19.8	15.3	-71.3	-11.5	-10.6	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
Lab Analytical Results:																																
Hardness as CaCO3	mg/L		7.73			7.84	7.69	8.81	7.76	7.31	8.62	8.00	8.19	7.46	7.87	7.77	8.87	7.02	5.81	7.54	8.32	7.88	8.44	7.41	7.78	8.02	6.50	7.47	7.88	8.97	8.43	8.1
pH (Lab)	SU		8.28			8.31	8.21	8.24	8.05	8.08	8.15	8.02	8.11	7.90	8.19	8.16	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
Total Dissolved Solids (Lab)	mg/L		1490			1470	1430	1350	1450	1410	1540	1490	1500	1480	1460	1560	1370	1430	1510	1470	1400	1540	1480	1430	1390	1480	1480	1400	1350	1430	1500	1470
Calcium	mg/L		1.81			1.75	1.71	1.92	1.77	1.68	1.94	1.82	1.88	1.67	1.79	1.73	2.04	1.65	1.41	1.76	1.87	1.88	1.95	1.67	1.73	1.83	1.58	1.75	1.83	2.11	1.97	1.85
Magnesium	mg/L		0.778			0.846	0.832	0.973	0.809	0.756	0.914	0.837	0.850	0.798	0.826	0.836	0.917	0.704	0.555	0.765	0.890	0.771	0.868	0.783	0.842	0.839	0.616	0.751	0.803	0.897	0.853	0.846
Sodium	mg/L		507			528	531	568	535	515	548	529	551	498	533	531	565	507	411	488	504	523	520	482	559	535	503	509	538	520	564	513
Potassium	mg/L		<2.00			1.5	<2.00	<2.00	<2.00	<2.00	4.75	<5.00	<3.00	<5.00	<5.00	<5.00	<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
Alkalinity, Total	mg/L		530			560	575	575	545	565	575	544	560	585	605	538	620	590	580	670	535	605	590	480	569	579	562	515	555	585	615	590
Alkalinity, Bicarbonate	mg/L		490			560	555	575	505	544	535	528	560	545	565	530	620	530	580	670	485	455	590	480	531	579	524	515	545	585	615	590
Alkalinity, Carbonate	mg/L		40.0			<10.0	20.0	<10.0	40	32	40.0	16.0	<10.0	40.0	40	<10.0	<10.0	60	<10.0	<10.0	50.0	150	<10.0	<10.0	38.0	<10.0	38.0	< 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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L		10.0			9.94	9.55	8.60	8.93	8.99	8.91	8.76	8.83	8.89	10.1	9.15	8.79	9.15	9.17	9.04	9.04	8.97	9.89	9.61	9.72	10.3	10.6	10.3	11.3	< 25.0	10.1	10.1
Fluoride	mg/L		<0.500			<0.500	<0.500	0.143	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.500	<0.200	<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
Sulfate as SO4	mg/L		579			561	522	450	567	584	615	559	557	580	542	607	561	577	593	551	581	525	580	590	602	594	571	583	586	576	586	570
Total Organic Carbon (TOC)	mg/L		3.46			3.59	3.60	3.59	3.47	3.40	3.33	3.25	3.10	3.49	3.48	3.27	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
Nitrate/Nitrite as N	mg/L		<0.020			<0.02	<0.02	<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	0.255	<0.020	<0.020	<0.020	<0.020	< 0.020	< 0.020	< 0.020	0.025	< 0.020	< 0.020
Ammonia as N ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.312	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L		NA			NA	NA	NA	NA	NA	NA	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L		<0.100			<0.05	<0.05	<0.100	<0.100	<0.100	<0.100	<0.250	<0.150	<0.250	<0.250	<0.250	<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
Arsenic	mg/L		0.0019			0.0005	<0.0025	<0.0010	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<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
Cadmium	mg/L		<0.0001			<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<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
Copper	mg/L		0.0124			0.0077	0.0105	0.0084	0.0081	0.0061	0.012	0.0037	0.0034	0.002	0.0056	0.0053	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	0.029	0.0303
Iron	mg/L		<0.100			<0.050	<0.050	<0.100	<0.100	<0.100	<0.100	<0.250	<0.150	<0.250	<0.250	<0.250	<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
Lead	mg/L		<0.0005			<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<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
Manganese	mg/L		0.0035			0.0033	<0.0075	0.0034	0.0032	0.0031	0.0026	0.0016	0.0033	0.0031	0.0029	0.0035	0.0029	0.0029	0.003	0.003	0.0032	0.0033	0.0035	0.0031	0.0036	0.003	0.0032	0.0029	0.0029	0.0029	0.0027	0.0046
Mercury (dissolved)	mg/L		<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																					<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L		0.0005			<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<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
Selenium	mg/L		0.0014			0.0025	<0.0050	<0.0020	0.0036	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0050	<0.0050	<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
Silica (Si02)	mg/L		9.47			10	10.2	11.2	9.65	9.81	11.0	10.5	10.3	8.55	9.44	9.96	10.4	8.98	8.57	10.0	9.75	9.80	10.3	8.80	10.3	9.55	8.45	9.58	9.79	9.45	9.93	9.87
Silicon	mg/L		4.43			4.7	4.77	5.22	4.51	4.59	5.14	4.89	4.79	4.00	4.42	4.65	4.87	4.2	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
Uranium	mg/L		0.0003			<0.0001	<0.0005	<0.0002	<0.0002	<0.0001	<0.0002	<0.0002	<0.0010	<0.0010	<0.0025	<0.0025	<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
Zinc	mg/L		0.0022			0.0024	<0.0100	<0.0040	<0.0040	0.0033	<0.0020	<0.0040	<0.0040	<0.0040	<0.0100	<0.0100	<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

Notes & Definitions:

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^	one-time analysis
Y/N	yes or no
gpm	gallons per minute
deg C	degrees Celsius
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mV	millivolts
mg/L	milligram per liter
pCi/L	picocuries 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-4-MI

		2018							2019				2020				2021				2022				2023				2024			
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	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	8	11	2	5	8	11	2	5	9	11	3	5	8	11	2	6	8	11
Sample Date		1/3	2/21	3/23	4/12	5/14	8/8	11/5	2/27	5/22	8/15	11/12	2/6	5/26	8/27	11/25	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
Lab Analysis (Y/N)		N	Y	N	N	Y	Y	Y	Y	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**	NM	0.10	NM	0.10	0.10	0.10	0.10	0.06	0.06	0.13	0.25	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.15	0.09	0.22	0.13	0.91	0.12	0.12	0.14	0.12	0.12
Total Purged	**gal**	1.3	1.5	1.5	1.0	1.3	1.8	1.6	2.0	1.3	1.1	1.0	1.3	1.2	1.3	1.3	1.5	1.3	1.5	1.5	1.3	1.5	1.0	1.3	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Depth to Water	**ft bgs**	330.52	330.42	330.53	330.50	329.62	331.10	336.57	331.10	331.06	331.92	332.10	332.50	332.87	332.45	333.29	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
Temperature	**deg C**	11.2	11.0	10.5	10.9	10.1	11.8	11.3	11.1	10.8	13.3	11.6	11.8	12.2	12.9	11.8	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
pH	**SU**	8.62	8.48	8.53	8.01	8.50	8.14	8.25	8.38	8.23	8.14	8.26	8.18	8.42	8.45	8.57	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
Specific Conductance	**µS/cm**	1848	1856	1841	1816	1739	1756	1808	1716	1800	1830	1776	1795	1794	1730	1777	1605	1258	1711	1761	1745	1727	1718	1749	1673	1728	1710	1791	1784	1695	1712	1780
Oxygen Reduction Potential	**mV**	-112.5	-151.3	-145.7	-117.7	-130.0	-178.2	-202.3	-140.4	-154.7	-127.3	-76.8	-50.6	-131.2	-92.0	-87.7	-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
Lab Analytical Results:																																
Hardness as CaCO3	**mg/L**		6.01			5.88	6.06	6.39	5.35	4.93	5.65	3.31	4.70	<3.31	5.19	2.84	4.91	3.79	4.59	4.53	4.17	4.15	4.59	<3.31	3.84	4.11	< 3.31	3.91	3.70	4.92	4.90	5.1
pH (Lab)	**SU**		8.47			8.48	8.31	8.47	8.35	8.3	8.44	8.08	8.33	8.02	8.28	8.38	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
Total Dissolved Solids (Lab)	**mg/L**		1220			1140	1120	1100	1130	1130	1140	1120	1110	1110	1070	1170	1130	1100	1130	1090	1100	1140	1070	1060	1030	1030	1060	1050	1000	1030	1120	1070
Calcium	**mg/L**		1.64			1.55	1.56	1.60	1.440	1.3	1.51	1.32	1.21	1.22	1.32	1.14	1.97	1.05	1.23	1.09	1.05	1.13	1.13	0.971	0.979	1.02	0.838	0.982	0.989	1.350	1.260	1.42
Magnesium	**mg/L**		0.465			0.49	0.524	0.580	0.428	0.408	0.458	<0.500	0.406	<0.500	0.459	<0.400	<0.500	0.285	0.37	0.441	0.372	0.321	0.431	<0.500	0.338	0.381	< 0.500	0.354	0.299	0.380	0.427	0.376
Sodium	**mg/L**		447			471	470	500	462	458	496	477	441	460	459	458	476	431	427	418	430	443	448	384	468	427	428	424	439	427	440	450
Potassium	**mg/L**		<2.00			1.39	<2.00	<2.00	1.43	1.77	2.03	<5.00	<2.00	<5.00	<3.00	<4.00	<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
Alkalinity, Total	**mg/L**		965			955	968	995	510	890	970	978	985	1030	1020	1010	990	1020	985	1140	935	1020	1180	920	1040	965	955	985	975	1040	1070	1090
Alkalinity, Bicarbonate	**mg/L**		875			865	896	885	420	650	880	886	895	935	940	965	910	900	865	1020	825	870	1040	720	980	865	907	945	975	995	1020	905
Alkalinity, Carbonate	**mg/L**		90			90	72	110	90	240	90	92	90	90	80	40	80	120	120	120	110	150	140	200	60	100	48	40	< 10.0	40	50	180
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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	**mg/L**		8.74			7.99	5.68	5.38	5.98	5.98	5.83	5.47	5.37	5.11	5.02	4.97	4.89	4.85	4.91	4.98	4.55	4.36	4.29	<5.00	25.4	3.91	< 5.00	3.62	< 5.00	3.46	3.36	< 5.00
Fluoride	**mg/L**		5.02			4.82	4.84	4.94	5.49	5.44	5.38	5.31	5.11	5.16	5	5.27	4.92	5.03	5.2	4.78	5.16	4.73	5.42	5.13	5.42	5.31	4.32	4.83	5.08	5.66	5.57	5.74
Sulfate as SO4	**mg/L**		68.6			54.4	48.3	47.6	38.7	34.4	31.9	28.2	24.6	21.9	20	18.7	17.1	16.1	16.4	13.7	13.4	12.4	12.7	11.7	21.8	10.1	< 5.00	8.16	8.52	8.99	8.9	9.34
Total Organic Carbon (TOC)	**mg/L**		9.54			9.25	8.94	8.48	8.37	8.25	7.81	6.42	6.63	6.55	5.93	5.77	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
Nitrate/Nitrite as N	**mg/L**		<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	<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
Ammonia as N ^	**mg/L**		NA			NA	NA	NA	NA	NA	NA	0.240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	**mg/L**		NA			NA	NA	NA	NA	NA	NA	0.280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	**mg/L**		<0.100			<0.050	<0.100	<0.100	<0.050	<0.050	<0.100	<0.250	<0.100	<0.250	<0.150	<0.200	<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
Arsenic	**mg/L**		0.0139			0.0153	0.014	0.0119	0.0164	0.0111	0.0116	0.0107	0.0127	0.0139	0.0084	0.0092	0.0088	0.011	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
Cadmium	**mg/L**		<0.0001			<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0005	<0.0004	<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
Copper	**mg/L**		0.0079			0.0063	0.0071	0.0078	0.0087	0.0153	0.0051	0.0027	0.0028	0.002	0.0052	0.0045	0.004	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
Iron	**mg/L**		<0.100			<0.050	<0.100	<0.100	<0.050	<0.050	<0.100	<0.250	<0.100	<0.250	<0.150	<0.200	<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
Lead	**mg/L**		<0.0005			<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0025	<0.0020	<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
Manganese	**mg/L**		0.0080			0.007	0.0068	0.0084	0.0091	0.0084	0.0084	0.0073	0.0085	0.0086	0.0086	0.0092	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
Mercury (dissolved)	**mg/L**		<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	**ng/L**																					<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	**mg/L**		0.0151			0.0119	0.0115	0.0129	0.0121	0.0119	0.0108	0.0101	0.0096	0.0091	0.0081	0.0089	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
Selenium	**mg/L**		<0.0010			0.0022	0.0113	<0.0020	0.002	<0.0010	<0.0010	<0.0020	<0.0020	<0.0010	<0.005	<0.0040	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
Silica (Si02)	**mg/L**		8.30			8.90	9.29	10.3	8.86	9.06	10.2	9.51	8.21	7.81	8.39	8.88	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
Silicon	**mg/L**		3.88			4.16	4.34	4.81	4.14	4.24	4.76	4.45	3.84	3.65	3.92	4.15	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
Uranium	**mg/L**		0.0183			0.0173	0.0151	0.0191	0.0269	0.0176	0.0168	0.0145	0.0163	0.0195	0.0121	0.0139	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
Zinc	**mg/L**		<0.0020			<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0100	<0.0040	<0.0040	<0.0040	<0.0100	<0.0080	<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

Notes & Definitions:

Historical data prior to 2018 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-4-C																															
Year		2018							2019				2020				2021				2022				2023				2024			
Quarter		Q1			Q2		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		1	2	3	4	5	8	11	2	5	8	11	2	5	8	12	2	5	8	11	2	5	9	11	3	5	8	11	2	6	8	11
Sample Date		1/3	2/21	3/23	4/12	5/14	8/8	11/5	2/27	5/22	8/15	11/12	2/4	5/26	8/27	SQI inst	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
Lab Analysis (Y/N)		N	Y	N	N	Y	Y	Y	Y	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	NM	0.10	NM	0.10	0.10	0.10	0.20	0.12	0.06	0.13	0.13	0.13	0.13	0.13	0.13	0.10	0.13	0.13	0.13	0.25	0.25	0.18	0.08	0.09	0.16	0.08	0.08	0.12	0.11	0.08	0.09
Total Purged	gal	1.5	1.5	1.5	1.0	1.5	1.0	1.3	1.5	1.3	1.1	1.0	1.5	1.2	1.5	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Depth to Water	ft bgs	282.35	281.30	303.30	304.05	NM	302.55	302.17	302.45	303.93	304.93	305.73	306.44	304.90	307.80	308.05	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
Temperature	deg C	11.7	10.8	12.5	11.4	12.4	12.9	11.5	11.3	11.2	12.5	11.7	11.2	12.7	13.0	11.4	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
pH	SU	7.80	7.88	7.94	7.75	7.79	7.76	7.79	7.87	7.86	7.81	7.85	7.87	7.97	8.00	8.05	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
Specific Conductance	µS/cm	5834	5903	5628	5792	5592	5583	5775	5710	5712	5930	5636	5729	5636	5429	5665	5106	4047	5454	5687	5698	5645	5589	5649	5116	5678	5560	5842	5792	5580	5751	5761
Oxygen Reduction Potential	mV	-123.8	-154.3	-131.3	-134.9	-129.3	-157.6	-209.0	-160.1	-180.1	-156.8	-148.7	-135.9	-147.7	-132.1	-128.7	-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
Lab Analytical Results:																																
Hardness as CaCO3	mg/L		26.5			26.2	25.9	28.6	23.6	22.5	25.2	24.4	24.0	22.7	23	21.8	25.6	19.6	21.9	20.9	22.2	21.4	26.0	20.1	21.1	21.0	24.3	22.1	23.5	20.9	23.7	23.6
pH (Lab)	SU		7.84			7.97	7.96	8.27	7.9	7.92	7.95	7.85	7.95	7.76	7.92	7.94	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
Total Dissolved Solids (Lab)	mg/L		3730			3660	3650	3590	3580	3590	3610	3610	3580	3570	3510	3610	3720	3540	3600	3630	3520	3580	3670	3530	3620	3450	3390	3560	3420	3490	3590	3510
Calcium	mg/L		6.32			6.15	5.90	6.60	5.5	5.21	5.83	5.61	5.57	5.31	5.3	5.15	5.98	4.64	5.07	4.77	5.04	5.14	6.01	4.65	4.78	4.78	5.69	5.15	5.54	4.89	5.49	5.57
Magnesium	mg/L		2.61			2.62	2.72	2.94	2.39	2.3	2.57	2.53	2.44	2.30	2.36	2.18	2.58	1.95	2.25	2.19	2.33	2.07	2.68	2.07	2.22	2.20	2.45	2.23	2.36	2.11	2.42	2.35
Sodium	mg/L		1410			1400	1410	1590	1410	1370	1440	1430	1440	1390	1400	1400	1520	1310	1340	1270	1360	1350	1530	1290	1410	1360	1440	1360	1410	1370	1480	1370
Potassium	mg/L		<10.0			<5.00	<5.00	5.36	<5.00	<5.00	5.42	<10.0	<5.00	<10.0	<10.0	<10.0	<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
Alkalinity, Total	mg/L		2600			2410	2480	2450	2470	2550	2500	2470	2480	2460	2500	2950	2470	2500	2410	2630	2360	2500	2430	2250	2580	2240	2460	2460	2350	2580	2620	2410
Alkalinity, Bicarbonate	mg/L		2600			2330	2480	2450	2470	2350	2390	2410	2420	2340	2390	2880	2430	2360	2290	2410	2180	2300	2430	2250	2490	2240	2330	2420	2330	2380	2280	2410
Alkalinity, Carbonate	mg/L		<10.0			80	<10.0	<10.0	<10.0	200	110	60.0	60.0	120	110	70	40	140	120	220	180	200	<10.0	<10.0	90.0	<10.0	130	40.0	20.0	200	340	< 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	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Chloride	mg/L		592			573	533	590	575	554	580	525	528	555	543	565	557	553	572	561	562	563	570	583	576	581	566	586	575	579	573	548
Fluoride	mg/L		2.53			2.52	2.48	2.54	2.64	2.62	2.59	2.51	2.41	2.36	2.34	2.37	2.21	2.16	2.28	2.04	2.26	2.02	2.34	2.22	2.23	2.15	2.1	2.02	1.75	2.74	2.37	3.2
Sulfate as SO4	mg/L		34.5			27	18.7	11.2	5.07	<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	<10.0	<10.0	<5.00	< 10.0	< 10.0	11.1	< 10.0	< 10.0	< 2.00
Total Organic Carbon (TOC)	mg/L		3.23			3.23	2.80	3.46	3.24	2.62	2.63	4.18	2.23	2.50	2.31	3.72	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
Nitrate/Nitrite as N	mg/L		<0.020			<0.020	<0.020	<0.020	0.061	<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	<0.100	<0.020	<0.020	<0.02	< 0.020	< 0.020	0.252	< 0.020	< 0.020	< 0.020
Ammonia as N ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.424	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	mg/L		NA			NA	NA	NA	NA	NA	NA	0.182	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L		<0.500			<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.500	<0.250	<0.500	<0.500	<0.500	<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
Arsenic	mg/L		0.0246			0.0195	0.0202	0.0164	0.0211	0.0171	0.0178	0.0179	0.0203	0.0195	0.015	0.0182	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
Cadmium	mg/L		<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<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
Copper	mg/L		0.0482			0.0389	0.028	0.023	0.0249	0.0382	0.0198	0.0107	0.0111	0.0069	0.0151	0.0148	0.0111	0.0464	0.0499	0.037	0.0302	0.0371	0.0618	0.0573	0.0606	0.016	0.0731	0.0292	0.0487	0.0566	0.0641	0.0624
Iron	mg/L		<0.500			0.373	0.397	0.474	0.279	0.391	0.522	0.619	0.591	0.551	<0.500	0.553	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
Lead	mg/L		<0.0025			<0.0025	<0.0025	<0.0025	<0.0025	<0.0005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0050	<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
Manganese	mg/L		0.0647			0.0529	0.0381	0.0283	0.0268	0.0174	0.0162	0.0096	0.0209	0.0103	0.008	0.0076	0.0059	0.0063	0.005	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
Mercury (dissolved)	mg/L		<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	ng/L																					<5.00	<500	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	mg/L		0.0086			0.0072	0.0071	0.0057	0.0074	0.007	0.0056	0.0047	0.0045	0.0044	<0.005	<0.005	<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
Selenium	mg/L		0.0378			0.0317	0.026	0.0211	0.0339	0.0195	0.0195	0.0156	0.014	0.0129	0.0112	0.0182	<0.0100	0.0186	0.028	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
Silica (Si02)	mg/L		<10.7			11.0	11.2	12.8	10.1	10.5	11.3	11.0	9.9	<10.7	<10.7	<10.7	10.8	8.35	9.54	9.37	9.28	8.56	10.4	<10.7	<10.7	<10.7	< 10.7	< 10.7	9.1	8.5	10.9	9.87
Silicon	mg/L		<5.00			5.16	5.24	6.00	4.70	4.89	5.29	5.14	4.62	<5.00	<5.00	<5.00	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
Uranium	mg/L		0.0311			0.0311	0.0277	0.0246	0.0215	0.0154	0.0086	0.0073	0.0063	0.0039	<0.0050	<0.0050	<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
Zinc	mg/L		<0.0100			<0.0100	<0.0100	<0.0100	<0.0100	0.0038	<0.0100	<0.0100	<0.0100	<0.0100	<0.0200	<0.0200	<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

Notes & Definitions:

Historical data prior to 2018 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-6-A

Year		**2018**	**2019**										**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q4	Q1			Q2			Q3			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	11	2	5	8	11	2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11
Sample Date		12/28	1/31	2/21	3/21	4/23	5/20	6/19	7/23	8/15	9/24	11/7	2/5	5/14	8/11	11/25	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
Lab Analysis (Y/N)		Y	N	Y	N	N	Y	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N
Field Parameters:																																
Purge Flow Rate	***gpm***	NM	NM	0.10	2.00	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.05	0.13	0.05	0.05	0.05	0.02	0.13	0.02	0.05	0.10										
Total Purged	***gal***	36.3	0.5	0.5	2.0	2.0	1.3	1.0	1.3	1.1	1.3	1.5	1.1	1.0	1.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0										
Depth to Water	***ft bgs***	304.33	306.41	307.40	309.60	311.05	312.50	314.20	315.75	316.43	NM	318.70	315.46	319.63	319.64	319.65	319.66	319.66	319.64	319.66	320.30	320.68										
Temperature	***deg C***	7.4	10.7	8.1	7.5	9.6	7.3	12.5	12.3	11.9	10.4	10.4	7.8	9.8	19.5	8.0	9.7	12.6	19.4	10.7	11.5	17.3	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	***SU***	7.32	6.64	6.66	6.74	6.65	6.73	6.76	6.75	6.76	6.80	6.79	6.89	6.95	6.97	7.10	7.03	7.10	7.11	7.11	7.02	7.05										
Specific Conductance	***µS/cm***	6573	6053	6072	6107	6012	6057	5725	5598	5562	5451	5108	5043	4779	4339	4656	4051	3198	4238	4465	4486	4477										
Oxygen Reduction Potential	***mV***	-22.8	19.4	24.6	12.6	11.8	34.8	86.6	25.8	6.5	29.2	20.5	36.7	51.7	62.3	55.2	73.5	83.5	5.2	26.5	-56.1	2.4										
Lab Analytical Results:																																
Hardness as CaCO3	***mg/L***	4360		4190			3920			3540		3070	3200	2780	2690	2710	2660	2550	2740	2510	2440	2490										
pH (Lab)	***SU***	7.10		6.85			6.77			6.85		6.87	6.9	6.93	6.66	7.04	7.20	6.93	7.1	6.98	7.19	7.26										
Total Dissolved Solids (Lab)	***mg/L***	6520		6520			120*			6080		5210	4980	4670	4490	4570	4480	4390	4440	4310	4440	4450										
Calcium	***mg/L***	615		559			553			492		431	467	400	398	406	398	378	415	370	359	365										
Magnesium	***mg/L***	687		678			617			560		484	495	431	411	413	404	390	413	385	374	383										
Sodium	***mg/L***	294		283			296			304		276	296	274	261	273	272	266	263	254	257	268										
Potassium	***mg/L***	15.0		14.4			12.4			12.8		11.1	<20.0	10.6	10.3	10.5	11.1	10.7	11	10.4	10.7	10.6										
Alkalinity, Total	***mg/L***	160		160			143			183		220	215	233	236	246	245	290	255	295	285	270										
Alkalinity, Bicarbonate	***mg/L***	160		160			143			183		220	215	233	236	246	245	290	255	295	285	270										
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										
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										
Chloride	***mg/L***	97.4		28.6			27.3			29.9		29.6	28.4	29.0	26.0	26.6	24.9	25.8	26	26.6	26.2	26.1										
Fluoride	***mg/L***	2.83		<0.500			<0.500			<0.500		<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500										
Sulfate as SO4	***mg/L***	205		4300			4280			4260		3460	3080	3020	3160	2890	2620	2740	2780	2790	2870	2820										
Total Organic Carbon (TOC)	***mg/L***	3.45		3.08			2.91			3.57		3.10	3.16	3.39	3.31	3.26	1.71	3.82	3.33	3.25	3.26	3.14										
Nitrate/Nitrite as N	***mg/L***	<0.020		<0.020			<0.020			<0.020		<0.020	0.049	0.154	0.117	0.093	0.039	0.156	0.118	0.096	0.131	0.103										
Ammonia as N ^	***mg/L***	NA		NA			NA			NA		2.72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
Ortho-Phosphate as P ^	***mg/L***	NA		NA			NA			NA		<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
Aluminum	***mg/L***	<0.500		<0.250			<0.250			<0.250		<0.250	<1.00	<0.500	<0.250	<0.500	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250										
Arsenic	***mg/L***	<0.0025		<0.0025			0.0009			<0.0025		<0.0025	<0.0025	<0.0050	<0.0025	<0.0050	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025										
Cadmium	***mg/L***	<0.0005		<0.0005			0.0001			<0.0005		<0.0005	<0.0005	<0.0010	<0.0005	<0.0010	<0.0005	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025										
Copper	***mg/L***	0.0116		0.0081			0.0035			0.0039		0.0017	0.0028	<0.0050	<0.0025	<0.0050	<0.0025	0.0068	0.0082	0.0063	0.0065	0.0093										
Iron	***mg/L***	1.37		3.75			3.93			3.22		2.72	1.95	1.38	1.10	1.24	1.17	0.890	1.48	1.15	1.41	1.37										
Lead	***mg/L***	<0.0025		<0.0025			<0.0005			<0.0025		<0.0025	<0.0025	<0.0050	<0.0025	<0.0050	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025										
Manganese	***mg/L***	0.788		0.802			0.724			0.690		0.585	0.551	0.526	0.520	0.454	0.437	0.397	0.407	0.391	0.420	0.431										
Mercury (dissolved)	***mg/L***	<0.0002		<0.0002			<0.0002			<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<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			<0.0005			<0.0025		<0.0025	<0.0025	<0.0050	<0.0025	<0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025										
Selenium	***mg/L***	<0.0050		<0.0050			0.0028			<0.0050		<0.0050	<0.005	<0.0100	<0.0050	<0.0100	<0.0050	<0.0050	<0.0050	<0.0100	<0.0040	<0.0050										
Silica (Si02)	***mg/L***	12.3		11.9			14.3			13.4		12.5	<21.4	11.0	11.4	12.3	11.9	13.2	14.3	13.6	12.7	12.3										
Silicon	***mg/L***	5.77		5.57			6.69			6.28		5.83	<10.00	5.17	5.35	5.76	5.58	6.17	6.67	6.36	5.96	5.73										
Uranium	***mg/L***	<0.0005		<0.0005			<0.0001			<0.0005		<0.0005	<0.0025	<0.0050	<0.0025	<0.0050	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025										
Zinc	***mg/L***	0.0689		<0.0100			0.0082			0.0108		0.0117	0.0107	<0.0200	0.0159	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0080	<0.0100										

Notes & Definitions:

*	**Anomalous value under review**
^	**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-6-MI

Year		**2018**	**2019**											**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q4	Q1			Q2				Q3			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	5	6	7	8	9	11	2	5	8	11	2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11
Sample Date		12/29	1/31	2/25	3/21	4/19	5/20	5/30	6/19	7/23	8/15	9/24	11/7	2/5	5/14	8/11	11/24	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
Lab Analysis (Y/N)		Y	N	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	N	N	N	N	N
Field Parameters:																																	
Purge Flow Rate	***gpm***	NM	NM	NM	0.5	0.1	0.015	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Total Purged	***gal***	11.3	0.5	1.5	0.5	1.0	0.9																										
Depth to Water	***ft bgs***	374.49	368.09	367.92	370.49	369.50	371.00																										
Temperature	***deg C***	14.3	13.6	10.8	9.7	16.7	3.9																										
pH	***SU***	8.26	7.43	7.21	7.55	7.97	7.84																										
Specific Conductance	***µS/cm***	3390	3620	3132	2619	2202	2527																										
Oxygen Reduction Potential	***mV***	103.0	-80.2	77.6	59.8	38.3	64.9																										
Lab Analytical Results:																																	
Hardness as CaCO3	***mg/L***	679		147																													
pH (Lab)	***SU***	8.18		8.35																													
Total Dissolved Solids (Lab)	***mg/L***	2480		1880																													
Calcium	***mg/L***	104		23.4																													
Magnesium	***mg/L***	102		21.6																													
Sodium	***mg/L***	646		565																													
Potassium	***mg/L***	12.0		5.30																													
Alkalinity, Total	***mg/L***	395		615																													
Alkalinity, Bicarbonate	***mg/L***	345		615																													
Alkalinity, Carbonate	***mg/L***	50.0		<10.0																													
Alkalinity, Hydroxide	***mg/L***	<10.0		<10.0																													
Chloride	***mg/L***	175		178																													
Fluoride	***mg/L***	2.06		2.46																													
Sulfate as SO4	***mg/L***	1210		585																													
Total Organic Carbon (TOC)	***mg/L***	3.63		4.55																													
Nitrate/Nitrite as N	***mg/L***	0.023		<0.020																													
Aluminum	***mg/L***	<0.100		<0.100																													
Arsenic	***mg/L***	0.0084		0.0144																													
Cadmium	***mg/L***	<0.0001		<0.0002																													
Copper	***mg/L***	0.0113		0.0112																													
Iron	***mg/L***	<0.100		<0.100																													
Lead	***mg/L***	<0.0005		<0.0010																													
Manganese	***mg/L***	0.0500		0.0224																													
Mercury (dissolved)	***mg/L***	<0.0002		<0.0002																													
Molybdenum	***mg/L***	0.0558		0.0690																													
Selenium	***mg/L***	0.0098		0.0127																													
Silica (Si02)	***mg/L***	9.93		9.05																													
Silicon	***mg/L***	4.64		4.23																													
Uranium	***mg/L***	0.0200		0.0118																													
Zinc	***mg/L***	0.0092		0.0143																													

Notes & Definitions:

**No sample collected, due to low yield, insufficient volume for lab sample after field parameters we measured**

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		2018	2019										2020				2021				2022				2023				2024			
Quarter		Q4	Q1			Q2			Q3			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	11	2	5	8	11	2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11
Sample Date		12/24	1/30	2/21	3/21	4/23	5/20	6/19	7/23	8/15	9/24	11/7	2/5	5/12	8/11	11/24	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
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	N	N	N	N	N	N	N	N
Field Parameters:																																
Purge Flow Rate	gpm	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Total Purged	gal																															
Depth to Water	ft bgs																															
Temperature	deg C																															
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:

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

Year		**2018**	**2019**											**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	10	11	2	5	8	11	2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11
Sample Date		12/30	1/31	2/25	3/21	4/23	5/20	6/19	7/23	8/15	9/24	10/28	11/7	2/5	5/14	8/11	11/25	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
Lab Analysis (Y/N)		Y	N	Y	N	N	Y	N	N	Y	N	N	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***	NM	NM	0.06	2.00	0.03	0.03	0.10	0.06	0.03	0.02	0.01	0.03	0.01	0.13	0.01	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.20	0.06	0.03	0.05	0.05	0.19	0.03	0.02	0.05
Total Purged	***gal***	0.5	0.5	1.5	2.0	2.0	2.3	1.3	1.3	1.8	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.5	1.0	1.2	1.0	1.5	1.4	1.4	1.4	1.4	1.4	1.4
Depth to Water	***ft bgs***	535.72	538.73	539.34	540.64	539.98	537.58	540.00	540.35	540.24	540.17	539.80	540.18	539.70	539.45	539.98	540.30	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
Temperature	***deg C***	7.9	14.3	7.8	8.1	9.1	9.3	11.7	14.0	13.4	11.6	10.1	12.4	10.5	11.3	14.8	11.4	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
pH	***SU***	7.64	7.38	7.51	7.54	7.49	7.54	7.67	7.80	7.65	7.43	7.45	7.37	7.39	7.54	7.44	7.47	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
Specific Conductance	***µS/cm***	6011	3784	3503	1461	1164	1296	1400	1272	1532	2104	2267	2113	2283	2287	2442	2495	2136	1629	2531	2478	2362	2297	2053	1889	1599	1321	1525	1655	1498	1153	1030	997
Oxygen Reduction Potential	***mV***	185.3	10.7	40.9	-32.8	-35.8	-111.0	-194.5	-163.6	-67.2	6.4	-48.0	19.9	-128.9	-222.9	32.1	21.8	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
Lab Analytical Results:																																	
Hardness as CaCO3	***mg/L***	2260		1270			431			621			843	1060	965	1130	1160	1120	1010	1280	1130	1030	954	971	870	687	456	573	621	535	414	335	282
pH (Lab)	***SU***	7.60		7.52			7.47			7.59			7.32	7.43	7.18	6.95	7.45	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
Total Dissolved Solids (Lab)	***mg/L***	5100		2840			875			1150			1630	1840	1840	2040	2020	1990	1830	2290	2050	1990	1840	1870	1620	1290	940	1030	1060	940	755	680	575
Calcium	***mg/L***	367		216			75.9			103			136	173	150	179	184	176	154	201	174	159	145	152	133	109	76.8	91.5	99.1	86.9	70.5	58.1	49.2
Magnesium	***mg/L***	325		177			58.7			88.3			122	153	143	165	171	166	152	189	170	154	144	143	131	101	64.2	83.5	90.6	77.2	57.8	46.2	38.6
Sodium	***mg/L***	459		248			129			153			172	203	188	194	194	188	169	177	166	162	158	163	150	139	125	128	132	131	123	122	119
Potassium	***mg/L***	173		64.5			14.0			13.7			11.3	11	7.82	7.20	6.04	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
Alkalinity, Total	***mg/L***	205		315			371			381			355	320	353	335	329	336	346	330	380	365	365	337	310	368	470	390	355	355	360	430	410
Alkalinity, Bicarbonate	***mg/L***	205		315			371			381			355	320	353	335	329	336	346	330	380	365	365	337	310	368	470	390	355	355	360	430	410
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	< 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	< 10.0	< 10.0
Chloride	***mg/L***	256		43.7			5.73			8.70			11.4	11	11.7	12.2	12.4	11	10.5	12.6	11.1	10.5	10.9	10.7	9.29	6.75	5.09	5.75	6.09	6.04	4.47	3.61	3.06
Fluoride	***mg/L***	0.530		<0.500			0.324			<0.500			<0.500	0.352	<0.500	0.346	0.356	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
Sulfate as SO4	***mg/L***	3050		1790			338			492			830	951	904	1260	1170	1020	978	1300	1100	555	931	1010	848	563	366	500	534	451	298	209	144
Total Organic Carbon (TOC)	***mg/L***	3.46		2.61			1.57			1.78			1.85	1.76	1.84	1.87	1.93	3.17	1.81	1.91	1.94	1.83	1.74	2.08	1.29	2.13	<2.5	1.66	0.764	1.70	1.74	1.36	1.36
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	0.022	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Ammonia as N ^	***mg/L***	NA		NA			NA			NA			1.99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	***mg/L***	NA		NA			NA			NA			<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	***mg/L***	<0.250		<0.250			<0.050			<0.050			<0.100	<0.250	<0.250	<0.150	<0.250	<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
Arsenic	***mg/L***	0.0039		0.0049			0.0036			0.0038			0.0035	0.0044	0.0034	0.0038	0.0036	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	0.003	0.0030	0.0030
Cadmium	***mg/L***	<0.0005		<0.0005			<0.0001			<0.0001			<0.0002	<0.0002	<0.0005	<0.0003	<0.0005	<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
Copper	***mg/L***	0.0135		0.0064			0.0017			0.0018			0.0069	0.0014	<0.0025	<0.0015	<0.0025	<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	0.005	0.0135	0.0088
Iron	***mg/L***	<0.250		<0.250			<0.050			<0.050			<0.100	<0.250	<0.250	<0.150	<0.250	<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
Lead	***mg/L***	<0.0025		<0.0025			<0.0005			<0.0005			<0.0010	<0.001	<0.0025	<0.0015	<0.0025	<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
Manganese	***mg/L***	0.383		0.223			0.0692			0.148			0.166	0.184	0.171	0.267	0.292	0.253	0.203	0.257	0.263	0.339	0.249	0.174	0.220	0.221	0.0961	0.111	0.0727	0.215	0.082	0.0359	0.0719
Mercury (dissolved)	***mg/L***	<0.0002		<0.0002			<0.0002			<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	***ng/L***																						<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	***mg/L***	0.0490		0.0169			0.0037			0.0025			0.0022	0.002	<0.0025	0.0023	<0.0025	<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
Selenium	***mg/L***	0.0080		<0.0050			<0.0010			<0.0010			<0.0020	<0.002	<0.0050	<0.0030	<0.0050	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
Silica (Si02)	***mg/L***	10.5		13.5			17.0			17.4			15.9	17.1	15.1	14.7	16.0	15.6	16.4	16.8	16.6	16.0	15.5	17.3	16.7	16.8	17.4	16.3	17.2	16.4	17.2	18.2	16.9
Silicon	***mg/L***	4.91		6.29			7.96			8.12			7.43	7.97	7.07	6.88	7.47	7.3	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
Uranium	***mg/L***	0.0230		0.0075			0.0039			0.0054			0.0047	0.0055	0.0043	0.0046	0.0042	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
Zinc	***mg/L***	0.0323		<0.0100			<0.0020			<0.0040			<0.0040	<0.004	<0.0100	0.0069	<0.0100	<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

Notes & Definitions:

^	**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-7-EAA

Year		**2018**	**2019**											**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	10	11	2	5	8	11	2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11
Sample Date		12/23	1/29	2/19	3/20	4/16	5/29	6/20	7/24	8/13	9/27	10/24	11/6	2/11	5/27	8/25	11/11	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
Lab Analysis (Y/N)		Y	N	Y	N	N	Y	N	N	Y	N	N	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**	1.10	1.10	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.25	0.13	0.25	0.25	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.11	0.16	0.17	0.10	0.07	0.06	0.01
Total Purged	**gal**	15.0	18.0	15.0	3.0	15.0	16.0	15.3	15.3	17.0	15.0	15.0	15.0	36.5	15.0	16.0	17.0	15.0	17.0	17.0	18.0	18.0	17.0	17.0	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Depth to Water	**ft bgs**	36.13	36.27	36.45	36.52	36.70	36.25	36.22	36.48	36.49	36.88	36.85	36.85	36.72	35.40	36.35	37.10	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
Temperature	**deg C**	10.0	10.0	10.0	9.9	10.1	10.4	10.4	10.6	10.5	10.3	10.4	10.6	10.4	12.1	10.3	10.3	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
pH	**SU**	6.99	7.01	7.04	6.93	7.00	7.06	7.07	6.28	6.95	7.06	7.03	7.06	6.91	7.17	7.09	7.12	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
Specific Conductance	**µS/cm**	2001	1910	1910	1926	1912	1767	1836	1885	1890	1913	1936	1922	1993	1890	1772	1628	1672	1805	1814	1878	1882	1896	1880	1808	1754	1785	1831	1966	2082	1905	1932	2069
Oxygen Reduction Potential	**mV**	-68.0	-36.7	-41.4	-38.1	-48.8	14.1	-13.8	-33.9	-37.8	-29.5	-25.6	-21.3	0.9	-49.2	17.6	-8.6	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
Lab Analytical Results:																																	
Hardness as CaCO3	**mg/L**	936		1030			982			997			1020	963	1020	1080	939	1090	958	986	957	1040	958	916	962	1020	952	902	1010	1080	1080	1030	997
pH (Lab)	**SU**	7.2		7.37			7.17			7.09			6.99	6.92	6.89	7.23	7.06	6.99	6.92	7.03	7.01	7.11	7.12	7.24	7.18	6.95	6.95	7.25	7.16	6.84	7.07	7.1	7.13
Total Dissolved Solids (Lab)	**mg/L**	1460		1480			1490			1480			1530	1520	1430	1480	1450	1590	1460	1510	1580	1500	1500	1490	1420	1500	1400	1450	1560	1570	1550	1550	1650
Calcium	**mg/L**	170		179			171			173			162	165	175	183	157	186	167	167	164	173	166	154	165	174	161	151	173	184	186	177	170
Magnesium	**mg/L**	124		142			135			137			144	134	142	150	133	152	131	138	133	149	132	129	134	143	134	127	141	150	149	141	139
Sodium	**mg/L**	75.3		81.3			75.0			75.2			74.9	73.7	76.0	80.9	73.4	81.4	75	74.6	72.0	77.8	71.9	71.6	72.3	76.3	75.6	69.2	77.1	80.6	80.5	77.1	78.1
Potassium	**mg/L**	3.87		3.9			<5.00			3.74			3.74	3.82	<5.00	<5.00	<5.00	4.25	<5.00	<5.00	3.69	3.88	3.59	3.71	3.66	<5.00	3.63	< 5.00	3.46	3.62	3.84	3.78	3.65
Alkalinity, Total	**mg/L**	380		367			405			392			350	357	355	268	430	420	395	340	440	425	425	400	310	378	410	437	425	440	455	437	460
Alkalinity, Bicarbonate	**mg/L**	380		367			405			392			425	357	355	268	430	420	395	340	440	425	425	400	310	378	410	437	425	440	455	437	460
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	< 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	< 10.0	< 10.0
Chloride	**mg/L**	11.9		10.7			10.8			10.9			11.6	10.3	10.7	10.2	10.1	10.4	10.1	10.5	10.3	10.1	10.3	11.2	11.0	11.1	10.8	11.8	11.9	11.5	11.4	11.6	11.2
Fluoride	**mg/L**	<0.500		0.332			0.322			0.322			<0.500	0.354	0.330	0.322	0.322	0.300	0.304	0.312	0.260	0.292	<0.200	0.310	0.306	0.340	0.262	< 0.200	0.238	0.282	0.298	< 0.500	0.314
Sulfate as SO4	**mg/L**	732		736			733			844			746	774	803	767	742	757	746	796	751	755	743	759	761	827	709	719	828	842	821	790	747
Total Organic Carbon (TOC)	**mg/L**	3.72		3.57			3.73			3.70			3.45	3.42	3.63	4.01	3.39	3.00	3.42	3.63	3.38	3.50	3.42	3.38	2.12	3.68	3.31	5.57	4.24	5.38	5.12	4.40	4.99
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	< 0.020	< 0.020
Ammonia as N ^	**mg/L**	NA		NA			NA			NA			0.178	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	**mg/L**	NA		NA			NA			NA			<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	**mg/L**	<0.050		<0.100			<0.250			<0.100			<0.050	<0.100	<0.250	<0.250	<0.250	<0.150	<0.250	<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
Arsenic	**mg/L**	0.0014		0.0015			0.0013			0.0016			0.0013	0.0013	0.0011	<0.0015	<0.0025	0.0016	<0.0025	<0.0025	0.0011	0.0009	0.0014	<0.0025	0.0013	<0.0025	<0.0025	< 0.0025	0.0010	< 0.0020	< 0.0020	< 0.0010	< 0.0010
Cadmium	**mg/L**	<0.0001		<0.0002			<0.0001			<0.0001			<0.0002	<0.0002	<0.0002	<0.0003	<0.0005	<0.0001	<0.0025	<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
Copper	**mg/L**	0.0003		0.0018			0.0011			0.0008			0.0006	<0.0010	<0.0010	<0.0015	<0.0025	0.0007	<0.0025	<0.0025	0.0018	0.0021	0.0036	<0.0025	0.0030	<0.0025	0.0028	0.0032	0.0018	0.0048	0.0044	0.0045	0.0186
Iron	**mg/L**	1.82		1.95			1.81			2.12			2.00	1.84	1.71	2.16	2.15	2.08	1.92	1.75	1.63	2.05	1.69	1.75	1.57	1.99	0.265	< 0.250	0.251	0.259	0.421	0.379	0.404
Lead	**mg/L**	<0.0005		<0.0010			<0.0005			<0.0005			<0.0010	<0.001	<0.0010	<0.0015	<0.0025	<0.0005	<0.0025	<0.0025	<0.0010	<0.0025	<0.0005	<0.0025	<0.0025	<0.0025	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	0.0015
Manganese	**mg/L**	3.72		4.49			4.01			4.22			4.76	4.86	3.63	4.49	4.42	5.22	4.21	4.39	4.66	4.48	4.58	4.61	4.75	4.69	4.22	4.46	4.40	4.65	4.61	4.65	4.69
Mercury (dissolved)	**mg/L**	<0.0002		<0.0002			<0.0002			<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	**ng/L**																						<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	**mg/L**	0.0008		0.0011			0.0007			0.0009			<0.0010	0.001	<0.0010	<0.0015	<0.0025	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
Selenium	**mg/L**	<0.0020		<0.0020			<0.0010			0.0011			<0.0020	<0.002	<0.0020	<0.0030	<0.0050	<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
Silica (Si02)	**mg/L**	16.6		16.1			16.1			16.9			16.8	16.4	15.8	16.9	14.9	17.7	17.1	16.7	17.2	18.3	16.8	16.1	16.9	17.5	17.0	15.2	16.5	16.3	17.1	16.5	16.7
Silicon	**mg/L**	7.75		7.52			7.55			7.90			7.83	7.67	7.37	7.91	6.96	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	7.7	7.80
Uranium	**mg/L**	0.0021		0.0018			0.0017			0.0018			0.0020	0.0019	0.0016	0.0018	<0.0025	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
Zinc	**mg/L**	<0.0050		<0.0040			0.0021			0.0020			<0.0040	<0.004	<0.0040	<0.0060	<0.0100	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

Notes & Definitions:

^	**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-8-EAA

Year		**2018**	**2019**											**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	10	11	2	5	8	11	2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11
Sample Date		12/23	1/29	2/19	3/20	4/16	5/29	6/20	7/24	8/13	9/27	10/24	11/6	2/11	5/27	8/25	11/11	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
Lab Analysis (Y/N)		Y	N	Y	N	N	Y	N	N	Y	N	N	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**	0.85	1.10	0.50	3.00	0.50	0.75	1.00	1.00	0.75	0.50	1.00	0.25	1.00	0.25	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.33	0.11	0.09	0.38	0.15	0.60	0.06	0.09
Total Purged	**gal**	18.0	14.0	15.0	3.0	15.0	17.0	15.3	15.3	18.0	15.3	15.5	15.0	15.2	15.0	16.0	15.0	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
Depth to Water	**ft bgs**	40.00	39.95	40.10	43.45	40.44	40.05	39.94	40.10	40.08	40.25	40.31	40.22	40.40	40.45	34.50	40.83	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
Temperature	**deg C**	10.3	10.2	10.0	9.9	10.3	10.5	10.6	10.5	10.6	10.3	10.2	11.2	10.5	11.0	11.1	11.0	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
pH	**SU**	7.12	7.09	7.13	7.17	7.09	7.02	7.17	7.09	7.05	7.03	6.99	6.99	6.99	7.14	7.19	7.19	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
Specific Conductance	**µS/cm**	1781	1696	1720	1725	1729	1628	1676	1699	172	1739	1774	1739	1758	1760	1675	1716	1570	1642	1671	1746	1750	1763	1763	1793	1665	1766	1742	1761	1955	1849	1851	1848
Oxygen Reduction Potential	**mV**	-65.0	-52.8	-51.8	-53.0	-59.7	11.0	-29.5	-46.6	-44.8	-33.5	-38.8	-39.2	-18.2	-72.4	1.4	-14.7	-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
Lab Analytical Results:																																	
Hardness as CaCO3	**mg/L**	870		861			864			883			867	861	907	937	810	914	838	859	859	937	867	831	871	940	932	887	901	962	975	957	936
pH (Lab)	**SU**	7.28		7.36			7.13			7.05			7.01	7.11	6.96	7.18	7.1	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	7.2	7.17	7.30
Total Dissolved Solids (Lab)	**mg/L**	1220		1290			1240			1280			1380	1290	1260	1280	1310	1400	1320	1320	1340	1380	1330	1360	1300	1320	1350	1400	1430	1480	1420	1460	1470
Calcium	**mg/L**	152		151			148			154			143	149	153	160	134	156	146	146	149	158	150	143	149	163	159	152	156	168	169	167	162
Magnesium	**mg/L**	119		118			120			121			124	119	127	130	115	127	115	120	118	131	119	115	121	130	130	123	125	132	134	131	129
Sodium	**mg/L**	81.7		82.6			77.2			78.6			77.1	77.2	77.7	82.9	74.3	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
Potassium	**mg/L**	3.80		3.27			3.55			3.18			3.52	3.8	<5.00	<5.00	<5.00	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
Alkalinity, Total	**mg/L**	400		435			450			431			445	404	385	288	480	450	445	385	490	460	465	480	430	417	448	417	415	435	475	480	470
Alkalinity, Bicarbonate	**mg/L**	400		435			450			431			445	404	385	288	480	450	445	385	490	460	465	480	430	417	448	417	415	435	475	480	470
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	< 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	< 10.0	< 10.0
Chloride	**mg/L**	9.83		10.5			10.3			11.1			11.0	10.2	10.3	10.1	11.3	10.4	10.2	10.3	10.5	10.5	10.6	11.7	11.4	11.6	11.8	12.2	12.2	12.3	11.8	12.2	12.5
Fluoride	**mg/L**	0.380		0.370			0.338			0.342			<0.500	0.33	0.346	0.336	0.334	0.292	0.306	0.35	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
Sulfate as SO4	**mg/L**	533		559			606			643			577	602	625	605	582	609	595	615	599	608	597	627	619	686	675	685	748	768	731	713	697
Total Organic Carbon (TOC)	**mg/L**	3.77		3.59			3.77			3.68			3.52	3.49	3.56	3.82	3.54	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
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	0.493	<0.020	< 0.020	<0.020	< 0.020	< 0.020	< 0.020	< 0.020
Ammonia as N ^	**mg/L**	NA		NA			NA			NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	**mg/L**	NA		NA			NA			NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	**mg/L**	<0.100		<0.100			<0.050			<0.100			<0.050	<0.100	<0.250	<0.250	<0.250	<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
Arsenic	**mg/L**	0.0020		0.0018			0.0018			0.0021			0.0018	0.0017	0.0017	0.0018	<0.0025	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
Cadmium	**mg/L**	<0.0001		<0.0002			<0.0001			<0.0001			<0.0001	<0.0002	<0.0002	<0.0003	<0.0005	<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
Copper	**mg/L**	0.0004		0.0024			0.0023			0.0008			0.0010	0.001	<0.0010	<0.0015	<0.0025	<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	0.003	0.0033	0.0160
Iron	**mg/L**	2.12		2.13			2.42			2.46			2.30	2.28	2.29	2.31	0.762	2.33	2.25	2.2	2.22	2.52	2.22	2.28	2.27	2.43	2.43	2.19	2.24	2.34	2.37	2.32	2.23
Lead	**mg/L**	<0.0005		<0.0010			<0.0005			<0.0005			<0.0005	<0.001	<0.0010	<0.0015	<0.0025	<0.0015	<0.0015	<0.0025	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0005	0.0012
Manganese	**mg/L**	3.17		3.52			3.06			3.37			3.39	3.7	3.36	3.54	3.81	3.55	3.5	3.6	3.66	3.77	3.70	3.77	3.87	3.98	3.85	3.91	4.16	3.88	4.26	4.23	4.24
Mercury (dissolved)	**mg/L**	<0.0002		<0.0002			<0.0002			<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	**ng/L**																						<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	**mg/L**	0.0009		0.0011			0.0008			0.0011			0.0008	<0.0010	<0.0010	<0.0015	<0.0025	<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
Selenium	**mg/L**	<0.0020		<0.0020			0.0010			0.0013			<0.0010	<0.0020	<0.0020	<0.0030	<0.0050	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
Silica (Si02)	**mg/L**	16.3		15.3			15.7			16.1			15.9	15.7	15.0	16.1	14.2	16.0	16.5	15.5	16.4	17.3	16.0	15.4	16.2	16.9	16.6	15.4	16.5	15.9	16.3	16.1	16.2
Silicon	**mg/L**	7.63		7.15			7.32			7.52			7.42	7.32	7.02	7.53	6.63	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
Uranium	**mg/L**	0.0021		0.0017			0.0016			0.0018			0.0019	0.0019	0.0017	0.0017	<0.0025	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
Zinc	**mg/L**	<0.0050		<0.0040			<0.0020			<0.0020			<0.0020	<0.0040	<0.0040	<0.0060	<0.0100	<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

Notes & Definitions:

^	**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-8-MI

Year		**2018**	**2019**											**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	10	11	2	5	8	11	2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11
Sample Date		12/23	1/29	2/19	3/20	4/16	5/29	6/20	7/24	8/13	9/27	10/24	11/6	2/11	5/27	8/25	11/11	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
Lab Analysis (Y/N)		Y	N	Y	N	N	Y	N	N	Y	N	N	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**	1.10	1.00	0.50	3.00	0.50	0.50	0.25	0.50	0.75	0.50	1.00	0.25	0.25	0.13	0.10	0.25	0.25	0.13	0.25	0.25	0.25	0.13	0.15	0.50	0.12	0.13	0.23	0.19	0.11	0.18	0.17	0.19
Total Purged	**gal**	27.5	18.0	1.0	3.0	1.5	2.5	2.5	2.3	3.0	2.0	2.5	1.0	1.0	1.0	2.0	1.0	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
Depth to Water	**ft bgs**	45.75	43.48	43.50	44.30	44.47	44.10	44.24	44.45	44.59	44.90	45.12	45.10	45.20	45.42	45.84	46.24	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
Temperature	**deg C**	10.8	10.8	10.6	11.2	10.4	11.1	11.4	11.0	11.4	10.9	10.3	11.4	10.2	11.3	13.1	11.3	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
pH	**SU**	7.57	7.50	7.48	7.47	7.34	7.31	7.48	7.42	7.38	7.30	7.23	7.15	7.08	7.44	7.44	7.43	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
Specific Conductance	**µS/cm**	1786	1667	1651	1658	1643	1595	1639	1645	1658	1637	1689	1642	1651	1659	1598	1628	1468	1616	1554	1629	1596	1575	1505	1631	1632	1607	1538	1544	1642	1526	1580	1578
Oxygen Reduction Potential	**mV**	-84.4	-177.1	-122.1	-113.3	-87.2	-54.4	-97.1	-116.4	-119.4	-88.4	-82.0	-59.3	-136.6	-184.9	-107.0	-112.2	-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
Lab Analytical Results:																																	
Hardness as CaCO3	**mg/L**	167		249			273			253			267	254	309	355	339	376	288	377	317	406	378	374	390	405	388	363	361	366	388	389	386
pH (Lab)	**SU**	7.73		7.54			7.24			7.46			7.44	7.53	7.25	7.34	7.27	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
Total Dissolved Solids (Lab)	**mg/L**	1050		1030			1100			1110			1050	1060	1040	1010	1040	1060	1040	1000	1100	1050	1040	1050	990	1050	995	1060	1050	995	985	1030	995
Calcium	**mg/L**	34.0		48.5			52.4			49.7			51.3	48.7	58.5	65.9	62.6	69.7	54	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
Magnesium	**mg/L**	19.9		31.0			34.5			31.4			33.8	32.1	39.6	46.2	44.4	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
Sodium	**mg/L**	344		312			289			289			275	269	272	260	232	237	256	229	238	226	220	213	210	230	236	216	215	219	221	228	217
Potassium	**mg/L**	4.47		5.25			<5.00			4.55			5.07	4.71	5.00	5.56	5.22	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
Alkalinity, Total	**mg/L**	500		565			560			573			585	543	545	448	590	590	575	570	605	590	590	500	540	550	568	553	560	555	595	580	610
Alkalinity, Bicarbonate	**mg/L**	500		565			560			573			585	543	545	448	590	590	575	570	605	590	590	500	540	550	568	553	560	555	595	580	610
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	< 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	< 10.0	< 10.0
Chloride	**mg/L**	12.7		10.0			9.33			9.06			9.66	8.19	8.23	8.12	7.91	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
Fluoride	**mg/L**	<0.500		<0.200			<0.200			<0.200			<0.500	<0.200	<0.200	<0.200	<0.200	<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
Sulfate as SO4	**mg/L**	347		353			343			366			317	314	316	335	319	326	314	324	312	325	322	352	351	335	327	323	320	329	329	356	319
Total Organic Carbon (TOC)	**mg/L**	2.73		2.83			2.81			2.74			2.65	2.6	2.94	2.87	2.76	2.6	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
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	< 0.020	< 0.020
Ammonia as N ^	**mg/L**	NA		NA			NA			NA			1.31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	**mg/L**	NA		NA			NA			NA			<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	**mg/L**	<0.050		<0.100			<0.250			<0.100			<0.050	<0.100	<0.250	<0.250	<0.250	<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
Arsenic	**mg/L**	0.0008		<0.0010			0.0006			0.0005			0.0005	<0.0010	<0.0010	<0.0015	<0.0025	<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
Cadmium	**mg/L**	<0.0001		<0.0002			<0.0001			<0.0001			<0.0001	<0.0002	<0.0002	<0.0003	<0.0005	<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
Copper	**mg/L**	0.0031		0.0066			0.0036			0.0035			0.0037	0.0027	<0.0010	<0.0015	<0.0025	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
Iron	**mg/L**	0.137		0.162			<0.250			0.129			0.130	0.108	<0.250	<0.250	<0.250	<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
Lead	**mg/L**	<0.0005		<0.0010			<0.0005			<0.0005			<0.0005	<0.0010	<0.0025	<0.0015	<0.0025	<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
Manganese	**mg/L**	0.0495		0.0383			0.0327			0.0351			0.0377	0.0391	0.0393	0.0551	0.0546	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
Mercury (dissolved)	**mg/L**	<0.0002		<0.0002			<0.0002			<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	**ng/L**																						<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	**mg/L**	0.0005		<0.0010			<0.0005			<0.0005			<0.0005	<0.001	<0.0010	<0.0015	<0.0025	<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
Selenium	**mg/L**	<0.0020		<0.0020			0.0010			0.0010			<0.0010	<0.0020	0.0020	<0.0030	<0.0050	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
Silica (Si02)	**mg/L**	12.1		12.4			12.8			12.5			12.6	12.2	11.9	12.9	12.1	13.5	13.2	13.6	13.7	15.2	14.0	13.6	14.0	13.7	13.9	12.5	13.8	13.2	13.8	14.0	13.7
Silicon	**mg/L**	5.65		5.78			5.99			5.83			5.88	5.71	5.55	6.05	5.67	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
Uranium	**mg/L**	0.0002		0.0002			0.0002			0.0001			0.0001	<0.0010	<0.0025	<0.0015	<0.0025	<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
Zinc	**mg/L**	<0.0050		<0.0040			<0.0020			<0.0020			<0.0020	<0.0040	<0.0040	<0.0060	<0.0100	<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

Notes & Definitions:

^ 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-8-LM

Year		**2018**	**2019**											**2020**				**2021**				**2022**				**2023**				**2024**			
Quarter		Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	10	11	2	5	8	11	2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11
Sample Date		12/28	1/29	2/19	3/21	4/16	5/29	6/18	7/24	8/13	9/27	10/24	11/6	2/11	5/27	8/25	11/11	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
Lab Analysis (Y/N)		Y	N	Y	N	N	Y	N	N	Y	N	N	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**	NM	1.00	0.25	1.00	0.50	0.10	0.25	0.25	0.50	0.25	0.12	0.25	0.25	0.25	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.15	NM	0.14	0.03	0.16	0.20	0.15	0.20	0.18	0.14
Total Purged	**gal**	30	4.0	1.5	1.0	2.0	1.3	6.8	2.0	2.0	1.0	1.0	1.5	1.0	1.0	2.0	1.0	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
Depth to Water	**ft bgs**	136.39	130.52	134.30	144.03	140.03	137.48	142.23	144.15	138.06	137.50	137.60	137.34	139.15	129.70	127.90	125.75	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
Temperature	**deg C**	4.1	13.9	13.2	8.7	13.6	13.9	12.8	13.7	13.4	13.0	11.7	13.3	11.4	13.4	13.6	8.8	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
pH	**SU**	8.37	8.70	8.71	8.41	8.70	8.50	8.66	8.64	8.58	8.44	8.44	8.47	7.98	8.76	8.83	8.81	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
Specific Conductance	**µS/cm**	2306	1274	1265	1310	1262	1234	1264	1226	1269	1252	1299	1255	1294	1282	1055	1117	1132	1121	1196	1262	1260	1232	1255	1276	1233	1252	1241	1224	1305	1229	1227	1261
Oxygen Reduction Potential	**mV**	37.5	-114.3	112.8	77.0	-36.2	33.2	-63.9	-93.5	-103.0	-115.9	-94.4	-47.4	-106.6	-204.5	-106.9	-93.6	-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
Lab Analytical Results:																																	
Hardness as CaCO3	**mg/L**	45.0		7.29			16.9			6.67			6.38	6.79	7.76	7.53	6.35	6.93	7.23	4.65	7.11	7.29	6.61	6.43	6.29	4.01	6.22	4.01	7.08	6.62	6.92	7.96	6.78
pH (Lab)	**SU**	8.57		8.63			8.02			8.56			8.52	8.55	8.41	8.45	8.48	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
Total Dissolved Solids (Lab)	**mg/L**	1420		770			780			785			780	840	730	740	700	795	720	740	760	740	795	755	685	765	745	805	755	755	760	760	750
Calcium	**mg/L**	10.8		1.93			3.84			1.78			1.68	1.77	2.09	2.05	1.71	1.87	1.92	1.86	1.88	1.96	1.77	1.70	1.65	1.61	1.71	1.61	1.87	1.77	1.84	2.11	1.84
Magnesium	**mg/L**	4.39		0.600			1.77			0.541			0.528	0.574	0.620	0.587	0.502	0.550	0.592	<0.500	0.587	0.580	0.530	0.532	0.524	<0.500	0.473	< 0.500	0.583	0.534	0.563	0.655	0.532
Sodium	**mg/L**	382		341			317			306			305	309	315	337	304	319	315	308	291	316	298	298	301	287	315	289	299	304	311	304	310
Potassium	**mg/L**	45.7		3.49			<5.00			2.27			2.18	2.06	<5.00	<5.00	<5.00	<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
Alkalinity, Total	**mg/L**	615		720			745			731			745	685	630	675	780	730	755	750	770	780	765	760	750	714	732	714	700	690	760	745	765
Alkalinity, Bicarbonate	**mg/L**	535		610			645			645			685	595	530	585	680	630	645	650	620	640	655	580	510	666	732	646	620	640	640	665	665
Alkalinity, Carbonate	**mg/L**	80.0		110			100			86.0			60.0	90	100	90	100	100	110	100	150	140	110	180	240	48.0	<10.0	68.0	80.0	50.0	120	80.0	100
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	< 10.0	< 10.0
Chloride	**mg/L**	175		5.11			6.80			2.63			2.48	3.04	3.01	2.98	2.47	2.5	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
Fluoride	**mg/L**	2.06		3.91			3.95			3.97			3.88	3.61	3.63	3.53	3.66	3.58	3.48	3.67	3.40	3.44	3.25	3.79	3.73	3.84	3.65	3.15	3.42	3.93	3.94	3.86	3.92
Sulfate as SO4	**mg/L**	190		3.79			9.58			1.02			<1.00	<2.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00	<2.00	0.886	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 5.00
Total Organic Carbon (TOC)	**mg/L**	2.80		1.80			3.33			1.94			1.69	1.69	1.92	1.82	1.66	1.2	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
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	< 0.020	< 0.020
Ammonia as N ^	**mg/L**	NA		NA			NA			NA			0.282	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	**mg/L**	NA		NA			NA			NA			<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	**mg/L**	<0.050		<0.100			<0.250			<0.050			<0.050	<0.100	<0.250	<0.250	<0.250	<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
Arsenic	**mg/L**	0.0106		<0.0010			0.0006			0.0007			0.0006	<0.0005	<0.0010	<0.0015	<0.0025	<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
Cadmium	**mg/L**	<0.0001		<0.0002			<0.0001			<0.0001			<0.0001	<0.0001	<0.0002	<0.0003	<0.0005	<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
Copper	**mg/L**	0.0337		0.0077			0.0047			0.0041			0.0051	0.0033	0.0012	0.0017	<0.0025	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
Iron	**mg/L**	<0.050		<0.100			<0.250			<0.050			<0.050	<0.100	<0.250	<0.250	<0.250	<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
Lead	**mg/L**	<0.0005		<0.0010			<0.0005			<0.0005			<0.0010	<0.0005	<0.0010	<0.0015	<0.0025	<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
Manganese	**mg/L**	0.0258		0.0038			0.0150			0.0020			0.0026	0.0025	0.0029	0.0026	0.0028	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
Mercury (dissolved)	**mg/L**	<0.0002		<0.0002			<0.0002			<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	**ng/L**																						<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	**mg/L**	0.0142		<0.0010			0.0009			<0.0005			<0.0005	<0.0005	<0.0010	<0.0015	<0.0025	<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
Selenium	**mg/L**	0.0020		<0.0020			<0.0010			<0.0010			<0.0010	<0.0010	<0.0020	<0.0030	<0.0050	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
Silica (Si02)	**mg/L**	9.09		8.45			8.68			8.28			7.77	7.62	7.40	7.84	7.4	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
Silicon	**mg/L**	4.25		3.95			4.06			3.87			3.63	3.56	3.46	3.67	3.46	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
Uranium	**mg/L**	0.0044		<0.0002			0.0001			0.0001			<0.0002	<0.0005	<0.0010	<0.0015	<0.0025	<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
Zinc	**mg/L**	0.0080		<0.0040			0.0023			<0.0020			<0.0020	<0.002	<0.0040	<0.0060	<0.0100	<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

Notes & Definitions:

^	**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-8-PL																																
Year		2018	2019											2020				2021				2022				2023				2024			
Quarter		Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month		12	1	2	3	4	5	6	7	8	9	10	11	2	5	8	11	2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11
Sample Date		12/27	1/29	2/19	3/20	4/16	5/29	6/20	7/24	8/13	9/27	10/24	11/6	2/11	5/27	8/25	11/11	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
Lab Analysis (Y/N)		Y	N	Y	N	N	Y	N	N	Y	N	N	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*	0.25	1.00	0.50	3.00	0.50	0.25	0.50	1.00	0.50	0.50	0.75	0.25	0.25	0.25	0.25	0.25	0.75	0.25	0.25	0.25	0.25	0.25	0.13	1.00	0.22	0.18	0.13	0.16	0.22	0.13	0.13	0.13
Total Purged	*gal*	20.0	5.0	2.0	3.0	2.0	3.0	2.5	2.3	2.5	2.0	2.5	1.3	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Depth to Water	*ft bgs*	125.97	126.29	126.40	127.10	126.98	126.70	126.82	127.25	127.38	127.42	127.48	127.59	127.32	127.34	128.00	127.31	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
Temperature	*deg C*	10.3	14.2	13.4	12.9	13.2	14.2	14.8	14.7	14.9	14.0	13.2	14.9	13.8	14.8	14.9	14.1	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
pH	*SU*	7.50	7.30	7.49	7.30	7.29	7.31	7.57	7.56	7.52	7.45	7.47	7.52	7.55	7.47	7.52	7.52	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
Specific Conductance	*µS/cm*	1690	1531	1571	1558	1554	1411	1326	1165	1083	947	940	900	862	844	792	827	760	813	816	836	817	826	822	848	853	825	814	815	854	813	824	830
Oxygen Reduction Potential	*mV*	30.2	-116.5	97.9	-108.7	-110.6	34.2	-57.6	-74.0	-79.5	-51.3	-52.5	-30.8	-59.9	-101.9	-38.0	-37.3	-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
Lab Analytical Results:																																	
Hardness as CaCO3	*mg/L*	617		644			596			411			294	278	298	292	268	281	283	280	272	292	276	275	274	303	282	274	269	279	282	296	281
pH (Lab)	*SU*	7.28		7.40			7.26			7.22			7.39	7.47	7.19	7.16	7.41	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
Total Dissolved Solids (Lab)	*mg/L*	1150		1090			995			705			620	500	490	525	465	525	505	475	465	485	505	500	430	500	465	540	505	460	490	480	490
Calcium	*mg/L*	112		120			105			73.1			52.1	49.3	53.8	53.3	49.1	52.2	53.3	53	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
Magnesium	*mg/L*	82.1		83.8			81.4			55.4			39.7	37.6	39.7	38.5	35.4	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
Sodium	*mg/L*	106		124			102			91.7			83.3	78.5	80.4	81.6	77.2	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
Potassium	*mg/L*	5.14		5.62			<5.00			2.80			2.35	2.32	2.11	<2.00	<2.00	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
Alkalinity, Total	*mg/L*	370		415			435			393			390	339	340	315	410	370	385	360	385	362	380	356	410	350	388	350	335	370	375	375	405
Alkalinity, Bicarbonate	*mg/L*	370		415			435			393			390	339	340	315	410	370	385	360	385	362	380	340	410	338	388	350	335	370	375	375	405
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	16.0	<10.0	12.0	<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	< 10.0	< 10.0
Chloride	*mg/L*	18.8		18.5			9.03			5.61			5.66	3.51	3.38	3.33	3.32	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
Fluoride	*mg/L*	0.505		0.474			0.290			0.291			<0.500	0.258	0.240	0.233	0.224	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
Sulfate as SO4	*mg/L*	478		471			390			232			127	109	103	99.2	99	101	96.3	102	98.4	100	94.7	106	107	107	106	104	104	106	107	106	102
Total Organic Carbon (TOC)	*mg/L*	4.17		4.02			2.92			2.21			1.75	1.63	1.63	1.61	1.44	0.928	1.42	1.54	1.40	1.54	1.36	1.60	0.774	1.44	1.15	1.59	< 1.00	1.45	1.46	1.40	1.47
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	0.052	<0.020	<0.020	<0.020	<0.020	<0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Ammonia as N ^	*mg/L*	NA		NA			NA			NA			0.199	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ortho-Phosphate as P ^	*mg/L*	NA		NA			NA			NA			<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	*mg/L*	<0.050		<0.100			<0.250			<0.050			<0.050	<0.050	<0.100	<0.100	<0.100	<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
Arsenic	*mg/L*	0.0074		0.0124			0.0190			0.0156			0.0104	0.0073	0.0075	0.0064	0.0058	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
Cadmium	*mg/L*	<0.0001		<0.0002			<0.0001			<0.0001			<0.0001	<0.0002	<0.0001	<0.0002	<0.0002	<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
Copper	*mg/L*	0.0016		0.0025			0.0017			0.0011			0.0004	0.001	<0.0025	<0.001	0.0014	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
Iron	*mg/L*	<0.050		0.352			<0.250			0.129			0.075	0.054	<0.100	<0.100	<0.100	<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
Lead	*mg/L*	<0.0005		<0.0010			<0.0005			<0.0005			<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<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
Manganese	*mg/L*	1.31		1.22			0.697			0.505			0.313	0.303	0.307	0.259	0.219	0.196	0.175	0.0772	0.161	0.163	0.150	0.145	0.134	0.122	0.111	0.120	0.105	0.0976	0.111	0.0906	0.0880
Mercury (dissolved)	*mg/L*	<0.0002		<0.0002			<0.0002			<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002											
Mercury (dissolved low-level)	*ng/L*																						<5.00	<100	<100	<100	<100	< 100	< 100	< 100	< 100	< 100	< 100
Molybdenum	*mg/L*	0.0090		0.0068			0.0020			0.0021			0.0017	0.0008	<0.0005	<0.0010	<0.0010	<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
Selenium	*mg/L*	0.0012		<0.0020			<0.0010			<0.0010			<0.0010	<0.001	<0.0010	<0.0020	<0.0020	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
Silica (Si02)	*mg/L*	14.1		16.3			17.7			18.5			18.0	18.9	18.7	19.9	18.5	20.1	21.5	20	20.8	22.2	20.4	20.8	20.9	22.6	21.5	20.6	20.8	20.4	20.0	20.5	20.1
Silicon	*mg/L*	6.58		7.64			8.28			8.67			8.42	8.82	8.75	9.28	8.66	9.40	10.00	9.37	9.71	10.4	9.54	9.75	9.75	10.6	10.0	9.61	9.71	9.55	9.36	9.59	9.41
Uranium	*mg/L*	0.0052		0.0040			0.0010			0.0009			0.0004	<0.0005	<0.0005	<0.0010	<0.0010	<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
Zinc	*mg/L*	0.0344		<0.0040			<0.0020			<0.0080			<0.0020	<0.0020	<0.0100	<0.0040	<0.0040	<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

Notes & Definitions:

^	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.*

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

05 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/19/24 08:11. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-1-A	2411166-01	Water	11/18/24 13:06	11/19/24 08:11	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

MW-1-A

2411166-01 (Ground Water)
Sampled Date: 11/18/24 13:06
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**420**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**420**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Cation/Anion Balance	**0.660**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**2.52**	2.00	0.111	mg/L	2	11/22/24 18:23	EPA 300.0		AWG
Fluoride*	**0.290**	0.200	0.0194	mg/L	2	11/22/24 18:23	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	11/21/24 12:38	EPA 353.2		CAI
pH*	**7.27**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
pH Temperature, degrees C	**19.3**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
Sulfate*	**477**	10.0	1.24	mg/L	10	11/25/24 16:31	EPA 300.0		AWG
Total Dissolved Solids*	**1060**	10.0		mg/L	1	11/22/24 16:49	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**1.61**	0.500	0.290	mg/L	1	12/04/24 15:44	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	11/25/24 14:33	EPA 200.7		AWG
Calcium*	**28.8**	0.100	0.018	mg/L	1	11/25/24 14:33	EPA 200.7		AWG
Hardness as CaCO3	**154**	0.662	0.170	mg/L	1	11/25/24 14:33	2340 B		AWG
Iron*	**0.319**	0.050	0.020	mg/L	1	11/25/24 14:33	EPA 200.7		AWG
Magnesium*	**19.9**	0.100	0.030	mg/L	1	11/25/24 14:33	EPA 200.7		AWG
Potassium*	**2.15**	1.00	0.075	mg/L	1	11/25/24 14:33	EPA 200.7		AWG
Silica (Si02)	**10.2**	1.07	0.0997	mg/L	1	11/25/24 14:33	Calculation		AWG
Silicon	**4.79**	0.500	0.047	mg/L	1	11/25/24 14:33	EPA 200.7		AWG
Sodium*	**341**	1.00	0.230	mg/L	1	11/25/24 14:33	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0006	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Copper*	**0.0201**	0.0010	0.0003	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Lead*	**0.0007**	0.0005	0.0001	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Manganese*	**0.0297**	0.0005	0.0002	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Molybdenum*	<0.0005	0.0005	0.00005	mg/L	1	11/26/24 14:27	EPA 200.8		AES

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

MW-1-A

2411166-01 (Ground Water)
Sampled Date: 11/18/24 13:06
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Uranium	<0.0005	0.0005	0.00004	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Zinc*	**0.0179**	0.0020	0.0006	mg/L	1	11/26/24 14:27	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:25	EPA 245.7		CAI

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243413 - General Prep - Wet Chem										
Blank (B243413-BLK1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243413-BS1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243413-BSD1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243413-SRM1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	103	10.0	mg/L	100		103	85-115			
Batch B243416 - Lachat										
Blank (B243416-BLK1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243416-BS1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.960	0.020	mg/L as N	1.00		96.0	90-110			
LCS Dup (B243416-BSD1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.932	0.020	mg/L as N	1.00		93.2	90-110	2.96	20	
Batch B243439 - IC- Ion Chromatograph										
Blank (B243439-BLK1)			Prepared & Analyzed: 11/22/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243439-BS1)			Prepared & Analyzed: 11/22/24							
Chloride	23.2	1.00	mg/L	25.0		92.8	90-110			
Fluoride	2.38	0.100	mg/L	2.50		95.4	90-110			
Sulfate	23.3	1.00	mg/L	25.0		93.3	90-110			
LCS Dup (B243439-BSD1)			Prepared & Analyzed: 11/22/24							
Chloride	23.9	1.00	mg/L	25.0		95.8	90-110	3.22	20	
Fluoride	2.47	0.100	mg/L	2.50		98.6	90-110	3.38	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243439 - IC- Ion Chromatograph (Continued)										
LCS Dup (B243439-BSD1) (Continued)			Prepared & Analyzed: 11/22/24							
Sulfate	24.1	1.00	mg/L	25.0		96.4	90-110	3.30	20	
Batch B243443 - General Prep - Wet Chem										
Blank (B243443-BLK1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243443-SRM1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	405	10.0	mg/L	400		101	85-115			
Batch B243462 - General Prep - Wet Chem										
Blank (B243462-BLK1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243462-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.1	0.500	mg/L	10.0		101	85-115			
LCS Dup (B243462-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	9.95	0.500	mg/L	10.0		99.5	85-115	1.28	20	
Batch B243466 - General Prep - Wet Chem										
Reference (B243466-SRM1)			Prepared & Analyzed: 11/20/24							
pH	7.03		pH Units	7.00		100	98.57-101.42			

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243454 - Dissolved ICP										
Blank (B243454-BLK1)				Prepared & Analyzed: 11/25/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243454-BS1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.92	0.050	mg/L	4.00		98.1	85-115			
Calcium	3.92	0.100	mg/L	4.00		98.0	85-115			
Iron	3.96	0.050	mg/L	4.00		99.0	85-115			
Magnesium	20.0	0.100	mg/L	20.0		100	85-115			
Potassium	7.71	1.00	mg/L	8.00		96.4	85-115			
Silicon	3.94	0.500	mg/L	4.00		98.6	85-115			
Sodium	3.08	1.00	mg/L	3.24		95.2	85-115			
LCS Dup (B243454-BSD1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.69	20	
Calcium	3.81	0.100	mg/L	4.00		95.3	85-115	2.77	20	
Iron	3.84	0.050	mg/L	4.00		95.9	85-115	3.21	20	
Magnesium	19.4	0.100	mg/L	20.0		96.8	85-115	3.22	20	
Potassium	7.66	1.00	mg/L	8.00		95.7	85-115	0.643	20	
Silicon	3.83	0.500	mg/L	4.00		95.7	85-115	3.01	20	
Sodium	2.95	1.00	mg/L	3.24		91.0	85-115	4.47	20	

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243474 - Dissolved ICPMS										
Blank (B243474-BLK1)				Prepared & Analyzed: 11/26/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243474-BS1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0493	0.0010	mg/L	0.0500		98.7	85-115			
Cadmium	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Copper	0.0498	0.0010	mg/L	0.0500		99.5	85-115			
Lead	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Manganese	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Selenium	0.246	0.0010	mg/L	0.250		98.5	85-115			
Uranium	0.0499	0.0005	mg/L	0.0500		99.9	85-115			
Zinc	0.0501	0.0020	mg/L	0.0500		100	85-115			
LCS Dup (B243474-BSD1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.1	85-115	0.568	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		99.0	85-115	0.459	20	
Copper	0.0497	0.0010	mg/L	0.0500		99.4	85-115	0.160	20	
Lead	0.0489	0.0005	mg/L	0.0500		97.7	85-115	0.741	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.7	85-115	0.291	20	
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.8	85-115	0.109	20	
Selenium	0.246	0.0010	mg/L	0.250		98.3	85-115	0.161	20	
Uranium	0.0490	0.0005	mg/L	0.0500		98.1	85-115	1.83	20	
Zinc	0.0503	0.0020	mg/L	0.0500		101	85-115	0.390	20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:28

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243518 - EPA 245.7										
Blank (B243518-BLK1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	ND	100	ng/L							
LCS (B243518-BS1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	917	100	ng/L	1000		91.7	76-113			
LCS Dup (B243518-BSD1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	886	100	ng/L	1000		88.6	76-113	3.40	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories



Veronica Wells, Project Manager

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Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus State: CO Zip: 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: mdickson@gcc.com; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	ANALYSIS REQUEST: GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-166	1) MW-1-A	11-18-24	13:06	✔							2			4			✔		
	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	8.05	11.19.24		11.19.24	811
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

ADDITIONAL REMARKS:

Temperature at receipt: 0.2 °C | Checked by: | On Ice? Y (N) | Therm. used: Laser 2

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

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Page 11 of 13 2411166 GAL FINAL 12 05 24 1328 12/05/24 13:28:29

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	

Hardness [DISSOLVED] subanalyses:

Calcium Dissolved by ICP
Magnesium Dissolved by ICP

Silica Dissolved by ICP subanalyses:

Silicon Dissolved by ICP

All metals are field filtered. Send out preserved bottles

GAL Analytical Laboratories

Date/Initials of person examining contents:	11.19.24 CDM
Labeled by initials: (if different than above)	

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411-166

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None **Cooler Temp:** Observed Temp: 0.2 °C Correction Factor: 0 °C Final Temp: 0.2 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. PH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10.
Sample Labels match COC: -Includes Date/Time/ID	☑Yes ☐No	11.
Matrix:	WT SL OT	
Trip Blank Present:	☐Yes ☐No ☑N/A	12.
Trip Blank Custody Seals Present:	☐Yes ☐No ☑N/A	
VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☑N/A	
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

10 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/22/24 16:00. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-4-C	2411236-01	Water	11/22/24 14:28	11/22/24 16:00	
MW-4-A	2411236-02	Water	11/22/24 13:56	11/22/24 16:00	
MW-4-MI	2411236-03	Water	11/22/24 13:19	11/22/24 16:00	
MW-99	2411236-04	Water	11/22/24 15:30	11/22/24 16:00	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-4-C

2411236-01 (Ground Water)
Sampled Date: 11/22/24 14:28
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**2410**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**2410**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-2.46**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**548**	15.0	7.46	mg/L	15	12/05/24 03:38	EPA 300.0		AWG
Fluoride*	**3.20**	1.50	0.505	mg/L	15	12/05/24 03:38	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:24	EPA 353.2		CAI
pH*	**7.94**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**19.0**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	<2.00	2.00	1.13	mg/L	2	12/06/24 12:16	EPA 300.0		AWG
Total Dissolved Solids*	**3510**	10.0		mg/L	1	11/27/24 16:30	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**6.76**	0.500	0.290	mg/L	1	12/04/24 22:39	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 16:48	EPA 200.7		AWG
Calcium*	**5.57**	0.100	0.018	mg/L	1	12/04/24 16:48	EPA 200.7		AWG
Hardness as CaCO3	**23.6**	0.662	0.170	mg/L	1	12/04/24 16:48	2340 B		AWG
Iron*	**0.722**	0.050	0.020	mg/L	1	12/04/24 16:48	EPA 200.7		AWG
Magnesium*	**2.35**	0.100	0.030	mg/L	1	12/04/24 16:48	EPA 200.7		AWG
Potassium*	**4.71**	1.00	0.075	mg/L	1	12/04/24 16:48	EPA 200.7		AWG
Silica (Si02)	**9.87**	1.07	0.0997	mg/L	1	12/04/24 16:48	Calculation		AWG
Silicon	**4.61**	0.500	0.047	mg/L	1	12/04/24 16:48	EPA 200.7		AWG
Sodium*	**1370**	10.0	2.30	mg/L	10	12/05/24 15:17	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0211**	0.0030	0.0019	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Cadmium*	<0.0015	0.0015	0.0002	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Copper*	**0.0624**	0.0030	0.0009	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Lead*	<0.0015	0.0015	0.0004	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Manganese*	**0.0081**	0.0015	0.0005	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Molybdenum*	**0.0035**	0.0015	0.0002	mg/L	3	11/26/24 14:48	EPA 200.8		AES

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-4-C

2411236-01 (Ground Water)
Sampled Date: 11/22/24 14:28
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	**0.0274**	0.0030	0.0008	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Uranium	<0.0015	0.0015	0.0001	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Zinc*	<0.0060	0.0060	0.0018	mg/L	3	11/26/24 14:48	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:53	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-4-A

2411236-02 (Ground Water)
Sampled Date: 11/22/24 13:56
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**590**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**590**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-1.69**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**10.1**	5.00	2.49	mg/L	5	12/05/24 03:58	EPA 300.0		AWG
Fluoride*	<0.500	0.500	0.168	mg/L	5	12/05/24 03:58	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:25	EPA 353.2		CAI
pH*	**7.92**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**19.9**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	**570**	5.00	2.81	mg/L	5	12/05/24 03:58	EPA 300.0		AWG
Total Dissolved Solids*	**1470**	10.0		mg/L	1	11/27/24 16:32	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**3.47**	0.500	0.290	mg/L	1	12/04/24 22:58	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 16:51	EPA 200.7		AWG
Calcium*	**1.85**	0.100	0.018	mg/L	1	12/04/24 16:51	EPA 200.7		AWG
Hardness as CaCO3	**8.10**	0.662	0.170	mg/L	1	12/04/24 16:51	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	12/04/24 16:51	EPA 200.7		AWG
Magnesium*	**0.846**	0.100	0.030	mg/L	1	12/04/24 16:51	EPA 200.7		AWG
Potassium*	**1.53**	1.00	0.075	mg/L	1	12/04/24 16:51	EPA 200.7		AWG
Silica (Si02)	**9.87**	1.07	0.0997	mg/L	1	12/04/24 16:51	Calculation		AWG
Silicon	**4.62**	0.500	0.047	mg/L	1	12/04/24 16:51	EPA 200.7		AWG
Sodium*	**513**	5.00	1.15	mg/L	5	12/05/24 15:19	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0020	0.0020	0.0012	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Cadmium*	<0.0010	0.0010	0.0001	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Copper*	**0.0303**	0.0020	0.0006	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Lead*	<0.0010	0.0010	0.0002	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Manganese*	**0.0046**	0.0010	0.0004	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Molybdenum*	<0.0010	0.0010	0.0001	mg/L	2	11/26/24 14:50	EPA 200.8		AES

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-4-A

2411236-02 (Ground Water)
Sampled Date: 11/22/24 13:56
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0020	0.0020	0.0005	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Uranium	<0.0010	0.0010	0.00008	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Zinc*	**0.0224**	0.0040	0.0012	mg/L	2	11/26/24 14:50	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:56	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-4-MI

2411236-03 (Ground Water)
Sampled Date: 11/22/24 13:19
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**1090**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	**180**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**905**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-4.60**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	<5.00	5.00	2.49	mg/L	5	12/05/24 04:19	EPA 300.0		AWG
Fluoride*	**5.74**	0.500	0.168	mg/L	5	12/05/24 04:19	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:26	EPA 353.2		CAI
pH*	**8.37**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**20.3**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	**9.34**	5.00	2.81	mg/L	5	12/05/24 04:19	EPA 300.0		AWG
Total Dissolved Solids*	**1070**	10.0		mg/L	1	11/27/24 16:34	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**3.66**	0.500	0.290	mg/L	1	12/04/24 23:13	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 16:59	EPA 200.7		AWG
Calcium*	**1.42**	0.100	0.018	mg/L	1	12/04/24 16:59	EPA 200.7		AWG
Hardness as CaCO3	**5.10**	0.662	0.170	mg/L	1	12/04/24 16:59	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	12/04/24 16:59	EPA 200.7		AWG
Magnesium*	**0.376**	0.100	0.030	mg/L	1	12/04/24 16:59	EPA 200.7		AWG
Potassium*	**1.33**	1.00	0.075	mg/L	1	12/04/24 16:59	EPA 200.7		AWG
Silica (Si02)	**9.45**	1.07	0.0997	mg/L	1	12/04/24 16:59	Calculation		AWG
Silicon	**4.42**	0.500	0.047	mg/L	1	12/04/24 16:59	EPA 200.7		AWG
Sodium*	**450**	1.00	0.230	mg/L	1	12/04/24 16:59	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0088**	0.0010	0.0006	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Copper*	**0.0191**	0.0010	0.0003	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Manganese*	**0.0103**	0.0005	0.0002	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Molybdenum*	**0.0041**	0.0005	0.00005	mg/L	1	11/26/24 14:52	EPA 200.8		AES

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-4-MI

2411236-03 (Ground Water)
Sampled Date: 11/22/24 13:19
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Uranium	**0.0052**	0.0005	0.00004	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Zinc*	**0.0036**	0.0020	0.0006	mg/L	1	11/26/24 14:52	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:59	EPA 245.7		CAI

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-99

2411236-04 (Ground Water)
Sampled Date: 11/22/24 15:30
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**2490**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	**200**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**2290**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-4.06**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**547**	15.0	7.46	mg/L	15	12/05/24 04:39	EPA 300.0		AWG
Fluoride*	**3.27**	1.50	0.505	mg/L	15	12/05/24 04:39	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:27	EPA 353.2		CAI
pH*	**8.01**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**20.7**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	<5.00	5.00	2.81	mg/L	5	12/09/24 12:37	EPA 300.0		AWG
Total Dissolved Solids*	**3520**	10.0		mg/L	1	11/27/24 16:36	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**6.89**	0.500	0.290	mg/L	1	12/04/24 23:35	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 17:03	EPA 200.7		AWG
Calcium*	**5.23**	0.100	0.018	mg/L	1	12/04/24 17:03	EPA 200.7		AWG
Hardness as CaCO3	**22.5**	0.662	0.170	mg/L	1	12/04/24 17:03	2340 B		AWG
Iron*	**0.674**	0.050	0.020	mg/L	1	12/04/24 17:03	EPA 200.7		AWG
Magnesium*	**2.29**	0.100	0.030	mg/L	1	12/04/24 17:03	EPA 200.7		AWG
Potassium*	**4.50**	1.00	0.075	mg/L	1	12/04/24 17:03	EPA 200.7		AWG
Silica (Si02)	**9.63**	1.07	0.0997	mg/L	1	12/04/24 17:03	Calculation		AWG
Silicon	**4.50**	0.500	0.047	mg/L	1	12/04/24 17:03	EPA 200.7		AWG
Sodium*	**1360**	10.0	2.30	mg/L	10	12/05/24 15:20	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0217**	0.0030	0.0019	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Cadmium*	<0.0015	0.0015	0.0002	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Copper*	**0.0634**	0.0030	0.0009	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Lead*	<0.0015	0.0015	0.0004	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Manganese*	**0.0064**	0.0015	0.0005	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Molybdenum*	**0.0031**	0.0015	0.0002	mg/L	3	11/26/24 14:53	EPA 200.8		AES

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

MW-99

2411236-04 (Ground Water)
Sampled Date: 11/22/24 15:30
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	**0.0274**	0.0030	0.0008	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Uranium	<0.0015	0.0015	0.0001	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Zinc*	<0.0060	0.0060	0.0018	mg/L	3	11/26/24 14:53	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 10:01	EPA 245.7		CAI

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243487 - General Prep - Wet Chem										
Reference (B243487-SRM1)			Prepared & Analyzed: 11/22/24							
pH	7.01		pH Units	7.00		100	98.57-101.42			
Batch B243488 - General Prep - Wet Chem										
Blank (B243488-BLK1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243488-SRM1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	375	10.0	mg/L	400		93.7	85-115			
Batch B243521 - Lachat										
Blank (B243521-BLK1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243521-BS1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110			
LCS Dup (B243521-BSD1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110	0.0205	20	
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243540 - General Prep - Wet Chem (Continued)										
Blank (B243540-BLK1) (Continued)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243550 - IC- Ion Chromatograph										
Blank (B243550-BLK1)			Prepared & Analyzed: 12/04/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243550-BS1)			Prepared & Analyzed: 12/04/24							
Chloride	24.9	1.00	mg/L	25.0		99.4	90-110			
Fluoride	2.58	0.100	mg/L	2.50		103	90-110			
Sulfate	25.0	1.00	mg/L	25.0		100	90-110			
LCS Dup (B243550-BSD1)			Prepared & Analyzed: 12/04/24							
Chloride	24.8	1.00	mg/L	25.0		99.1	90-110	0.290	20	
Fluoride	2.57	0.100	mg/L	2.50		103	90-110	0.272	20	
Sulfate	24.9	1.00	mg/L	25.0		99.5	90-110	0.473	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243559 - Dissolved ICP										
Blank (B243559-BLK1)				Prepared & Analyzed: 12/04/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243559-BS1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.91	0.050	mg/L	4.00		97.7	85-115			
Calcium	3.86	0.100	mg/L	4.00		96.5	85-115			
Iron	3.86	0.050	mg/L	4.00		96.5	85-115			
Magnesium	19.6	0.100	mg/L	20.0		97.8	85-115			
Potassium	7.96	1.00	mg/L	8.00		99.6	85-115			
Silicon	3.92	0.500	mg/L	4.00		98.1	85-115			
Sodium	3.26	1.00	mg/L	3.24		101	85-115			
LCS Dup (B243559-BSD1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.21	20	
Calcium	3.83	0.100	mg/L	4.00		95.8	85-115	0.736	20	
Iron	3.83	0.050	mg/L	4.00		95.7	85-115	0.800	20	
Magnesium	19.4	0.100	mg/L	20.0		96.9	85-115	0.981	20	
Potassium	7.89	1.00	mg/L	8.00		98.7	85-115	0.900	20	
Silicon	3.87	0.500	mg/L	4.00		96.7	85-115	1.38	20	
Sodium	3.17	1.00	mg/L	3.24		97.9	85-115	2.74	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243474 - Dissolved ICPMS										
Blank (B243474-BLK1)				Prepared & Analyzed: 11/26/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243474-BS1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0493	0.0010	mg/L	0.0500		98.7	85-115			
Cadmium	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Copper	0.0498	0.0010	mg/L	0.0500		99.5	85-115			
Lead	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Manganese	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Selenium	0.246	0.0010	mg/L	0.250		98.5	85-115			
Uranium	0.0499	0.0005	mg/L	0.0500		99.9	85-115			
Zinc	0.0501	0.0020	mg/L	0.0500		100	85-115			
LCS Dup (B243474-BSD1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.1	85-115	0.568	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		99.0	85-115	0.459	20	
Copper	0.0497	0.0010	mg/L	0.0500		99.4	85-115	0.160	20	
Lead	0.0489	0.0005	mg/L	0.0500		97.7	85-115	0.741	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.7	85-115	0.291	20	
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.8	85-115	0.109	20	
Selenium	0.246	0.0010	mg/L	0.250		98.3	85-115	0.161	20	
Uranium	0.0490	0.0005	mg/L	0.0500		98.1	85-115	1.83	20	
Zinc	0.0503	0.0020	mg/L	0.0500		101	85-115	0.390	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 07:51

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243518 - EPA 245.7										
Blank (B243518-BLK1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	ND	100	ng/L							
LCS (B243518-BS1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	917	100	ng/L	1000		91.7	76-113			
LCS Dup (B243518-BSD1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	886	100	ng/L	1000		88.6	76-113	3.40	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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Veronica J Wells

Veronica Wells, Project Manager

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GAL Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus **State:** CO **Zip:** 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

ANALYSIS REQUEST

Lab I.D. 2411-236	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
01	1) MW-4-C	11-22-24	14:28	✔							2			4			✔		
02	2) MW-4-A	11-22-24	13:56	✔							2			4			✔		
03	3) MW-4-MI	11-22-24	13:19	✔							2			4			✔		
04	4) MW-99	11-22-24	15:30	✔							2			4			✔		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11.22.24 Time: 16:50	Received By:	Date: 11.22.24 Time: 16:00	ADDITIONAL REMARKS:
Relinquished By:	Date: Time:	Received By:	Date: Time:	
Relinquished By:	Date: Time:	Received By:	Date: Time:	Temperature at receipt: 5.4 °C; Checked by: ; On Ice? (Y) N (Blue); Therm. used:

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: **Veronica Wells**
Phone:(970) 385-4528
Fax:(970) 385-4638

GCC Energy
11/22/2024

Project Name: GCC GW Baseline
Project Number: [none]
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

SAMPLE CONDITION RECEIPT FORM

Date/Initials of person examining contents: MPW 11.22.24

Labeled by initials: CDM
(if different than above)

Client Name: GCC Energy **Work Order #** 2411-236

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None **Cooler Temp:** Observed Temp: 5.4 °C Correction Factor: 0 °C Final Temp: 5.4 °C
MPW 11.22.24
*Temp should be above freezing 6°C

Compliance: ☐ Yes ☑ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10. DTS
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

10 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/26/24 10:22. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-98	2411261-01	Water	11/25/24 18:15	11/26/24 10:22	

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Veronica J Wells

Veronica Wells, Project Manager

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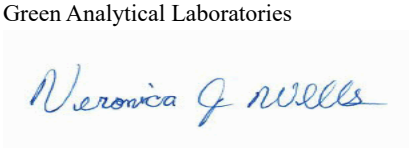
GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

MW-98

2411261-01 (Ground Water)
Sampled Date: 11/25/24 18:15
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**515**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**515**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-1.09**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**48.5**	2.00	0.994	mg/L	2	12/06/24 05:28	EPA 300.0		AWG
Fluoride*	**0.348**	0.200	0.0673	mg/L	2	12/06/24 05:28	EPA 300.0		AWG
Nitrate/Nitrite as N*	**1.23**	0.020	0.013	mg/L as N	1	12/09/24 10:45	EPA 353.2		CAI
pH*	**7.14**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**17.4**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	**918**	20.0	11.3	mg/L	20	12/06/24 13:58	EPA 300.0		AWG
Total Dissolved Solids*	**1880**	10.0		mg/L	1	11/27/24 16:16	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**4.28**	0.500	0.290	mg/L	1	12/05/24 02:54	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/05/24 18:37	EPA 200.7		AWG
Calcium*	**257**	0.500	0.090	mg/L	5	12/09/24 16:01	EPA 200.7		AWG
Hardness as CaCO3	**1290**	1.66	0.349	mg/L	5	12/09/24 16:01	2340 B		AWG
Iron*	<0.250	0.250	0.099	mg/L	5	12/09/24 16:01	EPA 200.7		AWG
Magnesium*	**158**	0.100	0.030	mg/L	1	12/05/24 18:37	EPA 200.7		AWG
Potassium*	**4.92**	1.00	0.075	mg/L	1	12/05/24 18:37	EPA 200.7		AWG
Silica (Si02)	**14.4**	1.07	0.0997	mg/L	1	12/05/24 18:37	Calculation		AWG
Silicon	**6.72**	0.500	0.047	mg/L	1	12/05/24 18:37	EPA 200.7		AWG
Sodium*	**72.9**	1.00	0.230	mg/L	1	12/05/24 18:37	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0020	0.0020	0.0012	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Cadmium*	<0.0010	0.0010	0.0001	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Copper*	**0.0043**	0.0020	0.0006	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Lead*	<0.0010	0.0010	0.0002	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Manganese*	**0.958**	0.0010	0.0004	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Molybdenum*	**0.0021**	0.0010	0.0001	mg/L	2	12/04/24 11:47	EPA 200.8		AES

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

MW-98

2411261-01 (Ground Water)
Sampled Date: 11/25/24 18:15
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0020	0.0020	0.0005	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Uranium	**0.0039**	0.0010	0.00008	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Zinc*	**0.0162**	0.0040	0.0012	mg/L	2	12/04/24 11:47	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 14:28	EPA 245.7		CAI

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243500 - General Prep - Wet Chem										
Blank (B243500-BLK1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243500-SRM1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	410	10.0	mg/L	400		103	85-115			
Batch B243519 - General Prep - Wet Chem										
Reference (B243519-SRM1)			Prepared & Analyzed: 11/26/24							
pH	6.98		pH Units	7.00		99.7	98.57-101.42			
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243580 - IC- Ion Chromatograph										
Blank (B243580-BLK1)			Prepared: 12/05/24 Analyzed: 12/06/24							

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243580 - IC- Ion Chromatograph (Continued)										
Blank (B243580-BLK1) (Continued)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243580-BS1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	23.7	1.00	mg/L	25.0		94.9	90-110			
Fluoride	2.37	0.100	mg/L	2.50		94.8	90-110			
Sulfate	24.1	1.00	mg/L	25.0		96.3	90-110			
LCS Dup (B243580-BSD1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	24.1	1.00	mg/L	25.0		96.4	90-110	1.58	20	
Fluoride	2.42	0.100	mg/L	2.50		96.6	90-110	1.92	20	
Sulfate	24.5	1.00	mg/L	25.0		97.9	90-110	1.64	20	
Batch B243593 - Lachat										
Blank (B243593-BLK1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243593-BS1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	0.935	0.020	mg/L as N	1.00		93.5	90-110			
LCS Dup (B243593-BSD1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	0.937	0.020	mg/L as N	1.00		93.7	90-110	0.171	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243582 - Dissolved ICP										
Blank (B243582-BLK1)				Prepared & Analyzed: 12/05/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243582-BS1)				Prepared & Analyzed: 12/05/24						
Aluminum	3.75	0.050	mg/L	4.00		93.7	85-115			
Calcium	3.93	0.100	mg/L	4.00		98.3	85-115			
Iron	4.06	0.050	mg/L	4.00		101	85-115			
Magnesium	18.6	0.100	mg/L	20.0		93.0	85-115			
Potassium	7.70	1.00	mg/L	8.00		96.2	85-115			
Silicon	3.93	0.500	mg/L	4.00		98.2	85-115			
Sodium	3.01	1.00	mg/L	3.24		92.8	85-115			
LCS Dup (B243582-BSD1)				Prepared & Analyzed: 12/05/24						
Aluminum	3.75	0.050	mg/L	4.00		93.8	85-115	0.150	20	
Calcium	3.90	0.100	mg/L	4.00		97.4	85-115	0.885	20	
Iron	4.01	0.050	mg/L	4.00		100	85-115	1.11	20	
Magnesium	18.5	0.100	mg/L	20.0		92.7	85-115	0.300	20	
Potassium	7.60	1.00	mg/L	8.00		95.0	85-115	1.34	20	
Silicon	3.90	0.500	mg/L	4.00		97.5	85-115	0.680	20	
Sodium	3.02	1.00	mg/L	3.24		93.2	85-115	0.345	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243553 - Dissolved ICPMS										
Blank (B243553-BLK1)				Prepared & Analyzed: 12/04/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243553-BS1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.2	85-115			
Cadmium	0.0490	0.0005	mg/L	0.0500		98.1	85-115			
Copper	0.0486	0.0010	mg/L	0.0500		97.3	85-115			
Lead	0.0493	0.0005	mg/L	0.0500		98.7	85-115			
Manganese	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Molybdenum	0.0476	0.0005	mg/L	0.0500		95.2	85-115			
Selenium	0.245	0.0010	mg/L	0.250		97.9	85-115			
Uranium	0.0489	0.0005	mg/L	0.0500		97.9	85-115			
Zinc	0.0490	0.0020	mg/L	0.0500		98.0	85-115			
LCS Dup (B243553-BSD1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0496	0.0010	mg/L	0.0500		99.2	85-115	1.03	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		98.9	85-115	0.830	20	
Copper	0.0490	0.0010	mg/L	0.0500		97.9	85-115	0.677	20	
Lead	0.0493	0.0005	mg/L	0.0500		98.6	85-115	0.0612	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.6	85-115	1.20	20	
Molybdenum	0.0478	0.0005	mg/L	0.0500		95.6	85-115	0.395	20	
Selenium	0.247	0.0010	mg/L	0.250		98.9	85-115	0.983	20	
Uranium	0.0494	0.0005	mg/L	0.0500		98.9	85-115	1.03	20	
Zinc	0.0497	0.0020	mg/L	0.0500		99.3	85-115	1.40	20	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:51

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243569 - EPA 245.7										
Blank (B243569-BLK1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	ND	100	ng/L							
LCS (B243569-BS1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	964	100	ng/L	1000		96.4	76-113			
LCS Dup (B243569-BSD1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	925	100	ng/L	1000		92.5	76-113	4.15	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories



Veronica Wells, Project Manager

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75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus State: CO Zip: 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	ANALYSIS REQUEST: GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-261 01	1) MW-98	11-25-24	18:15	✔							2			4			✔		
	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11-26-24 Time: 10:22	Received By:	Date: 11.26.24 Time: 10:22
Relinquished By:	Date: Time:	Received By:	Date: Time:
Relinquished By:	Date: Time:	Received By:	Date: Time:

ADDITIONAL REMARKS:

Temperature at receipt: 2 °C | Checked by: | On Ice? (Y) N | Therm. used:

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

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Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 11.26.24 cron

Labeled by initials: _____
(if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411261

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 2.2 °C Correction Factor: 0 °C Final Temp: 2.2 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10. Diss
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

FORM-039, Rev 3

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

10 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/26/24 10:22. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Well #1 Upgradient	2411262-01	Water	11/25/24 12:44	11/26/24 10:22	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

Well #1 Upgradient

2411262-01 (Ground Water)
Sampled Date: 11/25/24 12:44
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**635**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**635**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**0.210**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**4.71**	2.00	0.994	mg/L	2	12/06/24 05:48	EPA 300.0		AWG
Fluoride*	**0.436**	0.200	0.0673	mg/L	2	12/06/24 05:48	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/09/24 10:46	EPA 353.2		CAI
pH*	**7.54**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**16.8**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	**101**	2.00	1.13	mg/L	2	12/06/24 05:48	EPA 300.0		AWG
Total Dissolved Solids*	**730**	10.0		mg/L	1	11/27/24 16:18	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**3.46**	0.500	0.290	mg/L	1	12/05/24 03:09	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/05/24 18:41	EPA 200.7		AWG
Calcium*	**57.6**	0.500	0.090	mg/L	5	12/09/24 16:04	EPA 200.7		AWG
Hardness as CaCO3	**301**	1.66	0.349	mg/L	5	12/09/24 16:04	2340 B		AWG
Iron*	**1.69**	0.250	0.099	mg/L	5	12/09/24 16:04	EPA 200.7		AWG
Magnesium*	**38.3**	0.100	0.030	mg/L	1	12/05/24 18:41	EPA 200.7		AWG
Potassium*	**2.97**	1.00	0.075	mg/L	1	12/05/24 18:41	EPA 200.7		AWG
Silica (Si02)	**13.6**	1.07	0.0997	mg/L	1	12/05/24 18:41	Calculation		AWG
Silicon	**6.37**	0.500	0.047	mg/L	1	12/05/24 18:41	EPA 200.7		AWG
Sodium*	**182**	1.00	0.230	mg/L	1	12/05/24 18:41	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0020	0.0020	0.0012	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Cadmium*	<0.0010	0.0010	0.0001	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Copper*	**0.0112**	0.0020	0.0006	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Lead*	<0.0010	0.0010	0.0002	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Manganese*	**0.418**	0.0010	0.0004	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Molybdenum*	<0.0010	0.0010	0.0001	mg/L	2	12/04/24 11:49	EPA 200.8		AES

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

Well #1 Upgradient

2411262-01 (Ground Water)
Sampled Date: 11/25/24 12:44
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0020	0.0020	0.0005	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Uranium	<0.0010	0.0010	0.00008	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Zinc*	**0.0144**	0.0040	0.0012	mg/L	2	12/04/24 11:49	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 14:31	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243500 - General Prep - Wet Chem										
Blank (B243500-BLK1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243500-SRM1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	410	10.0	mg/L	400		103	85-115			
Batch B243519 - General Prep - Wet Chem										
Reference (B243519-SRM1)			Prepared & Analyzed: 11/26/24							
pH	6.98		pH Units	7.00		99.7	98.57-101.42			
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243580 - IC- Ion Chromatograph										
Blank (B243580-BLK1)			Prepared: 12/05/24 Analyzed: 12/06/24							

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243580 - IC- Ion Chromatograph (Continued)										
Blank (B243580-BLK1) (Continued)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243580-BS1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	23.7	1.00	mg/L	25.0		94.9	90-110			
Fluoride	2.37	0.100	mg/L	2.50		94.8	90-110			
Sulfate	24.1	1.00	mg/L	25.0		96.3	90-110			
LCS Dup (B243580-BSD1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	24.1	1.00	mg/L	25.0		96.4	90-110	1.58	20	
Fluoride	2.42	0.100	mg/L	2.50		96.6	90-110	1.92	20	
Sulfate	24.5	1.00	mg/L	25.0		97.9	90-110	1.64	20	
Batch B243593 - Lachat										
Blank (B243593-BLK1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243593-BS1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	0.935	0.020	mg/L as N	1.00		93.5	90-110			
LCS Dup (B243593-BSD1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	0.937	0.020	mg/L as N	1.00		93.7	90-110	0.171	20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243582 - Dissolved ICP										
Blank (B243582-BLK1)			Prepared & Analyzed: 12/05/24							
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243582-BS1)			Prepared & Analyzed: 12/05/24							
Aluminum	3.75	0.050	mg/L	4.00		93.7	85-115			
Calcium	3.93	0.100	mg/L	4.00		98.3	85-115			
Iron	4.06	0.050	mg/L	4.00		101	85-115			
Magnesium	18.6	0.100	mg/L	20.0		93.0	85-115			
Potassium	7.70	1.00	mg/L	8.00		96.2	85-115			
Silicon	3.93	0.500	mg/L	4.00		98.2	85-115			
Sodium	3.01	1.00	mg/L	3.24		92.8	85-115			
LCS Dup (B243582-BSD1)			Prepared & Analyzed: 12/05/24							
Aluminum	3.75	0.050	mg/L	4.00		93.8	85-115	0.150	20	
Calcium	3.90	0.100	mg/L	4.00		97.4	85-115	0.885	20	
Iron	4.01	0.050	mg/L	4.00		100	85-115	1.11	20	
Magnesium	18.5	0.100	mg/L	20.0		92.7	85-115	0.300	20	
Potassium	7.60	1.00	mg/L	8.00		95.0	85-115	1.34	20	
Silicon	3.90	0.500	mg/L	4.00		97.5	85-115	0.680	20	
Sodium	3.02	1.00	mg/L	3.24		93.2	85-115	0.345	20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243553 - Dissolved ICPMS										
Blank (B243553-BLK1)				Prepared & Analyzed: 12/04/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243553-BS1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.2	85-115			
Cadmium	0.0490	0.0005	mg/L	0.0500		98.1	85-115			
Copper	0.0486	0.0010	mg/L	0.0500		97.3	85-115			
Lead	0.0493	0.0005	mg/L	0.0500		98.7	85-115			
Manganese	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Molybdenum	0.0476	0.0005	mg/L	0.0500		95.2	85-115			
Selenium	0.245	0.0010	mg/L	0.250		97.9	85-115			
Uranium	0.0489	0.0005	mg/L	0.0500		97.9	85-115			
Zinc	0.0490	0.0020	mg/L	0.0500		98.0	85-115			
LCS Dup (B243553-BSD1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0496	0.0010	mg/L	0.0500		99.2	85-115	1.03	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		98.9	85-115	0.830	20	
Copper	0.0490	0.0010	mg/L	0.0500		97.9	85-115	0.677	20	
Lead	0.0493	0.0005	mg/L	0.0500		98.6	85-115	0.0612	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.6	85-115	1.20	20	
Molybdenum	0.0478	0.0005	mg/L	0.0500		95.6	85-115	0.395	20	
Selenium	0.247	0.0010	mg/L	0.250		98.9	85-115	0.983	20	
Uranium	0.0494	0.0005	mg/L	0.0500		98.9	85-115	1.03	20	
Zinc	0.0497	0.0020	mg/L	0.0500		99.3	85-115	1.40	20	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:55

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243569 - EPA 245.7										
Blank (B243569-BLK1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	ND	100	ng/L							
LCS (B243569-BS1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	964	100	ng/L	1000		96.4	76-113			
LCS Dup (B243569-BSD1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	925	100	ng/L	1000		92.5	76-113	4.15	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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Veronica Wells, Project Manager

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GAL Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

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Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus **State:** CO **Zip:** 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-262 01	1) Well #1 Upgradient	11-25-24	12:44	✔							2			4			✔		
	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11.26.24	Received By:	Date: 11.26.24	ADDITIONAL REMARKS:
	Time: 10:22		Time: 10:22	
Relinquished By:	Date:	Received By:	Date:	
	Time:		Time:	
Relinquished By:	Date:	Received By:	Date:	Temperature at receipt: 2.7 °C; Checked by: CDW; On Ice? Y (N); Therm. used:
	Time:		Time:	

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 11.26.24 CRW

Labeled by initials: _____ (if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411-262

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 2.2 °C Correction Factor: 0 °C Final Temp: 2.2 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10. Diss
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

FORM-039, Rev 3

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

05 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/19/24 08:11. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-5-MI	2411169-01	Water	11/18/24 13:55	11/19/24 08:11	
MW-5-C	2411169-02	Water	11/18/24 14:22	11/19/24 08:11	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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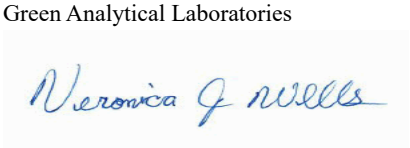
GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

MW-5-MI

2411169-01 (Ground Water)
Sampled Date: 11/18/24 13:55
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**1000**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**1000**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Cation/Anion Balance	**-6.80**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**6.19**	5.00	0.278	mg/L	5	11/27/24 11:52	EPA 300.0		AWG
Fluoride*	<0.500	0.500	0.0486	mg/L	5	11/27/24 11:52	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	11/21/24 12:42	EPA 353.2		CAI
pH*	**8.20**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
pH Temperature, degrees C	**19.1**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
Sulfate*	**6.82**	5.00	0.620	mg/L	5	11/27/24 11:52	EPA 300.0		AWG
Total Dissolved Solids*	**1010**	10.0		mg/L	1	11/22/24 16:55	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**2.58**	0.500	0.290	mg/L	1	12/04/24 17:01	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	11/25/24 14:45	EPA 200.7		AWG
Calcium*	**2.32**	0.100	0.018	mg/L	1	11/25/24 14:45	EPA 200.7		AWG
Hardness as CaCO3	**9.01**	0.662	0.170	mg/L	1	11/25/24 14:45	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	11/25/24 14:45	EPA 200.7		AWG
Magnesium*	**0.781**	0.100	0.030	mg/L	1	11/25/24 14:45	EPA 200.7		AWG
Potassium*	**1.22**	1.00	0.075	mg/L	1	11/25/24 14:45	EPA 200.7		AWG
Silica (Si02)	**7.86**	1.07	0.0997	mg/L	1	11/25/24 14:45	Calculation		AWG
Silicon	**3.67**	0.500	0.047	mg/L	1	11/25/24 14:45	EPA 200.7		AWG
Sodium*	**391**	1.00	0.230	mg/L	1	11/25/24 14:45	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0108**	0.0010	0.0006	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Copper*	**0.0337**	0.0010	0.0003	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Lead*	**0.0015**	0.0005	0.0001	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Manganese*	**0.0222**	0.0005	0.0002	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Molybdenum*	**0.0019**	0.0005	0.00005	mg/L	1	11/26/24 14:32	EPA 200.8		AES

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

MW-5-MI

2411169-01 (Ground Water)
Sampled Date: 11/18/24 13:55
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Uranium	**0.0058**	0.0005	0.00004	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Zinc*	**0.0806**	0.0020	0.0006	mg/L	1	11/26/24 14:32	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:39	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

MW-5-C

2411169-02 (Ground Water)
Sampled Date: 11/18/24 14:22
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**1840**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**1840**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Cation/Anion Balance	**-1.91**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	<10.0	10.0	0.555	mg/L	10	11/27/24 12:12	EPA 300.0		AWG
Fluoride*	**2.19**	1.00	0.0971	mg/L	10	11/27/24 12:12	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	11/21/24 12:43	EPA 353.2		CAI
pH*	**7.74**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
pH Temperature, degrees C	**19.6**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
Sulfate*	**450**	10.0	1.24	mg/L	10	11/27/24 12:12	EPA 300.0		AWG
Total Dissolved Solids*	**2600**	10.0		mg/L	1	11/22/24 16:57	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**2.49**	0.500	0.290	mg/L	1	12/04/24 17:20	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	11/25/24 14:49	EPA 200.7		AWG
Calcium*	**9.14**	0.100	0.018	mg/L	1	11/25/24 14:49	EPA 200.7		AWG
Hardness as CaCO3	**36.8**	0.662	0.170	mg/L	1	11/25/24 14:49	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	11/25/24 14:49	EPA 200.7		AWG
Magnesium*	**3.39**	0.100	0.030	mg/L	1	11/25/24 14:49	EPA 200.7		AWG
Potassium*	**3.22**	1.00	0.075	mg/L	1	11/25/24 14:49	EPA 200.7		AWG
Silica (Si02)	**7.96**	1.07	0.0997	mg/L	1	11/25/24 14:49	Calculation		AWG
Silicon	**3.72**	0.500	0.047	mg/L	1	11/25/24 14:49	EPA 200.7		AWG
Sodium*	**996**	10.0	2.30	mg/L	10	12/05/24 14:47	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0020	0.0020	0.0012	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Cadmium*	<0.0010	0.0010	0.0001	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Copper*	**0.0594**	0.0020	0.0006	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Lead*	**0.0015**	0.0010	0.0002	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Manganese*	**0.0078**	0.0010	0.0004	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Molybdenum*	**0.0012**	0.0010	0.0001	mg/L	2	11/26/24 14:33	EPA 200.8		AES

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

MW-5-C

2411169-02 (Ground Water)
Sampled Date: 11/18/24 14:22
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0020	0.0020	0.0005	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Uranium	<0.0010	0.0010	0.00008	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Zinc*	**0.0191**	0.0040	0.0012	mg/L	2	11/26/24 14:33	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:42	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243413 - General Prep - Wet Chem										
Blank (B243413-BLK1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243413-BS1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243413-BSD1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243413-SRM1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	103	10.0	mg/L	100		103	85-115			
Batch B243416 - Lachat										
Blank (B243416-BLK1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243416-BS1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.960	0.020	mg/L as N	1.00		96.0	90-110			
LCS Dup (B243416-BSD1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.932	0.020	mg/L as N	1.00		93.2	90-110	2.96	20	
Batch B243443 - General Prep - Wet Chem										
Blank (B243443-BLK1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243443-SRM1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	405	10.0	mg/L	400		101	85-115			
Batch B243462 - General Prep - Wet Chem										
Blank (B243462-BLK1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243462-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.1	0.500	mg/L	10.0		101	85-115			

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243462 - General Prep - Wet Chem (Continued)										
LCS Dup (B243462-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	9.95	0.500	mg/L	10.0		99.5	85-115	1.28	20	
Batch B243466 - General Prep - Wet Chem										
Reference (B243466-SRM1)			Prepared & Analyzed: 11/20/24							
pH	7.03		pH Units	7.00		100	98.57-101.42			
Batch B243497 - IC- Ion Chromatograph										
Blank (B243497-BLK1)			Prepared & Analyzed: 11/27/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243497-BS1)			Prepared & Analyzed: 11/27/24							
Chloride	23.2	1.00	mg/L	25.0		92.8	90-110			
Fluoride	2.38	0.100	mg/L	2.50		95.4	90-110			
Sulfate	23.3	1.00	mg/L	25.0		93.1	90-110			
LCS Dup (B243497-BSD1)			Prepared & Analyzed: 11/27/24							
Chloride	24.0	1.00	mg/L	25.0		96.1	90-110	3.57	20	
Fluoride	2.47	0.100	mg/L	2.50		98.7	90-110	3.42	20	
Sulfate	24.1	1.00	mg/L	25.0		96.5	90-110	3.55	20	

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Veronica J Wells

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243454 - Dissolved ICP										
Blank (B243454-BLK1)				Prepared & Analyzed: 11/25/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243454-BS1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.92	0.050	mg/L	4.00		98.1	85-115			
Calcium	3.92	0.100	mg/L	4.00		98.0	85-115			
Iron	3.96	0.050	mg/L	4.00		99.0	85-115			
Magnesium	20.0	0.100	mg/L	20.0		100	85-115			
Potassium	7.71	1.00	mg/L	8.00		96.4	85-115			
Silicon	3.94	0.500	mg/L	4.00		98.6	85-115			
Sodium	3.08	1.00	mg/L	3.24		95.2	85-115			
LCS Dup (B243454-BSD1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.69	20	
Calcium	3.81	0.100	mg/L	4.00		95.3	85-115	2.77	20	
Iron	3.84	0.050	mg/L	4.00		95.9	85-115	3.21	20	
Magnesium	19.4	0.100	mg/L	20.0		96.8	85-115	3.22	20	
Potassium	7.66	1.00	mg/L	8.00		95.7	85-115	0.643	20	
Silicon	3.83	0.500	mg/L	4.00		95.7	85-115	3.01	20	
Sodium	2.95	1.00	mg/L	3.24		91.0	85-115	4.47	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243474 - Dissolved ICPMS										
Blank (B243474-BLK1)				Prepared & Analyzed: 11/26/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243474-BS1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0493	0.0010	mg/L	0.0500		98.7	85-115			
Cadmium	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Copper	0.0498	0.0010	mg/L	0.0500		99.5	85-115			
Lead	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Manganese	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Selenium	0.246	0.0010	mg/L	0.250		98.5	85-115			
Uranium	0.0499	0.0005	mg/L	0.0500		99.9	85-115			
Zinc	0.0501	0.0020	mg/L	0.0500		100	85-115			
LCS Dup (B243474-BSD1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.1	85-115	0.568	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		99.0	85-115	0.459	20	
Copper	0.0497	0.0010	mg/L	0.0500		99.4	85-115	0.160	20	
Lead	0.0489	0.0005	mg/L	0.0500		97.7	85-115	0.741	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.7	85-115	0.291	20	
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.8	85-115	0.109	20	
Selenium	0.246	0.0010	mg/L	0.250		98.3	85-115	0.161	20	
Uranium	0.0490	0.0005	mg/L	0.0500		98.1	85-115	1.83	20	
Zinc	0.0503	0.0020	mg/L	0.0500		101	85-115	0.390	20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 17:06

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243518 - EPA 245.7										
Blank (B243518-BLK1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	ND	100	ng/L							
LCS (B243518-BS1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	917	100	ng/L	1000		91.7	76-113			
LCS Dup (B243518-BSD1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	886	100	ng/L	1000		88.6	76-113	3.40	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories



Veronica Wells, Project Manager

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GAL Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

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Company or Client: GCC Energy

Address: 6473 CR 120

City: Hesperus State: CO Zip: 81326

Phone #: 970.385.4528

Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical

Email Report to: mdickson@gcc.com; lbeck@slrconsulting.com; tom@haygulchservices.com

Project Name(optional):

Sampler Name (Print): Brandon Waddell

Bill to (if different):

P.O. #:

Rush? Y (N)

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-169																			
01	1) MW-5-MI	11-18-24	13:55	✔							2			4			✔		
02	2) MW-5-C	11-18-24	14:22	✔							2			4			✔		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	ADDITIONAL REMARKS:
	11.19.24	8:05		11.19.24	811	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

Temperature at receipt:	Checked by:	On Ice?	Therm. used:
0.2 °C		(Y) N	Laser 2

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	

Hardness [DISSOLVED] subanalyses:

Calcium Dissolved by ICP
Magnesium Dissolved by ICP

Silica Dissolved by ICP subanalyses:

Silicon Dissolved by ICP

All metals are field filtered. Send out preserved bottles

GAL Analytical Laboratories

Date/Initials of person examining contents: 11.19.24 CDM

Labeled by initials: _____ (if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411-169

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None **Cooler Temp:** Observed Temp: 0.2 °C Correction Factor: 0 °C Final Temp: 0.2 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10.
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☑N/A ☐Yes ☐No ☑N/A ☐Yes ☐No ☑N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

09 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/25/24 09:30. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-3-MI	2411242-01	Water	11/24/24 10:26	11/25/24 09:30	
MW-3-A	2411242-02	Water	11/24/24 10:56	11/25/24 09:30	
MW-3-C	2411242-03	Water	11/24/24 11:21	11/25/24 09:30	

Green Analytical Laboratories

Veronica Wells, Project Manager

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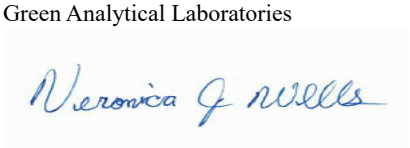
GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

MW-3-MI

2411242-01 (Ground Water)
Sampled Date: 11/24/24 10:26
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**685**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	**130**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**555**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-0.770**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**9.63**	2.00	0.994	mg/L	2	12/06/24 01:43	EPA 300.0		AWG
Fluoride*	**1.11**	0.200	0.0673	mg/L	2	12/06/24 01:43	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:30	EPA 353.2		CAI
pH*	**8.79**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**19.9**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	**239**	2.00	1.13	mg/L	2	12/06/24 01:43	EPA 300.0		AWG
Total Dissolved Solids*	**1100**	10.0		mg/L	1	11/27/24 16:40	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**4.32**	0.500	0.290	mg/L	1	12/05/24 00:09	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 17:11	EPA 200.7		AWG
Calcium*	**1.22**	0.100	0.018	mg/L	1	12/04/24 17:11	EPA 200.7		AWG
Hardness as CaCO3	**4.96**	0.662	0.170	mg/L	1	12/04/24 17:11	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	12/04/24 17:11	EPA 200.7		AWG
Magnesium*	**0.463**	0.100	0.030	mg/L	1	12/04/24 17:11	EPA 200.7		AWG
Potassium*	**1.25**	1.00	0.075	mg/L	1	12/04/24 17:11	EPA 200.7		AWG
Silica (Si02)	**9.24**	1.07	0.0997	mg/L	1	12/04/24 17:11	Calculation		AWG
Silicon	**4.32**	0.500	0.047	mg/L	1	12/04/24 17:11	EPA 200.7		AWG
Sodium*	**413**	1.00	0.230	mg/L	1	12/04/24 17:11	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0041**	0.0010	0.0006	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Copper*	**0.0197**	0.0010	0.0003	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Manganese*	**0.0058**	0.0005	0.0002	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Molybdenum*	**0.0117**	0.0005	0.00005	mg/L	1	12/04/24 11:37	EPA 200.8		AES

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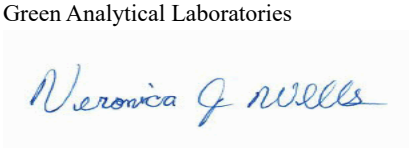
GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

MW-3-MI

2411242-01 (Ground Water)
Sampled Date: 11/24/24 10:26
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Uranium	**0.0020**	0.0005	0.00004	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Zinc*	**0.0023**	0.0020	0.0006	mg/L	1	12/04/24 11:37	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 13:40	EPA 245.7		CAI

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

MW-3-A

2411242-02 (Ground Water)
Sampled Date: 11/24/24 10:56
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**520**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**520**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-2.51**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**17.6**	2.00	0.994	mg/L	2	12/06/24 02:04	EPA 300.0		AWG
Fluoride*	**0.388**	0.200	0.0673	mg/L	2	12/06/24 02:04	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:31	EPA 353.2		CAI
pH*	**8.23**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**19.6**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	**520**	10.0	5.63	mg/L	10	12/06/24 13:17	EPA 300.0		AWG
Total Dissolved Solids*	**1190**	10.0		mg/L	1	11/27/24 16:42	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**2.94**	0.500	0.290	mg/L	1	12/05/24 01:02	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 17:15	EPA 200.7		AWG
Calcium*	**2.26**	0.100	0.018	mg/L	1	12/04/24 17:15	EPA 200.7		AWG
Hardness as CaCO3	**8.11**	0.662	0.170	mg/L	1	12/04/24 17:15	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	12/04/24 17:15	EPA 200.7		AWG
Magnesium*	**0.595**	0.100	0.030	mg/L	1	12/04/24 17:15	EPA 200.7		AWG
Potassium*	**1.34**	1.00	0.075	mg/L	1	12/04/24 17:15	EPA 200.7		AWG
Silica (Si02)	**10.3**	1.07	0.0997	mg/L	1	12/04/24 17:15	Calculation		AWG
Silicon	**4.83**	0.500	0.047	mg/L	1	12/04/24 17:15	EPA 200.7		AWG
Sodium*	**455**	1.00	0.230	mg/L	1	12/04/24 17:15	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0006	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Copper*	**0.0203**	0.0010	0.0003	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Manganese*	**0.0069**	0.0005	0.0002	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Molybdenum*	**0.0024**	0.0005	0.00005	mg/L	1	12/04/24 11:39	EPA 200.8		AES

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

MW-3-A

2411242-02 (Ground Water)
Sampled Date: 11/24/24 10:56
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Uranium	<0.0005	0.0005	0.00004	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Zinc*	**0.0042**	0.0020	0.0006	mg/L	1	12/04/24 11:39	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 14:09	EPA 245.7		CAI

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Veronica J Wells

Veronica Wells, Project Manager

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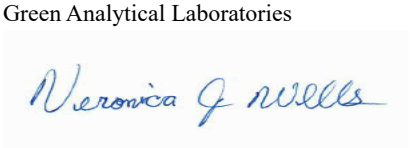
GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

MW-3-C

2411242-03 (Ground Water)
Sampled Date: 11/24/24 11:21
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**2190**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	**260**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**1930**	10.0	8.00	mg/L	10	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-3.10**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**628**	5.00	2.49	mg/L	5	12/06/24 02:24	EPA 300.0		AWG
Fluoride*	**3.57**	0.500	0.168	mg/L	5	12/06/24 02:24	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:35	EPA 353.2		CAI
pH*	**8.23**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**19.3**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	<5.00	5.00	2.81	mg/L	5	12/06/24 02:24	EPA 300.0		AWG
Total Dissolved Solids*	**3340**	10.0		mg/L	1	11/27/24 16:44	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**21.4**	0.500	0.290	mg/L	1	12/05/24 01:19	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 17:19	EPA 200.7		AWG
Calcium*	**4.43**	0.100	0.018	mg/L	1	12/04/24 17:19	EPA 200.7		AWG
Hardness as CaCO3	**19.3**	0.662	0.170	mg/L	1	12/04/24 17:19	2340 B		AWG
Iron*	**0.238**	0.050	0.020	mg/L	1	12/04/24 17:19	EPA 200.7		AWG
Magnesium*	**2.00**	0.100	0.030	mg/L	1	12/04/24 17:19	EPA 200.7		AWG
Potassium*	**4.42**	1.00	0.075	mg/L	1	12/04/24 17:19	EPA 200.7		AWG
Silica (Si02)	**8.69**	1.07	0.0997	mg/L	1	12/04/24 17:19	Calculation		AWG
Silicon	**4.06**	0.500	0.047	mg/L	1	12/04/24 17:19	EPA 200.7		AWG
Sodium*	**1310**	10.0	2.30	mg/L	10	12/05/24 15:22	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0205**	0.0030	0.0019	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Cadmium*	<0.0015	0.0015	0.0002	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Copper*	**0.0784**	0.0030	0.0009	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Lead*	<0.0015	0.0015	0.0004	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Manganese*	**0.0027**	0.0015	0.0005	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Molybdenum*	**0.0042**	0.0015	0.0002	mg/L	3	12/04/24 11:41	EPA 200.8		AES

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

MW-3-C

2411242-03 (Ground Water)
Sampled Date: 11/24/24 11:21
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	**0.0305**	0.0030	0.0008	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Uranium	**0.0025**	0.0015	0.0001	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Zinc*	**0.0258**	0.0060	0.0018	mg/L	3	12/04/24 11:41	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 14:11	EPA 245.7		CAI

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243488 - General Prep - Wet Chem										
Blank (B243488-BLK1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243488-SRM1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	375	10.0	mg/L	400		93.7	85-115			
Batch B243519 - General Prep - Wet Chem										
Reference (B243519-SRM1)			Prepared & Analyzed: 11/26/24							
pH	6.98		pH Units	7.00		99.7	98.57-101.42			
Batch B243521 - Lachat										
Blank (B243521-BLK1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243521-BS1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110			
LCS Dup (B243521-BSD1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110	0.0205	20	
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243540 - General Prep - Wet Chem (Continued)										
Blank (B243540-BLK1) (Continued)				Prepared & Analyzed: 12/04/24						
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)				Prepared & Analyzed: 12/04/24						
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)				Prepared & Analyzed: 12/04/24						
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243580 - IC- Ion Chromatograph										
Blank (B243580-BLK1)				Prepared: 12/05/24 Analyzed: 12/06/24						
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243580-BS1)				Prepared: 12/05/24 Analyzed: 12/06/24						
Chloride	23.7	1.00	mg/L	25.0		94.9	90-110			
Fluoride	2.37	0.100	mg/L	2.50		94.8	90-110			
Sulfate	24.1	1.00	mg/L	25.0		96.3	90-110			
LCS Dup (B243580-BSD1)				Prepared: 12/05/24 Analyzed: 12/06/24						
Chloride	24.1	1.00	mg/L	25.0		96.4	90-110	1.58	20	
Fluoride	2.42	0.100	mg/L	2.50		96.6	90-110	1.92	20	
Sulfate	24.5	1.00	mg/L	25.0		97.9	90-110	1.64	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243559 - Dissolved ICP										
Blank (B243559-BLK1)				Prepared & Analyzed: 12/04/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243559-BS1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.91	0.050	mg/L	4.00		97.7	85-115			
Calcium	3.86	0.100	mg/L	4.00		96.5	85-115			
Iron	3.86	0.050	mg/L	4.00		96.5	85-115			
Magnesium	19.6	0.100	mg/L	20.0		97.8	85-115			
Potassium	7.96	1.00	mg/L	8.00		99.6	85-115			
Silicon	3.92	0.500	mg/L	4.00		98.1	85-115			
Sodium	3.26	1.00	mg/L	3.24		101	85-115			
LCS Dup (B243559-BSD1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.21	20	
Calcium	3.83	0.100	mg/L	4.00		95.8	85-115	0.736	20	
Iron	3.83	0.050	mg/L	4.00		95.7	85-115	0.800	20	
Magnesium	19.4	0.100	mg/L	20.0		96.9	85-115	0.981	20	
Potassium	7.89	1.00	mg/L	8.00		98.7	85-115	0.900	20	
Silicon	3.87	0.500	mg/L	4.00		96.7	85-115	1.38	20	
Sodium	3.17	1.00	mg/L	3.24		97.9	85-115	2.74	20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243553 - Dissolved ICPMS										
Blank (B243553-BLK1)				Prepared & Analyzed: 12/04/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243553-BS1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.2	85-115			
Cadmium	0.0490	0.0005	mg/L	0.0500		98.1	85-115			
Copper	0.0486	0.0010	mg/L	0.0500		97.3	85-115			
Lead	0.0493	0.0005	mg/L	0.0500		98.7	85-115			
Manganese	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Molybdenum	0.0476	0.0005	mg/L	0.0500		95.2	85-115			
Selenium	0.245	0.0010	mg/L	0.250		97.9	85-115			
Uranium	0.0489	0.0005	mg/L	0.0500		97.9	85-115			
Zinc	0.0490	0.0020	mg/L	0.0500		98.0	85-115			
LCS Dup (B243553-BSD1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0496	0.0010	mg/L	0.0500		99.2	85-115	1.03	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		98.9	85-115	0.830	20	
Copper	0.0490	0.0010	mg/L	0.0500		97.9	85-115	0.677	20	
Lead	0.0493	0.0005	mg/L	0.0500		98.6	85-115	0.0612	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.6	85-115	1.20	20	
Molybdenum	0.0478	0.0005	mg/L	0.0500		95.6	85-115	0.395	20	
Selenium	0.247	0.0010	mg/L	0.250		98.9	85-115	0.983	20	
Uranium	0.0494	0.0005	mg/L	0.0500		98.9	85-115	1.03	20	
Zinc	0.0497	0.0020	mg/L	0.0500		99.3	85-115	1.40	20	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:24

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243569 - EPA 245.7										
Blank (B243569-BLK1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	ND	100	ng/L							
LCS (B243569-BS1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	964	100	ng/L	1000		96.4	76-113			
LCS Dup (B243569-BSD1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	925	100	ng/L	1000		92.5	76-113	4.15	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories



Veronica Wells, Project Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

GREEN GAL Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy

Address: 6473 CR 120

City: Hesperus State: CO Zip: 81326

Phone #: 970.385.4528

Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical

Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com

Project Name(optional):

Sampler Name (Print): Brandon Waddell

Bill to (if different):

P.O. #:

Rush? Y (N)

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	ANALYSIS REQUEST: GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-242																			
01	1) MW-3-MI	11-24-24	10:26	✓							2			4			✓		
02	2) MW-3-A	11-24-24	10:56	✓							2			4			✓		
03	3) MW-3-C	11-24-24	11:21	✓							2			4			✓		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11.25.24	Received By:	Date: 11-25-24	ADDITIONAL REMARKS:
	Time: 9:30		Time: 0930	
Relinquished By:	Date:	Received By:	Date:	
	Time:		Time:	
Relinquished By:	Date:	Received By:	Date:	Temperature at receipt: 2.7 °C / Checked by: VJW / On Ice? (Y) N / Therm. used: Laser 2
	Time:		Time:	

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 11.25.24 LMC

Labeled by initials: _____
(if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411242

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None **Cooler Temp:** Observed Temp: 2.7 °C Correction Factor: 0 °C Final Temp: 2.7 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☐Yes ☑No	10.
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

05 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/19/24 08:11. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Seep-3	2411168-01	Water	11/18/24 15:18	11/19/24 08:11	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

Seep-3

2411168-01 (Ground Water)
Sampled Date: 11/18/24 15:18
Sampled By: Brandon Waddell

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**565**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**565**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Cation/Anion Balance	**-2.06**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**6.67**	5.00	0.278	mg/L	5	11/27/24 11:31	EPA 300.0		AWG
Fluoride*	**0.595**	0.500	0.0486	mg/L	5	11/27/24 11:31	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	11/21/24 12:41	EPA 353.2		CAI
pH*	**7.69**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
pH Temperature, degrees C	**19.5**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
Sulfate*	**453**	5.00	0.620	mg/L	5	11/27/24 11:31	EPA 300.0		AWG
Total Dissolved Solids*	**1220**	10.0		mg/L	1	11/22/24 16:53	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**9.54**	0.500	0.290	mg/L	1	12/04/24 16:45	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	11/25/24 14:41	EPA 200.7		AWG
Calcium*	**134**	0.100	0.018	mg/L	1	11/25/24 14:41	EPA 200.7		AWG
Hardness as CaCO3	**785**	0.662	0.170	mg/L	1	11/25/24 14:41	2340 B		AWG
Iron*	**0.487**	0.050	0.020	mg/L	1	11/25/24 14:41	EPA 200.7		AWG
Magnesium*	**109**	0.100	0.030	mg/L	1	11/25/24 14:41	EPA 200.7		AWG
Potassium*	**4.99**	1.00	0.075	mg/L	1	11/25/24 14:41	EPA 200.7		AWG
Silica (Si02)	**13.6**	1.07	0.0997	mg/L	1	11/25/24 14:41	Calculation		AWG
Silicon	**6.36**	0.500	0.047	mg/L	1	11/25/24 14:41	EPA 200.7		AWG
Sodium*	**75.2**	1.00	0.230	mg/L	1	11/25/24 14:41	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0006	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Copper*	**0.0115**	0.0010	0.0003	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Lead*	**0.0007**	0.0005	0.0001	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Manganese*	**1.67**	0.0005	0.0002	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Molybdenum*	**0.0007**	0.0005	0.00005	mg/L	1	11/26/24 14:30	EPA 200.8		AES

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

Seep-3

2411168-01 (Ground Water)

Sampled Date: 11/18/24 15:18

Sampled By: Brandon Waddell

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	**0.0011**	0.0010	0.0003	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Uranium	**0.0009**	0.0005	0.00004	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Zinc*	**0.0189**	0.0020	0.0006	mg/L	1	11/26/24 14:30	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:36	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243413 - General Prep - Wet Chem										
Blank (B243413-BLK1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243413-BS1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243413-BSD1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243413-SRM1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	103	10.0	mg/L	100		103	85-115			
Batch B243416 - Lachat										
Blank (B243416-BLK1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243416-BS1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.960	0.020	mg/L as N	1.00		96.0	90-110			
LCS Dup (B243416-BSD1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.932	0.020	mg/L as N	1.00		93.2	90-110	2.96	20	
Batch B243443 - General Prep - Wet Chem										
Blank (B243443-BLK1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243443-SRM1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	405	10.0	mg/L	400		101	85-115			
Batch B243462 - General Prep - Wet Chem										
Blank (B243462-BLK1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243462-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.1	0.500	mg/L	10.0		101	85-115			

Green Analytical Laboratories



Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243462 - General Prep - Wet Chem (Continued)										
LCS Dup (B243462-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	9.95	0.500	mg/L	10.0		99.5	85-115	1.28	20	
Batch B243466 - General Prep - Wet Chem										
Reference (B243466-SRM1)			Prepared & Analyzed: 11/20/24							
pH	7.03		pH Units	7.00		100	98.57-101.42			
Batch B243497 - IC- Ion Chromatograph										
Blank (B243497-BLK1)			Prepared & Analyzed: 11/27/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243497-BS1)			Prepared & Analyzed: 11/27/24							
Chloride	23.2	1.00	mg/L	25.0		92.8	90-110			
Fluoride	2.38	0.100	mg/L	2.50		95.4	90-110			
Sulfate	23.3	1.00	mg/L	25.0		93.1	90-110			
LCS Dup (B243497-BSD1)			Prepared & Analyzed: 11/27/24							
Chloride	24.0	1.00	mg/L	25.0		96.1	90-110	3.57	20	
Fluoride	2.47	0.100	mg/L	2.50		98.7	90-110	3.42	20	
Sulfate	24.1	1.00	mg/L	25.0		96.5	90-110	3.55	20	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243454 - Dissolved ICP										
Blank (B243454-BLK1)				Prepared & Analyzed: 11/25/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243454-BS1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.92	0.050	mg/L	4.00		98.1	85-115			
Calcium	3.92	0.100	mg/L	4.00		98.0	85-115			
Iron	3.96	0.050	mg/L	4.00		99.0	85-115			
Magnesium	20.0	0.100	mg/L	20.0		100	85-115			
Potassium	7.71	1.00	mg/L	8.00		96.4	85-115			
Silicon	3.94	0.500	mg/L	4.00		98.6	85-115			
Sodium	3.08	1.00	mg/L	3.24		95.2	85-115			
LCS Dup (B243454-BSD1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.69	20	
Calcium	3.81	0.100	mg/L	4.00		95.3	85-115	2.77	20	
Iron	3.84	0.050	mg/L	4.00		95.9	85-115	3.21	20	
Magnesium	19.4	0.100	mg/L	20.0		96.8	85-115	3.22	20	
Potassium	7.66	1.00	mg/L	8.00		95.7	85-115	0.643	20	
Silicon	3.83	0.500	mg/L	4.00		95.7	85-115	3.01	20	
Sodium	2.95	1.00	mg/L	3.24		91.0	85-115	4.47	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243474 - Dissolved ICPMS										
Blank (B243474-BLK1)				Prepared & Analyzed: 11/26/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243474-BS1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0493	0.0010	mg/L	0.0500		98.7	85-115			
Cadmium	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Copper	0.0498	0.0010	mg/L	0.0500		99.5	85-115			
Lead	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Manganese	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Selenium	0.246	0.0010	mg/L	0.250		98.5	85-115			
Uranium	0.0499	0.0005	mg/L	0.0500		99.9	85-115			
Zinc	0.0501	0.0020	mg/L	0.0500		100	85-115			
LCS Dup (B243474-BSD1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.1	85-115	0.568	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		99.0	85-115	0.459	20	
Copper	0.0497	0.0010	mg/L	0.0500		99.4	85-115	0.160	20	
Lead	0.0489	0.0005	mg/L	0.0500		97.7	85-115	0.741	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.7	85-115	0.291	20	
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.8	85-115	0.109	20	
Selenium	0.246	0.0010	mg/L	0.250		98.3	85-115	0.161	20	
Uranium	0.0490	0.0005	mg/L	0.0500		98.1	85-115	1.83	20	
Zinc	0.0503	0.0020	mg/L	0.0500		101	85-115	0.390	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 14:07

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243518 - EPA 245.7										
Blank (B243518-BLK1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	ND	100	ng/L							
LCS (B243518-BS1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	917	100	ng/L	1000		91.7	76-113			
LCS Dup (B243518-BSD1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	886	100	ng/L	1000		88.6	76-113	3.40	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GREEN Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus **State:** CO **Zip:** 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: mdickson@gcc.com; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix (check one)	# of containers	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-168				GROUNDWATER / SURFACE WATER / WASTEWATER / PRODUCED WATER / DRINKING WATER / SOIL / OTHER:	No preservation / Nitric Acid / Hydrochloric Acid / Sulfuric Acid / Sodium Hydroxide / OTHER:			
01	1) Seep-3	11-18-24	15:18	X	2 / 4	X	✓	
	2)			✓JW 12-5-24		✓JW	12-5-24 per email from L.B.	
	3)							
	4)							
	5)							
	6)							
	7)							
	8)							
	9)							
	10)							

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11.19.24 Time: 8:05	**Received By:**	Date: 11.19.24 Time: 611	ADDITIONAL REMARKS:			
Relinquished By:	Date: Time:	**Received By:**	Date: Time:				
Relinquished By:	Date: Time:	**Received By:**	Date: Time:	Temperature at receipt: 0.2 °C	Checked by: MW	On Ice? (Y) N	Therm. used: Laser 2

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: **Veronica Wells**

Phone:(970) 385-4528
Fax:(970) 385-4638

GCC Energy
12/5/2024

Project Name: GCC GW Baseline
Project Number: [none]
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	

Hardness [DISSOLVED] subanalyses:

Calcium Dissolved by ICP
Magnesium Dissolved by ICP

Silica Dissolved by ICP subanalyses:

Silicon Dissolved by ICP

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 11.19.24 CDM

Labeled by initials: _____
(if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411-168

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 0.2 °C Correction Factor: 0 °C Final Temp: 0.2 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10.
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

06 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/22/24 16:00. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-8-EAA	2411235-01	Water	11/21/24 14:49	11/22/24 16:00	
MW-8-MI	2411235-02	Water	11/21/24 14:15	11/22/24 16:00	
MW-8-PL	2411235-03	Water	11/21/24 13:48	11/22/24 16:00	
MW-8-LM	2411235-04	Water	11/21/24 13:20	11/22/24 16:00	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-EAA

2411235-01 (Ground Water)
Sampled Date: 11/21/24 14:49
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**470**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**470**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-1.03**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**12.5**	5.00	2.49	mg/L	5	12/05/24 01:35	EPA 300.0		AWG
Fluoride*	<0.500	0.500	0.168	mg/L	5	12/05/24 01:35	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:17	EPA 353.2		CAI
pH*	**7.30**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**16.4**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	**697**	5.00	2.81	mg/L	5	12/05/24 01:35	EPA 300.0		AWG
Total Dissolved Solids*	**1470**	10.0		mg/L	1	11/27/24 16:22	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**5.82**	0.500	0.290	mg/L	1	12/04/24 20:13	5310C	M5	CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 16:22	EPA 200.7		AWG
Calcium*	**162**	0.100	0.018	mg/L	1	12/04/24 16:22	EPA 200.7		AWG
Hardness as CaCO3	**936**	0.662	0.170	mg/L	1	12/04/24 16:22	2340 B		AWG
Iron*	**2.23**	0.050	0.020	mg/L	1	12/04/24 16:22	EPA 200.7		AWG
Magnesium*	**129**	0.100	0.030	mg/L	1	12/04/24 16:22	EPA 200.7		AWG
Potassium*	**3.70**	1.00	0.075	mg/L	1	12/04/24 16:22	EPA 200.7		AWG
Silica (Si02)	**16.2**	1.07	0.0997	mg/L	1	12/04/24 16:22	Calculation		AWG
Silicon	**7.56**	0.500	0.047	mg/L	1	12/04/24 16:22	EPA 200.7		AWG
Sodium*	**81.2**	1.00	0.230	mg/L	1	12/04/24 16:22	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0016**	0.0010	0.0006	mg/L	1	11/26/24 14:42	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:42	EPA 200.8		AES
Copper*	**0.0160**	0.0010	0.0003	mg/L	1	11/26/24 14:42	EPA 200.8		AES
Lead*	**0.0012**	0.0005	0.0001	mg/L	1	11/26/24 14:42	EPA 200.8		AES
Manganese*	**4.24**	0.0050	0.0018	mg/L	10	11/26/24 16:56	EPA 200.8		AES
Molybdenum*	**0.0009**	0.0005	0.00005	mg/L	1	11/26/24 14:42	EPA 200.8		AES

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-EAA

2411235-01 (Ground Water)
Sampled Date: 11/21/24 14:49
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:42	EPA 200.8		AES
Uranium	**0.0019**	0.0005	0.00004	mg/L	1	11/26/24 14:42	EPA 200.8		AES
Zinc*	**0.0227**	0.0020	0.0006	mg/L	1	11/26/24 14:42	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 13:23	EPA 245.7		CAI

Green Analytical Laboratories



Veronica Wells, Project Manager

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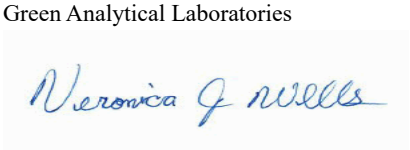
GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-MI

2411235-02 (Ground Water)
Sampled Date: 11/21/24 14:15
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**610**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**610**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-2.37**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**8.77**	5.00	2.49	mg/L	5	12/05/24 01:56	EPA 300.0		AWG
Fluoride*	<0.500	0.500	0.168	mg/L	5	12/05/24 01:56	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:20	EPA 353.2		CAI
pH*	**7.48**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**16.7**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	**319**	5.00	2.81	mg/L	5	12/05/24 01:56	EPA 300.0		AWG
Total Dissolved Solids*	**995**	10.0		mg/L	1	11/27/24 16:24	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**2.93**	0.500	0.290	mg/L	1	12/04/24 21:43	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 16:32	EPA 200.7		AWG
Calcium*	**71.3**	0.100	0.018	mg/L	1	12/04/24 16:32	EPA 200.7		AWG
Hardness as CaCO3	**386**	0.662	0.170	mg/L	1	12/04/24 16:32	2340 B		AWG
Iron*	**0.051**	0.050	0.020	mg/L	1	12/04/24 16:32	EPA 200.7		AWG
Magnesium*	**50.6**	0.100	0.030	mg/L	1	12/04/24 16:32	EPA 200.7		AWG
Potassium*	**5.73**	1.00	0.075	mg/L	1	12/04/24 16:32	EPA 200.7		AWG
Silica (Si02)	**13.7**	1.07	0.0997	mg/L	1	12/04/24 16:32	Calculation		AWG
Silicon	**6.38**	0.500	0.047	mg/L	1	12/04/24 16:32	EPA 200.7		AWG
Sodium*	**217**	1.00	0.230	mg/L	1	12/04/24 16:32	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0006	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Copper*	**0.0086**	0.0010	0.0003	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Manganese*	**0.0578**	0.0005	0.0002	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Molybdenum*	<0.0005	0.0005	0.00005	mg/L	1	11/26/24 14:43	EPA 200.8		AES

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-MI

2411235-02 (Ground Water)
Sampled Date: 11/21/24 14:15
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Uranium	<0.0005	0.0005	0.00004	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Zinc*	<0.0020	0.0020	0.0006	mg/L	1	11/26/24 14:43	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 13:32	EPA 245.7		CAI

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-PL

2411235-03 (Ground Water)
Sampled Date: 11/21/24 13:48
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**405**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**405**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**0.380**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**3.37**	1.00	0.497	mg/L	1	12/05/24 02:16	EPA 300.0		AWG
Fluoride*	**0.233**	0.100	0.0336	mg/L	1	12/05/24 02:16	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:21	EPA 353.2		CAI
pH*	**7.55**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**17.5**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	**102**	1.00	0.563	mg/L	1	12/05/24 02:16	EPA 300.0		AWG
Total Dissolved Solids*	**490**	10.0		mg/L	1	11/27/24 16:26	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**1.47**	0.500	0.290	mg/L	1	12/04/24 22:02	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 16:42	EPA 200.7		AWG
Calcium*	**53.4**	0.100	0.018	mg/L	1	12/04/24 16:42	EPA 200.7		AWG
Hardness as CaCO3	**281**	0.662	0.170	mg/L	1	12/04/24 16:42	2340 B		AWG
Iron*	**0.051**	0.050	0.020	mg/L	1	12/04/24 16:42	EPA 200.7		AWG
Magnesium*	**35.9**	0.100	0.030	mg/L	1	12/04/24 16:42	EPA 200.7		AWG
Potassium*	**1.61**	1.00	0.075	mg/L	1	12/04/24 16:42	EPA 200.7		AWG
Silica (Si02)	**20.1**	1.07	0.0997	mg/L	1	12/04/24 16:42	Calculation		AWG
Silicon	**9.41**	0.500	0.047	mg/L	1	12/04/24 16:42	EPA 200.7		AWG
Sodium*	**78.1**	1.00	0.230	mg/L	1	12/04/24 16:42	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0026**	0.0010	0.0006	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Copper*	**0.0052**	0.0010	0.0003	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Manganese*	**0.0880**	0.0005	0.0002	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Molybdenum*	<0.0005	0.0005	0.00005	mg/L	1	11/26/24 14:45	EPA 200.8		AES

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-PL

2411235-03 (Ground Water)
Sampled Date: 11/21/24 13:48
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Uranium	<0.0005	0.0005	0.00004	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Zinc*	**0.0039**	0.0020	0.0006	mg/L	1	11/26/24 14:45	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 13:35	EPA 245.7		CAI

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-LM

2411235-04 (Ground Water)
Sampled Date: 11/21/24 13:20
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**765**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	**100**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**665**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-4.72**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	<5.00	5.00	2.49	mg/L	5	12/05/24 02:36	EPA 300.0		AWG
Fluoride*	**3.92**	0.500	0.168	mg/L	5	12/05/24 02:36	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:23	EPA 353.2		CAI
pH*	**8.73**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**17.5**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	<5.00	5.00	2.81	mg/L	5	12/05/24 02:36	EPA 300.0		AWG
Total Dissolved Solids*	**750**	10.0		mg/L	1	11/27/24 16:28	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**1.61**	0.500	0.290	mg/L	1	12/04/24 22:23	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 16:44	EPA 200.7		AWG
Calcium*	**1.84**	0.100	0.018	mg/L	1	12/04/24 16:44	EPA 200.7		AWG
Hardness as CaCO3	**6.78**	0.662	0.170	mg/L	1	12/04/24 16:44	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	12/04/24 16:44	EPA 200.7		AWG
Magnesium*	**0.532**	0.100	0.030	mg/L	1	12/04/24 16:44	EPA 200.7		AWG
Potassium*	**2.07**	1.00	0.075	mg/L	1	12/04/24 16:44	EPA 200.7		AWG
Silica (Si02)	**8.31**	1.07	0.0997	mg/L	1	12/04/24 16:44	Calculation		AWG
Silicon	**3.89**	0.500	0.047	mg/L	1	12/04/24 16:44	EPA 200.7		AWG
Sodium*	**310**	1.00	0.230	mg/L	1	12/04/24 16:44	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0006	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Copper*	**0.0143**	0.0010	0.0003	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Manganese*	**0.0027**	0.0005	0.0002	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Molybdenum*	<0.0005	0.0005	0.00005	mg/L	1	11/26/24 14:47	EPA 200.8		AES

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

MW-8-LM

2411235-04 (Ground Water)
Sampled Date: 11/21/24 13:20
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Uranium	<0.0005	0.0005	0.00004	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Zinc*	**0.0107**	0.0020	0.0006	mg/L	1	11/26/24 14:47	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 13:37	EPA 245.7		CAI

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243487 - General Prep - Wet Chem										
Reference (B243487-SRM1)			Prepared & Analyzed: 11/22/24							
pH	7.01		pH Units	7.00		100	98.57-101.42			
Batch B243488 - General Prep - Wet Chem										
Blank (B243488-BLK1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243488-SRM1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	375	10.0	mg/L	400		93.7	85-115			
Batch B243521 - Lachat										
Blank (B243521-BLK1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243521-BS1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110			
LCS Dup (B243521-BSD1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110	0.0205	20	
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243540 - General Prep - Wet Chem (Continued)										
Blank (B243540-BLK1) (Continued)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243550 - IC- Ion Chromatograph										
Blank (B243550-BLK1)			Prepared & Analyzed: 12/04/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243550-BS1)			Prepared & Analyzed: 12/04/24							
Chloride	24.9	1.00	mg/L	25.0		99.4	90-110			
Fluoride	2.58	0.100	mg/L	2.50		103	90-110			
Sulfate	25.0	1.00	mg/L	25.0		100	90-110			
LCS Dup (B243550-BSD1)			Prepared & Analyzed: 12/04/24							
Chloride	24.8	1.00	mg/L	25.0		99.1	90-110	0.290	20	
Fluoride	2.57	0.100	mg/L	2.50		103	90-110	0.272	20	
Sulfate	24.9	1.00	mg/L	25.0		99.5	90-110	0.473	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243559 - Dissolved ICP										
Blank (B243559-BLK1)				Prepared & Analyzed: 12/04/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243559-BS1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.91	0.050	mg/L	4.00		97.7	85-115			
Calcium	3.86	0.100	mg/L	4.00		96.5	85-115			
Iron	3.86	0.050	mg/L	4.00		96.5	85-115			
Magnesium	19.6	0.100	mg/L	20.0		97.8	85-115			
Potassium	7.96	1.00	mg/L	8.00		99.6	85-115			
Silicon	3.92	0.500	mg/L	4.00		98.1	85-115			
Sodium	3.26	1.00	mg/L	3.24		101	85-115			
LCS Dup (B243559-BSD1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.21	20	
Calcium	3.83	0.100	mg/L	4.00		95.8	85-115	0.736	20	
Iron	3.83	0.050	mg/L	4.00		95.7	85-115	0.800	20	
Magnesium	19.4	0.100	mg/L	20.0		96.9	85-115	0.981	20	
Potassium	7.89	1.00	mg/L	8.00		98.7	85-115	0.900	20	
Silicon	3.87	0.500	mg/L	4.00		96.7	85-115	1.38	20	
Sodium	3.17	1.00	mg/L	3.24		97.9	85-115	2.74	20	

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243474 - Dissolved ICPMS										
Blank (B243474-BLK1)				Prepared & Analyzed: 11/26/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243474-BS1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0493	0.0010	mg/L	0.0500		98.7	85-115			
Cadmium	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Copper	0.0498	0.0010	mg/L	0.0500		99.5	85-115			
Lead	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Manganese	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Selenium	0.246	0.0010	mg/L	0.250		98.5	85-115			
Uranium	0.0499	0.0005	mg/L	0.0500		99.9	85-115			
Zinc	0.0501	0.0020	mg/L	0.0500		100	85-115			
LCS Dup (B243474-BSD1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.1	85-115	0.568	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		99.0	85-115	0.459	20	
Copper	0.0497	0.0010	mg/L	0.0500		99.4	85-115	0.160	20	
Lead	0.0489	0.0005	mg/L	0.0500		97.7	85-115	0.741	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.7	85-115	0.291	20	
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.8	85-115	0.109	20	
Selenium	0.246	0.0010	mg/L	0.250		98.3	85-115	0.161	20	
Uranium	0.0490	0.0005	mg/L	0.0500		98.1	85-115	1.83	20	
Zinc	0.0503	0.0020	mg/L	0.0500		101	85-115	0.390	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243569 - EPA 245.7										
Blank (B243569-BLK1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	ND	100	ng/L							
LCS (B243569-BS1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	964	100	ng/L	1000		96.4	76-113			
LCS Dup (B243569-BSD1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	925	100	ng/L	1000		92.5	76-113	4.15	20	

Notes and Definitions

M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:03

Qualifier Summary

LabNumber	Analysis	Analyte	Qualifier	TextBody
2411235-01	Total Organic Carbon [TOC]	Total Organic Carbon	M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GAL Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus **State:** CO **Zip:** 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
24 11-235																			
01	1) MW-8-EAA	11-21-24	14:49	✔							2			4			✔		
02	2) MW-8-MI	11-21-24	14:15	✔							2			4			✔		
03	3) MW-8-PL	11-21-24	13:48	✔							2			4			✔		
04	4) MW-8-LM	11-21-24	13:20	✔							2			4			✔		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	11.22.24	16:30		11.22.24	16:30
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

ADDITIONAL REMARKS:

Temperature at receipt: 5.4 °C | Checked by: | On Ice? Y N | Therm. used:

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: **Veronica Wells**
Phone:(970) 385-4528
Fax:(970) 385-4638

GCC Energy
11/22/2024

Project Name: GCC GW Baseline
Project Number: [none]
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 12.02.24 CDW

Labeled by initials: _____
(if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411-235

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #7 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☐ Wet ☑ Blue ☐ None **Cooler Temp:** Observed Temp: 5.4 °C Correction Factor: 0 °C Final Temp: 5.4 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. PH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10. D's
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☐Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

06 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/22/24 16:00. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-6-LM	2411237-01	Water	11/21/24 16:51	11/22/24 16:00	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

MW-6-LM

2411237-01 (Ground Water)
Sampled Date: 11/21/24 16:51
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**410**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**410**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**3.05**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**3.06**	1.00	0.497	mg/L	1	12/05/24 04:59	EPA 300.0		AWG
Fluoride*	**0.335**	0.100	0.0336	mg/L	1	12/05/24 04:59	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:29	EPA 353.2		CAI
pH*	**7.54**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
pH Temperature, degrees C	**19.8**			pH Units	1	11/22/24 16:45	EPA 150.1		HIC
Sulfate*	**144**	1.00	0.563	mg/L	1	12/05/24 04:59	EPA 300.0		AWG
Total Dissolved Solids*	**575**	10.0		mg/L	1	11/27/24 16:38	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**1.36**	0.500	0.290	mg/L	1	12/04/24 23:54	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 17:07	EPA 200.7		AWG
Calcium*	**49.2**	0.100	0.018	mg/L	1	12/04/24 17:07	EPA 200.7		AWG
Hardness as CaCO3	**282**	0.662	0.170	mg/L	1	12/04/24 17:07	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	12/04/24 17:07	EPA 200.7		AWG
Magnesium*	**38.6**	0.100	0.030	mg/L	1	12/04/24 17:07	EPA 200.7		AWG
Potassium*	**2.63**	1.00	0.075	mg/L	1	12/04/24 17:07	EPA 200.7		AWG
Silica (Si02)	**16.9**	1.07	0.0997	mg/L	1	12/04/24 17:07	Calculation		AWG
Silicon	**7.92**	0.500	0.047	mg/L	1	12/04/24 17:07	EPA 200.7		AWG
Sodium*	**119**	1.00	0.230	mg/L	1	12/04/24 17:07	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0030**	0.0010	0.0006	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Copper*	**0.0088**	0.0010	0.0003	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Lead*	**0.0008**	0.0005	0.0001	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Manganese*	**0.0719**	0.0005	0.0002	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Molybdenum*	**0.0005**	0.0005	0.00005	mg/L	1	11/26/24 14:55	EPA 200.8		AES

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

MW-6-LM

2411237-01 (Ground Water)
Sampled Date: 11/21/24 16:51
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Uranium	**0.0006**	0.0005	0.00004	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Zinc*	**0.0160**	0.0020	0.0006	mg/L	1	11/26/24 14:55	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 10:04	EPA 245.7		CAI

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243487 - General Prep - Wet Chem										
Reference (B243487-SRM1)			Prepared & Analyzed: 11/22/24							
pH	7.01		pH Units	7.00		100	98.57-101.42			
Batch B243488 - General Prep - Wet Chem										
Blank (B243488-BLK1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243488-SRM1)			Prepared: 11/26/24 Analyzed: 11/27/24							
Total Dissolved Solids	375	10.0	mg/L	400		93.7	85-115			
Batch B243521 - Lachat										
Blank (B243521-BLK1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243521-BS1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110			
LCS Dup (B243521-BSD1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110	0.0205	20	
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243540 - General Prep - Wet Chem (Continued)										
Blank (B243540-BLK1) (Continued)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243550 - IC- Ion Chromatograph										
Blank (B243550-BLK1)			Prepared & Analyzed: 12/04/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243550-BS1)			Prepared & Analyzed: 12/04/24							
Chloride	24.9	1.00	mg/L	25.0		99.4	90-110			
Fluoride	2.58	0.100	mg/L	2.50		103	90-110			
Sulfate	25.0	1.00	mg/L	25.0		100	90-110			
LCS Dup (B243550-BSD1)			Prepared & Analyzed: 12/04/24							
Chloride	24.8	1.00	mg/L	25.0		99.1	90-110	0.290	20	
Fluoride	2.57	0.100	mg/L	2.50		103	90-110	0.272	20	
Sulfate	24.9	1.00	mg/L	25.0		99.5	90-110	0.473	20	

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243559 - Dissolved ICP										
Blank (B243559-BLK1)				Prepared & Analyzed: 12/04/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243559-BS1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.91	0.050	mg/L	4.00		97.7	85-115			
Calcium	3.86	0.100	mg/L	4.00		96.5	85-115			
Iron	3.86	0.050	mg/L	4.00		96.5	85-115			
Magnesium	19.6	0.100	mg/L	20.0		97.8	85-115			
Potassium	7.96	1.00	mg/L	8.00		99.6	85-115			
Silicon	3.92	0.500	mg/L	4.00		98.1	85-115			
Sodium	3.26	1.00	mg/L	3.24		101	85-115			
LCS Dup (B243559-BSD1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.21	20	
Calcium	3.83	0.100	mg/L	4.00		95.8	85-115	0.736	20	
Iron	3.83	0.050	mg/L	4.00		95.7	85-115	0.800	20	
Magnesium	19.4	0.100	mg/L	20.0		96.9	85-115	0.981	20	
Potassium	7.89	1.00	mg/L	8.00		98.7	85-115	0.900	20	
Silicon	3.87	0.500	mg/L	4.00		96.7	85-115	1.38	20	
Sodium	3.17	1.00	mg/L	3.24		97.9	85-115	2.74	20	

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243474 - Dissolved ICPMS										
Blank (B243474-BLK1)				Prepared & Analyzed: 11/26/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243474-BS1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0493	0.0010	mg/L	0.0500		98.7	85-115			
Cadmium	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Copper	0.0498	0.0010	mg/L	0.0500		99.5	85-115			
Lead	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Manganese	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Selenium	0.246	0.0010	mg/L	0.250		98.5	85-115			
Uranium	0.0499	0.0005	mg/L	0.0500		99.9	85-115			
Zinc	0.0501	0.0020	mg/L	0.0500		100	85-115			
LCS Dup (B243474-BSD1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.1	85-115	0.568	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		99.0	85-115	0.459	20	
Copper	0.0497	0.0010	mg/L	0.0500		99.4	85-115	0.160	20	
Lead	0.0489	0.0005	mg/L	0.0500		97.7	85-115	0.741	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.7	85-115	0.291	20	
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.8	85-115	0.109	20	
Selenium	0.246	0.0010	mg/L	0.250		98.3	85-115	0.161	20	
Uranium	0.0490	0.0005	mg/L	0.0500		98.1	85-115	1.83	20	
Zinc	0.0503	0.0020	mg/L	0.0500		101	85-115	0.390	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/06/24 09:11

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243518 - EPA 245.7										
Blank (B243518-BLK1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	ND	100	ng/L							
LCS (B243518-BS1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	917	100	ng/L	1000		91.7	76-113			
LCS Dup (B243518-BSD1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	886	100	ng/L	1000		88.6	76-113	3.40	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories



Veronica Wells, Project Manager

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GAL Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus State: CO Zip: 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-237																			
c1	1) MW-6-LM	11-21-24	16:51	✔							2			4			✔		
	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11-22-24	Received By:	Date: 11.22.24	ADDITIONAL REMARKS:
	Time: 16:50		Time: 16:50	
Relinquished By:	Date:	Received By:	Date:	
	Time:		Time:	
Relinquished By:	Date:	Received By:	Date:	Temperature at receipt: 5.4 °C; Checked by: CM; On Ice? (Y) N; Therm. used:
	Time:		Time:	

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: **Veronica Wells**
Phone:(970) 385-4528
Fax:(970) 385-4638

GCC Energy
11/22/2024

Project Name: GCC GW Baseline
Project Number: [none]
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

GAL Analytical Laboratories

Date/Initials of person examining contents: MPW 11.22.24

Labeled by initials: CDS

SAMPLE CONDITION RECEIPT FORM

Client Name: GC Energy **Work Order #** 241-237

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☐ Wet ☑ Blue ☐ None **Cooler Temp:** Observed Temp: 5.4 °C Correction Factor: 0 °C Final Temp: 5.4 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☑ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10. Diss
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☐No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

FORM-039, Rev 3

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

09 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/25/24 09:30. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-HGA-4	2411243-01	Water	11/24/24 13:14	11/25/24 09:30	

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

MW-HGA-4

2411243-01 (Ground Water)
Sampled Date: 11/24/24 13:14
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**410**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**410**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**2.06**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**3.45**	1.00	0.497	mg/L	1	12/06/24 02:45	EPA 300.0		AWG
Fluoride*	**0.408**	0.100	0.0336	mg/L	1	12/06/24 02:45	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.100	0.100	0.065	mg/L as N	5	12/05/24 15:53	EPA 353.2	M5	CAI
pH*	**7.36**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**18.4**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	**151**	1.00	0.563	mg/L	1	12/06/24 02:45	EPA 300.0		AWG
Total Dissolved Solids*	**535**	10.0		mg/L	1	11/27/24 16:04	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**4.12**	0.500	0.290	mg/L	1	12/05/24 01:34	5310C	M5	CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 17:23	EPA 200.7		AWG
Calcium*	**83.6**	0.100	0.018	mg/L	1	12/04/24 17:22	EPA 200.7		AWG
Hardness as CaCO3	**446**	0.662	0.170	mg/L	1	12/04/24 17:23	2340 B		AWG
Iron*	**9.06**	0.050	0.020	mg/L	1	12/04/24 17:23	EPA 200.7		AWG
Magnesium*	**57.7**	0.100	0.030	mg/L	1	12/04/24 17:23	EPA 200.7		AWG
Potassium*	**2.24**	1.00	0.075	mg/L	1	12/04/24 17:23	EPA 200.7		AWG
Silica (Si02)	**12.8**	1.07	0.0997	mg/L	1	12/04/24 17:23	Calculation		AWG
Silicon	**5.99**	0.500	0.047	mg/L	1	12/04/24 17:23	EPA 200.7		AWG
Sodium*	**40.4**	1.00	0.230	mg/L	1	12/04/24 17:22	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	**0.0033**	0.0010	0.0006	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Copper*	**0.0023**	0.0010	0.0003	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Manganese*	**0.392**	0.0005	0.0002	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Molybdenum*	**0.0052**	0.0005	0.00005	mg/L	1	12/04/24 11:42	EPA 200.8		AES

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

MW-HGA-4

2411243-01 (Ground Water)
Sampled Date: 11/24/24 13:14
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Uranium	<0.0005	0.0005	0.00004	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Zinc*	<0.0020	0.0020	0.0006	mg/L	1	12/04/24 11:42	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 14:14	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243500 - General Prep - Wet Chem										
Blank (B243500-BLK1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243500-SRM1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	410	10.0	mg/L	400		103	85-115			
Batch B243519 - General Prep - Wet Chem										
Reference (B243519-SRM1)			Prepared & Analyzed: 11/26/24							
pH	6.98		pH Units	7.00		99.7	98.57-101.42			
Batch B243521 - Lachat										
Blank (B243521-BLK1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243521-BS1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110			
LCS Dup (B243521-BSD1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110	0.0205	20	
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243540 - General Prep - Wet Chem (Continued)										
Blank (B243540-BLK1) (Continued)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243580 - IC- Ion Chromatograph										
Blank (B243580-BLK1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243580-BS1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	23.7	1.00	mg/L	25.0		94.9	90-110			
Fluoride	2.37	0.100	mg/L	2.50		94.8	90-110			
Sulfate	24.1	1.00	mg/L	25.0		96.3	90-110			
LCS Dup (B243580-BSD1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	24.1	1.00	mg/L	25.0		96.4	90-110	1.58	20	
Fluoride	2.42	0.100	mg/L	2.50		96.6	90-110	1.92	20	
Sulfate	24.5	1.00	mg/L	25.0		97.9	90-110	1.64	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243559 - Dissolved ICP										
Blank (B243559-BLK1)				Prepared & Analyzed: 12/04/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243559-BS1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.91	0.050	mg/L	4.00		97.7	85-115			
Calcium	3.86	0.100	mg/L	4.00		96.5	85-115			
Iron	3.86	0.050	mg/L	4.00		96.5	85-115			
Magnesium	19.6	0.100	mg/L	20.0		97.8	85-115			
Potassium	7.96	1.00	mg/L	8.00		99.6	85-115			
Silicon	3.92	0.500	mg/L	4.00		98.1	85-115			
Sodium	3.26	1.00	mg/L	3.24		101	85-115			
LCS Dup (B243559-BSD1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.21	20	
Calcium	3.83	0.100	mg/L	4.00		95.8	85-115	0.736	20	
Iron	3.83	0.050	mg/L	4.00		95.7	85-115	0.800	20	
Magnesium	19.4	0.100	mg/L	20.0		96.9	85-115	0.981	20	
Potassium	7.89	1.00	mg/L	8.00		98.7	85-115	0.900	20	
Silicon	3.87	0.500	mg/L	4.00		96.7	85-115	1.38	20	
Sodium	3.17	1.00	mg/L	3.24		97.9	85-115	2.74	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243553 - Dissolved ICPMS										
Blank (B243553-BLK1)				Prepared & Analyzed: 12/04/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243553-BS1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.2	85-115			
Cadmium	0.0490	0.0005	mg/L	0.0500		98.1	85-115			
Copper	0.0486	0.0010	mg/L	0.0500		97.3	85-115			
Lead	0.0493	0.0005	mg/L	0.0500		98.7	85-115			
Manganese	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Molybdenum	0.0476	0.0005	mg/L	0.0500		95.2	85-115			
Selenium	0.245	0.0010	mg/L	0.250		97.9	85-115			
Uranium	0.0489	0.0005	mg/L	0.0500		97.9	85-115			
Zinc	0.0490	0.0020	mg/L	0.0500		98.0	85-115			
LCS Dup (B243553-BSD1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0496	0.0010	mg/L	0.0500		99.2	85-115	1.03	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		98.9	85-115	0.830	20	
Copper	0.0490	0.0010	mg/L	0.0500		97.9	85-115	0.677	20	
Lead	0.0493	0.0005	mg/L	0.0500		98.6	85-115	0.0612	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.6	85-115	1.20	20	
Molybdenum	0.0478	0.0005	mg/L	0.0500		95.6	85-115	0.395	20	
Selenium	0.247	0.0010	mg/L	0.250		98.9	85-115	0.983	20	
Uranium	0.0494	0.0005	mg/L	0.0500		98.9	85-115	1.03	20	
Zinc	0.0497	0.0020	mg/L	0.0500		99.3	85-115	1.40	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243569 - EPA 245.7										
Blank (B243569-BLK1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	ND	100	ng/L							
LCS (B243569-BS1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	964	100	ng/L	1000		96.4	76-113			
LCS Dup (B243569-BSD1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	925	100	ng/L	1000		92.5	76-113	4.15	20	

Notes and Definitions

M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:34

Qualifier Summary

LabNumber	Analysis	Analyte	Qualifier	TextBody
2411243-01	Nitrate/Nitrite [LACHAT]	Nitrate/Nitrite as N	M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
2411243-01	Total Organic Carbon [TOC]	Total Organic Carbon	M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.

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Veronica J Wells

Veronica Wells, Project Manager

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GAL Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client:	GCC Energy
Address:	6473 CR 120
City:	Hesperus **State:** CO **Zip:** 81326
Phone #:	970.385.4528
Contact Person:	Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to:	michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):	
Sampler Name (Print):	Brandon Waddell

Bill to (if different):

P.O. #:

Rush? Y (N)

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	ANALYSIS REQUEST: GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-243 07	1) MW-HGA-4	11-24-24	13:14	✓							2			4			✓		
	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11-25-24 Time: 9:30	**Received By:**	Date: 11-25-24 Time: 0930	ADDITIONAL REMARKS:
Relinquished By:	Date: Time:	**Received By:**	Date: Time:	
Relinquished By:	Date: Time:	**Received By:**	Date: Time:	Temperature at receipt: 2.7 °C; Checked by: VJW; On Ice? (Y) N; Therm. used: Laser 2

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Page 12 of 14 2411243 GAL FINAL 12 09 24 1334 12/09/24 13:35:04

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	

Hardness [DISSOLVED] subanalyses:
Calcium Dissolved by ICP
Magnesium Dissolved by ICP

Silica Dissolved by ICP subanalyses:
Silicon Dissolved by ICP

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 11.25.24 LMC

Labeled by initials: _____
(if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GC Energy **Work Order #** 2411243

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #7 Samples on ice, cooling process has begun: ☑Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 2.7 °C Correction Factor: 0 °C Final Temp: 2.7 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☐Yes ☑No	10.
Sample Labels match COC: -Includes Date/Time/ID	☑Yes ☐No	11.
Matrix:	WW SL OT	
Trip Blank Present:	☐Yes ☐No ☐N/A	12.
Trip Blank Custody Seals Present:	☐Yes ☐No ☐N/A	
VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A	
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

10 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/26/24 10:22. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Wiltse Well	2411260-01	Water	11/25/24 17:13	11/26/24 10:22	

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

Wiltse Well

2411260-01 (Ground Water)
Sampled Date: 11/25/24 17:13
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**525**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**525**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-2.41**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**48.6**	2.00	0.994	mg/L	2	12/06/24 05:07	EPA 300.0		AWG
Fluoride*	**0.356**	0.200	0.0673	mg/L	2	12/06/24 05:07	EPA 300.0		AWG
Nitrate/Nitrite as N*	**1.10**	0.100	0.065	mg/L as N	5	12/09/24 10:41	EPA 353.2		CAI
pH*	**7.11**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**16.9**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	**930**	20.0	11.3	mg/L	20	12/06/24 13:37	EPA 300.0		AWG
Total Dissolved Solids*	**1880**	10.0		mg/L	1	11/27/24 16:14	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**4.11**	0.500	0.290	mg/L	1	12/05/24 02:39	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/05/24 18:25	EPA 200.7	M5	AWG
Calcium*	**252**	0.500	0.090	mg/L	5	12/09/24 13:06	EPA 200.7		AWG
Hardness as CaCO3	**1280**	1.66	0.349	mg/L	5	12/09/24 13:06	2340 B		AWG
Iron*	<0.250	0.250	0.099	mg/L	5	12/09/24 13:06	EPA 200.7		AWG
Magnesium*	**157**	0.100	0.030	mg/L	1	12/05/24 18:25	EPA 200.7		AWG
Potassium*	**4.85**	1.00	0.075	mg/L	1	12/05/24 18:25	EPA 200.7		AWG
Silica (Si02)	**14.0**	1.07	0.0997	mg/L	1	12/05/24 18:25	Calculation		AWG
Silicon	**6.56**	0.500	0.047	mg/L	1	12/05/24 18:25	EPA 200.7		AWG
Sodium*	**72.9**	1.00	0.230	mg/L	1	12/05/24 18:25	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0020	0.0020	0.0012	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Cadmium*	<0.0010	0.0010	0.0001	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Copper*	**0.0216**	0.0020	0.0006	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Lead*	**0.0013**	0.0010	0.0002	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Manganese*	**0.963**	0.0010	0.0004	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Molybdenum*	**0.0021**	0.0010	0.0001	mg/L	2	12/04/24 11:46	EPA 200.8		AES

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

Wiltse Well

2411260-01 (Ground Water)
Sampled Date: 11/25/24 17:13
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0020	0.0020	0.0005	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Uranium	**0.0039**	0.0010	0.00008	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Zinc*	**0.0391**	0.0040	0.0012	mg/L	2	12/04/24 11:46	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 14:25	EPA 245.7		CAI

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243500 - General Prep - Wet Chem										
Blank (B243500-BLK1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243500-SRM1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	410	10.0	mg/L	400		103	85-115			
Batch B243519 - General Prep - Wet Chem										
Reference (B243519-SRM1)			Prepared & Analyzed: 11/26/24							
pH	6.98		pH Units	7.00		99.7	98.57-101.42			
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243580 - IC- Ion Chromatograph										
Blank (B243580-BLK1)			Prepared: 12/05/24 Analyzed: 12/06/24							

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243580 - IC- Ion Chromatograph (Continued)										
Blank (B243580-BLK1) (Continued)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243580-BS1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	23.7	1.00	mg/L	25.0		94.9	90-110			
Fluoride	2.37	0.100	mg/L	2.50		94.8	90-110			
Sulfate	24.1	1.00	mg/L	25.0		96.3	90-110			
LCS Dup (B243580-BSD1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	24.1	1.00	mg/L	25.0		96.4	90-110	1.58	20	
Fluoride	2.42	0.100	mg/L	2.50		96.6	90-110	1.92	20	
Sulfate	24.5	1.00	mg/L	25.0		97.9	90-110	1.64	20	
Batch B243593 - Lachat										
Blank (B243593-BLK1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243593-BS1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	0.935	0.020	mg/L as N	1.00		93.5	90-110			
LCS Dup (B243593-BSD1)			Prepared & Analyzed: 12/09/24							
Nitrate/Nitrite as N	0.937	0.020	mg/L as N	1.00		93.7	90-110	0.171	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243582 - Dissolved ICP										
Blank (B243582-BLK1)				Prepared & Analyzed: 12/05/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243582-BS1)				Prepared & Analyzed: 12/05/24						
Aluminum	3.75	0.050	mg/L	4.00		93.7	85-115			
Calcium	3.93	0.100	mg/L	4.00		98.3	85-115			
Iron	4.06	0.050	mg/L	4.00		101	85-115			
Magnesium	18.6	0.100	mg/L	20.0		93.0	85-115			
Potassium	7.70	1.00	mg/L	8.00		96.2	85-115			
Silicon	3.93	0.500	mg/L	4.00		98.2	85-115			
Sodium	3.01	1.00	mg/L	3.24		92.8	85-115			
LCS Dup (B243582-BSD1)				Prepared & Analyzed: 12/05/24						
Aluminum	3.75	0.050	mg/L	4.00		93.8	85-115	0.150	20	
Calcium	3.90	0.100	mg/L	4.00		97.4	85-115	0.885	20	
Iron	4.01	0.050	mg/L	4.00		100	85-115	1.11	20	
Magnesium	18.5	0.100	mg/L	20.0		92.7	85-115	0.300	20	
Potassium	7.60	1.00	mg/L	8.00		95.0	85-115	1.34	20	
Silicon	3.90	0.500	mg/L	4.00		97.5	85-115	0.680	20	
Sodium	3.02	1.00	mg/L	3.24		93.2	85-115	0.345	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243553 - Dissolved ICPMS										
Blank (B243553-BLK1)				Prepared & Analyzed: 12/04/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243553-BS1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.2	85-115			
Cadmium	0.0490	0.0005	mg/L	0.0500		98.1	85-115			
Copper	0.0486	0.0010	mg/L	0.0500		97.3	85-115			
Lead	0.0493	0.0005	mg/L	0.0500		98.7	85-115			
Manganese	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Molybdenum	0.0476	0.0005	mg/L	0.0500		95.2	85-115			
Selenium	0.245	0.0010	mg/L	0.250		97.9	85-115			
Uranium	0.0489	0.0005	mg/L	0.0500		97.9	85-115			
Zinc	0.0490	0.0020	mg/L	0.0500		98.0	85-115			
LCS Dup (B243553-BSD1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0496	0.0010	mg/L	0.0500		99.2	85-115	1.03	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		98.9	85-115	0.830	20	
Copper	0.0490	0.0010	mg/L	0.0500		97.9	85-115	0.677	20	
Lead	0.0493	0.0005	mg/L	0.0500		98.6	85-115	0.0612	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.6	85-115	1.20	20	
Molybdenum	0.0478	0.0005	mg/L	0.0500		95.6	85-115	0.395	20	
Selenium	0.247	0.0010	mg/L	0.250		98.9	85-115	0.983	20	
Uranium	0.0494	0.0005	mg/L	0.0500		98.9	85-115	1.03	20	
Zinc	0.0497	0.0020	mg/L	0.0500		99.3	85-115	1.40	20	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243569 - EPA 245.7										
Blank (B243569-BLK1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	ND	100	ng/L							
LCS (B243569-BS1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	964	100	ng/L	1000		96.4	76-113			
LCS Dup (B243569-BSD1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	925	100	ng/L	1000		92.5	76-113	4.15	20	

Notes and Definitions

M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/10/24 15:45

Qualifier Summary

LabNumber	Analysis	Analyte	Qualifier	TextBody
2411260-01	Aluminum Dissolved by ICP	Aluminum	M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GAL Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus **State:** CO **Zip:** 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-260																			
01	1) Wiltse Well	11-25-24	17:13	✔							2			4			✔		
	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11-26-24	Received By:	Date: 11.26.24	ADDITIONAL REMARKS:
	Time: 10:22		Time: 1022	
Relinquished By:	Date:	Received By:	Date:	
	Time:		Time:	
Relinquished By:	Date:	Received By:	Date:	Temperature at receipt: 2.7 °C / Checked by: / On Ice? Y N / Therm. used:
	Time:		Time:	

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 11.26.24 CRM

Labeled by initials: _____ (if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411260

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None **Cooler Temp:** Observed Temp: 2.2 °C Correction Factor: 0 °C Final Temp: 2.2 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. PH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10. Diss
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A ☐Yes ☐No ☐N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

09 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/25/24 09:30. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Well #2 Downgradient	2411244-01	Water	11/24/24 12:14	11/25/24 09:30	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

Well #2 Downgradient

2411244-01 (Ground Water)
Sampled Date: 11/24/24 12:14
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**420**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**420**	10.0	8.00	mg/L	5	12/02/24 12:30	2320 B		HIC
Cation/Anion Balance	**-0.470**	-100	-100	%	1	12/09/24 09:33	Calculation		VJW
Chloride*	**41.3**	1.00	0.497	mg/L	1	12/06/24 03:05	EPA 300.0		AWG
Fluoride*	**0.244**	0.100	0.0336	mg/L	1	12/06/24 03:05	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	12/05/24 15:39	EPA 353.2		CAI
pH*	**7.50**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
pH Temperature, degrees C	**18.3**			pH Units	1	11/26/24 10:15	EPA 150.1		HIC
Sulfate*	**185**	1.00	0.563	mg/L	1	12/06/24 03:05	EPA 300.0		AWG
Total Dissolved Solids*	**690**	10.0		mg/L	1	11/27/24 16:08	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**1.65**	0.500	0.290	mg/L	1	12/05/24 02:24	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	<0.050	0.050	0.022	mg/L	1	12/04/24 17:24	EPA 200.7		AWG
Calcium*	**82.6**	0.100	0.018	mg/L	1	12/04/24 17:24	EPA 200.7		AWG
Hardness as CaCO3	**555**	0.662	0.170	mg/L	1	12/04/24 17:24	2340 B		AWG
Iron*	<0.050	0.050	0.020	mg/L	1	12/04/24 17:24	EPA 200.7		AWG
Magnesium*	**84.7**	0.100	0.030	mg/L	1	12/04/24 17:24	EPA 200.7		AWG
Potassium*	**2.39**	1.00	0.075	mg/L	1	12/04/24 17:24	EPA 200.7		AWG
Silica (Si02)	**11.8**	1.07	0.0997	mg/L	1	12/04/24 17:24	Calculation		AWG
Silicon	**5.52**	0.500	0.047	mg/L	1	12/04/24 17:24	EPA 200.7		AWG
Sodium*	**30.7**	1.00	0.230	mg/L	1	12/04/24 17:24	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0006	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Copper*	**0.0044**	0.0010	0.0003	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Manganese*	**0.365**	0.0005	0.0002	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Molybdenum*	**0.0031**	0.0005	0.00005	mg/L	1	12/04/24 11:44	EPA 200.8		AES

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

Well #2 Downgradient

2411244-01 (Ground Water)
Sampled Date: 11/24/24 12:14
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	**0.0011**	0.0010	0.0003	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Uranium	**0.0018**	0.0005	0.00004	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Zinc*	**0.0119**	0.0020	0.0006	mg/L	1	12/04/24 11:44	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/05/24 14:17	EPA 245.7		CAI

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243500 - General Prep - Wet Chem										
Blank (B243500-BLK1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243500-SRM1)			Prepared & Analyzed: 11/27/24							
Total Dissolved Solids	410	10.0	mg/L	400		103	85-115			
Batch B243519 - General Prep - Wet Chem										
Reference (B243519-SRM1)			Prepared & Analyzed: 11/26/24							
pH	6.98		pH Units	7.00		99.7	98.57-101.42			
Batch B243521 - Lachat										
Blank (B243521-BLK1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243521-BS1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110			
LCS Dup (B243521-BSD1)			Prepared: 12/02/24 Analyzed: 12/05/24							
Nitrate/Nitrite as N	0.975	0.020	mg/L as N	1.00		97.5	90-110	0.0205	20	
Batch B243525 - General Prep - Wet Chem										
Blank (B243525-BLK1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243525-BS1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243525-BSD1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243525-SRM1)			Prepared & Analyzed: 12/02/24							
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115			
Batch B243540 - General Prep - Wet Chem										
Blank (B243540-BLK1)			Prepared & Analyzed: 12/04/24							

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Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243540 - General Prep - Wet Chem (Continued)										
Blank (B243540-BLK1) (Continued)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243540-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.0	0.500	mg/L	10.0		100	85-115			
LCS Dup (B243540-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.2	0.500	mg/L	10.0		102	85-115	2.17	20	
Batch B243580 - IC- Ion Chromatograph										
Blank (B243580-BLK1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243580-BS1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	23.7	1.00	mg/L	25.0		94.9	90-110			
Fluoride	2.37	0.100	mg/L	2.50		94.8	90-110			
Sulfate	24.1	1.00	mg/L	25.0		96.3	90-110			
LCS Dup (B243580-BSD1)			Prepared: 12/05/24 Analyzed: 12/06/24							
Chloride	24.1	1.00	mg/L	25.0		96.4	90-110	1.58	20	
Fluoride	2.42	0.100	mg/L	2.50		96.6	90-110	1.92	20	
Sulfate	24.5	1.00	mg/L	25.0		97.9	90-110	1.64	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243559 - Dissolved ICP										
Blank (B243559-BLK1)				Prepared & Analyzed: 12/04/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243559-BS1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.91	0.050	mg/L	4.00		97.7	85-115			
Calcium	3.86	0.100	mg/L	4.00		96.5	85-115			
Iron	3.86	0.050	mg/L	4.00		96.5	85-115			
Magnesium	19.6	0.100	mg/L	20.0		97.8	85-115			
Potassium	7.96	1.00	mg/L	8.00		99.6	85-115			
Silicon	3.92	0.500	mg/L	4.00		98.1	85-115			
Sodium	3.26	1.00	mg/L	3.24		101	85-115			
LCS Dup (B243559-BSD1)				Prepared & Analyzed: 12/04/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.21	20	
Calcium	3.83	0.100	mg/L	4.00		95.8	85-115	0.736	20	
Iron	3.83	0.050	mg/L	4.00		95.7	85-115	0.800	20	
Magnesium	19.4	0.100	mg/L	20.0		96.9	85-115	0.981	20	
Potassium	7.89	1.00	mg/L	8.00		98.7	85-115	0.900	20	
Silicon	3.87	0.500	mg/L	4.00		96.7	85-115	1.38	20	
Sodium	3.17	1.00	mg/L	3.24		97.9	85-115	2.74	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243553 - Dissolved ICPMS										
Blank (B243553-BLK1)				Prepared & Analyzed: 12/04/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243553-BS1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.2	85-115			
Cadmium	0.0490	0.0005	mg/L	0.0500		98.1	85-115			
Copper	0.0486	0.0010	mg/L	0.0500		97.3	85-115			
Lead	0.0493	0.0005	mg/L	0.0500		98.7	85-115			
Manganese	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Molybdenum	0.0476	0.0005	mg/L	0.0500		95.2	85-115			
Selenium	0.245	0.0010	mg/L	0.250		97.9	85-115			
Uranium	0.0489	0.0005	mg/L	0.0500		97.9	85-115			
Zinc	0.0490	0.0020	mg/L	0.0500		98.0	85-115			
LCS Dup (B243553-BSD1)				Prepared & Analyzed: 12/04/24						
Arsenic	0.0496	0.0010	mg/L	0.0500		99.2	85-115	1.03	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		98.9	85-115	0.830	20	
Copper	0.0490	0.0010	mg/L	0.0500		97.9	85-115	0.677	20	
Lead	0.0493	0.0005	mg/L	0.0500		98.6	85-115	0.0612	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.6	85-115	1.20	20	
Molybdenum	0.0478	0.0005	mg/L	0.0500		95.6	85-115	0.395	20	
Selenium	0.247	0.0010	mg/L	0.250		98.9	85-115	0.983	20	
Uranium	0.0494	0.0005	mg/L	0.0500		98.9	85-115	1.03	20	
Zinc	0.0497	0.0020	mg/L	0.0500		99.3	85-115	1.40	20	

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Veronica J Wells

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/09/24 13:42

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243569 - EPA 245.7										
Blank (B243569-BLK1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	ND	100	ng/L							
LCS (B243569-BS1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	964	100	ng/L	1000		96.4	76-113			
LCS Dup (B243569-BSD1)				Prepared: 12/04/24 Analyzed: 12/05/24						
Mercury	925	100	ng/L	1000		92.5	76-113	4.15	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories



Veronica Wells, Project Manager

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GAL Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus **State:** CO **Zip:** 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: michael@summitmining.co; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	ANALYSIS REQUEST: GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-244																			
01	1) Well #2 Downgradient	11-24-24	12:14	✔							2			4			✔		
~~02~~	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11-25-24 Time: 9:30	**Received By:**	Date: 11-25-24 Time: 0930	ADDITIONAL REMARKS:
Relinquished By:	Date: Time:	**Received By:**	Date: Time:	
Relinquished By:	Date: Time:	**Received By:**	Date: Time:	Temperature at receipt: 2.7 °C; Checked by: VJW; On Ice? (Y) N; Therm. used: Laser 2

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Page 11 of 13 2411244 GAL FINAL 12 09 24 1342 12/09/24 13:42:23

Project Information

Printed: 11/25/2024 10:26 am

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	
Hardness [DISSOLVED] subanalyses:	
Calcium Dissolved by ICP	
Magnesium Dissolved by ICP	
Silica Dissolved by ICP subanalyses:	
Silicon Dissolved by ICP	

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents:	11.25.24 GMC
Labeled by initials: (if different than above)	

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411244

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 2.7 °C Correction Factor: 0 °C Final Temp: 2.7 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for *compliance*	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. pH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☐Yes ☑No	10.
Sample Labels match COC: -Includes Date/Time/ID	☑Yes ☐No	11.
Matrix:	WP SL OT	
Trip Blank Present:	☐Yes ☐No ☑N/A	12.
Trip Blank Custody Seals Present:	☐Yes ☐No ☑N/A	
VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☑N/A	
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

05 December 2024

Michael Dickson
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326

RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 11/19/24 08:11. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,



Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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2411167-01: MW-7-EAA 4

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-7-EAA	2411167-01	Water	11/18/24 15:42	11/19/24 08:11	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

MW-7-EAA

2411167-01 (Ground Water)
Sampled Date: 11/18/24 15:42
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Total as CaCO3*	**460**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Alkalinity, Bicarbonate as CaCO3*	**460**	10.0	8.00	mg/L	5	11/25/24 15:00	2320 B		HIC
Cation/Anion Balance	**-0.410**	-100	-100	%	1	11/25/24 11:16	Calculation		VJW
Chloride*	**11.2**	2.00	0.111	mg/L	2	11/22/24 19:04	EPA 300.0		AWG
Fluoride*	**0.314**	0.200	0.0194	mg/L	2	11/22/24 19:04	EPA 300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.013	mg/L as N	1	11/21/24 12:40	EPA 353.2		CAI
pH*	**7.13**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
pH Temperature, degrees C	**18.7**			pH Units	1	11/20/24 12:25	EPA 150.1		HIC
Sulfate*	**747**	10.0	1.24	mg/L	10	11/25/24 16:51	EPA 300.0		AWG
Total Dissolved Solids*	**1650**	10.0		mg/L	1	11/22/24 16:51	EPA 160.1/SM 2540C		HIC
Total Organic Carbon*	**4.99**	0.500	0.290	mg/L	1	12/04/24 16:29	5310C		CAI
Dissolved Metals by ICP									
Aluminum*	**0.197**	0.050	0.022	mg/L	1	11/25/24 14:37	EPA 200.7		AWG
Calcium*	**170**	0.100	0.018	mg/L	1	11/25/24 14:37	EPA 200.7		AWG
Hardness as CaCO3	**997**	0.662	0.170	mg/L	1	11/25/24 14:37	2340 B		AWG
Iron*	**0.404**	0.050	0.020	mg/L	1	11/25/24 14:37	EPA 200.7		AWG
Magnesium*	**139**	0.100	0.030	mg/L	1	11/25/24 14:37	EPA 200.7		AWG
Potassium*	**3.65**	1.00	0.075	mg/L	1	11/25/24 14:37	EPA 200.7		AWG
Silica (Si02)	**16.7**	1.07	0.0997	mg/L	1	11/25/24 14:37	Calculation		AWG
Silicon	**7.80**	0.500	0.047	mg/L	1	11/25/24 14:37	EPA 200.7		AWG
Sodium*	**78.1**	1.00	0.230	mg/L	1	11/25/24 14:37	EPA 200.7		AWG
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0006	mg/L	1	11/26/24 14:28	EPA 200.8		AES
Cadmium*	<0.0005	0.0005	0.00006	mg/L	1	11/26/24 14:28	EPA 200.8		AES
Copper*	**0.0186**	0.0010	0.0003	mg/L	1	11/26/24 14:28	EPA 200.8		AES
Lead*	**0.0015**	0.0005	0.0001	mg/L	1	11/26/24 14:28	EPA 200.8		AES
Manganese*	**4.69**	0.0050	0.0018	mg/L	10	11/26/24 16:54	EPA 200.8		AES
Molybdenum*	**0.0007**	0.0005	0.00005	mg/L	1	11/26/24 14:28	EPA 200.8		AES

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Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

MW-7-EAA

2411167-01 (Ground Water)
Sampled Date: 11/18/24 15:42
Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Selenium*	<0.0010	0.0010	0.0003	mg/L	1	11/26/24 14:28	EPA 200.8		AES
Uranium	**0.0025**	0.0005	0.00004	mg/L	1	11/26/24 14:28	EPA 200.8		AES
Zinc*	**0.0170**	0.0020	0.0006	mg/L	1	11/26/24 14:28	EPA 200.8		AES
Dissolved Mercury by CVAFS									
Mercury	<100	100	19.6	ng/L	1	12/04/24 09:33	EPA 245.7		CAI

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243413 - General Prep - Wet Chem										
Blank (B243413-BLK1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							
LCS (B243413-BS1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	108	10.0	mg/L	100		108	85-115			
LCS Dup (B243413-BSD1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	5.71	20	
Reference (B243413-SRM1)			Prepared: 11/20/24 Analyzed: 11/25/24							
Alkalinity, Total as CaCO3	103	10.0	mg/L	100		103	85-115			
Batch B243416 - Lachat										
Blank (B243416-BLK1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B243416-BS1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.960	0.020	mg/L as N	1.00		96.0	90-110			
LCS Dup (B243416-BSD1)			Prepared: 11/20/24 Analyzed: 11/21/24							
Nitrate/Nitrite as N	0.932	0.020	mg/L as N	1.00		93.2	90-110	2.96	20	
Batch B243439 - IC- Ion Chromatograph										
Blank (B243439-BLK1)			Prepared & Analyzed: 11/22/24							
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B243439-BS1)			Prepared & Analyzed: 11/22/24							
Chloride	23.2	1.00	mg/L	25.0		92.8	90-110			
Fluoride	2.38	0.100	mg/L	2.50		95.4	90-110			
Sulfate	23.3	1.00	mg/L	25.0		93.3	90-110			
LCS Dup (B243439-BSD1)			Prepared & Analyzed: 11/22/24							
Chloride	23.9	1.00	mg/L	25.0		95.8	90-110	3.22	20	
Fluoride	2.47	0.100	mg/L	2.50		98.6	90-110	3.38	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243439 - IC- Ion Chromatograph (Continued)										
LCS Dup (B243439-BSD1) (Continued)			Prepared & Analyzed: 11/22/24							
Sulfate	24.1	1.00	mg/L	25.0		96.4	90-110	3.30	20	
Batch B243443 - General Prep - Wet Chem										
Blank (B243443-BLK1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B243443-SRM1)			Prepared & Analyzed: 11/22/24							
Total Dissolved Solids	405	10.0	mg/L	400		101	85-115			
Batch B243462 - General Prep - Wet Chem										
Blank (B243462-BLK1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	ND	0.500	mg/L							
LCS (B243462-BS1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	10.1	0.500	mg/L	10.0		101	85-115			
LCS Dup (B243462-BSD1)			Prepared & Analyzed: 12/04/24							
Total Organic Carbon	9.95	0.500	mg/L	10.0		99.5	85-115	1.28	20	
Batch B243466 - General Prep - Wet Chem										
Reference (B243466-SRM1)			Prepared & Analyzed: 11/20/24							
pH	7.03		pH Units	7.00		100	98.57-101.42			

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243454 - Dissolved ICP										
Blank (B243454-BLK1)				Prepared & Analyzed: 11/25/24						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Silicon	ND	0.500	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B243454-BS1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.92	0.050	mg/L	4.00		98.1	85-115			
Calcium	3.92	0.100	mg/L	4.00		98.0	85-115			
Iron	3.96	0.050	mg/L	4.00		99.0	85-115			
Magnesium	20.0	0.100	mg/L	20.0		100	85-115			
Potassium	7.71	1.00	mg/L	8.00		96.4	85-115			
Silicon	3.94	0.500	mg/L	4.00		98.6	85-115			
Sodium	3.08	1.00	mg/L	3.24		95.2	85-115			
LCS Dup (B243454-BSD1)				Prepared & Analyzed: 11/25/24						
Aluminum	3.82	0.050	mg/L	4.00		95.5	85-115	2.69	20	
Calcium	3.81	0.100	mg/L	4.00		95.3	85-115	2.77	20	
Iron	3.84	0.050	mg/L	4.00		95.9	85-115	3.21	20	
Magnesium	19.4	0.100	mg/L	20.0		96.8	85-115	3.22	20	
Potassium	7.66	1.00	mg/L	8.00		95.7	85-115	0.643	20	
Silicon	3.83	0.500	mg/L	4.00		95.7	85-115	3.01	20	
Sodium	2.95	1.00	mg/L	3.24		91.0	85-115	4.47	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243474 - Dissolved ICPMS										
Blank (B243474-BLK1)				Prepared & Analyzed: 11/26/24						
Arsenic	ND	0.0010	mg/L							
Cadmium	ND	0.0005	mg/L							
Copper	ND	0.0010	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B243474-BS1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0493	0.0010	mg/L	0.0500		98.7	85-115			
Cadmium	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Copper	0.0498	0.0010	mg/L	0.0500		99.5	85-115			
Lead	0.0492	0.0005	mg/L	0.0500		98.4	85-115			
Manganese	0.0497	0.0005	mg/L	0.0500		99.4	85-115			
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Selenium	0.246	0.0010	mg/L	0.250		98.5	85-115			
Uranium	0.0499	0.0005	mg/L	0.0500		99.9	85-115			
Zinc	0.0501	0.0020	mg/L	0.0500		100	85-115			
LCS Dup (B243474-BSD1)				Prepared & Analyzed: 11/26/24						
Arsenic	0.0491	0.0010	mg/L	0.0500		98.1	85-115	0.568	20	
Cadmium	0.0495	0.0005	mg/L	0.0500		99.0	85-115	0.459	20	
Copper	0.0497	0.0010	mg/L	0.0500		99.4	85-115	0.160	20	
Lead	0.0489	0.0005	mg/L	0.0500		97.7	85-115	0.741	20	
Manganese	0.0498	0.0005	mg/L	0.0500		99.7	85-115	0.291	20	
Molybdenum	0.0484	0.0005	mg/L	0.0500		96.8	85-115	0.109	20	
Selenium	0.246	0.0010	mg/L	0.250		98.3	85-115	0.161	20	
Uranium	0.0490	0.0005	mg/L	0.0500		98.1	85-115	1.83	20	
Zinc	0.0503	0.0020	mg/L	0.0500		101	85-115	0.390	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	**Reported:**
Hesperus CO, 81326	Project Manager: Michael Dickson	12/05/24 13:31

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243518 - EPA 245.7										
Blank (B243518-BLK1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	ND	100	ng/L							
LCS (B243518-BS1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	917	100	ng/L	1000		91.7	76-113			
LCS Dup (B243518-BSD1)				Prepared: 12/02/24 Analyzed: 12/04/24						
Mercury	886	100	ng/L	1000		88.6	76-113	3.40	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GAL Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: GCC Energy
Address: 6473 CR 120
City: Hesperus State: CO Zip: 81326
Phone #: 970.385.4528
Contact Person: Michael Dickson for billing; Landon Beck for logistical or technical
Email Report to: mdickson@gcc.com; lbeck@slrconsulting.com; tom@haygulchservices.com
Project Name(optional):
Sampler Name (Print): Brandon Waddell

Bill to (if different):
P.O. #:
Rush? Y (N)

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix: GROUNDWATER	SURFACE WATER	WASTEWATER	PRODUCED WATER	DRINKING WATER	SOIL	OTHER:	# of containers: No preservation	Nitric Acid	Hydrochloric Acid	Sulfuric Acid	Sodium Hydroxide	OTHER:	GCC GW Baseline	GCC SW Baseline	GCC S&S Baseline
2411-167																			
01	1) MW-7-EAA	11-18-24	15:42	✔							2			4			✔		
	2)																		
	3)																		
	4)																		
	5)																		
	6)																		
	7)																		
	8)																		
	9)																		
	10)																		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11.19.24 Time: 8:05	Received By:	Date: 11.19.24 Time: 811
Relinquished By:	Date: Time:	Received By:	Date: Time:
Relinquished By:	Date: Time:	Received By:	Date: Time:

ADDITIONAL REMARKS:

Temperature at receipt: 0.2 °C | Checked by: MW | On Ice? (Y) N | Therm. used: laser 2

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Table of Contents

Page 11 of 13 2411167 GAL FINAL 12 05 24 1331 12/05/24 13:31:42

Project Information

GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
Laboratory PM: Veronica Wells

GCC Energy
Phone: (970) 385-4528
Fax: (970) 385-4638

Project Name: GCC GW Baseline
Project Number:
Client PM: Michael Dickson
Comments:

Analysis	Comment
Alkalinity, Total	
Aluminum Dissolved by ICP	
Arsenic Dissolved by ICPMS	
CAB	
Cadmium Dissolved by ICPMS	
Chloride [IC]	
Copper Dissolved by ICPMS	
Fluoride [IC]	
Hardness [DISSOLVED]	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAFS	
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
pH	
Potassium Dissolved by ICP	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	

Hardness [DISSOLVED] subanalyses:
Calcium Dissolved by ICP
Magnesium Dissolved by ICP

Silica Dissolved by ICP subanalyses:
Silicon Dissolved by ICP

All metals are field filtered. Send out preserved bottles

Analytical Laboratories

Date/Initials of person examining contents: 11.19.24 CM

Labeled by initials: _____ (if different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy **Work Order #** 2411-167

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐ Kangaroo ☐ Third Party ☐Other

Custody Seals on Box/Cooler Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

Thermometer Used: #2 Samples on ice, cooling process has begun: ☑ Yes ☐ No

Type of Ice: ☑ Wet ☐ Blue ☐ None **Cooler Temp:** Observed Temp: 0.2 °C Correction Factor: 0 °C Final Temp: 0.2 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	☑Yes ☐No	1.
COC Signed when Relinquished and Received:	☑Yes ☐No	2.
Sampler Name and Signature on COC: *Required for compliance	☑Yes ☐No	3.
Samples arrived within hold time:	☑Yes ☐No	4.
Correct Containers Used & Intact:	☑Yes ☐No	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6. PH
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐Yes ☑No	7. Approved By:
Sufficient Volume:	☑Yes ☐No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☑Yes ☐No ☐N/A	9.
Dissolved Testing Needed: Field Filtered: ☑Yes ☐No	☑Yes ☐No	10.
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☑Yes ☐No WT SL OT	11.
Trip Blank Present: Trip Blank Custody Seals Present: VOA's meet headspace requirement (<6mm bubbles)	☐Yes ☐No ☑N/A ☐Yes ☐No ☑N/A ☐Yes ☐No ☑N/A	12.
Non-Conformance(s):	☐Yes ☑No	13.

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____