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September 27, 2023

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
3rd Quarter 2023

Mr. Wein:

Please find enclosed a copy of quarterly water analysis reports for the 3rd quarter of 2023 for the following water monitoring locations:

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

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

Please contact me at 505.238.8272 or svance@gcc.com if you have any questions or require any additional information.

Sincerely,

A handwritten signature in blue ink that reads "Sarah Vance".

Sarah Vance
Environmental Manager
GCC Energy, LLC

GCC Energy Hydrologic Monitoring Data

Hay Gulch Ditch Upgradient																																																			
Year	2016												2017				2018				2019				2020				2021				2022				2023														
Quarter	Q1	Q2			Q3			Q4			Q1				Q2				Q3				Q4				Q1				Q2				Q3				Q4				Q1			Q2			Q3		
Month	3	4	5	6	7	8	9	10	11	12	1	2	3	6	9	11	2	5	8	11	2	5	8	11	2	5	8	12	2	6	9	11	3	6	9	12	3	5	8												
Sample Date	3/31	4/22	5/26	6/23	7/20	8/25	9/21	10/19	11/29	12/13	1/26	2/27	3/22	6/28	9/21	11/28	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												
Lab Analysis (Y/N)	Y	N	N	Y	N	N	Y	Y	Y	N	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:																																																			
Flow Rate	cfs	0.70	1.0	1.20	1.60	1.0	1.0	1.10	1.0	NM	1.0	NM	0.82	0.28	2.70	NM	NM	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											
Temperature	deg C	9.8	20.9	11.3	21.1	20.8	16.8	14.9	16.4	5.9	7.0	1.5	4.7	10.7	20.2	19.7	8.8	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											
pH	SU	7.75	8.27	7.95	8.15	8.24	8.26	8.47	8.19	8.79	8.58	8.2	8.69	8.77	8.88	8.39	7.60	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											
Specific Conductance	µS/cm	247	323	197	141	189	207	233	210	258	234	687	455	454	106	549	868	1041	304	307	307	752	306	275	682	902	314	528	434	1024	189	280	252	553	832	570	708	1508	442	764											
Oxygen Reduction Potential	mV	76.4	114.7	97.2	51.6	53.6	82.8	72.5	105.9	92.4	116.3	66.3	-12	-10.6	23.8	86.1	95.10	-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											
Dissolved Oxygen	mg/L	8.1	6.4	8.0	6.0	6.5	6.9	7.2	4.7	6.7	6.1	10.6	9.0	6.9	4.8	6.7	9.3	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											
Lab Analytical Results:																																																			
Hardness as CaCO3	mg/L	128			80.9			119		152				257	69.2	316	456	489	101	153	149	393	136	125	372	405	150	287	213	588	92.6	131	120	280	383	273	336	697	293	342											
pH (Lab)	SU	8.17			8.04			8.16		8.19				8.06	8.06	8.22	8.31	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											
Total Dissolved Solids (Lab)	mg/L	170			75			165		180				285	65.0	390	650	700	140	215	175	535	205	225	635	587	255	340	160	685	210	185	140	380	520	355	410	955	380	480											
Total Suspended Solids	mg/L	30.0			117			17.0		4.8				2.50	63.5	2.00	5.75	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											
Calcium	mg/L	33.5			24			33.0		38.4				53.6	20.8	64.9	86.6	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											
Magnesium	mg/L	10.9			5.08			9.01		13.7				29.8	4.21	37.5	58.3	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											
Sodium	mg/L	4.46			2.19			3.90		6				10.9	1.97	13.8	27.1	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											
Potassium	mg/L	<1			<1			1.35		<1.00				<1.00	1.75	2.15	3.05	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											
Alkalinity, Total	mg/L	160			65			98.0		118				185	55.0	177	305	244	67	111	120	260	390	103	233	315	102	220	137	340	68	98	87.0	162	330	209	231	365	179	247											
Alkalinity, Bicarbonate	mg/L	160			65			94.0		118				185	55.0	161	285	244	67	107	120	260	390	103	233	295	102	220	131	340	68	98	87.0	162	330	209	231	365	179	247											
Alkalinity, Carbonate	mg/L	<10.0			<10.0			<10.0		<10.0				<10.0	<10.0	16.0	20.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<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	<10.0	<10.0											
Chloride	mg/L	5.77			2.07			4.32		7.92				22.7	1.76	30.8	48.2	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											
Fluoride	mg/L	0.213			0.208			0.223		0.208				0.215	0.195	0.265	0.283	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											
Sulfate as SO4	mg/L	42.1			17.7			29.0		45.3				87.7	15.0	99.0	179	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											
Total Organic Carbon (TOC)	mg/L	1.41			1.6			2.21		1.14				2.49	1.15	1.90	1.99	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											
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	<5.00	<5.00	<5.00	<5.00										
Nitrate/Nitrite as N	mg/L	<0.02			0.028			<0.020		<0.020				0.053	<0.020	0.045	0.088	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											
Sodium Adsorption Ratio (SAR)	no unit	0.17			0.1			0.16		0.21				0.30	0.10	0.34	0.55	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											
Ammonia as N ^	mg/L	NA			NA			NA		NA				NA	NA	NA	NA	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										
Ortho-Phosphate as P ^	mg/L	NA			NA			NA		NA				NA	NA	NA	NA	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									
Aluminum	mg/L	<0.05			<0.05			<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	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050										
Arsenic	mg/L	<0.0005			<0.0005			<0.0005		<0.0005				0.0005	<0.0005	0.0009	0.0007	<0.0025	<0.0005	0.0009																															

GCC Energy Hydrologic Monitoring Data

Hay Gulch Ditch Downgradient																																									
Year	2016											2017					2018				2019				2020				2021				2022				2023				
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	Q1	Q2	Q3				
Month	3	4	5	6	7	8	9	10	11	12	1	2	3	6	9	11	2	5	8	11	2	5	8	11	2	6	8	12	2	6	9	11	3	6	9	12	3	5	8		
Sample Date	3/31	4/22	5/26	6/23	7/20	8/25	9/21	10/19	11/29	12/13	1/26	2/27	3/22	6/28	9/21	11/28	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		
Lab Analysis (Y/N)	Y	N	N	Y	N	N	Y	N	Y	N	N	N	Y	Y	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		
Flow Rate	cfs	1.10	1.20	1.10	NM	1.10	1.10	NM	0.80	NM	NM	NM	0.80	0.30	0.30	NM	dry	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	
Temperature	deg C	11.8	17.6	10.9	21.9	21.3	18.8	16.1	11.8	7.0	6.6	7.2	5.0	12.7	17.6	18.7		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	
pH	SU	8.57	8.55	8.14	8.14	8.55	8.37	8.3	8.36	8.64	8.06	7.28	8.06	9.00	8.53	8.66		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	
Specific Conductance	µS/cm	429	530	297	116	308	257	1183	420	421	728	678	987	17	114	164		742	304	356	309	577	202	295	554	882	137	237	478	815	131	184	311	636	150	248	292	891	762	835	
Oxygen Reduction Potential	mV	57.5	105.9	33.2	32.5	68.6	38.4	18.7	88.6	117.5	155.2	147.6	-15.5	137.8	185.3	48		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	
Dissolved Oxygen	mg/L	7.9	7.7	8.7	6.0	6.7	5.6	6.8	7.1	6.5	7.2	7.6	9.8	5.6	6.4	7.1	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		
Lab Analytical Results:																																									
Hardness as CaCO3	mg/L	226			67.8			480		267				503	59.1	91.4		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	
pH (Lab)	SU	8.42			8.13			8.25		8.24				8.15	7.98	7.98		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	
Total Dissolved Solids (Lab)	mg/L	270			55			630		320				615	65.0	80.0		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	
Total Suspended Solids	mg/L	27.3			18			4.20		12.4				12.7	3.00	<0.500		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	
Calcium	mg/L	55.5			21.9			94.7		65.5				112	19.0	29.5		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	
Magnesium	mg/L	21.1			3.15			59.1		25.2				54.6	2.86	4.31		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	
Sodium	mg/L	8.69			1.57			16.8		10.7				22.5	1.49	2.37		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	
Potassium	mg/L	1.49			<1			4.48		1.46				2.33	<1.00	<1.00		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	
Alkalinity, Total	mg/L	220			59			220		225				320	47.0	85.0		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	
Alkalinity, Bicarbonate	mg/L	220			59			140		155				320	47.0	85.0		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	
Alkalinity, Carbonate	mg/L	<10			<10			80.0		70				<10.0	<10.0	<10.0		<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	<10.0	
Alkalinity, Hydroxide	mg/L	<10			<10			<10		<10.0				<10.0	<10.0	<10.0		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<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	9.40			1.26			97.9		12				31.9	<1.00	1.54		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	
Fluoride	mg/L	0.244			0.195			0.244		0.227				0.224	0.290	0.227		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	
Sulfate as SO4	mg/L	68.1			13.5			144		89.5				204	11.3	17.9		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	
Total Organic Carbon (TOC)	mg/L	1.53			1.4			3.48		1.65				2.31	2.16	0.932		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	
Oil & Grease	mg/L	<5			<5			<5		<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	<0.02			0.026			0.027		<0.020				<0.020	<0.020	<0.020		<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	
Sodium Adsorption Ratio (SAR)	no unit	0.25			0.03			0.33		0.28				0.44	0.08	0.11		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	
Ammonia as N ^	mg/L	NA			NA			NA		NA				NA	NA	NA		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
Ortho-Phosphate as P ^	mg/L	NA			NA			NA		NA				NA	NA	NA		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
Aluminum	mg/L	<0.05			<0.05			<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	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050	<0.100
Arsenic	mg/L	0.0005			<0.0005			0.0015		0.0006				0.0006	0.0005	0.0006		0.0005	0.0005																						

GCC Energy Hydrologic Monitoring Data

Well #1 Upgradient																																									
Year	2016											2017					2018				2019				2020				2021				2022				2023				
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	Q1	Q2	Q3			
Month	3	4	5	6	7	8	9	10	11	12	1	2	3	6	9	11	2	5	8	11	2	5	8	11	2	6	8	12	2	5	8	11	3	6	8	12	3	5	8		
Sample Date	3/30	4/27	5/26	6/23	7/19	8/24	9/21	10/24	11/30	12/14	1/18	2/27	3/22	6/28	9/28	11/29	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		
Lab Analysis (Y/N)	Y	N	N	Y	N	N	Y	N	Y	N	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	1.5	7.9	7.1	5.8	7.1	7.4	6.8	7.5	9.3	7.5	7.7	7.5	8.2	7.0	7.1	7.5	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	8.0	4.0	8.0	5.0	9.0	6.0	7.1	10.2	8.8
Total Purged	gal	306	522	870	297	280	284	288	300	280	295	298	297	291	286	259	287	268	280	267	305	300	321	327	293	314	300	291	280	302	324	300	400	300	300	400	350	270	280	304	
Depth to Water	ft bgs	4.40	5.07	4.60	4.95	5.55	6.30	6.03	5.73	5.69	5.08	4.30	3.80	3.82	4.50	5.51	5.50	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	
Temperature	deg C	8.8	13.1	11.9	14.2	14.1	12.7	12.5	12.6	10.6	11.3	10.9	10.4	11.2	11.9	11.8	11.6	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	
pH	SU	7.77	7.57	7.46	7.6	7.69	7.59	7.67	7.77	7.72	7.68	7.6	7.67	7.67	7.59	7.6	7.58	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	
Specific Conductance	µS/cm	1224	1199	1284	1246	1226	1143	1176	1223	1280	1305	1392	1415	1351	1159	1162	1241	1278	1218	1289	1204	1235	1308	1253	1232	1277	1268	1067	1190	1142	1235	1212	1301	1235	1301	1235	1282	1313	1375	1201	
Oxygen Reduction Potential	mV	-123.1	-162.2	-142.5	-185.4	-156.6	-196.8	-140.6	-148.9	-152.9	-141.0	-143.6	-125.6	-132.2	-201	-176.9	-213.20	-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	
Lab Analytical Results:																																									
Hardness as CaCO3	mg/L	230			306			216		271				391	277	215	280	274	275	369	287	252	350	303	263	290	319	255	247	298	313	236	286	271	311	281	317	334	561	301	
pH (Lab)	SU	7.73			7.57			7.58		7.59				7.46	7.74	7.66	7.56	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	
Total Dissolved Solids (Lab)	mg/L	760			745			735		725				775	725	705	790	745	770	835	730	735	860	780	705	700	775	710	690	755	785	750	745	725	790	735	745	765	835	740	
Calcium	mg/L	44.0			59.7			42.4		51.7				75.7	54.0	41.6	55.6	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	
Magnesium	mg/L	29.1			38.2			26.7		34.5				49.1	34.6	27.1	34.4	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	
Sodium	mg/L	199			196			210		189				167	189	203	195	183	191	154	212	196	172	167	198	183	178	193	196	204	172	177	182	185	172	179	166	168	106	192	
Potassium	mg/L	3.00			3.15			3.01		3.01				3.30	3.00	3.09	2.99	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	
Alkalinity, Total	mg/L	610			660			620		615				640	585	670	625	620	595	630	640	610	615	615	590	600	576	520	605	570	620	600	770	640	650	570	615	640	590	602	
Alkalinity, Bicarbonate	mg/L	570			660			620		615				640	585	670	625	620	595	630	640	610	615	615	590	600	576	520	587	570	620	600	770	640	590	570	615	640	590	602	
Alkalinity, Carbonate	mg/L	40.0			<10.0			<10.0		<10.0				<10.0	<10.0	<10.0	<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	<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	< 10.0		
Chloride	mg/L	4.33			6.12			4.30		4.44				4.53	4.32	6.21	4.39	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	
Fluoride	mg/L	0.347			<0.5			0.353		0.337				0.337	0.362	<0.500	0.358	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	0.35	0.284	0.349	0.268	0.332	0.334	0.340	0.320	0.304	
Sulfate as SO4	mg/L	90.1			108			83.8		117				156	97.4	74.0	101	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	
Total Organic Carbon (TOC)	mg/L	2.54			3.3			2.80		3.18				3.84	5.82	2.84	3.33	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	
Nitrate/Nitrite as N	mg/L	<0.020			<0.020			<0.020		<0.200				<0.020	<0.400	<0.400	<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	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	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	<0.100	<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		
Arsenic	mg/L	<0.0005			<0.0005			<0.0005		<0.0005				0.0009	<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	0.0008	<0.0025	0.0005	<0.0005	<0.0025	<0.0005	0.0006	<0.0005	<0.0025	<0.0025	0.0013	< 0.0010		
Cadmium	mg/L	<0.0001			<0.0001			<0.0001		<0.0001				<0.0001	<0.0001	<0.0001	<0.0001	<																							

GCC Energy Hydrologic Monitoring Data

Wiltse Well																																									
Year		2016										2017							2018				2019				2020				2021				2022				2023		
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	Q1	Q2	Q3		
Month		3	4	5	6	7	8	9	10	11	12	1	2	3	6	9	11	2	5	8	11	2	5	8	11	2	5	8	12	2	5	8	11	3	6	8	11	3	5	8	
Sample Date		3/31	4/27	5/25	6/23	7/19	8/24	9/20	10/24	11/29	12/13	1/18	2/27	3/21	6/13	9/28	11/28	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	
Lab Analysis (Y/N)		Y	N	N	Y	N	N	Y	N	Y	N	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	150.0	38.5	23.4	18.6	19.9	17.3	15.8	17.0	10.6	18.1	39.5	39.6	39.6	NM	18.3	23.5	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	
Total Purged	gal	5850	4228	4229	3686	2844	2979	2637	2724	2992	2916	3595	3580	3560	2980	2712	2423	2700	2890	2783	2747	3017	3200	3010	3058	3825	3495	3200	3030	2920	3000	1800	2800	2900	2950	3000	3000	4000	4000	3100	
Depth to Water	ft bgs	0.35	0.00	0.85	2.15	2.99	2.60	3.32	6.85	1.90	1.95	0.30	0.00	0.00	2.05	3.40	3.40	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	
Temperature	deg C	6.7	8.8	10.4	10.7	11.5	12.1	11.5	11.0	9.1	8.8	7.6	7.2	7.5	10.3	11.3	9.7	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	
pH	SU	7.22	7.32	7.34	7.26	7.26	7.24	7.22	7.22	7.32	7.29	7.2	7.17	7.12	7.41	7.27	7.3	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	
Specific Conductance	µS/cm	2043	1633	1805	1768	1478	1602	1941	1937	2014	2036	2262	2276	2085	1869	2074	2190	2232	2144	2072	2167	2170	2151	1964	1970	2171	2017	1450	1984	1739	1789	2012	2038	1965	2039	2285	2268	2518	2449	2332	
Oxygen Reduction Potential	mV	105.6	17.9	20.1	38.5	26.9	20.0	28.6	21.6	13.7	20.9	3.2	18.3	6.0	13.3	19.5	19.2	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	
Lab Analytical Results:																																									
Hardness as CaCO3	mg/L	990			1050			1030		963				1040	1060	1140	1150	1090	1160	1130	1180	1150	1080	1080	1060	982	1060	1070	1130	1090	1070	1080	1080	1070	1070	1300	1200	1330	1340	1380	
pH (Lab)	SU	7.22			7.34			7.29		7.36				7.22	7.46	7.30	7.33	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	
Total Dissolved Solids (Lab)	mg/L	1580			1480			1520		1520				1480	1510	1680	1740	1740	1740	1750	1720	1710	1670	1520	1480	1600	1560	1580	1540	1550	1500	1580	1640	1520	1580	1850	1740	2120	1980	1920	
Calcium	mg/L	197			208			206		186				205	211	219	226	211	216	221	230	226	214	214	208	191	206	206	215	208	199	206	209	208	206	255	232	261	269	273	
Magnesium	mg/L	121			128			126		121				128	129	143	142	136	150	139	147	143	132	132	132	123	132	136	144	138	140	136	136	133	135	160	151	164	162	170	
Sodium	mg/L	95.9			75.2			80.7		82.4				110	87.5	80.7	83.4	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	
Potassium	mg/L	4.64			4.56			4.90		4.42				4.61	4.79	4.62	<5.00	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	
Alkalinity, Total	mg/L	460			500			470		450				410	445	510	475	445	435	463	505	515	469	474	460	460	431	475	470	480	480	480	520	505	485	530	468	485	435	460	
Alkalinity, Bicarbonate	mg/L	440			500			470		450				410	445	510	475	445	435	463	505	515	469	474	460	460	431	475	470	480	480	480	520	505	485	530	468	485	435	460	
Alkalinity, Carbonate	mg/L	20.0			<10.0			<10.0		<10.0				<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<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	<10.0		
Chloride	mg/L	81.0			76.3			62.3		70.1				72.5	72.5	68.7	68.9	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	
Fluoride	mg/L	0.285			<0.5			<0.5		0.3				<0.500	0.332	<0.500	<0.500	<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	
Sulfate as SO4	mg/L	671			595			656		676				731	702	779	772	832	714	733	741	801	709	627	627	711	633	704	728	683	661	679	697	688	702	818	873	1070	1060	960	
Total Organic Carbon (TOC)	mg/L	3.54			4.1			3.15		3.02				3.40	3.54	3.34	3.26	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	
Nitrate/Nitrite as N	mg/L	0.456			0.891			1.08		0.965				0.492	1.07	1.80	1.94	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	
Ammonia as N ^	mg/L	NA			NA			NA		NA				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.100	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	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aluminum	mg/L	<0.05			<0.05			<0.05		<0.050				<0.050	<0.1	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.050	<0.250	<0.100	<0.050	<0.250	<0.100	<0.050	<0.100	<0.100	<0.100	<0.250	<0.250	<0.250
Arsenic	mg/L	<0.0025			<0.0025			0.0005		0.0008				0.0009	0.0006	0.0005	0.0029	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	
Cadmium	mg/L	<0.0005			<0.0005			<0.0005		<0.0001				<0.0001	<0.0001	<0.00010																									

GCC Energy Hydrologic Monitoring Data

MW-HGA-4																																								
Year	2016	2017												2018				2019				2020				2021				2022				2023						
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	Q1	Q2	Q3			
Month	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	5	8	11	2	5	8	11	2	5	8	12	2	5	8	11	2	5	8	12	3	5	8			
Sample Date	12/12	1/26	2/28	3/22	4/27	5/31	6/13	7/27	8/16	9/21	10/27	11/28	12/12	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			
Lab Analysis (Y/N)	Y	N	N	Y	N	N	Y	N	N	Y	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			
Field Parameters:																																								
Purge Flow Rate	gpm	0.5	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	9.40	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	0.25	0.08	0.23	0.10			
Total Purged	gal	21	21	21	21	21	21	19.5	20	20	21	21	21	24	19	21	21	19	21	24	22	21	20	21	21	21	20	22	21	21	22	21	22	0.5	0.4	0.5	0.25			
Depth to Water	ft bgs	0.73	0.57	0.60	0.83	0.94	2.06	2.53	3.25	2.65	3.31	3.31	1.76	4.31	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		
Temperature	deg C	7.3	4.8	6.4	8.1	7.2	9.9	8.4	8.6	8.8	9.0	9.2	9.0	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			
pH	SU	7.29	7.36	7.40	7.41	7.33	7.36	7.40	7.36	7.35	7.33	7.31	7.27	7.27	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		
Specific Conductance	µS/cm	1284	1257	1201	1155	1153	1113	1055	1099	1050	1124	1072	1171	1160	1141	1154	1098	1057	1167	1183	1102	1083	1127	1122	1093	1022	1158	975	1093	1108	1160	1197	1102	1198	970	1003	955	908		
Oxygen Reduction Potential	mV	-72.1	-86.6	-105.1	-104.4	-74.5	-91.3	-134.7	-137.6	-131.0	-139.5	-77.3	-157.9	-70.1	-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		
Lab Analytical Results:																																								
Hardness as CaCO3	mg/L	724			611			616			522			595			561	555	524	625	613	563	544	624	563	528	571	612	630	582	515	627	598	574	653	328	423	448	467	
pH (Lab)	SU	7.30			7.17			7.31			7.25			7.21			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	
Total Dissolved Solids (Lab)	mg/L	855			710			715			750			775			740	730	695	770	795	695	695	715	705	685	700	665	685	680	735	790	790	785	745	400	555	545	525	
Calcium	mg/L	147			118			121			102			118			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	
Magnesium	mg/L	86.7			76.7			76.6			64.9			72.8			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	
Sodium	mg/L	19.5			27.4			28.6			24.9			27.2			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	
Potassium	mg/L	2.02			2.13			2.11			1.75			2.21			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	
Alkalinity, Total	mg/L	545			465			415			465			475			460	425	410	460	455	445	455	432	435	416	485	457	475	465	470	580	470	435	500	245	460	420	361	
Alkalinity, Bicarbonate	mg/L	545			465			415			465			475			460	425	410	460	455	445	455	432	435	416	485	457	475	465	470	580	470	435	500	245	460	420	361	
Alkalinity, Carbonate	mg/L	ND			<10.0			<10.0			<10.0			<10.0			<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<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	ND			<10.0			<10.0			<10.0			<10.0			<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<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	10.9			8.75			7.95			8.96			8.74			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	
Fluoride	mg/L	0.577			0.485			0.506			0.517			0.495			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	
Sulfate as SO4	mg/L	240			229			192			205			204			222	190	169	201	221	186	212	190	193	181	179	187	191	184	194	199	216	183	215	99.5	150	161	158	
Total Organic Carbon (TOC)	mg/L	NA			4.54			4.35			4.69			4.79			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	
Nitrate/Nitrite as N	mg/L	<0.020			<0.020			<0.020			<0.020			<0.100			<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	
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	NA	NA	NA	
Ortho-Phosphate as P ^	mg/L	NA			NA			NA			NA			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
Aluminum	mg/L	0.423			<0.050			<0.050			<0.050			<0.050			<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.250	<0.250	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050	< 0.100	
Arsenic	mg/L	0.0030			0.0029			0.0028			<0.0005			0.0035			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	
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	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	< 0.0010		
Copper	mg/L	0.0006			0.0008			0.0002			0.0004			0.0002			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	
Iron	mg/L	3.71			7.29			7.32			7.60			7.84.																										

GCC Energy Hydrologic Monitoring Data

MW-1-A																																						
Year	2017								2018								2019				2020				2021				2022				2023					
Quarter	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	
Month	6	7	8	9	9	10	11	12	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		
Sample Date	6/7	7/18	8/23	9/7	9/26	10/26	11/16	12/5	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		
Lab Analysis (Y/N)	Y	N	N	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*	NM*	NM	NM	NM	NM	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		
Total Purged	gal	12.8	NM*	NM*	NM	NM	2.0	2.0	1.0	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	0.8	0.8	0.8		
Depth to Water	ft bgs	215.42	NM*	215.92	215.54	216.33	216.31	216.47	216.58	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	
Temperature	deg C	17.7	NM*	NM*	10.7	9.7	9.1	9.1	8.7	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	
pH	SU	7.78	NM*	NM*	7.35	7.38	7.29	7.28	7.25	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	
Specific Conductance	µS/cm	1362	NM*	NM*	1555	1563	1616	1650	1693	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	
Oxygen Reduction Potential	mV	-34.6	NM*	NM*	-54.7	-46.5	-50.0	-48.3	-49.6	-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	
Lab Analytical Results:																																						
Hardness as CaCO3	mg/L	124				133		130			159				156			160	174	159	153	148	150	159	165	161	168	168	150	158	157	152	149	146	172	174	158	150
pH (Lab)	SU	7.74				7.35		7.33			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
Total Dissolved Solids (Lab)	mg/L	975				1080		1120			1100				1150			1040	1130	1160	1150	1150	1140	1190	1150	1150	1170	1250	1150	1190	1150	1140	1140	1150	1050	1150	1180	1200
Calcium	mg/L	24.7				25.8		24.9			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
Magnesium	mg/L	15.1				16.7		16.6			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
Sodium	mg/L	324				329		325			348				327			333	358	357	319	348	333	337	349	348	353	357	314	333	340	321	319	318	361	351	345	333
Potassium	mg/L	1.98				2.02		<5.00			<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
Alkalinity, Total	mg/L	375				450		380			415				353			385	395	375	355	368	420	360	340	325	366	400	400	370	440	405	425	410	361	372	391	368
Alkalinity, Bicarbonate	mg/L	375				450		380			415				353			385	395	375	355	368	420	360	340	325	366	400	400	370	440	405	425	410	361	372	391	368
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	2.75				2.16		<5.00			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
Fluoride	mg/L	0.268				0.245		<0.500			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
Sulfate as SO4	mg/L	427				432		511			518				522			515	511	508	494	537	495	506	532	510	508	553	531	507	458	503	516	532	517	562	607	587
Total Organic Carbon (TOC)	mg/L	5.03				1.36		1.58			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
Nitrate/Nitrite as N	mg/L	<0.200				<0.400		<0.100			<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	<0.040	< 0.020	
Ammonia as N ^	mg/L	NA				NA		NA			NA				NA			NA	NA	NA	NA	NA	0.387	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	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.050				<0.050		<0.250			<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
Arsenic	mg/L	<0.0005				<0.0005		<0.0025			<0.0025				<0.0005			<0.0005	<0.0005	<0.0010	<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	
Cadmium	mg/L	<0.0001				<0.0001		<0.0005			<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
Copper	mg/L	0.0043				0.0057		0.0045			0.0066				0.0041			0.0048	0.0048	0.0075	0.0064	0.0040	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
Iron	mg/L	0.128				0.367		<0.250			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
Lead	mg/L	<0.0005				<																																

GCC Energy Hydrologic Monitoring Data

[illegible]

Notes & Definitions:

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

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

GCC Energy Hydrologic Monitoring Data

MW-1-C																																							
Year	2017								2018								2019				2020				2021				2022				2023						
Quarter	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		
Month	6	7	8	9	9	10	11	12	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			
Sample Date	6/7	7/18	8/23	9/7	9/26	10/26	11/16	12/5	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			
Lab Analysis (Y/N)	Y	N	N	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	N	N	N				
Field Parameters:																																							
Purge Flow Rate	gpm	NM	NM*	NM*	NM	NM	NM	NM	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	dry	dry	dry			
Total Purged	gal	5	NM*	NM*	NM	NM	1.00	1.00	1.00	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	2.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00				1.00		
Depth to Water	ft bgs	216.5	NM*	216.91	216.95	216.59	216.52	216.48	216.52	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	216.66				216.66		
Temperature	deg C	16.0	NM*	NM*	NM	12.9	11.7	10.6	7.0	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						
pH	SU	7.52	NM*	NM*	NM	7.17	7.16	7.15	7.17	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	2446	NM*	NM*	NM	2725	2738	2739	2778	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	74.3	NM*	NM*	NM	77.4	31.7	23.9	13.0	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	498				1290		1180					1130				1120	1180	1010	1820	1840	1700	1600	1590	1400	1420	1320	953	975	920	750	766	638	640					
pH (Lab)	SU	8.35				7.36		7.34					7.22				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	2020				2440		2360					2340				2170	2200	1960	2880	2890	2750	2610	2460	2420	2450	2330	1910	1850	1840	1680	1770	1640	1490					
Calcium	mg/L	96.0				234		216					203				203	219	188	340	342	318	301	294	248	265	241	175	178	168	142	137	113	117					
Magnesium	mg/L	62.8				172		155					156				148	154	131	237	240	219	207	207	189	183	173	126	129	122	95.7	103	86.6	84.4					
Sodium	mg/L	506				242		253					260				239	255	265	146	119	119	143	155	168	194	206	196	214	234	229	240	261	266					
Potassium	mg/L	11.4				3.81		<5.00					<5.00				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	530				700		540					570				560	410	525	530	518	505	515	490	445	520	580	480	485	640	510	530	570	454					
Alkalinity, Bicarbonate	mg/L	530				700		540					570				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	<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					
Chloride	mg/L	24.2				6.97		8.03					7.78				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	1.59				0.864		0.955					1.03				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	1090				1350		1230					1160				1090	1080	1070	1630	1730	1520	1400	1370	1280	1180	1150	940	872	886	805	908	821	728					
Total Organic Carbon (TOC)	mg/L	4.56				2.84		2.12					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	<2.00				<0.400		<0.100					<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	NA	NA	0.140	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	<0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Aluminum	mg/L	<0.050				<0.050		<0.250					<0.250				<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	0.0029				0.0016		<0.0025					<0.0025				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	<0.0001				<0.0001		<0.0005					<0.0005				<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	0.0088				0.0085		0.0036					0.0052				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	<0.050				<0.050		<0.250					<0.250				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	<0.0005				<0.0005		<0.0025					<0.0025				<0.0005	<0.0005	<0.0010	<0.0005	<0.0010	<0.0025	<0.0025	<0.0015	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010						
Manganese	mg/L	0.0744				0.0853		0.0959					0.0989				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	<0.0002	<0.0002								

GCC Energy Hydrologic Monitoring Data

MW-2-A																																	
Year	2017							2018							2019				2020				2021				2022				2023		
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	
Month	3	6	7	8	10	11	12	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
Sample Date	3/30	6/7	7/18	8/23	10/30	11/16	12/5	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
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	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 (SiO2)	mg/L																																
Silicon	mg/L																																
Uranium	mg/L																																
Zinc	mg/L																																

Notes & Definitions:

Y/N	yes or no	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.
gpm	gallons per minute		
deg C	degrees Celsius		
SU	standard pH units	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 CaCO ₃ .
µS/cm	microsiemens per centimeter		
mV	millivolts		
mg/L	milligram per liter		
pCi/L	picocuries per liter	3.	
NM	not measured (field)		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.
NA	not analyzed (lab)		
ng/L	nanogram per liter		

GCC Energy Hydrologic Monitoring Data

MW-2-MI																																	
Year	2017							2018							2019				2020				2021				2022				2023		
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
Month	3	6	7	8	10	11	12	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
Sample Date	3/30	6/7	7/18	8/23	10/30	11/16	12/5	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
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	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																																
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Alkalinity, Bicarbonate	mg/L																																
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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 (SiO2)	mg/L																																
Silicon	mg/L																																
Uranium	mg/L																																
Zinc	mg/L																																

Notes & Definitions:

Y/N	yes or no	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.
gpm	gallons per minute		
deg C	degrees Celsius		
SU	standard pH units	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 CaCO ₃ .
µS/cm	microsiemens per centimeter		
mV	millivolts		
mg/L	milligram per liter		
pCi/L	picocuries per liter	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.
NM	not measured (field)		
NA	not analyzed (lab)		
ng/L	nanogram per liter		

GCC Energy Hydrologic Monitoring Data

[illegible]

Notes & Definitions:

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

GCC Energy Hydrologic Monitoring Data

MW-3-A																																			
Year	2017								2018								2019				2020				2021				2022				2023		
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		
Month	3	6	7	8	9	10	11	12	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	
Sample Date	3/27	6/30	7/18	8/24	9/28	10/27	11/17	12/7	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	
Lab Analysis (Y/N)	Y	Y	N	N	Y	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	0.50	NM	NM	NM	NM	NM	NM	NM	0.10	NM	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		
Total Purged	gal	30.0	2.0	NM	NM	NM	1.0	1.0	1.0	1.3	1.5	1.5	1.0	1.3	1.0	1.5	1.3	1.3	1.5	1.1	1.2	1.5	1.3	1.3	1.5	1.5	1.5	2.0	1.5	1.1	1.1	1.1	1.1		
Depth to Water	ft bgs	297.35	298.24	297.45	298.24	298.11	298.12	298.01	298.05	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
Temperature	deg C	11.7	13.2	19.5	12.6	12.3	12.5	11.7	12.0	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
pH	SU	8.82	8.75	8.56	8.67	8.72	8.64	8.61	8.57	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
Specific Conductance	µS/cm	2535	2446	2115	2524	2470	2430	2483	2494	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
Oxygen Reduction Potential	mV	-269.0	-101.5	-55.3	-87.4	-142.3	-124.5	-125.6	-146.8	-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
Lab Analytical Results:																																			
Hardness as CaCO3	mg/L	7.53	12.6			12.6		10.4			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
pH (Lab)	SU	8.63	8.69			8.53		8.29			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
Total Dissolved Solids (Lab)	mg/L	1630	1670			1630		1690			1680			1670	1600	1540	1500	1530	1520	1510	1500	1460	1380	1460	1410	1350	1420	1360	1220	1400	1320	1280	1390	1310	1300
Calcium	mg/L	2.00	3.67			3.63		3.27			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
Magnesium	mg/L	0.616	0.823			0.859		0.550			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
Sodium	mg/L	566	585			589		551			562			542	562	605	543	525	553	528	520	507	510	505	536	471	462	448	462	473	476	420	440	456	450
Potassium	mg/L	1.72	2.02			2.04		<5.00			<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
Alkalinity, Total	mg/L	530	470			500		490			430			480	480	475	540	450	459	420	460	430	440	470	520	530	465	485	495	560	500	400	454	458	447
Alkalinity, Bicarbonate	mg/L	380	470			440		460			360			480	420	385	330	430	423	420	460	400	440	450	520	530	465	435	455	480	500	400	454	458	415
Alkalinity, Carbonate	mg/L	150	<10.0			60.0		30.0			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	32.0	
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	
Chloride	mg/L	16.1	17.4			18.5		16.9			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
Fluoride	mg/L	0.464	0.488			0.535		<0.500			<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
Sulfate as SO4	mg/L	729	802			840		730			812			756	706	682	716	699	724	633	637	656	624	644	600	601	599	515	584	555	557	565	571	573	560
Total Organic Carbon (TOC)	mg/L	3.52	10.0			7.26		6.07			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
Nitrate/Nitrite as N	mg/L	<0.100	<0.100			<0.020		<0.020			<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
Ammonia as N ^	mg/L	NA	NA			NA		NA			NA			NA	NA	NA	NA	NA	NA	0.354	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	0.0730	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.050	<0.050			<0.050		<0.250			<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
Arsenic	mg/L	0.0025	<0.0025			<0.0025		<0.0025			<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
Cadmium	mg/L	<0.0001	<0.0005			<0.0005		<0.0005			<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
Copper	mg/L	0.0061	0.0081			0.0080		0.0079			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
Iron	mg/L	<0.050	<0.050			<0.050		<0.250			<0.100			<0.05	<0.05	<0.100	<0.100	<0.050	<0.100	<0.250	<0.150	<0.250	&												

GCC Energy Hydrologic Monitoring Data

MW-3-MI																																				
Year	2017								2018								2019				2020				2021				2022				2023			
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			
Month	3	6	7	8	9	10	11	12	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		
Sample Date	3/27	6/30	7/18	8/16	9/28	10/27	11/17	12/7	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		
Lab Analysis (Y/N)	Y	Y	N	N	Y	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	0.50	NM	NM	NM	NM	NM	NM	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		
Total Purged	gal	19.0	2.0	NM	NM	NM	1.0	1.0	1.0	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	
Depth to Water	ft bgs	304.49	241.15	240.46	240.53	240.46	240.44	240.58	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		
Temperature	deg C	10.0	12.6	22.0	12.9	11.0	12.1	11.7	11.7	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	
pH	SU	9.34	8.94	8.46	8.90	8.74	8.90	8.86	8.86	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	
Specific Conductance	µS/cm	1907	1699	1402	1598	1737	1729	1745	1786	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	
Oxygen Reduction Potential	mV	-87.0	-54.5	-26.4	-108.2	-107.3	-113.8	-124.2	-163.1	-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	
Lab Analytical Results:																																				
Hardness as CaCO3	mg/L	4.85	8.73			9.02		7.75			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	
pH (Lab)	SU	8.95	8.75			8.72		8.72			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	
Total Dissolved Solids (Lab)	mg/L	1550	1120			1140		1080			1170			1210	1110	1120	1120	1170	1010	1130	1130	1060	1160	1120	1110	1180	1130	1070	1140	1080	1070	1140	1100	1070		
Calcium	mg/L	1.32	2.32			2.34		2.06			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	
Magnesium	mg/L	0.374	0.714			0.775		0.632			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	
Sodium	mg/L	420	430			440		411			459			417	446	476	434	419	454	437	437	427	431	431	468	410	403	390	413	415	374	389	397	408	398	
Potassium	mg/L	2.15	2.21			1.93		<5.00			<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	
Alkalinity, Total	mg/L	740	675			700		660			700			680	730	720	685	755	720	690	705	680	625	770	690	690	705	705	740	740	780	760	680	700	660	
Alkalinity, Bicarbonate	mg/L	510	555			600		570			600			500	630	610	485	605	590	610	645	550	465	690	450	550	555	565	580	580	480	540	620	572	590	
Alkalinity, Carbonate	mg/L	230	120			100		90.0			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	
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		
Chloride	mg/L	8.66	10.1			10.7		10.6			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	
Fluoride	mg/L	0.952	1.34			1.26		1.26			1.30			1.2	1.16	1.19	1.21	1.22	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		
Sulfate as SO4	mg/L	165	241			247		254			245			250	226	230	232	229	236	224	227	231	222	110	223	227	228	230	233	213	240	238	240	243	242	
Total Organic Carbon (TOC)	mg/L	8.34	14.8			10.9		10.3			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	
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	0.034	<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		
Ammonia as N ^	mg/L	NA	NA			NA		NA			NA			NA	NA	NA	NA	NA	NA	0.317	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	0.348	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aluminum	mg/L	<0.050	0.102			<0.050		<0.250			<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		
Arsenic	mg/L	0.0134	0.0167			0.0131		0.0135			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	
Cadmium	mg/L	<0.0001	<0.0005			<0.0005		<0.0005			<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	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025
Copper	mg/L	0.0055	0.0058			0.0065		0.0059			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	0.0170	0.0089	0.0143	0.0187	0.0080	
Iron	mg/L	<0.050	<0.100			<0.050		<0.250			<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	<					

GCC Energy Hydrologic Monitoring Data

MW-3-C																																					
Year	2017								2018								2019				2020				2021				2022				2023				
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	Q1	Q2	Q3
Month	3	6	7	8	9	10	11	12	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			
Sample Date	3/27	6/30	7/27	8/24	9/28	10/27	11/17	12/7	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			
Lab Analysis (Y/N)	Y	Y	N	N	Y	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	
Field Parameters:																																					
Purge Flow Rate	gpm	0.50	NM	NM	NM	NM	NM	NM	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			
Total Purged	gal	20.0	2.0	NM	NM	NM	1.0	1.0	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			
Depth to Water	ft bgs	304.21	296.3	296.93	296.87	297.43	297.46	297.43	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			
Temperature	deg C	10.5	12.9	13.1	12.5	11.8	12.7	11.5	11.7	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		
pH	SU	8.61	8.57	8.51	8.46	8.44	8.48	8.41	8.48	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		
Specific Conductance	µS/cm	3549	3588	3815	4112	4351	4412	4659	4596	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		
Oxygen Reduction Potential	mV	-129.0	-87.2	-137.5	-128.8	-149.9	-198.3	-200.7	-222.2	-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		
Lab Analytical Results:																																					
Hardness as CaCO3	mg/L	14.4	11.8		15.1		14.9			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			
pH (Lab)	SU	8.5	8.48		8.35		8.28			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			
Total Dissolved Solids (Lab)	mg/L	2130	2360		3070		3310			3540			3610	3520	3360	3300	3440	3500	3390	3220	3180	3170	3280	3200	3230	3300	3200	3270	3250	3280	3140	3150	2310	3220			
Calcium	mg/L	3.60	2.87		3.50		3.58			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			
Magnesium	mg/L	1.31	1.12		1.55		1.44			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			
Sodium	mg/L	796	890		1100		1130			1200			1350	1220	1460	1270	1100	1360	1300	1280	1240	1250	1250	1360	1220	1220	1170	1200	1260	1360	1170	1260	906	1240			
Potassium	mg/L	3.47	3.24		4.01		<5.00			<10.0			<5.00	<5.00	<5.00	<5.00	5.24	<5.00	<10.0	<10.0	<10.0	<10.0	<10.0	<6.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<5.00	< 10.0			
Alkalinity, Total	mg/L	1490	1570		1690		1880			1910			1760	1730	2050	2000	2110	2190	2130	2160	2050	1820	2090	2170	2130	2140	2230	2180	2170	2110	2120	2220	1410	2140			
Alkalinity, Bicarbonate	mg/L	1360	1480		1650		1830			1810			1600	1670	1900	1830	2000	2020	2070	2000	1800	1690	1970	1710	1910	1950	1950	1820	1870	1990	2120	1920	1410	2070			
Alkalinity, Carbonate	mg/L	130	90.0		40.0		50.0			100			160	60.0	150	170	110	170	60.0	160	250	130	120	460	220	190	280	360	300	120	<10.0	300	<10.0	70.0			
Alkalinity, Hydroxide	mg/L	<10.0	<10.0		<10.0		<10.0			<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			
Chloride	mg/L	182	330		477		506			549			544	524	561	577	575	620	542	549	555	552	578	574	577	582	462	608	605	613	604	622	360	639			
Fluoride	mg/L	4.89	4.94		4.52		4.34			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			
Sulfate as SO4	mg/L	73.4	73.5		46.4		24.5			<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			
Total Organic Carbon (TOC)	mg/L	10.6	58.5		219		251			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			
Nitrate/Nitrite as N	mg/L	<0.020	<0.400		<0.400		<0.020			<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	<0.020	<0.020	<0.100	<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	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	NA	NA			
Aluminum	mg/L	<0.050	<0.100		<0.050		<0.250			<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	<0.500	<0.250	< 0.500				
Arsenic	mg/L	0.0115	0.0088		0.0098		0.0091			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	0.0170	0.0157	0.0130	0.0151	0.0146	0.0194	0.0206	0.0149			
Cadmium	mg/L	<0.0001	<0.0010		<0.0010		<0.0005			<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<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	<0.005	<0.0035	< 0.0050			
Copper	mg/L	0.0109	0.0147		0.0174		0.0160			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	0.0220	0.0571	0.0185			
Iron	mg/L	<0.050	<0.050		<0.050		<0.250			<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			
Lead	mg/L	0.0085	<0.0050																																		

GCC Energy Hydrologic Monitoring Data

MW-4-A																																			
Year	2017								2018								2019				2020				2021				2022				2023		
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		
Month	3	6	7	8	9	10	11	12	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	
Sample Date	3/29	6/30	7/19	8/23	9/28	10/27	11/17	12/7	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	
Lab Analysis (Y/N)	Y	Y	N	N	Y	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	NM	NM	NM	NM	NM	NM	0.10	NM	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		
Total Purged	gal	19.0	2.0	1.5	0.5	1.0	1.0	1.0	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		
Depth to Water	ft bgs	338.6	334.96	335.59	334.79	334.81	334.86	332.29	334.09	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
Temperature	deg C	15.6	16.8	25.5	17.6	11.9	11.6	10.8	10.1	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
pH	SU	8.61	8.29	8.55	7.98	8.41	8.32	8.38	8.32	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
Specific Conductance	µS/cm	2163	2053	1876	2096	2180	2165	2186	2261	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
Oxygen Reduction Potential	mV	28.6	54.0	60.2	61.7	-8.6	-27.0	-12.3	-51.8	-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
Lab Analytical Results:																																			
Hardness as CaCO3	mg/L	9.16	9.85			7.77		7.11			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
pH (Lab)	SU	8.2	8.40			8.36		8.40			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
Total Dissolved Solids (Lab)	mg/L	1470	1470			1450		1500			1490			1470	1430	1350	1450	1410	1540	1490	1500	1480	1460	1560	1370	1430	1510	1470	1400	1540	1480	1430	1390	1480	1480
Calcium	mg/L	2.23	2.43			1.76		1.87			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
Magnesium	mg/L	0.871	0.916			0.823		0.591			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
Sodium	mg/L	515	537			513		511			507			528	531	568	535	515	548	529	551	498	533	531	565	507	411	488	504	523	520	482	559	535	503
Potassium	mg/L	1.57	1.75			1.63		<5.00			<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	<5.00	<5.00	1.24	<5.00	
Alkalinity, Total	mg/L	635	560			630		590			530			560	575	575	545	565	575	544	560	585	605	538	620	590	580	670	535	605	590	480	569	579	562
Alkalinity, Bicarbonate	mg/L	635	560			590		560			490			560	555	575	505	544	535	528	560	545	565	530	620	530	580	670	485	455	590	480	531	579	524
Alkalinity, Carbonate	mg/L	<10.0	<10.0			40.0		30.0			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
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	
Chloride	mg/L	9.56	9.66			10.3		10.3			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
Fluoride	mg/L	<0.400	<0.400			<0.500		<0.500			<0.500			<0.500	<0.500	0.143	<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	<0.500	<0.500	0.165	<0.500		
Sulfate as SO4	mg/L	594	588			783		594			579			561	522	450	567	584	615	559	557	580	542	607	561	577	593	551	581	525	580	590	602	594	571
Total Organic Carbon (TOC)	mg/L	6.63	11.7			3.52		3.27			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
Nitrate/Nitrite as N	mg/L	0.035	<0.020			<0.020		<0.020			<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	0.255	<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	0.312	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	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.050	<0.050			<0.050		<0.250			<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	<0.250	<0.250	<0.250	<0.250	
Arsenic	mg/L	0.0016	<0.0025			<0.0025		<0.0025			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
Cadmium	mg/L	<0.0001	<0.0005			<0.0005		<0.0005			<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
Copper	mg/L	0.0053	0.0093			0.0076		0.0073			0.0124			0.0077	0.0105	0.0084	0.0081	0.0061	0.0120	0.0037	0.0034	0.0020	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
Iron	mg/L	<0.050	<0.050			<0.050		<0.250			<0.100			<0.050	<0.050	<0.100	<0.100	<0.100	<0.100	<0															

GCC Energy Hydrologic Monitoring Data

MW-4-MI																																			
Year	2017								2018								2019				2020				2021				2022				2023		
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		
Month	3	6	7	8	9	10	11	12	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	
Sample Date	3/30	6/16	7/27	8/23	9/28	10/27	11/17	12/7	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	
Lab Analysis (Y/N)	Y	Y	N	N	Y	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	NM	NM	NM	NM	NM	NM	0.10	NM	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		
Total Purged	gal	0.5	6.5	NM	NM	1.0	1.0	1.0	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	
Depth to Water	ft bgs	378.2	330.15	330.94	330.85	330.81	330.8	330.74	330.67	330.52	330.42	330.53	330.5	329.62	331.1	331.06	331.92	332.1	332.5	332.87	332.45	333.29	333.22	329.27	333.57	333.65	333.45	333.8	334.22	334.15	334.35	334.85	335.3		
Temperature	deg C	15.0	14.6	12.9	12.5	11.4	10.7	11.3	11.4	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
pH	SU	9.08	8.91	8.78	8.79	8.76	8.76	8.73	8.67	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
Specific Conductance	µS/cm	1581	1668	1731	1708	1784	1794	1804	1833	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
Oxygen Reduction Potential	mV	155.2	64.7	9.8	35.2	-29.6	-37.3	-111.5	-89.2	-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
Lab Analytical Results:																																			
Hardness as CaCO3	mg/L	5.43	8.71			7.07		4.20			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
pH (Lab)	SU	8.83	8.59			8.63		8.51			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
Total Dissolved Solids (Lab)	mg/L	1160	1170			1180		1180			1220			1140	1120	1100	1130	1130	1140	1120	1110	1110	1070	1170	1130	1100	1130	1090	1100	1140	1070	1060	1030	1030	1060
Calcium	mg/L	1.53	2.32			1.88		1.68			1.64			1.55	1.56	1.60	1.44	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
Magnesium	mg/L	0.392	0.707			0.579		<0.500			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
Sodium	mg/L	408	458			449		452			447			471	470	500	462	458	496	477	441	460	459	458	476	431	427	418	430	443	448	384	468	427	428
Potassium	mg/L	1.46	<2.00			1.73		<5.00			<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
Alkalinity, Total	mg/L	965	915			1100		985			965			955	968	995	510	890	970	978	985	1030	1020	1010	990	1020	985	1140	935	1020	1180	920	1040	965	955
Alkalinity, Bicarbonate	mg/L	775	825			880		885			875			865	896	885	420	650	880	886	895	935	940	965	910	900	865	1020	825	870	1040	720	980	865	907
Alkalinity, Carbonate	mg/L	190	90.0			220		100			90.0			90	72.0	110	90	240	90.0	92.0	90.0	90.0	80	40	80	120	120	120	110	150	140	200	60.0	100	48.0
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	< 10.0	
Chloride	mg/L	2.18	7.50			8.78		9.11			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
Fluoride	mg/L	4.72	5.02			5.09		5.10			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
Sulfate as SO4	mg/L	17.4	64.7			76.6		77.5			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
Total Organic Carbon (TOC)	mg/L	2.64	6.49			8.58		9.53			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
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	0.040	<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	
Ammonia as N ^	mg/L	NA	NA			NA		NA			NA			NA	NA	NA	NA	NA	NA	0.240	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	0.280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.050	<0.100			<0.050		<0.250			<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
Arsenic	mg/L	0.0099	0.0220			0.0131		0.0122			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
Cadmium	mg/L	<0.0001	<0.0001			<0.0005		<0.0005			<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
Copper	mg/L	0.0059	0.0058			0.0071		0.0070			0.0079			0.0063	0.0071	0.0078	0.0087	0.0153	0.0051	0.0027	0.0028	0.0020	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
Iron	mg/L	<0.050	<0.100			<0.050		<0.250			<0.100			<0.050	<0.100	<0.100	<0.050	<0.050	<0.100.																

GCC Energy Hydrologic Monitoring Data

MW-4-C																																			
Year	2017								2018								2019				2020				2021				2022				2023		
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		
Month	3	6	7	8	9	10	11	12	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	
Sample Date	3/30	6/16	7/27	8/23	9/28	10/27	11/17	12/7	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	12/1	2/10	5/18	8/10	11/10	2/23	5/11	9/1	11/17	3/9	5/31	8/18	
Lab Analysis (Y/N)	Y	Y	N	N	Y	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	NM	NM	NM	NM	NM	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	0.13	0.13	0.13	0.13	0.25	0.25	0.18	0.08	0.09	0.16	0.08	
Total Purged	gal	7.0	1.5	NM	NM	1.0	1.0	1.0	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		
Depth to Water	ft bgs	328.33	314.05	309.87	306.86	303.96	303.80	302.47	304.80	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
Temperature	deg C	13.3	17.4	12.7	12.0	13.9	11.8	11.2	11.0	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
pH	SU	8.33	7.62	7.68	7.70	7.69	7.75	7.72	7.79	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
Specific Conductance	µS/cm	3792	5944	5997	5885	5813	5721	5782	5604	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
Oxygen Reduction Potential	mV	57.3	20.3	-101.5	-111.2	-103.7	-117.4	-109.0	-120.1	-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
Lab Analytical Results:																																			
Hardness as CaCO3	mg/L	46.3	55.9			38.9		30.0			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
pH (Lab)	SU	7.61	7.77			7.79		7.98			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
Total Dissolved Solids (Lab)	mg/L	3230	4050			3750		3780			3730			3660	3650	3590	3580	3590	3610	3610	3580	3570	3510	3610	3720	3540	3600	3630	3520	3580	3670	3530	3620	3450	3390
Calcium	mg/L	13.6	13.7			9.15		7.45			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
Magnesium	mg/L	2.99	5.26			3.90		2.76			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
Sodium	mg/L	908	1510			1490		1400			1410			1400	1410	1590	1410	1370	1440	1430	1440	1390	1400	1400	1520	1310	1340	1270	1360	1350	1530	1290	1410	1360	1440
Potassium	mg/L	4.38	5.71			6.07		<10.0			<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
Alkalinity, Total	mg/L	1250	2360			2780		2680			2600			2410	2480	2450	2470	2550	2500	2470	2480	2460	2500	2950	2470	2500	2410	2630	2360	2500	2430	2250	2580	2240	2460
Alkalinity, Bicarbonate	mg/L	1250	2360			2780		2640			2600			2330	2480	2450	2470	2350	2390	2410	2420	2340	2390	2880	2430	2360	2290	2410	2180	2300	2430	2250	2490	2240	2330
Alkalinity, Carbonate	mg/L	<10.0	<10.0			<10.0		40.0			<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
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	
Chloride	mg/L	181	550			587		608			592			573	533	590	575	554	580	525	528	555	543	565	557	553	572	561	562	563	570	583	576	581	566
Fluoride	mg/L	1.29	2.04			2.17		2.43			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	2.10
Sulfate as SO4	mg/L	534	487			70.2		26.0			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
Total Organic Carbon (TOC)	mg/L	30	6.42			5.08		3.64			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
Nitrate/Nitrite as N	mg/L	<2.00	<0.500			<0.400		<0.100			<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
Ammonia as N ^	mg/L	NA	NA			NA		NA			NA			NA	NA	NA	NA	NA	NA	0.424	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	0.182	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.050	<0.050			<0.050		<0.500			<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
Arsenic	mg/L	0.0059	0.0119			0.0128		0.0152			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
Cadmium	mg/L	<0.0001	<0.0010			<0.0010		<0.0010			<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	<0.0050	<0.0050	< 0.0050	
Copper	mg/L	0.0125	0.0243			0.0221		0.0208			0.0482			0.0389	0.0280	0.0230	0.0249	0.0382	0.0198	0.0107	0.0111	0.0069	0.0151	0.0148	0.0111	0.0464	0.0499	0.0370	0.0302	0.0371	0.0618	0.0573	0.0606	0.0160	0.0731
Iron	mg/L	<0.050	<0.050			<0.050		<0.500			<0.500			0.37																					

GCC Energy Hydrologic Monitoring Data

MW-5-A																																			
Year	2017							2018								2019				2020				2021				2022				2023			
Quarter	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		
Month	6	7	8	9	10	11	12	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
Sample Date	6/7	7/18	8/23	9/26	10/26	11/16	12/5	1/2	2/9	3/22	4/11	5/10	--	7/23	8/7	11/26	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	6/16	9/8	12/4	3/18	6/14	8/16
Lab Analysis (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	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																																		
Ammonia as N ^	mg/L																																		
Ortho-Phosphate as P ^	mg/L																																		
Aluminum	mg/L																																		
Arsenic	mg/L																																		
Cadmium	mg/L																																		
Copper	mg/L																																		
Iron	mg/L																																		
Lead	mg/L																																		
Manganese	mg/L																																		
Mercury (total)	mg/L																																		
Mercury (total low-level)	ng/L																																		
Molybdenum	mg/L																																		
Selenium	mg/L																																		
Silica (SiO2)	mg/L																																		
Silicon	mg/L																																		
Uranium	mg/L																																		
Zinc	mg/L																																		

Notes & Definitions:

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

- ^ one-time analysis

Y/N **yes or no**

gpm gallons per minute

eg C degrees Celsius

SU standard pH units

/cm microsiemens per centimeter

mV millivolts

mg/L milligram per liter

Ci/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-5-MI																																				
Year	2017							2018							2019				2020				2021				2022				2023					
Quarter	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	
Month	6	7	8	9	10	11	12	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	
Sample Date	6/7	7/18	8/23	9/26	10/26	11/16	12/5	1/2	2/9	3/22	4/11	5/10	--	7/23	8/7	11/5-6	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	6/16	9/12	12/4	3/18	6/14	8/16	
Lab Analysis (Y/N)	Y	N	N	Y	N	Y	N	N	Y	NM	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	NM	NM	NM	NM	NM	0.10	NM	0.10	0.10	***	0.10	0.10	0.10	0.12	0.12	0.06	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.20	0.20	0.25	0.13	0.15	0.20	0.05	0.04	0.10	
Total Purged	gal	7.5	NM	NM	NM	1.3	1.0	1.0	1.0	1.5	1.5	1.0	1.3		1.3	1.0	1.1	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.0	1.0	1.0	0.9	0.9	0.9	0.9		
Depth to Water	ft bgs	276.48	264.03	236.52	268.98	263.77	262.82	263.78	263.77	263.67	263.65	263.69	263.74		263.90	263.92	264.68	263.45	263.70	263.92	263.93	263.82	262.72	264.31	264.39	265.57	265.87	265.22	265.48	265.12	265.17	265.18	265.02	264.77	264.92	265.15
Temperature	deg C	22.5	NM	NM	11.1	10.4	9.9	8.8	9.3	9.9	9.5	9.5	10.1		12.5	11.7	9.6	6.7	10.2	11.1	10.6	9.2	10.6	11.8	10.5	8.3	12.3	11.7	10.3	9.0	12.7	12.7	9.1	8.8	11.9	13.0
pH	SU	8.38	NM	NM	8.81	8.81	8.86	8.84	8.84	8.83	8.87	8.59	8.55		8.56	8.61	8.54	8.62	8.36	8.45	8.42	8.30	8.55	8.62	8.65	8.58	8.51	8.61	8.58	8.43	8.15	8.51	8.11	8.53	8.51	8.38
Specific Conductance	µS/cm	1355	NM	NM	1621	1647	1637	1670	1664	1622	1610	1592	1596		1553	1558	1570	1607	1527	1572	1572	1546	1592	1518	1561	1425	~	1527	1589	1601	1552	1574	1615	1650	1619	1563
Oxygen Reduction Potential	mV	77.1	NM	NM	47.8	50.6	53.3	41.5	12.6	12.0	-33.8	5.7	-21.3		-44.7	14.5	-38.2	-39.7	-12.1	-16.0	10.5	39.0	-90.5	-25.4	21.0	-27.1	-0.8	-26.7	-12.8	-95.3	44.8	-36.1	-29.0	9.1	-17.3	35.2
Lab Analytical Results:																																				
Hardness as CaCO3	mg/L	13.6			14.0		10.2			10.5			9.11			9.34	9.48	8.79	8.47	8.74	7.97	8.89	8.72	9.18	9.1	9.45	8.96	7.88	9.30	9.16	9.33	8.38	8.38	8.73	9.10	8.29
pH (Lab)	SU	8.80			8.66		8.58			8.62			8.67			8.60	8.50	8.54	8.14	8.37	8.35	8.28	8.17	8.34	8.38	8.37	8.28	8.31	8.20	8.37	8.23	8.41	8.29	8.17	8.21	7.38
Total Dissolved Solids (Lab)	mg/L	1160			1120		1070			1030			1010			990	975	1050	975	1010	945	980	950	980	900	955	945	1010	945	1010	1000	1040	980	995	990	1030
Calcium	mg/L	3.89			3.69		2.87			2.74			2.36			2.37	2.39	2.25	2.16	2.20	2.00	2.17	2.24	2.3	2.36	2.42	2.28	2.13	2.30	2.34	2.41	2.13	2.19	2.25	2.30	2.03
Magnesium	mg/L	0.943			1.16		0.750			0.880			0.78			0.829	0.854	0.769	0.748	0.787	0.724	0.842	0.758	0.837	0.779	0.826	0.791	0.623	0.863	0.806	0.808	0.743	0.705	0.757	0.813	0.779
Sodium	mg/L	428			433		411			416			398			404	417	416	384	392	392	405	407	405	413	435	380	402	391	389	379	386	408	421	412	393
Potassium	mg/L	<5.00			1.70		<5.00			1.68			1.25			<2.00	<2.00	1.9	1.29	1.35	1.05	<2.00	<5.00	1.21	<3.00	<3.00	1.16	<5.00	<2.00	1.19	1.01	<2.00	<2.00	<5.00	0.795	< 5.00
Alkalinity, Total	mg/L	940			985		945			1000			900			940	900	860	945	905	935	885	865	760	935	935	935	930	1000	965	935	980	935	925	960	904
Alkalinity, Bicarbonate	mg/L	730			815		855			820			780			760	810	720	805	775	825	805	775	680	845	825	825	820	920	875	845	980	935	895	960	858
Alkalinity, Carbonate	mg/L	210			170		140			180			120			180	90.0	140	140	130	110	80	90.0	80	90	110	110	110	80.0	90.0	<10.0	<10.0	30.0	<10.0	46.0	
Alkalinity, Hydroxide	mg/L	<10.0			<10.0		<10.0			<10.0			<10			<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	< 10.0	
Chloride	mg/L	11.4			6.32		8.60			5.93			7.48			5.23	4.98	5.17	5.3	5.11	5.43	5.47	5.30	5.4	5.23	5.27	4.93	4.78	6.80	5.19	5.32	5.66	5.32	5.42	5.47	5.23
Fluoride	mg/L	0.954			0.606		0.815			0.535			0.565			0.536	0.340	0.367	0.404	0.327	0.440	0.34	0.308	0.278	0.274	0.25	0.272	0.304	<0.500	0.248	0.262	<0.500	0.340	0.318	0.286	0.256
Sulfate as SO4	mg/L	32.6			38.1		32.3			21.6			17.3			13.3	9.01	7.39	7.62	6.48	6.36	6.47	5.99	5.86	5.71	6.8	6.37	6.31	6.94	7.30	7.51	7.69	7.40	7.98	7.52	6.53
Total Organic Carbon (TOC)	mg/L	6.32			3.42		3.69			3.65			3.82			3.78	3.68	3.46	3.46	3.24	2.78	2.73	2.72	2.78	2.57	2.64	2.50	2.66	2.40	2.49	2.42	2.51	1.33	2.15	2.15	2.70
Nitrate/Nitrite as N	mg/L	0.599			<0.400		<0.020			<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	0.042	0.039	0.104	0.085	0.093	<0.020	<0.020	0.056	0.020	0.052
Ammonia as N ^	mg/L	NA			NA		NA			NA			NA			NA	NA	NA	NA	NA	NA	<0.100	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	<0.0500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	mg/L	<0.250			<0.050		<0.250			<0.050			<0.050			<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.100	<0.250	<0.050	<0.150	<0.150	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.250	<0.250	< 0.250
Arsenic	mg/L	0.0129			0.0200		0.0151			0.0192			0.0232			0.0234	0.0165	0.0177	0.0176	0.0194	0.0147	0.0133	0.0126	0.0139	0.0145	0.0143	0.0142	0.0117	0.0076	0.0104	0.0103	0.0101	0.0100	0.0108	0.0085	0.0080
Cadmium	mg/L	<0.0005			<0.0001		<0.0005			<0.0001			<0.0001			<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	<0.0005	<0.0005	<0.0003	<0.0003	<0.0005	<0.0025	<0.0025	<0.0005	<0.0005	<0.0010	<0.001	<0.0025	<0.0025	< 0.0025
Copper	mg/L	0.0229			0.0074		0.0060			0.0076			0.0049			0.0072	0.0074	0.0103	0.0148	0.0054	0.0056	0.0041	<0.0025	0.0048	0.0028	0.003	0.0088	0.0083	0.0095	0.0105	0.0173	0.0138	0.0135	0.0113	0.0174	0.0041
Iron	mg/L	<0.250			<0.050		<0.250			<0.050			<0.050			<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.100	<0.250	<0.050	<0.150	<0.150	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.250</		

GCC Energy Hydrologic Monitoring Data

MW-5-C																																							
Year	2017									2018						2019				2020				2021				2022				2023							
Quarter	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		
Month	6	7	8	9	9	10	11	11	12	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		
Sample Date	6/7	7/18	8/23	9/7	9/26	10/26	11/2	11/16	12/5	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	6/16	9/12	12/4	3/18	6/14	8/16		
Lab Analysis (Y/N)	N	N	N	N	Y	N	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	N	N		
Field Parameters:																																							
Purge Flow Rate	gpm	NM	NM	NM	NM	NM	0.10	NM	NM	NM	0.10	NM	0.10	0.10	***	0.10	0.10	0.10	0.12	0.12	0.06	0.25	0.13	0.25	0.13	0.13	0.25	0.15	0.25	0.28	0.25	0.25	0.15	0.20	0.09	dry	dry		
Total Purged	gal	NM	NM	NM	NM	NM	3.0	1.0	1.0	1.5	2.0	1.5	1.0	1.3		1.3	1.5	1.6	1.3	1.5	1.3	1.1	1.0	1.0	1.0	1.5	1.5	1.0	1.5	1.0	1.0	1.0	1.0	0.9					
Depth to Water	ft bgs	248.15	240.80	235.02	233.20	230.75	229.44	228.45	227.43	227.64	225.40	222.46	219.31	218.22	216.04		210.87	210.50	205.10	198.44	193.20	191.11	189.20	187.50	187.70	189.72	192.15	195.08	197.82	200.27	202.00	204.14	205.57	206.15	207.75			208.90	
Temperature	deg C	NM	NM	NM	35.3	11.3	NM	9.5	9.7	9.0	9.3	9.4	9.6	9.7	10.1		10.7	10.7	9.4	8.6	10.1	10.9	10.3	8.8	10.9	10.9	10.0	9.1	10.5	10.8	9.6	9.6	NM	10.8	9.2			9.1	
pH	SU	NM	NM	NM	8.75	7.58	NM	7.59	7.63	7.64	7.65	7.68	7.77	7.56	7.60		7.52	7.61	7.55	7.72	7.72	7.74	7.77	7.87	7.83	7.93	7.91	7.93	8.01	8.05	8.03	7.86	7.84	7.85	7.81			7.84	
Specific Conductance	µS/cm	NM	NM	NM	0	4903	NM	4905	4827	4977	4974	4958	4285	4787	4772		4674	4687	4768	4623	4418	4355	4359	4230	4152	3677	4013	3625	3206	3685	3835	3695	3540	3565	3723			3782	
Oxygen Reduction Potential	mV	NM	NM	NM	48.2	-24.8	NM	7.6	-74.2	-110.5	-99.8	-90.5	-84.6	-49.6	-51.3		-59.5	-66.4	-138.0	-56.2	-29.9	-88.2	-58.7	-45.5	-128.2	-88.6	-52.8	-49.8	-116.6	-104.5	-101.3	-187.4	-84.5	-180.7	-39.2			8.3	
Lab Analytical Results:																																							
Hardness as CaCO3	mg/L					80.3				67.7				50.3			51.2	51.4	43	41.1	38.8	34.9	34.8	33.2	30.8	31.7	29.4	28.0	23.9	26.0	26.8	28.1	32.6	29.1	31.5				
pH (Lab)	SU					7.57				8.11				7.79			7.64	7.69	7.72	7.46	7.75	7.66	7.74	7.73	7.8	7.92	8.03	7.82	7.87	7.81	7.88	7.65	7.85	7.98	7.67				
Total Dissolved Solids (Lab)	mg/L					3470				3540				3430			3290	3260	3160	3090	3130	3010	2970	2800	2750	2640	2710	2590	2670	2520	2530	2400	2400	2160	4910				
Calcium	mg/L					18.3				15.4				11.1			11.4	11.5	9.78	9.34	8.69	7.70	7.73	7.50	6.78	7.02	6.7	6.28	5.54	5.78	6.45	7.10	8.22	7.38	8.15				
Magnesium	mg/L					8.40				7.11				5.46			5.52	5.50	4.51	4.32	4.14	3.81	3.78	3.51	3.37	3.43	3.08	2.98	2.43	2.82	2.59	2.51	2.93	2.59	2.70				
Sodium	mg/L					1280				1220				1200			1230	1250	1220	1070	1120	1050	1050	1060	1010	1030	1070	999	942	922	875	857	1020	916	939				
Potassium	mg/L					4.57				<5.00				3.6			<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	2.75	<10.0	<10.0	2.63	<10.0	<5.00	2.59	<4.00	<5.00	<5.00	<10.0				
Alkalinity, Total	mg/L					1480				1540				1490			1520	1540	1560	1630	1620	1580	1550	1520	1590	1570	1610	1580	1540	1690	1630	1670	1680	1600	1790				
Alkalinity, Bicarbonate	mg/L					1480				1540				1490			1520	1540	1560	1630	1620	1520	1550	1470	1480	1510	1550	1580	1540	1450	1590	1670	1680	1600	1690				
Alkalinity, Carbonate	mg/L					<10.0				<10.0				<10.0			<10.0	<10.0	<10.0	<10.0	<10.0	60.0	<10.0	50.0	110	60	60	<10.0	<10.0	240	40.0	<10.0	<10.0	<10.0	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				
Chloride	mg/L					8.66				10.6				10.1			7.15	7.08	7.1	7.02	6.62	6.32	6.58	6.12	6.02	6.04	5.84	4.05	5.95	5.93	5.78	<4.00	3.75	<5.00	<5.00				
Fluoride	mg/L					1.90				1.93				1.79			1.74	1.80	1.95	2.01	1.95	1.98	1.96	2.01	2.01	2.03	1.99	2.09	2.09	1.96	2.00	2.32	2.42	2.28	2.44				
Sulfate as SO4	mg/L					1470				1600				1220			1130	1070	1040	975	948	836	799	721	679	686	693	700	607	560	553	479	466	475	493				
Total Organic Carbon (TOC)	mg/L					2.86				2.94				3.06			3.28	3.64	3.05	3.00	3.03	2.62	2.7	2.73	2.87	2.69	2.7	2.46	2.8	2.54	2.38	2.16	2.39	1.56	2.35				
Nitrate/Nitrite as N	mg/L					<0.100				<0.020				<0.02			0.026	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	<0.020	<0.020	<0.020	<0.020	<0.020				
Ammonia as N ^	mg/L					NA				NA				NA			NA	NA	NA	NA	NA	0.369	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	<0.250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Aluminum	mg/L					<0.050				<0.250				<0.250			<0.250	<0.250	<0.250	<0.25	<0.250	<0.250	<0.250	<0.500	<0.050	<0.050	<0.500	<0.500	<0.500	<0.250	<0.100	<0.200	<0.250	<0.250	<0.050				
Arsenic	mg/L					<0.0025				<0.0050				<0.0025			0.0046	0.0036	0.004	0.0013	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.005	<0.0050	<0.0005	<0.0050	<0.0025	<0.0015	<0.0020	<0.0025	<0.0025	<0.0050				
Cadmium	mg/L					<0.0005				<0.0010				<0.0005			<0.0005	<0.0005	<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0005	<0.0050	<0.0025	<0.0015	<0.0020	<0.0025	<0.0025	<0.0050				
Copper	mg/L					0.0272				0.0161				0.0171			0.0226	0.0178	0.0294	0.01	0.0138	0.0303	0.0165	0.0040	0.0101	0.0078	0.0066	0.0296	0.0202	0.0242	0.0313	0.0823	0.0355	0.0250	0.0130				
Iron	mg/L					<0.050				<0.250				0.399			<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.500	0.113	<0.500	<0.500	0.223	<0.500	0.273	0.130	<0.200	<0.250	<0.250	<0.500				
Lead	mg/L					<0.0025				<0.0050				<0.0025			<0.0025	<0.0025	<0.0025	<0.0005	<0.0025	<0.0025	<0.0025	<0.0025	<0.005	<0.005	<0.0050	<0.0005	<0.0050	<0.0025	<0.0015	<0.0020	<0.0025	<0.0025	<0.0050				
Manganese	mg/L					0.0367				0.0283				0.0128			0.0131	0.0117	0.0115	0.0079	0.0078	0.0076	0.0081	0.0059	<0.0050	0.0053	<0.0050	0.0035	<0.0050	0.0029	0.0049	0.0139	0.0099	0.0074	0.0078				
Mercury (total)	mg/L					<0.0002				<0.0002				<0.0002			<0.0002	<0.0002	<0.0002	<0.0002																			

GCC Energy Hydrologic Monitoring Data

MW-6-A																											
Year	2018	2019										2020				2021				2022				2023			
Quarter	Q4	Q1			Q2			Q3			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
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	
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	
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	
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	dry	dry	dry	dry	dry
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						
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					
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 (SiO2)	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

[illegible]

Notes & Definitions:

#	No sample collected, due to low yield, insufficient volume for lab sample after field parameters we measured	
Y/N	yes or no	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 CaCO_3. 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.
gpm	gallons per minute	
deg C	degrees Celsius	
SU	standard pH units	
$\mu\text{S}/\text{cm}$	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	

GCC Energy Hydrologic Monitoring Data

MW-6-C																										
Year	2018	2019										2020				2021				2022				2023		
Quarter	Q4	Q1			Q2			Q3			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
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
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
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
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
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 (SiO2)	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			
Quarter	Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
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	
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	
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	
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	0.20	0.06	0.03	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	1.0	1.5	1.0	1.2	1.0	1.5	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
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
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
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
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
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
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
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
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
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
Sodium	mg/L	459		248			129			153			172	203	188	194	194	188	169	177	166	162	158	163	150	139	125	128
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
Alkalinity, Total	mg/L	205		315			371			381			355	320	353	335	329	336	346	330	380	365	365	337	310	368	470	390
Alkalinity, Bicarbonate	mg/L	205		315			371			381			355	320	353	335	329	336	346	330	380	365	365	337	310	368	470	390
Alkalinity, Carbonate	mg/L	<10.0		<10.0			<10.0			<10.0			<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	< 10.0
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	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Silica (SiO2)	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
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
Uranium	mg/L	0.0230		0.0075			0.0039			0.0054			0.0047	0.0055	0.0043	0.0046	0.0042	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.

GCC Energy Hydrologic Monitoring Data

MW-7-EAA																													
Year	2018	2019											2020				2021				2022				2023				
Quarter	Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
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		
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		
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		
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	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		
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	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		
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	36.72	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		
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	10.1	10.5	10.9	10.6	10.5	10.7	10.8	11.1	13.1	11.7	11.8		
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	
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	
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	
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	
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	
Total Dissolved Solids (Lab)	mg/L	1460		1480			1490						1530	1520	1430	1480	1450	1590	1460	1510	1580	1500	1500	1490	1420	1500	1400	1450	
Calcium	mg/L	170		179			171			173			162	165	175	183	157	186	167	167	164	173	166	154	165	174	161	151	
Magnesium	mg/L	124		142			135			137			144	134	142	150	133	152	131	138	133	149	132	129	134	143	134	127	
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	
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	
Alkalinity, Total	mg/L	380		367			405			392			350	357	355	268	430	420	395	340	440	425	425	400	310	378	410	437	
Alkalinity, Bicarbonate	mg/L	380		367			405			392			425	357	355	268	430	420	395	340	440	425	425	400	310	378	410	437	
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		
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		
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	
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	
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	
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	
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		
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	
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	
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	
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	
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	
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	
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	
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	
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	
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
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	
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	
Silica (SiO2)	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	
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	
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	
Zinc	mg/L	<0.0050		<0.0040			0.																						

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			
Quarter	Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
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	
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	
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	
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	0.33	0.11	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	15.0	16.0	0.5	0.5	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
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	11.0	11.6	12.2	
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
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
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
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
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
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
Calcium	mg/L	152		151			148			154			143	149	153	160	134	156	146	146	149	158	150	143	149	163	159	152
Magnesium	mg/L	119		118			120			121			124	119	127	130	115	127	115	120	118	131	119	115	121	130	130	123
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
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
Alkalinity, Total	mg/L	400		435			450			431			445	404	385	288	480	450	445	385	490	460	465	480	430	417	448	417
Alkalinity, Bicarbonate	mg/L	400		435			450			431			445	404	385	288	480	450	445	385	490	460	465	480	430	417	448	417
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	
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	
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
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
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
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
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	0.493	<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
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
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
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
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
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
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
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
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
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							
Mercury (dissolved low-level)	ng/L																					<5.00	<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
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
Silica (SiO2)	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
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
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
Zinc	mg/L	<0.0050		<0.0040			<0.0020			<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-MI																												
Year	2018	2019											2020				2021				2022				2023			
Quarter	Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
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	
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	
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	
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	0.13	0.15	0.50	0.12	0.13	0.23	
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	0.8	0.5	0.5	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
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
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
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
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
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
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
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
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
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
Sodium	mg/L	344		312			289			289			275	269	272	260	232	237	256	229	238	226	220	213	210	230	236	216
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
Alkalinity, Total	mg/L	500		565			560			573			585	543	545	448	590	590	575	570	605	590	590	500	540	550	568	553
Alkalinity, Bicarbonate	mg/L	500		565			560			573			585	543	545	448	590	590	575	570	605	590	590	500	540	550	568	553
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	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
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	0.112	< 0.200	
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
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
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	
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
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
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
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
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
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
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
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
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
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							
Mercury (dissolved low-level)	ng/L																					<5.00	<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
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
Silica (SiO2)	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
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			

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

GCC Energy Hydrologic Monitoring Data

MW-8-LM																												
Year	2018	2019											2020				2021				2022				2023			
Quarter	Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
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	
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	
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	
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	0.15	NM	0.14	0.03	0.16	
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	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
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
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
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
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
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
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
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
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
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
Sodium	mg/L	382		341			317			306			305	309	315	337	304	319	315	308	291	316	298	298	301	287	315	289
Potassium	mg/L																											

Notes & Definitions:

- | | | |
|-------|-----------------------------|---|
| ^ | one-time analysis | |
| Y/N | yes or no | 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. |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | 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 CaCO ₃ . |
| μS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | 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. |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |

GCC Energy Hydrologic Monitoring Data

MW-8-PL																												
Year	2018	2019										2020				2021				2022				2023				
Quarter	Q4	Q1			Q2			Q3			Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
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	
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	
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	
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	0.75	0.25	0.25	0.25	0.25	0.25	0.13	1.00	0.22	0.18	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	1.8	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
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
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
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
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
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
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
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
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
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
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
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
Alkalinity, Total	mg/L	370		415			435			393			390	339	340	315	410	370	385	360	385	362	380	356	410	350	388	350
Alkalinity, Bicarbonate	mg/L	370		415			435			393			390	339	340	315	410	370	385	360	385	362	380	340	410	338	388	350
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
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	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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							
Mercury (dissolved low-level)	ng/L																						<5.00	<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
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
Silica (SiO2)	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
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
Uranium	mg/L	0.0052		0.0040			0.0010			0.0009			0.0004	<0.0005	<0.0005	<0.0010												

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.



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01 September 2023

Tom Bird
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 08/21/23 12:52. 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,

A handwritten signature in blue ink, reading 'Jeremy D. Allen', is written in a cursive style.

Jeremy D Allen
Laboratory Director

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: T104704514-23-17

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: T104704398-23-16



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/01/23 15:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Well #1 Up Gradient	2308322-01	Water	08/21/23 10:06	08/21/23 12:52	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/01/23 15:47

Well #1 Up Gradient

2308322-01 (Ground Water)

Sampled Date: 08/21/23 10:06

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	602	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO ₃ *	602	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Cation/Anion Balance	4.64	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	4.76	2.00	0.111	mg/L	2	08/28/23 23:28	EPA300.0		AWG
Fluoride*	0.304	0.200	0.0194	mg/L	2	08/28/23 23:28	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/29/23 12:14	EPA353.2		AWG
pH*	7.62			pH Units	1	08/23/23 11:25	EPA150.1	H5	CAI
pH Temperature, degrees C	20.7			pH Units	1	08/23/23 11:25	EPA150.1		CAI
Sulfate*	90.8	2.00	0.248	mg/L	2	08/28/23 23:28	EPA300.0		AWG
Total Dissolved Solids*	740	10.0		mg/L	1	08/24/23 17:11	EPA160.1		CAI
Total Organic Carbon*	3.17	0.500	0.175	mg/L	1	08/30/23 21:19	5310C		AES

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/23/23 18:37	EPA200.7		AES
Calcium*	58.1	0.500	0.309	mg/L	5	08/23/23 18:37	EPA200.7		AES
Hardness as CaCO ₃	301	3.31	1.49	mg/L	5	08/23/23 18:37	2340 B		AES
Iron*	1.56	0.250	0.076	mg/L	5	08/23/23 18:37	EPA200.7		AES
Magnesium*	37.7	0.500	0.176	mg/L	5	08/23/23 18:37	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/23/23 18:37	EPA200.7		AES
Silica (SiO ₂)	14.0	5.35	0.814	mg/L	5	08/23/23 18:37	Calculation		AES
Silicon	6.55	2.50	0.381	mg/L	5	08/23/23 18:37	EPA200.7		AES
Sodium*	192	5.00	2.05	mg/L	5	08/23/23 18:37	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0010	0.0010	0.0007	mg/L	2	08/25/23 14:53	EPA200.8		AES
Cadmium*	<0.0010	0.0010	0.00005	mg/L	2	08/25/23 14:53	EPA200.8		AES
Copper*	0.0016	0.0010	0.0008	mg/L	2	08/25/23 14:53	EPA200.8		AES
Lead*	<0.0010	0.0010	0.00009	mg/L	2	08/25/23 14:53	EPA200.8		AES
Manganese*	0.162	0.0010	0.0003	mg/L	2	08/25/23 14:53	EPA200.8		AES
Molybdenum*	<0.0010	0.0010	0.0004	mg/L	2	08/25/23 14:53	EPA200.8		AES
Selenium*	0.0022	0.0020	0.0007	mg/L	2	08/25/23 14:53	EPA200.8		AES
Uranium	<0.0010	0.0010	0.00009	mg/L	2	08/25/23 14:53	EPA200.8		AES
Zinc*	<0.0040	0.0040	0.0009	mg/L	2	08/25/23 14:53	EPA200.8		AES

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/01/23 15:47

Well #1 Up Gradient

2308322-01 (Ground Water)

Sampled Date: 08/21/23 10:06

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/25/23 11:32	EPA245.7		CAI
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Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/01/23 15:47

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232501 - General Prep - Wet Chem

Reference (B232501-SRM1)

Prepared & Analyzed: 08/23/23

pH	7.01		pH Units	7.00		100	98.57-101.42			
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Batch B232516 - General Prep - Wet Chem

Blank (B232516-BLK1)

Prepared & Analyzed: 08/24/23

Total Dissolved Solids	ND	10.0	mg/L							
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Reference (B232516-SRM1)

Prepared & Analyzed: 08/24/23

Total Dissolved Solids	370	10.0	mg/L	400		92.5	85-115			
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Batch B232551 - IC- Ion Chromatograph

Blank (B232551-BLK1)

Prepared & Analyzed: 08/28/23

Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							

LCS (B232551-BS1)

Prepared & Analyzed: 08/28/23

Chloride	24.7	1.00	mg/L	25.0		98.9	90-110			
Fluoride	2.54	0.100	mg/L	2.50		101	90-110			
Sulfate	25.2	1.00	mg/L	25.0		101	90-110			

LCS Dup (B232551-BSD1)

Prepared & Analyzed: 08/28/23

Chloride	24.6	1.00	mg/L	25.0		98.5	90-110	0.377	20	
Fluoride	2.53	0.100	mg/L	2.50		101	90-110	0.237	20	
Sulfate	25.0	1.00	mg/L	25.0		100	90-110	0.586	20	

Batch B232559 - General Prep - Wet Chem

Blank (B232559-BLK1)

Prepared: 08/28/23 Analyzed: 08/29/23

Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L							

LCS (B232559-BS1)

Prepared: 08/28/23 Analyzed: 08/29/23

Alkalinity, Total as CaCO ₃	104	10.0	mg/L	100		104	85-115			
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LCS Dup (B232559-BSD1)

Prepared: 08/28/23 Analyzed: 08/29/23

Alkalinity, Total as CaCO ₃	102	10.0	mg/L	100		102	85-115	1.94	20	
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Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/01/23 15:47General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232559 - General Prep - Wet Chem (Continued)

Reference (B232559-SRM1)

Prepared: 08/28/23 Analyzed: 08/29/23

Alkalinity, Total as CaCO ₃	76.0	10.0	mg/L	72.7	105	85-115
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Batch B232563 - Lachat

Blank (B232563-BLK1)

Prepared & Analyzed: 08/29/23

Nitrate/Nitrite as N	ND	0.020	mg/L as N
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LCS (B232563-BS1)

Prepared & Analyzed: 08/29/23

Nitrate/Nitrite as N	1.05	0.020	mg/L as N	1.00	105	90-110
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LCS Dup (B232563-BSD1)

Prepared & Analyzed: 08/29/23

Nitrate/Nitrite as N	1.05	0.020	mg/L as N	1.00	105	90-110	0.00	20
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Batch B232593 - General Prep - Wet Chem

Blank (B232593-BLK1)

Prepared & Analyzed: 08/30/23

Total Organic Carbon	ND	0.500	mg/L
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LCS (B232593-BS1)

Prepared & Analyzed: 08/30/23

Total Organic Carbon	9.74	0.500	mg/L	10.0	97.4	85-115
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LCS Dup (B232593-BSD1)

Prepared & Analyzed: 08/30/23

Total Organic Carbon	9.81	0.500	mg/L	10.0	98.1	85-115	0.634	20
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Jeremy D Allen, Laboratory Director

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/01/23 15:47

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232503 - Dissolved ICP

Blank (B232503-BLK1)

Prepared & Analyzed: 08/23/23

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 (B232503-BS1)

Prepared & Analyzed: 08/23/23

Aluminum	4.49	0.050	mg/L	4.00	112	85-115
Calcium	4.17	0.100	mg/L	4.00	104	85-115
Iron	4.15	0.050	mg/L	4.00	104	85-115
Magnesium	21.5	0.100	mg/L	20.0	108	85-115
Potassium	8.78	1.00	mg/L	8.00	110	85-115
Silicon	4.32	0.500	mg/L	4.00	108	85-115
Sodium	3.63	1.00	mg/L	3.24	112	85-115

LCS Dup (B232503-BSD1)

Prepared & Analyzed: 08/23/23

Aluminum	4.46	0.050	mg/L	4.00	111	85-115	0.678	20
Calcium	4.09	0.100	mg/L	4.00	102	85-115	2.00	20
Iron	4.11	0.050	mg/L	4.00	103	85-115	0.771	20
Magnesium	21.8	0.100	mg/L	20.0	109	85-115	1.38	20
Potassium	8.64	1.00	mg/L	8.00	108	85-115	1.64	20
Silicon	4.28	0.500	mg/L	4.00	107	85-115	0.791	20
Sodium	3.57	1.00	mg/L	3.24	110	85-115	1.64	20

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Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/01/23 15:47

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232535 - Dissolved ICPMS

Blank (B232535-BLK1)

Prepared & Analyzed: 08/25/23

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	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 (B232535-BS1)

Prepared & Analyzed: 08/25/23

Arsenic	0.0541	0.0005	mg/L	0.0500	108	85-115
Cadmium	0.0487	0.0005	mg/L	0.0500	97.4	85-115
Copper	0.0508	0.0005	mg/L	0.0500	102	85-115
Lead	0.0496	0.0005	mg/L	0.0500	99.2	85-115
Manganese	0.0475	0.0005	mg/L	0.0500	94.9	85-115
Molybdenum	0.0509	0.0005	mg/L	0.0500	102	85-115
Selenium	0.236	0.0010	mg/L	0.250	94.2	85-115
Uranium	0.0492	0.0005	mg/L	0.0500	98.5	85-115
Zinc	0.0464	0.0020	mg/L	0.0500	92.8	85-115

LCS Dup (B232535-BSD1)

Prepared & Analyzed: 08/25/23

Arsenic	0.0531	0.0005	mg/L	0.0500	106	85-115	1.96	20
Cadmium	0.0489	0.0005	mg/L	0.0500	97.8	85-115	0.371	20
Copper	0.0495	0.0005	mg/L	0.0500	99.1	85-115	2.59	20
Lead	0.0503	0.0005	mg/L	0.0500	101	85-115	1.32	20
Manganese	0.0490	0.0005	mg/L	0.0500	98.1	85-115	3.30	20
Molybdenum	0.0507	0.0005	mg/L	0.0500	101	85-115	0.446	20
Selenium	0.237	0.0010	mg/L	0.250	94.7	85-115	0.521	20
Uranium	0.0498	0.0005	mg/L	0.0500	99.7	85-115	1.19	20
Zinc	0.0472	0.0020	mg/L	0.0500	94.5	85-115	1.75	20

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/01/23 15:47

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232496 - EPA 245.7

Blank (B232496-BLK1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	ND	100	ng/L
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LCS (B232496-BS1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	1980	100	ng/L	2000	98.9	76-113
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LCS Dup (B232496-BSD1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	1840	100	ng/L	2000	92.2	76-113	7.09	20
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Notes and Definitions

H5 Sample was analyzed within 2-hours of its 24 or 48 hour hold-time limit.

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

Jeremy D Allen, Laboratory Director

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Project Information

Printed: 08/21/2023 1:29 pm

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: GCC GW Baseline

Client PM: Tom Bird

Comments: All Metals Are Field Filtered. Send Out PRESERVED bottles per Landon. 11-01-18

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

SAMPLE CONDITION RECEIPT FORM

Client Name: G.C.C. Energy

Work Order # 2308-322

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo

Custody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No

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

Type of Ice: ☐ Wet ☐ Blue ☒ None

Cooler Temp: Observed Temp: 14.7°C Correction Factor: 0°C Final Temp: 14.7°C
*Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 8/21/23
Labeled by initials:
(if different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>pH</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☒ Yes ☐ No	11. <u>DISS</u>
Field Filtered: ☒ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	<u>WT</u> SL OT	
Trip Blank Present:	☐ Yes ☐ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____



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Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

07 September 2023

Tom Bird
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 08/24/23 16:55. 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,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

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: T104704514-23-17

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: T104704398-23-16



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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/07/23 13:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Hay Gulch Ditch Upgradient	2308381-01	Water	08/24/23 15:58	08/24/23 16:55	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/07/23 13:44

Hay Gulch Ditch Upgradient

2308381-01 (Surface Water)

Sampled Date: 08/24/23 15:58

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	247	10.0	6.06	mg/L	1	09/05/23 00:00	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	09/05/23 00:00	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	09/05/23 00:00	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	247	10.0	6.06	mg/L	1	09/05/23 00:00	2320 B		AES
Cation/Anion Balance	0.690	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	41.7	1.00	0.0555	mg/L	1	08/31/23 20:20	EPA300.0		AWG
Fluoride*	0.235	0.100	0.00971	mg/L	1	08/31/23 20:20	EPA300.0		AWG
Nitrate/Nitrite as N*	0.298	0.020	0.003	mg/L as N	1	08/31/23 13:15	EPA353.2		AWG
Oil & Grease (HEM)	<5.00	5.00	2.87	mg/L	1	09/01/23 11:00	EPA1664 A		JDA
pH*	7.56			pH Units	1	08/25/23 16:38	EPA150.1		CAI
pH Temperature, degrees C	19.2			pH Units	1	08/25/23 16:38	EPA150.1		CAI
SAR	0.48			No Unit	1	08/29/23 16:28	Calculation		AES
Sulfate*	114	1.00	0.124	mg/L	1	08/31/23 20:20	EPA300.0		AWG
Total Dissolved Solids*	480	10.0		mg/L	1	08/29/23 17:52	EPA160.1		CAI
Total Organic Carbon*	4.35	2.50	0.874	mg/L	5	08/31/23 13:54	5310C		AES
Total Suspended Solids*	9.79	2.50		mg/L	1	08/28/23 13:42	2540 D		CAI

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.044	mg/L	1	08/29/23 18:20	EPA200.7		AES
Calcium*	70.2	0.100	0.062	mg/L	1	08/29/23 18:20	EPA200.7		AES
Hardness as CaCO ₃	342	0.662	0.299	mg/L	1	08/29/23 18:20	2340 B		AES
Iron*	0.237	0.050	0.015	mg/L	1	08/29/23 18:20	EPA200.7		AES
Magnesium*	40.5	0.100	0.035	mg/L	1	08/29/23 18:20	EPA200.7		AES
Potassium*	2.97	1.00	0.104	mg/L	1	08/29/23 18:20	EPA200.7		AES
Silica (SiO ₂)	11.9	1.07	0.163	mg/L	1	08/29/23 18:20	Calculation		AES
Silicon	5.59	0.500	0.076	mg/L	1	08/29/23 18:20	EPA200.7		AES
Sodium*	20.6	1.00	0.409	mg/L	1	08/29/23 18:20	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Mercury	<0.0100	0.0100	0.00430	ug/L	1	09/01/23 14:54	EPA200.8		AES
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Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/07/23 13:44

Hay Gulch Ditch Upgradient

2308381-01 (Surface Water)

Sampled Date: 08/24/23 15:58

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Arsenic*	0.0008	0.0005	0.0004	mg/L	1	09/06/23 13:09	EPA200.8		AES
Cadmium*	<0.0005	0.0005	0.00003	mg/L	1	08/30/23 16:22	EPA200.8		AES
Copper*	0.0020	0.0005	0.0004	mg/L	1	08/30/23 16:22	EPA200.8		AES
Lead*	<0.0005	0.0005	0.00004	mg/L	1	08/30/23 16:22	EPA200.8		AES
Manganese*	0.140	0.0005	0.0002	mg/L	1	08/30/23 16:22	EPA200.8		AES
Molybdenum*	0.0013	0.0005	0.0002	mg/L	1	08/30/23 16:22	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0004	mg/L	1	08/30/23 16:22	EPA200.8		AES
Uranium	0.0010	0.0005	0.00004	mg/L	1	08/30/23 16:22	EPA200.8		AES
Zinc*	0.0022	0.0020	0.0005	mg/L	1	08/30/23 16:22	EPA200.8		AES
Cation/Anion Balance	.69								

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Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/07/23 13:44

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B232542 - General Prep - Wet Chem										
Reference (B232542-SRM1)				Prepared & Analyzed: 08/25/23						
pH	6.97		pH Units	7.00		99.6	98.57-101.42			
Batch B232546 - Total Recoverable by ICP										
Blank (B232546-BLK1)				Prepared: 08/25/23 Analyzed: 08/29/23						
SAR	0.00		No Unit							
Batch B232553 - General Prep - Wet Chem										
Blank (B232553-BLK1)				Prepared: 08/28/23 Analyzed: 08/29/23						
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B232553-SRM1)				Prepared: 08/28/23 Analyzed: 08/29/23						
Total Dissolved Solids	355	10.0	mg/L	400		88.7	85-115			
Batch B232556 - General Prep - Wet Chem										
Blank (B232556-BLK1)				Prepared & Analyzed: 08/28/23						
Total Suspended Solids	ND	2.50	mg/L							
Reference (B232556-SRM1)				Prepared & Analyzed: 08/28/23						
Total Suspended Solids	94.0	2.50	mg/L	100		94.0	85-115			
Batch B232587 - Lachat										
Blank (B232587-BLK1)				Prepared: 08/29/23 Analyzed: 08/31/23						
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B232587-BS1)				Prepared: 08/29/23 Analyzed: 08/31/23						
Nitrate/Nitrite as N	1.05	0.020	mg/L as N	1.00		105	90-110			
LCS Dup (B232587-BSD1)				Prepared: 08/29/23 Analyzed: 08/31/23						
Nitrate/Nitrite as N	1.04	0.020	mg/L as N	1.00		104	90-110	0.953	20	
Batch B232593 - General Prep - Wet Chem										
Blank (B232593-BLK1)				Prepared & Analyzed: 08/30/23						
Total Organic Carbon	ND	0.500	mg/L							
LCS (B232593-BS1)				Prepared & Analyzed: 08/30/23						
Total Organic Carbon	9.74	0.500	mg/L	10.0		97.4	85-115			

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Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/07/23 13:44**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232593 - General Prep - Wet Chem (Continued)**LCS Dup (B232593-BSD1)**

Prepared & Analyzed: 08/30/23

Total Organic Carbon	9.81	0.500	mg/L	10.0		98.1	85-115	0.634	20	
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Batch B232598 - IC- Ion Chromatograph**Blank (B232598-BLK1)**

Prepared & Analyzed: 08/31/23

Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							

LCS (B232598-BS1)

Prepared & Analyzed: 08/31/23

Chloride	24.4	1.00	mg/L	25.0		97.5	90-110			
Fluoride	2.56	0.100	mg/L	2.50		102	90-110			
Sulfate	24.2	1.00	mg/L	25.0		97.0	90-110			

LCS Dup (B232598-BSD1)

Prepared & Analyzed: 08/31/23

Chloride	24.8	1.00	mg/L	25.0		99.3	90-110	1.83	20	
Fluoride	2.55	0.100	mg/L	2.50		102	90-110	0.392	20	
Sulfate	24.5	1.00	mg/L	25.0		98.0	90-110	1.12	20	

Batch B232619 - General Prep - Wet Chem**Blank (B232619-BLK1)**

Prepared & Analyzed: 09/01/23

Oil & Grease (HEM)	ND	5.00	mg/L							
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LCS (B232619-BS1)

Prepared & Analyzed: 09/01/23

Oil & Grease (HEM)	34.5	5.00	mg/L	40.0		86.3	85-115			
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LCS Dup (B232619-BSD1)

Prepared & Analyzed: 09/01/23

Oil & Grease (HEM)	34.8	5.00	mg/L	40.0		87.0	85-115	0.866	20	
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Batch B232624 - General Prep - Wet Chem**Blank (B232624-BLK1)**

Prepared: 09/01/23 Analyzed: 09/05/23

Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L							

LCS (B232624-BS1)

Prepared: 09/01/23 Analyzed: 09/05/23

Alkalinity, Total as CaCO ₃	104	10.0	mg/L	100		104	85-115			
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LCS Dup (B232624-BSD1)

Prepared: 09/01/23 Analyzed: 09/05/23

Alkalinity, Total as CaCO ₃	101	10.0	mg/L	100		101	85-115	2.93	20	
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Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/07/23 13:44

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232624 - General Prep - Wet Chem (Continued)

Reference (B232624-SRM1)

Prepared: 09/01/23 Analyzed: 09/05/23

Alkalinity, Total as CaCO ₃	72.0	10.0	mg/L	72.7		99.0	85-115			
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Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232575 - Dissolved ICP

Blank (B232575-BLK1)

Prepared & Analyzed: 08/29/23

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 (B232575-BS1)

Prepared & Analyzed: 08/29/23

Aluminum	3.97	0.050	mg/L	4.00		99.3	85-115			
Calcium	3.87	0.100	mg/L	4.00		96.7	85-115			
Iron	3.94	0.050	mg/L	4.00		98.5	85-115			
Magnesium	19.8	0.100	mg/L	20.0		99.1	85-115			
Potassium	8.09	1.00	mg/L	8.00		101	85-115			
Silicon	4.08	0.500	mg/L	4.00		102	85-115			
Sodium	3.37	1.00	mg/L	3.24		104	85-115			

LCS Dup (B232575-BSD1)

Prepared & Analyzed: 08/29/23

Aluminum	3.96	0.050	mg/L	4.00		98.9	85-115	0.411	20	
Calcium	3.85	0.100	mg/L	4.00		96.2	85-115	0.527	20	
Iron	3.95	0.050	mg/L	4.00		98.8	85-115	0.299	20	
Magnesium	19.7	0.100	mg/L	20.0		98.3	85-115	0.819	20	
Potassium	8.05	1.00	mg/L	8.00		101	85-115	0.513	20	
Silicon	4.03	0.500	mg/L	4.00		101	85-115	1.26	20	
Sodium	3.33	1.00	mg/L	3.24		103	85-115	1.20	20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/07/23 13:44

Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232606 - Mercury by 200.8

Blank (B232606-BLK1)

Prepared: 08/31/23 Analyzed: 09/01/23

Mercury	ND	0.0100	ug/L							
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LCS (B232606-BS1)

Prepared: 08/31/23 Analyzed: 09/01/23

Mercury	0.0983	0.0100	ug/L	0.100		98.3	85-115			
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LCS Dup (B232606-BSD1)

Prepared: 08/31/23 Analyzed: 09/01/23

Mercury	0.100	0.0100	ug/L	0.100		100	85-115	2.00	20	
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Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/07/23 13:44

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232577 - Dissolved ICPMS

Blank (B232577-BLK1)

Prepared: 08/29/23 Analyzed: 08/30/23

Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	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 (B232577-BS1)

Prepared: 08/29/23 Analyzed: 08/30/23

Cadmium	0.0492	0.0005	mg/L	0.0500	98.3	85-115
Copper	0.0488	0.0005	mg/L	0.0500	97.7	85-115
Lead	0.0493	0.0005	mg/L	0.0500	98.5	85-115
Manganese	0.0496	0.0005	mg/L	0.0500	99.1	85-115
Molybdenum	0.0500	0.0005	mg/L	0.0500	100	85-115
Selenium	0.250	0.0010	mg/L	0.250	100	85-115
Uranium	0.0501	0.0005	mg/L	0.0500	100	85-115
Zinc	0.0493	0.0020	mg/L	0.0500	98.7	85-115

LCS Dup (B232577-BSD1)

Prepared: 08/29/23 Analyzed: 08/30/23

Cadmium	0.0492	0.0005	mg/L	0.0500	98.5	85-115	0.188	20
Copper	0.0499	0.0005	mg/L	0.0500	99.9	85-115	2.25	20
Lead	0.0501	0.0005	mg/L	0.0500	100	85-115	1.60	20
Manganese	0.0502	0.0005	mg/L	0.0500	100	85-115	1.29	20
Molybdenum	0.0506	0.0005	mg/L	0.0500	101	85-115	1.22	20
Selenium	0.258	0.0010	mg/L	0.250	103	85-115	3.11	20
Uranium	0.0505	0.0005	mg/L	0.0500	101	85-115	0.773	20
Zinc	0.0509	0.0020	mg/L	0.0500	102	85-115	3.19	20

Batch B232656 - Dissolved ICPMS

Blank (B232656-BLK1)

Prepared & Analyzed: 09/06/23

Arsenic	ND	0.0005	mg/L
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LCS (B232656-BS1)

Prepared & Analyzed: 09/06/23

Arsenic	0.0527	0.0005	mg/L	0.0500	105	85-115
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LCS Dup (B232656-BSD1)

Prepared & Analyzed: 09/06/23

Arsenic	0.0523	0.0005	mg/L	0.0500	105	85-115	0.795	20
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Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC SW Baseline w-LLHg
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/07/23 13:44

Notes and Definitions

Q8 Sample(s) not received on ice.

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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Project Information

Printed: 08/24/2023 4:57 pm

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 SW Baseline w-LLHg

Project Number: GCC SW Baseline 2021

Client PM: Tom Bird

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 200.8 Low Level	Do not field filter
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
Oil & Grease	
pH	
Potassium Dissolved by ICP	
SAR-Calc	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Total Suspended Solids [TSS]	Label bottle TSS
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

The GCC SW Baseline bottle set has two poly 250 ml bottles for metals. One is for LL Hg totals so does not get field-filtered, while the other metals bottle gets field-filtered. Please label one metals bottle in each set "DO NOT FIELD FILTER, LL Hg" as a reminder for them out in the field. Please make a note in LIMS for this to be standard quarterly practice.

SAMPLE CONDITION RECEIPT FORM

Client Name: A.C.C. Energy

Work Order # 2300-381

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo

Custody Seals on Box/Cooler Present: ☐ Yes ☒ No

Seals Intact: ☐ Yes ☒ No

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

Type of Ice: ☒ Wet ☐ Blue ☒ None

Cooler Temp: Observed Temp: 18.3 °C

Correction Factor: 0 °C

Final Temp: 18.3 °C

*Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 6/25/23

Labeled by initials:
(if different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>pH</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☒ Yes ☐ No	11. <u>Diss</u>
Field Filtered: ☒ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	<u>WT</u> SL OT	
Trip Blank Present:	☐ Yes ☒ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☒ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



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Durango, CO 81303
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31 August 2023

Tom Bird
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
RE: GCC GW Baseline

Enclosed are the results of analyses for samples received by the laboratory on 08/16/23 14:27. 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,

A handwritten signature in blue ink, reading 'Jeremy D. Allen', is written in a cursive style.

Jeremy D Allen
Laboratory Director

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: T104704514-23-17

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: T104704398-23-16



GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-1-A	2308292-01	Water	08/16/23 12:14	08/16/23 14:27	
MW-5-MI	2308292-02	Water	08/16/23 13:51	08/16/23 14:27	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom BirdReported:
08/31/23 13:51

MW-1-A

2308292-01 (Ground Water)

Sampled Date: 08/16/23 12:14

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	368	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	368	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Cation/Anion Balance	-3.92	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	2.55	2.00	0.111	mg/L	2	08/28/23 12:51	EPA300.0		AWG
Fluoride*	0.224	0.200	0.0194	mg/L	2	08/28/23 12:51	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/24/23 13:21	EPA353.2		AWG
pH*	7.38			pH Units	1	08/17/23 08:47	EPA150.1		CAI
pH Temperature, degrees C	19.8			pH Units	1	08/17/23 08:47	EPA150.1		CAI
Sulfate*	587	5.00	0.620	mg/L	5	08/28/23 13:11	EPA300.0		AWG
Total Dissolved Solids*	1200	10.0		mg/L	1	08/22/23 17:18	EPA160.1		CAI
Total Organic Carbon*	1.55	0.500	0.175	mg/L	1	08/17/23 16:48	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/22/23 17:53	EPA200.7		AES
Calcium*	27.7	0.500	0.309	mg/L	5	08/22/23 17:53	EPA200.7		AES
Hardness as CaCO ₃	150	3.31	1.49	mg/L	5	08/22/23 17:53	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/23/23 18:02	EPA200.7		AES
Magnesium*	19.6	0.500	0.176	mg/L	5	08/22/23 17:53	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/22/23 17:53	EPA200.7		AES
Silica (SiO ₂)	9.44	5.35	0.814	mg/L	5	08/22/23 17:53	Calculation		AES
Silicon	4.41	2.50	0.381	mg/L	5	08/22/23 17:53	EPA200.7		AES
Sodium*	333	5.00	2.05	mg/L	5	08/22/23 17:53	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/22/23 15:40	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/22/23 15:40	EPA200.8		AES
Copper*	0.0046	0.0025	0.0021	mg/L	5	08/22/23 15:40	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/22/23 15:40	EPA200.8		AES
Manganese*	0.0128	0.0025	0.0009	mg/L	5	08/22/23 15:40	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/22/23 15:40	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/22/23 15:40	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/22/23 15:40	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/22/23 15:40	EPA200.8		AES

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

MW-1-A

2308292-01 (Ground Water)

Sampled Date: 08/16/23 12:14

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/25/23 09:30	EPA245.7		CAI
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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

MW-5-MI

2308292-02 (Ground Water)

Sampled Date: 08/16/23 13:51

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	904	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	46.0	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	858	10.0	6.06	mg/L	1	08/17/23 10:45	2320 B		AES
Cation/Anion Balance	-1.82	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	5.23	2.00	0.111	mg/L	2	08/28/23 14:11	EPA300.0		AWG
Fluoride*	0.256	0.200	0.0194	mg/L	2	08/28/23 14:11	EPA300.0		AWG
Nitrate/Nitrite as N*	0.052	0.020	0.003	mg/L as N	1	08/24/23 13:25	EPA353.2		AWG
pH*	7.38			pH Units	1	08/17/23 08:47	EPA150.1		CAI
pH Temperature, degrees C	19.8			pH Units	1	08/17/23 08:47	EPA150.1		CAI
Sulfate*	6.53	2.00	0.248	mg/L	2	08/28/23 14:11	EPA300.0		AWG
Total Dissolved Solids*	1030	10.0		mg/L	1	08/22/23 17:20	EPA160.1		CAI
Total Organic Carbon*	2.70	0.500	0.175	mg/L	1	08/17/23 17:39	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/22/23 17:55	EPA200.7		AES
Calcium*	2.03	0.500	0.309	mg/L	5	08/22/23 17:55	EPA200.7		AES
Hardness as CaCO ₃	8.29	3.31	1.49	mg/L	5	08/22/23 17:55	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/23/23 18:04	EPA200.7		AES
Magnesium*	0.779	0.500	0.176	mg/L	5	08/22/23 17:55	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/22/23 17:55	EPA200.7		AES
Silica (SiO ₂)	6.40	5.35	0.814	mg/L	5	08/22/23 17:55	Calculation		AES
Silicon	2.99	2.50	0.381	mg/L	5	08/22/23 17:55	EPA200.7		AES
Sodium*	393	5.00	2.05	mg/L	5	08/22/23 17:55	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	0.0080	0.0025	0.0018	mg/L	5	08/22/23 15:41	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/22/23 15:41	EPA200.8		AES
Copper*	0.0041	0.0025	0.0021	mg/L	5	08/22/23 15:41	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/22/23 15:41	EPA200.8		AES
Manganese*	0.0143	0.0025	0.0009	mg/L	5	08/22/23 15:41	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/22/23 15:41	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/22/23 15:41	EPA200.8		AES
Uranium	0.0067	0.0025	0.0002	mg/L	5	08/22/23 15:41	EPA200.8		AES
Zinc*	0.0716	0.0100	0.0024	mg/L	5	08/22/23 15:41	EPA200.8		AES

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

MW-5-MI

2308292-02 (Ground Water)

Sampled Date: 08/16/23 13:51

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/25/23 09:38	EPA245.7		CAI
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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232440 - General Prep - Wet Chem

Blank (B232440-BLK1)

Prepared & Analyzed: 08/17/23

Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L

LCS (B232440-BS1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	108	10.0	mg/L	100	108	85-115
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LCS Dup (B232440-BSD1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	106	10.0	mg/L	100	106	85-115	1.87	20
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Reference (B232440-SRM1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	74.0	10.0	mg/L	72.7	102	85-115
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Batch B232445 - General Prep - Wet Chem

Blank (B232445-BLK1)

Prepared & Analyzed: 08/17/23

Total Organic Carbon	ND	0.500	mg/L
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LCS (B232445-BS1)

Prepared & Analyzed: 08/17/23

Total Organic Carbon	9.60	0.500	mg/L	10.0	96.0	85-115
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LCS Dup (B232445-BSD1)

Prepared & Analyzed: 08/17/23

Total Organic Carbon	9.49	0.500	mg/L	10.0	94.9	85-115	1.16	20
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Batch B232465 - General Prep - Wet Chem

Reference (B232465-SRM1)

Prepared & Analyzed: 08/17/23

pH	7.06	pH Units	7.00	101	98.57-101.42
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Batch B232494 - General Prep - Wet Chem

Blank (B232494-BLK1)

Prepared & Analyzed: 08/22/23

Total Dissolved Solids	ND	10.0	mg/L
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Reference (B232494-SRM1)

Prepared & Analyzed: 08/22/23

Total Dissolved Solids	410	10.0	mg/L	400	102	85-115
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Batch B232512 - Lachat

Blank (B232512-BLK1)

Prepared & Analyzed: 08/24/23

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232512 - Lachat (Continued)

Blank (B232512-BLK1) (Continued)

Prepared & Analyzed: 08/24/23

Nitrate/Nitrite as N	ND	0.020	mg/L as N
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LCS (B232512-BS1)

Prepared & Analyzed: 08/24/23

Nitrate/Nitrite as N	1.03	0.020	mg/L as N	1.00	103	90-110
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LCS Dup (B232512-BSD1)

Prepared & Analyzed: 08/24/23

Nitrate/Nitrite as N	1.04	0.020	mg/L as N	1.00	104	90-110	1.26	20
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Batch B232551 - IC- Ion Chromatograph

Blank (B232551-BLK1)

Prepared & Analyzed: 08/28/23

Chloride	ND	1.00	mg/L
Fluoride	ND	0.100	mg/L
Sulfate	ND	1.00	mg/L

LCS (B232551-BS1)

Prepared & Analyzed: 08/28/23

Chloride	24.7	1.00	mg/L	25.0	98.9	90-110
Fluoride	2.54	0.100	mg/L	2.50	101	90-110
Sulfate	25.2	1.00	mg/L	25.0	101	90-110

LCS Dup (B232551-BSD1)

Prepared & Analyzed: 08/28/23

Chloride	24.6	1.00	mg/L	25.0	98.5	90-110	0.377	20
Fluoride	2.53	0.100	mg/L	2.50	101	90-110	0.237	20
Sulfate	25.0	1.00	mg/L	25.0	100	90-110	0.586	20

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232486 - Dissolved ICP

Blank (B232486-BLK1)

Prepared & Analyzed: 08/22/23

Aluminum	ND	0.050	mg/L
Calcium	ND	0.100	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 (B232486-BS1)

Prepared & Analyzed: 08/22/23

Aluminum	4.13	0.050	mg/L	4.00	103	85-115
Calcium	3.95	0.100	mg/L	4.00	98.7	85-115
Magnesium	20.3	0.100	mg/L	20.0	102	85-115
Potassium	8.13	1.00	mg/L	8.00	102	85-115
Silicon	4.02	0.500	mg/L	4.00	100	85-115
Sodium	3.48	1.00	mg/L	3.24	107	85-115

LCS Dup (B232486-BS1)

Prepared & Analyzed: 08/22/23

Aluminum	4.16	0.050	mg/L	4.00	104	85-115	0.514	20
Calcium	3.97	0.100	mg/L	4.00	99.2	85-115	0.499	20
Magnesium	20.5	0.100	mg/L	20.0	102	85-115	0.675	20
Potassium	8.08	1.00	mg/L	8.00	101	85-115	0.650	20
Silicon	4.04	0.500	mg/L	4.00	101	85-115	0.548	20
Sodium	3.41	1.00	mg/L	3.24	105	85-115	1.76	20

Batch B232503 - Dissolved ICP

Blank (B232503-BLK1)

Prepared & Analyzed: 08/23/23

Iron	ND	0.050	mg/L
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LCS (B232503-BS1)

Prepared & Analyzed: 08/23/23

Iron	4.15	0.050	mg/L	4.00	104	85-115
------	------	-------	------	------	-----	--------

LCS Dup (B232503-BS1)

Prepared & Analyzed: 08/23/23

Iron	4.11	0.050	mg/L	4.00	103	85-115	0.771	20
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Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom BirdReported:
08/31/23 13:51

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232488 - Dissolved ICPMS

Blank (B232488-BLK1)

Prepared & Analyzed: 08/22/23

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	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 (B232488-BS1)

Prepared & Analyzed: 08/22/23

Arsenic	0.0498	0.0005	mg/L	0.0500	99.5	85-115
Cadmium	0.0498	0.0005	mg/L	0.0500	99.5	85-115
Copper	0.0482	0.0005	mg/L	0.0500	96.4	85-115
Lead	0.0483	0.0005	mg/L	0.0500	96.6	85-115
Manganese	0.0562	0.0005	mg/L	0.0500	112	85-115
Molybdenum	0.0478	0.0005	mg/L	0.0500	95.6	85-115
Selenium	0.241	0.0010	mg/L	0.250	96.6	85-115
Uranium	0.0485	0.0005	mg/L	0.0500	96.9	85-115
Zinc	0.0495	0.0020	mg/L	0.0500	99.1	85-115

LCS Dup (B232488-BSD1)

Prepared & Analyzed: 08/22/23

Arsenic	0.0516	0.0005	mg/L	0.0500	103	85-115	3.68	20
Cadmium	0.0508	0.0005	mg/L	0.0500	102	85-115	2.02	20
Copper	0.0492	0.0005	mg/L	0.0500	98.5	85-115	2.14	20
Lead	0.0487	0.0005	mg/L	0.0500	97.4	85-115	0.814	20
Manganese	0.0510	0.0005	mg/L	0.0500	102	85-115	9.59	20
Molybdenum	0.0487	0.0005	mg/L	0.0500	97.4	85-115	1.90	20
Selenium	0.246	0.0010	mg/L	0.250	98.6	85-115	2.09	20
Uranium	0.0490	0.0005	mg/L	0.0500	97.9	85-115	1.05	20
Zinc	0.0512	0.0020	mg/L	0.0500	102	85-115	3.35	20

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: GCC GW Baseline
Project Manager: Tom Bird

Reported:
08/31/23 13:51

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232496 - EPA 245.7

Blank (B232496-BLK1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	ND	100	ng/L							
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LCS (B232496-BS1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	1980	100	ng/L	2000		98.9	76-113			
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LCS Dup (B232496-BSD1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	1840	100	ng/L	2000		92.2	76-113	7.09	20	
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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

Jeremy D Allen, Laboratory Director

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[illegible]

Project Information

Printed: 08/17/2023 8:40 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: GCC GW Baseline

Client PM: Tom Bird

Comments: All Metals Are Field Filtered. Send Out PRESERVED bottles per Landon. 11-01-18

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

SAMPLE CONDITION RECEIPT FORM

Client Name: G.C.C.

Work Order # 2308-292

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo

Custody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No

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

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: Observed Temp: 5.0 °C Correction Factor: 0 °C Final Temp: 5.0 °C

*Temp should be above freezing to 6°C

Date/Initials of person examining contents: 8/17/25
[Signature]

Labeled by initials: _____
(If different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>2H</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☒ Yes ☐ No	11. <u>DISS.</u>
Field Filtered: ☒ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	<u>WT</u> ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☒ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☒ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
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www.greenanalytical.com

21 August 2023

Tom Bird
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 08/07/23 15:35. 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,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

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: T104704514-23-17

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: T104704398-23-16



GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/21/23 11:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-4-A	2308134-01	Water	08/07/23 13:47	08/07/23 15:35	
MW-4-MI	2308134-02	Water	08/07/23 13:15	08/07/23 15:35	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/21/23 11:44

MW-4-A

2308134-01 (Ground Water)

Sampled Date: 08/07/23 13:47

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	562	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	38.0	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	524	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Cation/Anion Balance	-1.79	-100	-100	%	1	08/21/23 08:25	Calculation		JDA
Chloride*	10.6	5.00	0.278	mg/L	5	08/17/23 22:42	EPA300.0		JDA
Fluoride*	<0.500	0.500	0.0486	mg/L	5	08/17/23 22:42	EPA300.0		JDA
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:20	EPA353.2		AWG
pH*	8.23			pH Units	1	08/08/23 09:30	EPA150.1		AES
pH Temperature, degrees C	20.2			pH Units	1	08/08/23 09:30	EPA150.1		AES
Sulfate*	571	5.00	0.620	mg/L	5	08/17/23 22:42	EPA300.0		JDA
Total Dissolved Solids*	1480	10.0		mg/L	1	08/09/23 16:49	EPA160.1		CAI
Total Organic Carbon*	3.44	0.500	0.175	mg/L	1	08/11/23 19:02	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/18/23 13:15	EPA200.7		AES
Calcium*	1.58	0.500	0.309	mg/L	5	08/18/23 13:15	EPA200.7		AES
Hardness as CaCO ₃	6.50	3.31	1.49	mg/L	5	08/18/23 13:15	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/18/23 13:15	EPA200.7		AES
Magnesium*	0.616	0.500	0.176	mg/L	5	08/18/23 13:15	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/18/23 13:15	EPA200.7		AES
Silica (SiO ₂)	8.45	5.35	0.814	mg/L	5	08/18/23 13:15	Calculation		AES
Silicon	3.95	2.50	0.381	mg/L	5	08/18/23 13:15	EPA200.7		AES
Sodium*	503	5.00	2.05	mg/L	5	08/18/23 13:15	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/09/23 15:03	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/09/23 15:03	EPA200.8		AES
Copper*	0.0044	0.0025	0.0021	mg/L	5	08/09/23 15:03	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/09/23 15:03	EPA200.8		AES
Manganese*	0.0032	0.0025	0.0009	mg/L	5	08/09/23 15:03	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/09/23 15:03	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/09/23 15:03	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/09/23 15:03	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/09/23 15:03	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/21/23 11:44

MW-4-A

2308134-01 (Ground Water)

Sampled Date: 08/07/23 13:47

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/14/23 13:48	EPA245.7		CAI
Cation/Anion Balance	-1.79								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/21/23 11:44

MW-4-MI

2308134-02 (Ground Water)
Sampled Date: 08/07/23 13:15

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	955	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	48.0	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	907	10.0	6.06	mg/L	1	08/16/23 14:00	2320 B		AES
Cation/Anion Balance	-0.940	-100	-100	%	1	08/21/23 08:25	Calculation		JDA
Chloride*	<5.00	5.00	0.278	mg/L	5	08/17/23 23:41	EPA300.0		JDA
Fluoride*	4.32	0.500	0.0486	mg/L	5	08/17/23 23:41	EPA300.0		JDA
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:23	EPA353.2		AWG
pH*	8.44			pH Units	1	08/08/23 09:30	EPA150.1		AES
pH Temperature, degrees C	20.5			pH Units	1	08/08/23 09:30	EPA150.1		AES
Sulfate*	<5.00	5.00	0.620	mg/L	5	08/17/23 23:41	EPA300.0		JDA
Total Dissolved Solids*	1060	10.0		mg/L	1	08/09/23 16:51	EPA160.1		CAI
Total Organic Carbon*	4.06	2.50	0.874	mg/L	5	08/14/23 10:51	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/18/23 13:23	EPA200.7		AES
Calcium*	0.838	0.500	0.309	mg/L	5	08/18/23 13:23	EPA200.7		AES
Hardness as CaCO ₃	<3.31	3.31	1.49	mg/L	5	08/18/23 13:23	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/18/23 13:23	EPA200.7		AES
Magnesium*	<0.500	0.500	0.176	mg/L	5	08/18/23 13:23	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/18/23 13:23	EPA200.7		AES
Silica (SiO ₂)	6.72	5.35	0.814	mg/L	5	08/18/23 13:23	Calculation		AES
Silicon	3.14	2.50	0.381	mg/L	5	08/18/23 13:23	EPA200.7		AES
Sodium*	428	5.00	2.05	mg/L	5	08/18/23 13:23	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	0.0090	0.0025	0.0018	mg/L	5	08/09/23 15:05	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/09/23 15:05	EPA200.8		AES
Copper*	0.0039	0.0025	0.0021	mg/L	5	08/09/23 15:05	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/09/23 15:05	EPA200.8		AES
Manganese*	0.0079	0.0025	0.0009	mg/L	5	08/09/23 15:05	EPA200.8		AES
Molybdenum*	0.0051	0.0025	0.0009	mg/L	5	08/09/23 15:05	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/09/23 15:05	EPA200.8		AES
Uranium	0.0063	0.0025	0.0002	mg/L	5	08/09/23 15:05	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/09/23 15:05	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/21/23 11:44

MW-4-MI

2308134-02 (Ground Water)
Sampled Date: 08/07/23 13:15

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/14/23 13:55	EPA245.7		CAI
Cation/Anion Balance	-.94								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/21/23 11:44

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232308 - General Prep - Wet Chem

Reference (B232308-SRM1)

Prepared & Analyzed: 08/08/23

pH	6.95		pH Units	7.00		99.3	98.57-101.42			
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Batch B232337 - General Prep - Wet Chem

Blank (B232337-BLK1)

Prepared & Analyzed: 08/09/23

Total Dissolved Solids	ND	10.0	mg/L							
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Reference (B232337-SRM1)

Prepared & Analyzed: 08/09/23

Total Dissolved Solids	445	10.0	mg/L	400		111	85-115			
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Batch B232361 - General Prep - Wet Chem

Blank (B232361-BLK1)

Prepared & Analyzed: 08/11/23

Total Organic Carbon	ND	0.500	mg/L							
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LCS (B232361-BS1)

Prepared & Analyzed: 08/11/23

Total Organic Carbon	9.89	0.500	mg/L	10.0		98.9	85-115			
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LCS Dup (B232361-BSD1)

Prepared & Analyzed: 08/11/23

Total Organic Carbon	9.88	0.500	mg/L	10.0		98.8	85-115	0.101	20	
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Batch B232412 - Lachat

Blank (B232412-BLK1)

Prepared: 08/16/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	ND	0.020	mg/L as N							
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LCS (B232412-BS1)

Prepared: 08/16/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.06	0.020	mg/L as N	1.00		106	90-110			
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LCS Dup (B232412-BSD1)

Prepared: 08/16/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.06	0.020	mg/L as N	1.00		106	90-110	0.189	20	
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Batch B232416 - General Prep - Wet Chem

Blank (B232416-BLK1)

Prepared & Analyzed: 08/16/23

Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L							

LCS (B232416-BS1)

Prepared & Analyzed: 08/16/23

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/21/23 11:44General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232416 - General Prep - Wet Chem (Continued)

LCS (B232416-BS1) (Continued)

Prepared & Analyzed: 08/16/23

Alkalinity, Total as CaCO ₃	99.0	10.0	mg/L	100	99.0	85-115
--	------	------	------	-----	------	--------

LCS Dup (B232416-BSD1)

Prepared & Analyzed: 08/16/23

Alkalinity, Total as CaCO ₃	101	10.0	mg/L	100	101	85-115	2.00	20
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Reference (B232416-SRM1)

Prepared & Analyzed: 08/16/23

Alkalinity, Total as CaCO ₃	73.0	10.0	mg/L	72.7	100	85-115
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Batch B232419 - IC- Ion Chromatograph

Blank (B232419-BLK1)

Prepared: 08/16/23 Analyzed: 08/17/23

Chloride	ND	1.00	mg/L
Fluoride	ND	0.100	mg/L
Sulfate	ND	1.00	mg/L

LCS (B232419-BS1)

Prepared: 08/16/23 Analyzed: 08/17/23

Chloride	25.6	1.00	mg/L	25.0	102	90-110
Fluoride	2.45	0.100	mg/L	2.50	97.8	90-110
Sulfate	24.2	1.00	mg/L	25.0	97.0	90-110

LCS Dup (B232419-BSD1)

Prepared: 08/16/23 Analyzed: 08/17/23

Chloride	25.9	1.00	mg/L	25.0	103	90-110	0.983	20
Fluoride	2.47	0.100	mg/L	2.50	98.8	90-110	1.02	20
Sulfate	24.5	1.00	mg/L	25.0	98.0	90-110	1.04	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/21/23 11:44

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232317 - Dissolved ICP

Blank (B232317-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

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 (B232317-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Aluminum	4.16	0.050	mg/L	4.00	104	85-115
Calcium	4.06	0.100	mg/L	4.00	101	85-115
Iron	4.09	0.050	mg/L	4.00	102	85-115
Magnesium	20.9	0.100	mg/L	20.0	105	85-115
Potassium	8.33	1.00	mg/L	8.00	104	85-115
Silicon	4.12	0.500	mg/L	4.00	103	85-115
Sodium	3.27	1.00	mg/L	3.24	101	85-115

LCS Dup (B232317-BSD1)

Prepared: 08/17/23 Analyzed: 08/18/23

Aluminum	4.07	0.050	mg/L	4.00	102	85-115	2.30	20
Calcium	3.93	0.100	mg/L	4.00	98.4	85-115	3.07	20
Iron	3.98	0.050	mg/L	4.00	99.6	85-115	2.62	20
Magnesium	20.3	0.100	mg/L	20.0	102	85-115	2.78	20
Potassium	8.08	1.00	mg/L	8.00	101	85-115	2.99	20
Silicon	4.00	0.500	mg/L	4.00	100	85-115	3.05	20
Sodium	3.19	1.00	mg/L	3.24	98.4	85-115	2.66	20

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/21/23 11:44

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232319 - Dissolved ICPMS

Blank (B232319-BLK1)

Prepared: 08/08/23 Analyzed: 08/09/23

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	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 (B232319-BS1)

Prepared: 08/08/23 Analyzed: 08/09/23

Arsenic	0.0537	0.0005	mg/L	0.0500	107	85-115
Cadmium	0.0510	0.0005	mg/L	0.0500	102	85-115
Copper	0.0492	0.0005	mg/L	0.0500	98.4	85-115
Lead	0.0515	0.0005	mg/L	0.0500	103	85-115
Manganese	0.0510	0.0005	mg/L	0.0500	102	85-115
Molybdenum	0.0523	0.0005	mg/L	0.0500	105	85-115
Selenium	0.259	0.0010	mg/L	0.250	103	85-115
Uranium	0.0517	0.0005	mg/L	0.0500	103	85-115
Zinc	0.0477	0.0020	mg/L	0.0500	95.5	85-115

LCS Dup (B232319-BSD1)

Prepared: 08/08/23 Analyzed: 08/09/23

Arsenic	0.0544	0.0005	mg/L	0.0500	109	85-115	1.33	20
Cadmium	0.0516	0.0005	mg/L	0.0500	103	85-115	1.15	20
Copper	0.0493	0.0005	mg/L	0.0500	98.6	85-115	0.193	20
Lead	0.0516	0.0005	mg/L	0.0500	103	85-115	0.177	20
Manganese	0.0507	0.0005	mg/L	0.0500	101	85-115	0.581	20
Molybdenum	0.0527	0.0005	mg/L	0.0500	105	85-115	0.681	20
Selenium	0.260	0.0010	mg/L	0.250	104	85-115	0.322	20
Uranium	0.0512	0.0005	mg/L	0.0500	102	85-115	0.940	20
Zinc	0.0479	0.0020	mg/L	0.0500	95.8	85-115	0.327	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/21/23 11:44

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232340 - EPA 245.7

Blank (B232340-BLK1)

Prepared: 08/09/23 Analyzed: 08/14/23

Mercury	ND	100	ng/L
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LCS (B232340-BS1)

Prepared: 08/09/23 Analyzed: 08/14/23

Mercury	1820	100	ng/L	2000	90.8	76-113
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LCS Dup (B232340-BSD1)

Prepared: 08/09/23 Analyzed: 08/14/23

Mercury	1800	100	ng/L	2000	89.9	76-113	0.922	20
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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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[illegible]

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

8/7/2023

Project Name: GCC GW Baseline
Project Number: GCC GW Baseline
Client PM: Tom Bird
Comments: All Metals Are Field Filtered. Send Out PRESERVED bottles per Landon. 11-01-18

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



SAMPLE CONDITION RECEIPT FORM

Client Name: GCC Energy

Work Order # 2308-134

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo

Custody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No

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

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: Observed Temp: 14.4 °C Correction Factor: 0 °C Final Temp: 14.4 °C

*Temp should be above freezing to 6°C

Date/Initials of person examining contents: MPN 8/7/23

Labeled by initials: _____
(if different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>PT</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☒ Yes ☐ No	11. <u>Diss</u>
Field Filtered: ☒ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



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Durango, CO 81303
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05 September 2023

Tom Bird
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 08/18/23 16:26. 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,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

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: T104704514-23-17

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: T104704398-23-16



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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-4-C	2308320-01	Water	08/18/23 14:49	08/18/23 16:26	
Well #2 Down Gradient	2308320-02	Water	08/18/23 13:58	08/18/23 16:26	
MW-98	2308320-03	Water	08/18/23 14:58	08/18/23 16:26	
Hay Gulch Ditch Down Gradient	2308320-04	Water	08/18/23 12:57	08/18/23 16:26	
Wiltse Well	2308320-05	Water	08/18/23 12:09	08/18/23 16:26	
MW-HGA-4	2308320-07	Water	08/18/23 10:07	08/18/23 16:26	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28

MW-4-C

2308320-01 (Ground Water)

Sampled Date: 08/18/23 14:49

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	2460	10.0	6.06	mg/L	5	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	5	08/29/23 16:00	2320 B		JDA
Alkalinity, Carbonate as CaCO ₃ *	130	10.0	6.06	mg/L	5	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO ₃ *	2330	10.0	6.06	mg/L	5	08/29/23 16:00	2320 B		JDA
Cation/Anion Balance	-1.14	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	566	10.0	0.555	mg/L	10	08/28/23 19:29	EPA300.0		AWG
Fluoride*	2.10	1.00	0.0971	mg/L	10	08/28/23 19:29	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/29/23 12:04	EPA353.2		AWG
pH*	8.04			pH Units	1	08/18/23 16:33	EPA150.1		AWG
pH Temperature, degrees C	20.5			pH Units	1	08/18/23 16:33	EPA150.1		AWG
Sulfate*	<10.0	10.0	1.24	mg/L	10	08/28/23 19:29	EPA300.0		AWG
Total Dissolved Solids*	3390	10.0		mg/L	1	08/24/23 17:11	EPA160.1		CAI
Total Organic Carbon*	7.10	2.50	0.874	mg/L	5	08/30/23 19:15	5310C		AES

Dissolved Metals by ICP

Aluminum*	<0.500	0.500	0.440	mg/L	10	08/23/23 18:21	EPA200.7		AES
Calcium*	5.69	1.00	0.618	mg/L	10	08/23/23 18:21	EPA200.7		AES
Hardness as CaCO ₃	24.3	6.62	2.99	mg/L	10	08/23/23 18:21	2340 B		AES
Iron*	0.630	0.500	0.151	mg/L	10	08/23/23 18:21	EPA200.7		AES
Magnesium*	2.45	1.00	0.351	mg/L	10	08/23/23 18:21	EPA200.7		AES
Potassium*	<10.0	10.0	1.04	mg/L	10	08/23/23 18:21	EPA200.7		AES
Silica (SiO ₂)	<10.7	10.7	1.63	mg/L	10	08/23/23 18:21	Calculation		AES
Silicon	<5.00	5.00	0.761	mg/L	10	08/23/23 18:21	EPA200.7		AES
Sodium*	1440	10.0	4.09	mg/L	10	08/23/23 18:21	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	0.0237	0.0050	0.0037	mg/L	10	08/25/23 13:34	EPA200.8		AES
Cadmium*	<0.0050	0.0050	0.0003	mg/L	10	08/25/23 13:34	EPA200.8		AES
Copper*	0.0731	0.0050	0.0042	mg/L	10	08/25/23 13:34	EPA200.8		AES
Lead*	<0.0050	0.0050	0.0004	mg/L	10	08/25/23 13:34	EPA200.8		AES
Manganese*	<0.0050	0.0050	0.0017	mg/L	10	08/25/23 13:34	EPA200.8		AES
Molybdenum*	<0.0050	0.0050	0.0018	mg/L	10	08/25/23 13:34	EPA200.8		AES
Selenium*	0.0119	0.0100	0.0037	mg/L	10	08/25/23 13:34	EPA200.8		AES
Uranium	<0.0050	0.0050	0.0004	mg/L	10	08/25/23 13:34	EPA200.8		AES
Zinc*	<0.0200	0.0200	0.0047	mg/L	10	08/25/23 13:34	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

MW-4-C

2308320-01 (Ground Water)

Sampled Date: 08/18/23 14:49

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/25/23 11:19	EPA245.7		CAI
Cation/Anion Balance	-1.14								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28

Well #2 Down Gardient

2308320-02 (Ground Water)

Sampled Date: 08/18/23 13:58

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	379	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO ₃ *	379	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Cation/Anion Balance	4.40	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	52.0	2.00	0.111	mg/L	2	08/28/23 20:09	EPA300.0		AWG
Fluoride*	0.220	0.200	0.0194	mg/L	2	08/28/23 20:09	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/29/23 12:05	EPA353.2		AWG
pH*	7.40			pH Units	1	08/18/23 16:33	EPA150.1		AWG
pH Temperature, degrees C	16.6			pH Units	1	08/18/23 16:33	EPA150.1		AWG
Sulfate*	239	2.00	0.248	mg/L	2	08/28/23 20:09	EPA300.0		AWG
Total Dissolved Solids*	855	10.0		mg/L	1	08/24/23 17:11	EPA160.1		CAI
Total Organic Carbon*	1.88	0.500	0.175	mg/L	1	08/30/23 19:31	5310C		AES

Dissolved Metals by ICP

Aluminum*	<0.100	0.100	0.088	mg/L	2	08/23/23 18:24	EPA200.7		AES
Calcium*	98.9	0.200	0.124	mg/L	2	08/23/23 18:24	EPA200.7		AES
Hardness as CaCO ₃	646	1.32	0.598	mg/L	2	08/23/23 18:24	2340 B		AES
Iron*	<0.100	0.100	0.030	mg/L	2	08/23/23 18:24	EPA200.7		AES
Magnesium*	97.0	0.200	0.070	mg/L	2	08/23/23 18:24	EPA200.7		AES
Potassium*	2.80	2.00	0.208	mg/L	2	08/23/23 18:24	EPA200.7		AES
Silica (SiO ₂)	12.5	2.14	0.326	mg/L	2	08/23/23 18:24	Calculation		AES
Silicon	5.85	1.00	0.152	mg/L	2	08/23/23 18:24	EPA200.7		AES
Sodium*	33.8	2.00	0.818	mg/L	2	08/23/23 18:24	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0010	0.0010	0.0007	mg/L	2	08/25/23 13:36	EPA200.8		AES
Cadmium*	<0.0010	0.0010	0.00005	mg/L	2	08/25/23 13:36	EPA200.8		AES
Copper*	0.0215	0.0010	0.0008	mg/L	2	08/25/23 13:36	EPA200.8		AES
Lead*	<0.0010	0.0010	0.00009	mg/L	2	08/25/23 13:36	EPA200.8		AES
Manganese*	0.416	0.0010	0.0003	mg/L	2	08/25/23 13:36	EPA200.8		AES
Molybdenum*	0.0032	0.0010	0.0004	mg/L	2	08/25/23 13:36	EPA200.8		AES
Selenium*	<0.0020	0.0020	0.0007	mg/L	2	08/25/23 13:36	EPA200.8		AES
Uranium	0.0020	0.0010	0.00009	mg/L	2	08/25/23 13:36	EPA200.8		AES
Zinc*	0.0198	0.0040	0.0009	mg/L	2	08/25/23 13:36	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

Well #2 Down Gardient

2308320-02 (Ground Water)

Sampled Date: 08/18/23 13:58

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/25/23 11:22	EPA245.7		CAI
Cation/Anion Balance	4.4								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28

MW-98

2308320-03 (Ground Water)

Sampled Date: 08/18/23 14:58

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	377	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO ₃ *	377	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Cation/Anion Balance	4.82	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	51.2	2.00	0.111	mg/L	2	08/28/23 20:49	EPA300.0		AWG
Fluoride*	0.218	0.200	0.0194	mg/L	2	08/28/23 20:49	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/29/23 12:06	EPA353.2		AWG
pH*	7.40			pH Units	1	08/18/23 16:33	EPA150.1		AWG
pH Temperature, degrees C	16.5			pH Units	1	08/18/23 16:33	EPA150.1		AWG
Sulfate*	235	2.00	0.248	mg/L	2	08/28/23 20:49	EPA300.0		AWG
Total Dissolved Solids*	780	10.0		mg/L	1	08/24/23 17:11	EPA160.1		CAI
Total Organic Carbon*	1.88	0.500	0.175	mg/L	1	08/30/23 19:47	5310C		AES

Dissolved Metals by ICP

Aluminum*	<0.100	0.100	0.088	mg/L	2	08/23/23 18:26	EPA200.7		AES
Calcium*	98.0	0.200	0.124	mg/L	2	08/23/23 18:26	EPA200.7		AES
Hardness as CaCO ₃	648	1.32	0.598	mg/L	2	08/23/23 18:26	2340 B		AES
Iron*	<0.100	0.100	0.030	mg/L	2	08/23/23 18:26	EPA200.7		AES
Magnesium*	97.9	0.200	0.070	mg/L	2	08/23/23 18:26	EPA200.7		AES
Potassium*	2.68	2.00	0.208	mg/L	2	08/23/23 18:26	EPA200.7		AES
Silica (SiO ₂)	12.4	2.14	0.326	mg/L	2	08/23/23 18:26	Calculation		AES
Silicon	5.79	1.00	0.152	mg/L	2	08/23/23 18:26	EPA200.7		AES
Sodium*	32.7	2.00	0.818	mg/L	2	08/23/23 18:26	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0010	0.0010	0.0007	mg/L	2	08/25/23 13:37	EPA200.8		AES
Cadmium*	<0.0010	0.0010	0.00005	mg/L	2	08/25/23 13:37	EPA200.8		AES
Copper*	<0.0010	0.0010	0.0008	mg/L	2	08/25/23 13:37	EPA200.8		AES
Lead*	<0.0010	0.0010	0.00009	mg/L	2	08/25/23 13:37	EPA200.8		AES
Manganese*	0.418	0.0010	0.0003	mg/L	2	08/25/23 13:37	EPA200.8		AES
Molybdenum*	0.0033	0.0010	0.0004	mg/L	2	08/25/23 13:37	EPA200.8		AES
Selenium*	<0.0020	0.0020	0.0007	mg/L	2	08/25/23 13:37	EPA200.8		AES
Uranium	0.0020	0.0010	0.00009	mg/L	2	08/25/23 13:37	EPA200.8		AES
Zinc*	<0.0040	0.0040	0.0009	mg/L	2	08/25/23 13:37	EPA200.8		AES

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Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

MW-98

2308320-03 (Ground Water)
Sampled Date: 08/18/23 14:58

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/25/23 11:24	EPA245.7		CAI
Cation/Anion Balance	4.82								

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

Hay Gulch Ditch Down Gradient

2308320-04 (Surface Water)

Sampled Date: 08/18/23 12:57

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	293	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Carbonate as CaCO ₃ *	28.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO ₃ *	265	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Cation/Anion Balance	6.53	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	50.5	1.00	0.0555	mg/L	1	08/28/23 22:09	EPA300.0		AWG
Fluoride*	0.231	0.100	0.00971	mg/L	1	08/28/23 22:09	EPA300.0		AWG
Nitrate/Nitrite as N*	0.078	0.020	0.003	mg/L as N	1	08/29/23 12:10	EPA353.2		AWG
Oil & Grease (HEM)	<5.00	5.00	2.87	mg/L	1	09/01/23 11:00	EPA1664 A		JDA
pH*	8.28			pH Units	1	08/18/23 16:33	EPA150.1		AWG
pH Temperature, degrees C	16.6			pH Units	1	08/18/23 16:33	EPA150.1		AWG
SAR	0.58			No Unit	1	08/25/23 18:14	Calculation		AES
Sulfate*	168	1.00	0.124	mg/L	1	08/28/23 22:09	EPA300.0		AWG
Total Dissolved Solids*	625	10.0		mg/L	1	08/24/23 17:11	EPA160.1		CAI
Total Organic Carbon*	6.17	0.500	0.175	mg/L	1	08/30/23 20:04	5310C		AES
Total Suspended Solids*	16.0	2.50		mg/L	1	08/21/23 16:03	2540 D		CAI

Dissolved Metals by ICP

Aluminum*	<0.100	0.100	0.088	mg/L	2	08/23/23 18:28	EPA200.7		AES
Calcium*	114	0.200	0.124	mg/L	2	08/23/23 18:28	EPA200.7		AES
Hardness as CaCO ₃	497	1.32	0.598	mg/L	2	08/23/23 18:28	2340 B		AES
Iron*	<0.100	0.100	0.030	mg/L	2	08/23/23 18:28	EPA200.7		AES
Magnesium*	51.9	0.200	0.070	mg/L	2	08/23/23 18:28	EPA200.7		AES
Potassium*	6.45	2.00	0.208	mg/L	2	08/23/23 18:28	EPA200.7		AES
Silica (SiO ₂)	13.4	2.14	0.326	mg/L	2	08/23/23 18:28	Calculation		AES
Silicon	6.25	1.00	0.152	mg/L	2	08/23/23 18:28	EPA200.7		AES
Sodium*	29.6	2.00	0.818	mg/L	2	08/23/23 18:28	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Mercury	<0.0100	0.0100	0.00430	ug/L	1	09/01/23 14:53	EPA200.8		AES
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Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

Hay Gulch Ditch Down Gradient

2308320-04 (Surface Water)

Sampled Date: 08/18/23 12:57

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0007	mg/L	2	08/25/23 13:39	EPA200.8		AES
Cadmium*	<0.0010	0.0010	0.00005	mg/L	2	08/25/23 13:39	EPA200.8		AES
Copper*	0.0029	0.0010	0.0008	mg/L	2	08/25/23 13:39	EPA200.8		AES
Lead*	<0.0010	0.0010	0.00009	mg/L	2	08/25/23 13:39	EPA200.8		AES
Manganese*	0.0156	0.0010	0.0003	mg/L	2	08/25/23 13:39	EPA200.8		AES
Molybdenum*	0.0010	0.0010	0.0004	mg/L	2	08/25/23 13:39	EPA200.8		AES
Selenium*	<0.0020	0.0020	0.0007	mg/L	2	08/25/23 13:39	EPA200.8		AES
Uranium	0.0010	0.0010	0.00009	mg/L	2	08/25/23 13:39	EPA200.8		AES
Zinc*	<0.0040	0.0040	0.0009	mg/L	2	08/25/23 13:39	EPA200.8		AES
Cation/Anion Balance	6.53								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28

Wiltse Well

2308320-05 (Ground Water)

Sampled Date: 08/18/23 12:09

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	460	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO ₃ *	460	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Cation/Anion Balance	2.55	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	59.0	5.00	0.278	mg/L	5	08/28/23 22:29	EPA300.0		AWG
Fluoride*	<0.500	0.500	0.0486	mg/L	5	08/28/23 22:29	EPA300.0		AWG
Nitrate/Nitrite as N*	2.32	0.100	0.014	mg/L as N	5	08/29/23 12:11	EPA353.2		AWG
pH*	7.03			pH Units	1	08/18/23 16:33	EPA150.1		AWG
pH Temperature, degrees C	18.0			pH Units	1	08/18/23 16:33	EPA150.1		AWG
Sulfate*	960	5.00	0.620	mg/L	5	08/28/23 22:29	EPA300.0		AWG
Total Dissolved Solids*	1920	10.0		mg/L	1	08/24/23 17:11	EPA160.1		CAI
Total Organic Carbon*	6.11	2.50	0.874	mg/L	5	08/31/23 13:07	5310C		AES

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/23/23 18:31	EPA200.7		AES
Calcium*	273	0.500	0.309	mg/L	5	08/23/23 18:31	EPA200.7		AES
Hardness as CaCO ₃	1380	3.31	1.49	mg/L	5	08/23/23 18:31	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/23/23 18:31	EPA200.7		AES
Magnesium*	170	0.500	0.176	mg/L	5	08/23/23 18:31	EPA200.7		AES
Potassium*	5.74	5.00	0.519	mg/L	5	08/23/23 18:31	EPA200.7		AES
Silica (SiO ₂)	15.8	5.35	0.814	mg/L	5	08/23/23 18:31	Calculation		AES
Silicon	7.37	2.50	0.381	mg/L	5	08/23/23 18:31	EPA200.7		AES
Sodium*	82.4	5.00	2.05	mg/L	5	08/23/23 18:31	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/25/23 13:43	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/25/23 13:43	EPA200.8		AES
Copper*	0.0035	0.0025	0.0021	mg/L	5	08/25/23 13:43	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/25/23 13:43	EPA200.8		AES
Manganese*	1.64	0.0025	0.0009	mg/L	5	08/25/23 13:43	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/25/23 13:43	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/25/23 13:43	EPA200.8		AES
Uranium	0.0026	0.0025	0.0002	mg/L	5	08/25/23 13:43	EPA200.8		AES
Zinc*	0.0255	0.0100	0.0024	mg/L	5	08/25/23 13:43	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

Wiltse Well

2308320-05 (Ground Water)

Sampled Date: 08/18/23 12:09

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/25/23 11:27	EPA245.7		CAI
Cation/Anion Balance	2.55								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28

MW-HGA-4

2308320-07 (Ground Water)

Sampled Date: 08/18/23 10:07

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	361	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO ₃ *	361	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Cation/Anion Balance	8.09	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	3.62	1.00	0.0555	mg/L	1	08/28/23 23:09	EPA300.0		AWG
Fluoride*	0.374	0.100	0.00971	mg/L	1	08/28/23 23:09	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.100	0.100	0.014	mg/L as N	5	08/29/23 12:38	EPA353.2		AWG
pH*	7.33			pH Units	1	08/18/23 16:33	EPA150.1		AWG
pH Temperature, degrees C	17.7			pH Units	1	08/18/23 16:33	EPA150.1		AWG
Sulfate*	158	1.00	0.124	mg/L	1	08/28/23 23:09	EPA300.0		AWG
Total Dissolved Solids*	525	10.0		mg/L	1	08/24/23 17:11	EPA160.1		CAI
Total Organic Carbon*	4.55	2.50	0.874	mg/L	5	08/31/23 13:34	5310C		AES

Dissolved Metals by ICP

Aluminum*	<0.100	0.100	0.088	mg/L	2	08/23/23 18:35	EPA200.7		AES
Calcium*	88.1	0.200	0.124	mg/L	2	08/23/23 18:35	EPA200.7		AES
Hardness as CaCO ₃	467	1.32	0.598	mg/L	2	08/23/23 18:35	2340 B		AES
Iron*	9.39	0.100	0.030	mg/L	2	08/23/23 18:35	EPA200.7		AES
Magnesium*	59.9	0.200	0.070	mg/L	2	08/23/23 18:35	EPA200.7		AES
Potassium*	2.56	2.00	0.208	mg/L	2	08/23/23 18:35	EPA200.7		AES
Silica (SiO ₂)	14.0	2.14	0.326	mg/L	2	08/23/23 18:35	Calculation		AES
Silicon	6.57	1.00	0.152	mg/L	2	08/23/23 18:35	EPA200.7		AES
Sodium*	41.5	2.00	0.818	mg/L	2	08/23/23 18:35	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	0.0040	0.0010	0.0007	mg/L	2	08/25/23 13:45	EPA200.8		AES
Cadmium*	<0.0010	0.0010	0.00005	mg/L	2	08/25/23 13:45	EPA200.8		AES
Copper*	<0.0010	0.0010	0.0008	mg/L	2	08/25/23 13:45	EPA200.8		AES
Lead*	<0.0010	0.0010	0.00009	mg/L	2	08/25/23 13:45	EPA200.8		AES
Manganese*	0.422	0.0010	0.0003	mg/L	2	08/25/23 13:45	EPA200.8		AES
Molybdenum*	0.0057	0.0010	0.0004	mg/L	2	08/25/23 13:45	EPA200.8		AES
Selenium*	<0.0020	0.0020	0.0007	mg/L	2	08/25/23 13:45	EPA200.8		AES
Uranium	<0.0010	0.0010	0.00009	mg/L	2	08/25/23 13:45	EPA200.8		AES
Zinc*	<0.0040	0.0040	0.0009	mg/L	2	08/25/23 13:45	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

MW-HGA-4

2308320-07 (Ground Water)
Sampled Date: 08/18/23 10:07

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/25/23 11:29	EPA245.7		CAI
Cation/Anion Balance	8.09								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B232480 - General Prep - Wet Chem										
Reference (B232480-SRM1)				Prepared & Analyzed: 08/18/23						
pH	7.02		pH Units	7.00		100	98.57-101.42			
Batch B232482 - General Prep - Wet Chem										
Blank (B232482-BLK1)				Prepared & Analyzed: 08/21/23						
Total Suspended Solids	ND	2.50	mg/L							
Reference (B232482-SRM1)				Prepared & Analyzed: 08/21/23						
Total Suspended Solids	86.0	2.50	mg/L	100		86.0	85-115			
Batch B232509 - Total Recoverable by ICP										
Blank (B232509-BLK1)				Prepared: 08/23/23 Analyzed: 08/25/23						
SAR	0.00		No Unit							
Batch B232516 - General Prep - Wet Chem										
Blank (B232516-BLK1)				Prepared & Analyzed: 08/24/23						
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B232516-SRM1)				Prepared & Analyzed: 08/24/23						
Total Dissolved Solids	370	10.0	mg/L	400		92.5	85-115			
Batch B232551 - IC- Ion Chromatograph										
Blank (B232551-BLK1)				Prepared & Analyzed: 08/28/23						
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B232551-BS1)				Prepared & Analyzed: 08/28/23						
Chloride	24.7	1.00	mg/L	25.0		98.9	90-110			
Fluoride	2.54	0.100	mg/L	2.50		101	90-110			
Sulfate	25.2	1.00	mg/L	25.0		101	90-110			
LCS Dup (B232551-BSD1)				Prepared & Analyzed: 08/28/23						
Chloride	24.6	1.00	mg/L	25.0		98.5	90-110	0.377	20	
Fluoride	2.53	0.100	mg/L	2.50		101	90-110	0.237	20	
Sulfate	25.0	1.00	mg/L	25.0		100	90-110	0.586	20	
Batch B232559 - General Prep - Wet Chem										

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (B232559-BLK1) Prepared: 08/28/23 Analyzed: 08/29/23										
Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L							
LCS (B232559-BS1) Prepared: 08/28/23 Analyzed: 08/29/23										
Alkalinity, Total as CaCO ₃	104	10.0	mg/L	100		104	85-115			
LCS Dup (B232559-BSD1) Prepared: 08/28/23 Analyzed: 08/29/23										
Alkalinity, Total as CaCO ₃	102	10.0	mg/L	100		102	85-115	1.94	20	
Reference (B232559-SRM1) Prepared: 08/28/23 Analyzed: 08/29/23										
Alkalinity, Total as CaCO ₃	76.0	10.0	mg/L	72.7		105	85-115			
Batch B232563 - Lachat										
Blank (B232563-BLK1) Prepared & Analyzed: 08/29/23										
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B232563-BS1) Prepared & Analyzed: 08/29/23										
Nitrate/Nitrite as N	1.05	0.020	mg/L as N	1.00		105	90-110			
LCS Dup (B232563-BSD1) Prepared & Analyzed: 08/29/23										
Nitrate/Nitrite as N	1.05	0.020	mg/L as N	1.00		105	90-110	0.00	20	
Batch B232593 - General Prep - Wet Chem										
Blank (B232593-BLK1) Prepared & Analyzed: 08/30/23										
Total Organic Carbon	ND	0.500	mg/L							
LCS (B232593-BS1) Prepared & Analyzed: 08/30/23										
Total Organic Carbon	9.74	0.500	mg/L	10.0		97.4	85-115			
LCS Dup (B232593-BSD1) Prepared & Analyzed: 08/30/23										
Total Organic Carbon	9.81	0.500	mg/L	10.0		98.1	85-115	0.634	20	
Batch B232619 - General Prep - Wet Chem										
Blank (B232619-BLK1) Prepared & Analyzed: 09/01/23										
Oil & Grease (HEM)	ND	5.00	mg/L							
LCS (B232619-BS1) Prepared & Analyzed: 09/01/23										
Oil & Grease (HEM)	34.5	5.00	mg/L	40.0		86.3	85-115			
LCS Dup (B232619-BSD1) Prepared & Analyzed: 09/01/23										
Oil & Grease (HEM)	34.8	5.00	mg/L	40.0		87.0	85-115	0.866	20	

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Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232619 - General Prep - Wet Chem (Continued)

LCS Dup (B232619-BSD1) (Continued)

Prepared & Analyzed: 09/01/23

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232503 - Dissolved ICP

Blank (B232503-BLK1)

Prepared & Analyzed: 08/23/23

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 (B232503-BS1)

Prepared & Analyzed: 08/23/23

Aluminum	4.49	0.050	mg/L	4.00		112	85-115			
Calcium	4.17	0.100	mg/L	4.00		104	85-115			
Iron	4.15	0.050	mg/L	4.00		104	85-115			
Magnesium	21.5	0.100	mg/L	20.0		108	85-115			
Potassium	8.78	1.00	mg/L	8.00		110	85-115			
Silicon	4.32	0.500	mg/L	4.00		108	85-115			
Sodium	3.63	1.00	mg/L	3.24		112	85-115			

LCS Dup (B232503-BSD1)

Prepared & Analyzed: 08/23/23

Aluminum	4.46	0.050	mg/L	4.00		111	85-115	0.678	20	
Calcium	4.09	0.100	mg/L	4.00		102	85-115	2.00	20	
Iron	4.11	0.050	mg/L	4.00		103	85-115	0.771	20	
Magnesium	21.8	0.100	mg/L	20.0		109	85-115	1.38	20	
Potassium	8.64	1.00	mg/L	8.00		108	85-115	1.64	20	
Silicon	4.28	0.500	mg/L	4.00		107	85-115	0.791	20	
Sodium	3.57	1.00	mg/L	3.24		110	85-115	1.64	20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232606 - Mercury by 200.8

Blank (B232606-BLK1)

Prepared: 08/31/23 Analyzed: 09/01/23

Mercury	ND	0.0100	ug/L							
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LCS (B232606-BS1)

Prepared: 08/31/23 Analyzed: 09/01/23

Mercury	0.0983	0.0100	ug/L	0.100		98.3	85-115			
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LCS Dup (B232606-BSD1)

Prepared: 08/31/23 Analyzed: 09/01/23

Mercury	0.100	0.0100	ug/L	0.100		100	85-115	2.00	20	
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Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
09/05/23 14:28

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232535 - Dissolved ICPMS

Blank (B232535-BLK1)

Prepared & Analyzed: 08/25/23

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	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 (B232535-BS1)

Prepared & Analyzed: 08/25/23

Arsenic	0.0541	0.0005	mg/L	0.0500	108	85-115
Cadmium	0.0487	0.0005	mg/L	0.0500	97.4	85-115
Copper	0.0508	0.0005	mg/L	0.0500	102	85-115
Lead	0.0496	0.0005	mg/L	0.0500	99.2	85-115
Manganese	0.0475	0.0005	mg/L	0.0500	94.9	85-115
Molybdenum	0.0509	0.0005	mg/L	0.0500	102	85-115
Selenium	0.236	0.0010	mg/L	0.250	94.2	85-115
Uranium	0.0492	0.0005	mg/L	0.0500	98.5	85-115
Zinc	0.0464	0.0020	mg/L	0.0500	92.8	85-115

LCS Dup (B232535-BSD1)

Prepared & Analyzed: 08/25/23

Arsenic	0.0531	0.0005	mg/L	0.0500	106	85-115	1.96	20
Cadmium	0.0489	0.0005	mg/L	0.0500	97.8	85-115	0.371	20
Copper	0.0495	0.0005	mg/L	0.0500	99.1	85-115	2.59	20
Lead	0.0503	0.0005	mg/L	0.0500	101	85-115	1.32	20
Manganese	0.0490	0.0005	mg/L	0.0500	98.1	85-115	3.30	20
Molybdenum	0.0507	0.0005	mg/L	0.0500	101	85-115	0.446	20
Selenium	0.237	0.0010	mg/L	0.250	94.7	85-115	0.521	20
Uranium	0.0498	0.0005	mg/L	0.0500	99.7	85-115	1.19	20
Zinc	0.0472	0.0020	mg/L	0.0500	94.5	85-115	1.75	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
09/05/23 14:28

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232496 - EPA 245.7

Blank (B232496-BLK1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	ND	100	ng/L
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LCS (B232496-BS1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	1980	100	ng/L	2000	98.9	76-113
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LCS Dup (B232496-BSD1)

Prepared: 08/22/23 Analyzed: 08/25/23

Mercury	1840	100	ng/L	2000	92.2	76-113	7.09	20
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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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Project Information

Printed: 08/18/2023 4:32 pm

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: GCC GW Baseline

Client PM: Tom Bird

Comments: All Metals Are Field Filtered. Send Out PRESERVED bottles per Landon. 11-01-18

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

Project Information

Printed: 08/18/2023 4:33 pm

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 SW Baseline w-LLHg

Project Number: GCC SW Baseline 2021

Client PM: Tom Bird

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 200.8 Low Level	Do not field filter
Molybdenum Dissolved by ICPMS	
Nitrate/Nitrite [LACHAT]	
Oil & Grease	
pH	
Potassium Dissolved by ICP	
SAR-Calc	
Selenium Dissolved by ICPMS	
Silica Dissolved by ICP	
Sodium Dissolved by ICP	
Sulfate [IC]	
Total Dissolved Solids [TDS]	
Total Organic Carbon [TOC]	
Total Suspended Solids [TSS]	Label bottle TSS
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

The GCC SW Baseline bottle set has two poly 250 ml bottles for metals. One is for LL Hg totals so does not get field-filtered, while the other metals bottle gets field-filtered. Please label one metals bottle in each set "DO NOT FIELD FILTER, LL Hg" as a reminder for them out in the field. Please make a note in LIMS for this to be standard quarterly practice.

SAMPLE CONDITION RECEIPT FORM

Client Name: Gcc Energy

Work Order # 2308-320

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo

Custody Seals on Box/Cooler Present: ☐ Yes ☒ No

Seals Intact: ☐ Yes ☐ No

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

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: Observed Temp: 13.0 °C Correction Factor: 0 °C Final Temp: 13.0 °C

* Temp should be above freezing to 6°C

Date/Initials of person examining contents: MRN 8/18/2

Labeled by initials: _____
(If different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>pH</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9. <u>Hay Gulch down Gradient - 06 has 2 HNO3 that are marked as field filtered.</u>
Containers Intact:	☒ Yes ☐ No	10. <u>1 on filtered bottle was needed for Total LL Hg. "Do not field filtered" is written on the bottle</u>
Dissolved Testing Needed:	☒ Yes ☐ No	11. <u>Diss</u>
Field Filtered: ☒ Yes ☐ No		12. <u>MW-98 - 03</u>
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	13. <u>COC has 14:58 as time bottles are labeled 13:58.</u>
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/Resolution:

Person Contacted: Landon Beck

Date/Time: 8/21/23 12:25 emailed.

Comments/Resolution: MRN Emailed Landon about discrepancies.

Resample Hay Gulch if turbidity is the same/similar, we will call Brandon once it is ran. It is hard for us to say for certain if was MW-98 we will use 14:58 field filtered or not even w/ turbidity

We will remove samples from LIMS.



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24 August 2023

Tom Bird
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 08/09/23 13:15. 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,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive, flowing style.

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: T104704514-23-17

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: T104704398-23-16



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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-6-LM	2308178-01	Water	08/08/23 11:28	08/09/23 13:15	
MW-3-C	2308178-02	Water	08/08/23 12:30	08/09/23 13:15	
MW-99	2308178-03	Water	08/08/23 12:45	08/09/23 13:15	
MW-3-A	2308178-04	Water	08/08/23 12:53	08/09/23 13:15	
MW-3-MI	2308178-05	Water	08/08/23 13:19	08/09/23 13:15	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

MW-6-LM

2308178-01 (Ground Water)

Sampled Date: 08/08/23 11:28

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	390	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	390	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-0.560	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	5.75	2.00	0.111	mg/L	2	08/22/23 16:34	EPA300.0		AWG
Fluoride*	<0.200	0.200	0.0194	mg/L	2	08/22/23 16:34	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:42	EPA353.2		AWG
pH*	7.79			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.2			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	500	5.00	0.620	mg/L	5	08/23/23 10:17	EPA300.0		AWG
Total Dissolved Solids*	1030	10.0		mg/L	1	08/11/23 17:32	EPA160.1		CAI
Total Organic Carbon*	1.66	0.500	0.175	mg/L	1	08/11/23 20:20	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 17:01	EPA200.7		AES
Calcium*	91.5	0.500	0.309	mg/L	5	08/17/23 17:01	EPA200.7		AES
Hardness as CaCO ₃	573	3.31	1.49	mg/L	5	08/17/23 17:01	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 17:01	EPA200.7		AES
Magnesium*	83.5	0.500	0.176	mg/L	5	08/17/23 17:01	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 17:01	EPA200.7		AES
Silica (SiO ₂)	16.3	5.35	0.814	mg/L	5	08/17/23 17:01	Calculation		AES
Silicon	7.64	2.50	0.381	mg/L	5	08/17/23 17:01	EPA200.7		AES
Sodium*	128	5.00	2.05	mg/L	5	08/17/23 17:01	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 18:00	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 18:00	EPA200.8		AES
Copper*	<0.0025	0.0025	0.0021	mg/L	5	08/17/23 18:00	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:00	EPA200.8		AES
Manganese*	0.111	0.0025	0.0009	mg/L	5	08/17/23 18:00	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 18:00	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 18:00	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:00	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 18:00	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

MW-6-LM

2308178-01 (Ground Water)

Sampled Date: 08/08/23 11:28

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/15/23 10:26	EPA245.7		CAI
Cation/Anion Balance	-.56								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

MW-3-C

2308178-02 (Ground Water)

Sampled Date: 08/08/23 12:30

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	2140	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	70.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	2070	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-5.31	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	639	10.0	0.555	mg/L	10	08/22/23 16:54	EPA300.0		AWG
Fluoride*	2.59	1.00	0.0971	mg/L	10	08/22/23 16:54	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:43	EPA353.2		AWG
pH*	8.21			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.6			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	<10.0	10.0	1.24	mg/L	10	08/22/23 16:54	EPA300.0		AWG
Total Dissolved Solids*	3220	10.0		mg/L	1	08/11/23 17:34	EPA160.1		CAI
Total Organic Carbon*	18.9	5.00	1.75	mg/L	10	08/14/23 11:09	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.500	0.500	0.440	mg/L	10	08/17/23 17:03	EPA200.7		AES
Calcium*	3.63	1.00	0.618	mg/L	10	08/17/23 17:03	EPA200.7		AES
Hardness as CaCO ₃	16.1	6.62	2.99	mg/L	10	08/17/23 17:03	2340 B		AES
Iron*	<0.500	0.500	0.151	mg/L	10	08/17/23 17:03	EPA200.7		AES
Magnesium*	1.70	1.00	0.351	mg/L	10	08/17/23 17:03	EPA200.7		AES
Potassium*	<10.0	10.0	1.04	mg/L	10	08/17/23 17:03	EPA200.7		AES
Silica (SiO ₂)	<10.7	10.7	1.63	mg/L	10	08/17/23 17:03	Calculation		AES
Silicon	<5.00	5.00	0.761	mg/L	10	08/17/23 17:03	EPA200.7		AES
Sodium*	1240	10.0	4.09	mg/L	10	08/17/23 17:03	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	0.0149	0.0050	0.0037	mg/L	10	08/17/23 18:01	EPA200.8		AES
Cadmium*	<0.0050	0.0050	0.0003	mg/L	10	08/17/23 18:01	EPA200.8		AES
Copper*	0.0185	0.0050	0.0042	mg/L	10	08/17/23 18:01	EPA200.8		AES
Lead*	<0.0050	0.0050	0.0004	mg/L	10	08/17/23 18:01	EPA200.8		AES
Manganese*	<0.0050	0.0050	0.0017	mg/L	10	08/17/23 18:01	EPA200.8		AES
Molybdenum*	0.0065	0.0050	0.0018	mg/L	10	08/17/23 18:01	EPA200.8		AES
Selenium*	0.0242	0.0100	0.0037	mg/L	10	08/17/23 18:01	EPA200.8		AES
Uranium	<0.0050	0.0050	0.0004	mg/L	10	08/17/23 18:01	EPA200.8		AES
Zinc*	<0.0200	0.0200	0.0047	mg/L	10	08/17/23 18:01	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

MW-3-C

2308178-02 (Ground Water)

Sampled Date: 08/08/23 12:30

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/15/23 10:34	EPA245.7		CAI
Cation/Anion Balance	-5.31								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

MW-99

2308178-03 (Ground Water)
Sampled Date: 08/08/23 12:45

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	364	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	364	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	0.370	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	5.73	2.00	0.111	mg/L	2	08/22/23 17:14	EPA300.0		AWG
Fluoride*	<0.200	0.200	0.0194	mg/L	2	08/22/23 17:14	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 11:29	EPA353.2		AWG
pH*	7.55			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.4			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	502	5.00	0.620	mg/L	5	08/23/23 10:36	EPA300.0		AWG
Total Dissolved Solids*	1080	10.0		mg/L	1	08/11/23 17:36	EPA160.1		CAI
Total Organic Carbon*	1.73	0.500	0.175	mg/L	1	08/11/23 20:58	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 17:05	EPA200.7		AES
Calcium*	91.6	0.500	0.309	mg/L	5	08/17/23 17:05	EPA200.7		AES
Hardness as CaCO ₃	566	3.31	1.49	mg/L	5	08/17/23 17:05	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 17:05	EPA200.7		AES
Magnesium*	81.8	0.500	0.176	mg/L	5	08/17/23 17:05	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 17:05	EPA200.7		AES
Silica (SiO ₂)	16.1	5.35	0.814	mg/L	5	08/17/23 17:05	Calculation		AES
Silicon	7.55	2.50	0.381	mg/L	5	08/17/23 17:05	EPA200.7		AES
Sodium*	128	5.00	2.05	mg/L	5	08/17/23 17:05	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 18:03	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 18:03	EPA200.8		AES
Copper*	<0.0025	0.0025	0.0021	mg/L	5	08/17/23 18:03	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:03	EPA200.8		AES
Manganese*	0.114	0.0025	0.0009	mg/L	5	08/17/23 18:03	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 18:03	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 18:03	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:03	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 18:03	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

MW-99

2308178-03 (Ground Water)
Sampled Date: 08/08/23 12:45

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/15/23 10:37	EPA245.7		CAI
Cation/Anion Balance	.37								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

MW-3-A

2308178-04 (Ground Water)

Sampled Date: 08/08/23 12:53

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	447	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	32.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	415	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-1.73	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	16.9	5.00	0.278	mg/L	5	08/22/23 17:34	EPA300.0		AWG
Fluoride*	<0.500	0.500	0.0486	mg/L	5	08/22/23 17:34	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:44	EPA353.2		AWG
pH*	8.40			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.5			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	560	5.00	0.620	mg/L	5	08/22/23 17:34	EPA300.0		AWG
Total Dissolved Solids*	1300	10.0		mg/L	1	08/11/23 17:38	EPA160.1		CAI
Total Organic Carbon*	4.44	0.500	0.175	mg/L	1	08/11/23 21:15	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 17:08	EPA200.7		AES
Calcium*	2.36	0.500	0.309	mg/L	5	08/17/23 17:08	EPA200.7		AES
Hardness as CaCO ₃	5.89	3.31	1.49	mg/L	5	08/17/23 17:08	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 17:08	EPA200.7		AES
Magnesium*	<0.500	0.500	0.176	mg/L	5	08/17/23 17:08	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 17:07	EPA200.7		AES
Silica (SiO ₂)	9.16	5.35	0.814	mg/L	5	08/17/23 17:08	Calculation		AES
Silicon	4.28	2.50	0.381	mg/L	5	08/17/23 17:08	EPA200.7		AES
Sodium*	450	5.00	2.05	mg/L	5	08/17/23 17:07	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 18:08	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 18:08	EPA200.8		AES
Copper*	0.0065	0.0025	0.0021	mg/L	5	08/17/23 18:08	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:08	EPA200.8		AES
Manganese*	0.0098	0.0025	0.0009	mg/L	5	08/17/23 18:08	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 18:08	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 18:08	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:08	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 18:08	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

MW-3-A

2308178-04 (Ground Water)

Sampled Date: 08/08/23 12:53

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/15/23 10:39	EPA245.7		CAI
Cation/Anion Balance	-1.73								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

MW-3-MI

2308178-05 (Ground Water)

Sampled Date: 08/08/23 13:19

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	660	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	70.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	590	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-1.87	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	10.8	2.00	0.111	mg/L	2	08/22/23 18:33	EPA300.0		AWG
Fluoride*	0.862	0.200	0.0194	mg/L	2	08/22/23 18:33	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:45	EPA353.2		AWG
pH*	8.84			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.7			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	242	2.00	0.248	mg/L	2	08/22/23 18:33	EPA300.0		AWG
Total Dissolved Solids*	1070	10.0		mg/L	1	08/11/23 17:40	EPA160.1		CAI
Total Organic Carbon*	4.72	0.500	0.175	mg/L	1	08/12/23 00:48	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 17:10	EPA200.7		AES
Calcium*	1.10	0.500	0.309	mg/L	5	08/17/23 17:10	EPA200.7		AES
Hardness as CaCO ₃	<3.31	3.31	1.49	mg/L	5	08/17/23 17:10	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 17:10	EPA200.7		AES
Magnesium*	<0.500	0.500	0.176	mg/L	5	08/17/23 17:10	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 17:10	EPA200.7		AES
Silica (SiO ₂)	7.47	5.35	0.814	mg/L	5	08/17/23 17:10	Calculation		AES
Silicon	3.49	2.50	0.381	mg/L	5	08/17/23 17:10	EPA200.7		AES
Sodium*	398	5.00	2.05	mg/L	5	08/17/23 17:10	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	0.0076	0.0025	0.0018	mg/L	5	08/17/23 18:09	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 18:09	EPA200.8		AES
Copper*	0.0080	0.0025	0.0021	mg/L	5	08/17/23 18:09	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:09	EPA200.8		AES
Manganese*	0.0055	0.0025	0.0009	mg/L	5	08/17/23 18:09	EPA200.8		AES
Molybdenum*	0.0125	0.0025	0.0009	mg/L	5	08/17/23 18:09	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 18:09	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 18:09	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 18:09	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

MW-3-MI

2308178-05 (Ground Water)
Sampled Date: 08/08/23 13:19

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Mercury by CVAFS									
Mercury	<100	100	24.8	ng/L	1	08/15/23 10:42	EPA245.7		CAI
Cation/Anion Balance	-1.87								

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232354 - General Prep - Wet Chem

Reference (B232354-SRM1)

Prepared & Analyzed: 08/10/23

pH	7.02		pH Units	7.00		100	98.57-101.42			
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Batch B232361 - General Prep - Wet Chem

Blank (B232361-BLK1)

Prepared & Analyzed: 08/11/23

Total Organic Carbon	ND	0.500	mg/L							
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LCS (B232361-BS1)

Prepared & Analyzed: 08/11/23

Total Organic Carbon	9.89	0.500	mg/L	10.0		98.9	85-115			
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LCS Dup (B232361-BSD1)

Prepared & Analyzed: 08/11/23

Total Organic Carbon	9.88	0.500	mg/L	10.0		98.8	85-115	0.101	20	
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Batch B232364 - General Prep - Wet Chem

Blank (B232364-BLK1)

Prepared & Analyzed: 08/11/23

Total Dissolved Solids	ND	10.0	mg/L							
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Reference (B232364-SRM1)

Prepared & Analyzed: 08/11/23

Total Dissolved Solids	445	10.0	mg/L	400		111	85-115			
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Batch B232412 - Lachat

Blank (B232412-BLK1)

Prepared: 08/16/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	ND	0.020	mg/L as N							
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LCS (B232412-BS1)

Prepared: 08/16/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.06	0.020	mg/L as N	1.00		106	90-110			
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LCS Dup (B232412-BSD1)

Prepared: 08/16/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.06	0.020	mg/L as N	1.00		106	90-110	0.189	20	
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Batch B232433 - General Prep - Wet Chem

Blank (B232433-BLK1)

Prepared & Analyzed: 08/17/23

Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L							

LCS (B232433-BS1)

Prepared & Analyzed: 08/17/23

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232433 - General Prep - Wet Chem (Continued)

LCS (B232433-BS1) (Continued)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	103	10.0	mg/L	100	103	85-115
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LCS Dup (B232433-BSD1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	101	10.0	mg/L	100	101	85-115	1.96	20
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Reference (B232433-SRM1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	73.0	10.0	mg/L	72.7	100	85-115
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Batch B232436 - Lachat

Blank (B232436-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	ND	0.020	mg/L as N
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LCS (B232436-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.08	0.020	mg/L as N	1.00	108	90-110
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LCS Dup (B232436-BSD1)

Prepared: 08/17/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.08	0.020	mg/L as N	1.00	108	90-110	0.371	20
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Batch B232474 - IC- Ion Chromatograph

Blank (B232474-BLK1)

Prepared: 08/21/23 Analyzed: 08/22/23

Chloride	ND	1.00	mg/L
Fluoride	ND	0.100	mg/L
Sulfate	ND	1.00	mg/L

LCS (B232474-BS1)

Prepared: 08/21/23 Analyzed: 08/22/23

Chloride	26.0	1.00	mg/L	25.0	104	90-110
Fluoride	2.42	0.100	mg/L	2.50	96.7	90-110
Sulfate	25.7	1.00	mg/L	25.0	103	90-110

LCS Dup (B232474-BSD1)

Prepared: 08/21/23 Analyzed: 08/22/23

Chloride	26.1	1.00	mg/L	25.0	104	90-110	0.480	20
Fluoride	2.42	0.100	mg/L	2.50	96.8	90-110	0.124	20
Sulfate	25.8	1.00	mg/L	25.0	103	90-110	0.397	20

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232406 - Dissolved ICP

Blank (B232406-BLK1)

Prepared: 08/16/23 Analyzed: 08/17/23

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 (B232406-BS1)

Prepared: 08/16/23 Analyzed: 08/17/23

Aluminum	4.03	0.050	mg/L	4.00	101	85-115
Calcium	3.97	0.100	mg/L	4.00	99.2	85-115
Iron	4.00	0.050	mg/L	4.00	99.9	85-115
Magnesium	20.4	0.100	mg/L	20.0	102	85-115
Potassium	8.10	1.00	mg/L	8.00	101	85-115
Silicon	4.04	0.500	mg/L	4.00	101	85-115
Sodium	3.15	1.00	mg/L	3.24	97.2	85-115

LCS Dup (B232406-BSD1)

Prepared: 08/16/23 Analyzed: 08/17/23

Aluminum	3.95	0.050	mg/L	4.00	98.8	85-115	1.96	20
Calcium	3.85	0.100	mg/L	4.00	96.3	85-115	2.90	20
Iron	3.89	0.050	mg/L	4.00	97.3	85-115	2.66	20
Magnesium	19.8	0.100	mg/L	20.0	99.0	85-115	2.81	20
Potassium	7.88	1.00	mg/L	8.00	98.5	85-115	2.80	20
Silicon	3.92	0.500	mg/L	4.00	98.1	85-115	2.84	20
Sodium	3.08	1.00	mg/L	3.24	95.1	85-115	2.16	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 15:00

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232448 - Dissolved ICPMS

Blank (B232448-BLK1)

Prepared & Analyzed: 08/17/23

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	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 (B232448-BS1)

Prepared & Analyzed: 08/17/23

Arsenic	0.0511	0.0005	mg/L	0.0500	102	85-115
Cadmium	0.0505	0.0005	mg/L	0.0500	101	85-115
Copper	0.0465	0.0005	mg/L	0.0500	93.1	85-115
Lead	0.0504	0.0005	mg/L	0.0500	101	85-115
Manganese	0.0512	0.0005	mg/L	0.0500	102	85-115
Molybdenum	0.0497	0.0005	mg/L	0.0500	99.3	85-115
Selenium	0.260	0.0010	mg/L	0.250	104	85-115
Uranium	0.0520	0.0005	mg/L	0.0500	104	85-115
Zinc	0.0477	0.0020	mg/L	0.0500	95.5	85-115

LCS Dup (B232448-BSD1)

Prepared & Analyzed: 08/17/23

Arsenic	0.0510	0.0005	mg/L	0.0500	102	85-115	0.108	20
Cadmium	0.0506	0.0005	mg/L	0.0500	101	85-115	0.0699	20
Copper	0.0465	0.0005	mg/L	0.0500	93.0	85-115	0.133	20
Lead	0.0505	0.0005	mg/L	0.0500	101	85-115	0.124	20
Manganese	0.0508	0.0005	mg/L	0.0500	102	85-115	0.720	20
Molybdenum	0.0499	0.0005	mg/L	0.0500	99.8	85-115	0.507	20
Selenium	0.255	0.0010	mg/L	0.250	102	85-115	1.78	20
Uranium	0.0515	0.0005	mg/L	0.0500	103	85-115	0.965	20
Zinc	0.0479	0.0020	mg/L	0.0500	95.9	85-115	0.464	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 15:00

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232367 - EPA 245.7

Blank (B232367-BLK1)

Prepared: 08/11/23 Analyzed: 08/15/23

Mercury	ND	100	ng/L
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LCS (B232367-BS1)

Prepared: 08/11/23 Analyzed: 08/15/23

Mercury	1810	100	ng/L	2000	90.5	76-113
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LCS Dup (B232367-BSD1)

Prepared: 08/11/23 Analyzed: 08/15/23

Mercury	1790	100	ng/L	2000	89.6	76-113	0.968	20
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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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[illegible]

Project Information

Printed: 08/09/2023 1:49 pm

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: GCC GW Baseline

Client PM: Tom Bird

Comments: All Metals Are Field Filtered. Send Out PRESERVED bottles per Landon. 11-01-18

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

SAMPLE CONDITION RECEIPT FORM

Client Name: G.C.C. Energy

Work Order # 2308-178

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo

Custody Seals on Box/Cooler Present: ☐ Yes ☒ No

Seals Intact: ☐ Yes ☐ No

Thermometer Used: #12 Samples on ice, cooling process has begun: ☒ Yes ☐ No

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: Observed Temp 25 °C Correction Factor: 0 °C Final Temp: 25 °C
* Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 8/6/23
SE

Labeled by Initials:
(if different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>PHA</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☒ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☒ Yes ☐ No <u>WT</u> <u>SL</u> <u>OT</u>	12.
Trip Blank Present:	☐ Yes ☐ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

24 August 2023

Tom Bird
GCC Energy, LLC
6473 CR 120
Hesperus, CO 81326
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 08/09/23 13:15. 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,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

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: T104704514-23-17

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: T104704398-23-16



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-7-EAA	2308177-01	Water	08/08/23 14:41	08/09/23 13:15	
MW-8-EAA	2308177-02	Water	08/08/23 14:59	08/09/23 13:15	
MW-8-MI	2308177-03	Water	08/08/23 15:16	08/09/23 13:15	
MW-8-PL	2308177-04	Water	08/08/23 15:37	08/09/23 13:15	
MW-8-LM	2308177-05	Water	08/08/23 15:56	08/09/23 13:15	
SEEP #3	2308177-06	Water	08/08/23 16:24	08/09/23 13:15	

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

MW-7-EAA

2308177-01 (Ground Water)

Sampled Date: 08/08/23 14:41

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	437	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	437	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-3.51	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	11.8	2.00	0.111	mg/L	2	08/18/23 22:15	EPA300.0		AWG
Fluoride*	<0.200	0.200	0.0194	mg/L	2	08/22/23 13:15	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:34	EPA353.2		AWG
pH*	7.25			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	18.8			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	719	10.0	1.24	mg/L	10	08/18/23 22:35	EPA300.0		AWG
Total Dissolved Solids*	1450	10.0		mg/L	1	08/11/23 17:18	EPA160.1		CAI
Total Organic Carbon*	5.57	4.00	1.40	mg/L	8	08/14/23 13:53	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 16:43	EPA200.7		AES
Calcium*	151	0.500	0.309	mg/L	5	08/17/23 16:43	EPA200.7		AES
Hardness as CaCO ₃	902	3.31	1.49	mg/L	5	08/17/23 16:43	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 16:43	EPA200.7		AES
Magnesium*	127	0.500	0.176	mg/L	5	08/17/23 16:43	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 16:43	EPA200.7		AES
Silica (SiO ₂)	15.2	5.35	0.814	mg/L	5	08/17/23 16:43	Calculation		AES
Silicon	7.11	2.50	0.381	mg/L	5	08/17/23 16:43	EPA200.7		AES
Sodium*	69.2	5.00	2.05	mg/L	5	08/17/23 16:43	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 17:50	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 17:50	EPA200.8		AES
Copper*	0.0032	0.0025	0.0021	mg/L	5	08/17/23 17:50	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:50	EPA200.8		AES
Manganese*	4.46	0.0025	0.0009	mg/L	5	08/17/23 17:50	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 17:50	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 17:50	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:50	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 17:50	EPA200.8		AES

Green Analytical Laboratories



Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

MW-7-EAA

2308177-01 (Ground Water)

Sampled Date: 08/08/23 14:41

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/15/23 09:35	EPA245.7		CAI
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Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55

MW-8-EAA

2308177-02 (Ground Water)

Sampled Date: 08/08/23 14:59

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	417	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	417	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-1.06	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	12.2	2.00	0.111	mg/L	2	08/18/23 23:35	EPA300.0		AWG
Fluoride*	<0.200	0.200	0.0194	mg/L	2	08/22/23 13:35	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 10:41	EPA353.2		AWG
pH*	7.33			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	18.5			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	685	10.0	1.24	mg/L	10	08/18/23 23:55	EPA300.0		AWG
Total Dissolved Solids*	1400	10.0		mg/L	1	08/11/23 17:22	EPA160.1		CAI
Total Organic Carbon*	5.64	4.00	1.40	mg/L	8	08/14/23 14:11	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 16:46	EPA200.7		AES
Calcium*	152	0.500	0.309	mg/L	5	08/17/23 16:45	EPA200.7		AES
Hardness as CaCO ₃	887	3.31	1.49	mg/L	5	08/17/23 16:46	2340 B		AES
Iron*	2.19	0.250	0.076	mg/L	5	08/17/23 16:46	EPA200.7		AES
Magnesium*	123	0.500	0.176	mg/L	5	08/17/23 16:46	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 16:45	EPA200.7		AES
Silica (SiO ₂)	15.4	5.35	0.814	mg/L	5	08/17/23 16:46	Calculation		AES
Silicon	7.22	2.50	0.381	mg/L	5	08/17/23 16:46	EPA200.7		AES
Sodium*	75.5	5.00	2.05	mg/L	5	08/17/23 16:45	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 17:52	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 17:52	EPA200.8		AES
Copper*	<0.0025	0.0025	0.0021	mg/L	5	08/17/23 17:52	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:52	EPA200.8		AES
Manganese*	3.91	0.0025	0.0009	mg/L	5	08/17/23 17:52	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 17:52	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 17:52	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:52	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 17:52	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

MW-8-EAA

2308177-02 (Ground Water)
Sampled Date: 08/08/23 14:59

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/15/23 09:43	EPA245.7		CAI
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Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55

MW-8-MI

2308177-03 (Ground Water)
Sampled Date: 08/08/23 15:16

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	553	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	553	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-1.21	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	8.80	2.00	0.111	mg/L	2	08/19/23 00:15	EPA300.0		AWG
Fluoride*	<0.200	0.200	0.0194	mg/L	2	08/22/23 14:34	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 11:22	EPA353.2		AWG
pH*	7.67			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	18.8			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	323	2.00	0.248	mg/L	2	08/19/23 00:15	EPA300.0		AWG
Total Dissolved Solids*	1060	10.0		mg/L	1	08/11/23 17:24	EPA160.1		CAI
Total Organic Carbon*	4.25	2.50	0.874	mg/L	5	08/14/23 14:31	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 16:47	EPA200.7		AES
Calcium*	67.4	0.500	0.309	mg/L	5	08/17/23 16:47	EPA200.7		AES
Hardness as CaCO ₃	363	3.31	1.49	mg/L	5	08/17/23 16:47	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 16:47	EPA200.7		AES
Magnesium*	47.1	0.500	0.176	mg/L	5	08/17/23 16:47	EPA200.7		AES
Potassium*	5.09	5.00	0.519	mg/L	5	08/17/23 16:47	EPA200.7		AES
Silica (SiO ₂)	12.5	5.35	0.814	mg/L	5	08/17/23 16:47	Calculation		AES
Silicon	5.85	2.50	0.381	mg/L	5	08/17/23 16:47	EPA200.7		AES
Sodium*	216	5.00	2.05	mg/L	5	08/17/23 16:47	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 17:53	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 17:53	EPA200.8		AES
Copper*	0.0031	0.0025	0.0021	mg/L	5	08/17/23 17:53	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:53	EPA200.8		AES
Manganese*	0.0562	0.0025	0.0009	mg/L	5	08/17/23 17:53	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 17:53	EPA200.8		AES
Selenium*	0.0050	0.0050	0.0018	mg/L	5	08/17/23 17:53	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:53	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 17:53	EPA200.8		AES

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

MW-8-MI

2308177-03 (Ground Water)
Sampled Date: 08/08/23 15:16

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/15/23 09:45	EPA245.7		CAI
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Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

MW-8-PL

2308177-04 (Ground Water)
Sampled Date: 08/08/23 15:37

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	350	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	350	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	4.61	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	3.67	1.00	0.0555	mg/L	1	08/19/23 00:54	EPA300.0		AWG
Fluoride*	0.126	0.100	0.00971	mg/L	1	08/22/23 14:54	EPA300.0	M5	AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 11:25	EPA353.2		AWG
pH*	7.51			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.2			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	104	1.00	0.124	mg/L	1	08/19/23 00:54	EPA300.0		AWG
Total Dissolved Solids*	540	10.0		mg/L	1	08/11/23 17:26	EPA160.1		CAI
Total Organic Carbon*	1.59	0.500	0.175	mg/L	1	08/12/23 00:13	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.100	0.100	0.088	mg/L	2	08/17/23 16:49	EPA200.7		AES
Calcium*	52.4	0.200	0.124	mg/L	2	08/17/23 16:49	EPA200.7		AES
Hardness as CaCO ₃	274	1.32	0.598	mg/L	2	08/17/23 16:49	2340 B		AES
Iron*	<0.100	0.100	0.030	mg/L	2	08/17/23 16:49	EPA200.7		AES
Magnesium*	34.8	0.200	0.070	mg/L	2	08/17/23 16:49	EPA200.7		AES
Potassium*	<2.00	2.00	0.208	mg/L	2	08/17/23 16:49	EPA200.7		AES
Silica (SiO ₂)	20.6	2.14	0.326	mg/L	2	08/17/23 16:49	Calculation		AES
Silicon	9.61	1.00	0.152	mg/L	2	08/17/23 16:49	EPA200.7		AES
Sodium*	75.3	2.00	0.818	mg/L	2	08/17/23 16:49	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	0.0029	0.0010	0.0007	mg/L	2	08/17/23 17:55	EPA200.8		AES
Cadmium*	<0.0010	0.0010	0.00005	mg/L	2	08/17/23 17:55	EPA200.8		AES
Copper*	0.0020	0.0010	0.0008	mg/L	2	08/17/23 17:55	EPA200.8		AES
Lead*	<0.0010	0.0010	0.00009	mg/L	2	08/17/23 17:55	EPA200.8		AES
Manganese*	0.120	0.0010	0.0003	mg/L	2	08/17/23 17:55	EPA200.8		AES
Molybdenum*	<0.0010	0.0010	0.0004	mg/L	2	08/17/23 17:55	EPA200.8		AES
Selenium*	<0.0020	0.0020	0.0007	mg/L	2	08/17/23 17:55	EPA200.8		AES
Uranium	<0.0010	0.0010	0.00009	mg/L	2	08/17/23 17:55	EPA200.8		AES
Zinc*	<0.0040	0.0040	0.0009	mg/L	2	08/17/23 17:55	EPA200.8		AES

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Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

MW-8-PL

2308177-04 (Ground Water)
Sampled Date: 08/08/23 15:37

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/15/23 09:48	EPA245.7		CAI
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Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55

MW-8-LM

2308177-05 (Ground Water)

Sampled Date: 08/08/23 15:56

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	714	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	68.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	646	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-4.95	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	2.67	2.00	0.111	mg/L	2	08/22/23 15:54	EPA300.0		AWG
Fluoride*	3.15	0.200	0.0194	mg/L	2	08/22/23 15:54	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 11:27	EPA353.2		AWG
pH*	8.71			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.7			pH Units	1	08/10/23 10:00	EPA150.1		CAI
Sulfate*	<2.00	2.00	0.248	mg/L	2	08/22/23 15:54	EPA300.0		AWG
Total Dissolved Solids*	805	10.0		mg/L	1	08/11/23 17:28	EPA160.1		CAI
Total Organic Carbon*	1.89	0.500	0.175	mg/L	1	08/12/23 00:33	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 16:56	EPA200.7		AES
Calcium*	1.61	0.500	0.309	mg/L	5	08/17/23 16:56	EPA200.7		AES
Hardness as CaCO ₃	4.01	3.31	1.49	mg/L	5	08/17/23 16:56	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 16:56	EPA200.7		AES
Magnesium*	<0.500	0.500	0.176	mg/L	5	08/17/23 16:56	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 16:56	EPA200.7		AES
Silica (SiO ₂)	6.17	5.35	0.814	mg/L	5	08/17/23 16:56	Calculation		AES
Silicon	2.89	2.50	0.381	mg/L	5	08/17/23 16:56	EPA200.7		AES
Sodium*	289	5.00	2.05	mg/L	5	08/17/23 16:56	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 17:57	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 17:57	EPA200.8		AES
Copper*	0.0040	0.0025	0.0021	mg/L	5	08/17/23 17:57	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:57	EPA200.8		AES
Manganese*	0.0028	0.0025	0.0009	mg/L	5	08/17/23 17:57	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 17:57	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 17:57	EPA200.8		AES
Uranium	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:57	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 17:57	EPA200.8		AES

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Veronica Wells, Project Manager

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www.GreenAnalytical.com

GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

MW-8-LM

2308177-05 (Ground Water)
Sampled Date: 08/08/23 15:56

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/15/23 09:50	EPA245.7		CAI
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Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

SEEP #3

2308177-06 (Ground Water)
Sampled Date: 08/08/23 16:24

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	415	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	415	10.0	6.06	mg/L	1	08/17/23 08:30	2320 B		AES
Cation/Anion Balance	-0.100	-100	-100	%	1	08/24/23 08:40	Calculation		JDA
Chloride*	6.03	2.00	0.111	mg/L	2	08/22/23 16:14	EPA300.0		AWG
Fluoride*	0.202	0.200	0.0194	mg/L	2	08/22/23 16:14	EPA300.0		AWG
Nitrate/Nitrite as N*	<0.020	0.020	0.003	mg/L as N	1	08/18/23 11:28	EPA353.2		AWG
pH*	8.12			pH Units	1	08/10/23 10:00	EPA150.1		CAI
pH Temperature, degrees C	19.8			pH Units	1	08/10/23 10:00	EPA150.1		CAI
SAR	1.12			No Unit	1	08/16/23 16:09	Calculation		AES
Sulfate*	472	5.00	0.620	mg/L	5	08/23/23 09:57	EPA300.0		AWG
Total Dissolved Solids*	1120	10.0		mg/L	1	08/11/23 17:30	EPA160.1		CAI
Total Organic Carbon*	11.1	5.00	1.75	mg/L	10	08/14/23 12:29	5310C		QEB

Dissolved Metals by ICP

Aluminum*	<0.250	0.250	0.220	mg/L	5	08/17/23 16:58	EPA200.7		AES
Calcium*	123	0.500	0.309	mg/L	5	08/17/23 16:58	EPA200.7		AES
Hardness as CaCO ₃	705	3.31	1.49	mg/L	5	08/17/23 16:58	2340 B		AES
Iron*	<0.250	0.250	0.076	mg/L	5	08/17/23 16:58	EPA200.7		AES
Magnesium*	96.5	0.500	0.176	mg/L	5	08/17/23 16:58	EPA200.7		AES
Potassium*	<5.00	5.00	0.519	mg/L	5	08/17/23 16:58	EPA200.7		AES
Silica (SiO ₂)	15.3	5.35	0.814	mg/L	5	08/17/23 16:58	Calculation		AES
Silicon	7.16	2.50	0.381	mg/L	5	08/17/23 16:58	EPA200.7		AES
Sodium*	69.1	5.00	2.05	mg/L	5	08/17/23 16:58	EPA200.7		AES

Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0018	mg/L	5	08/17/23 17:58	EPA200.8		AES
Cadmium*	<0.0025	0.0025	0.0001	mg/L	5	08/17/23 17:58	EPA200.8		AES
Copper*	0.0028	0.0025	0.0021	mg/L	5	08/17/23 17:58	EPA200.8		AES
Lead*	<0.0025	0.0025	0.0002	mg/L	5	08/17/23 17:58	EPA200.8		AES
Manganese*	0.838	0.0025	0.0009	mg/L	5	08/17/23 17:58	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0009	mg/L	5	08/17/23 17:58	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0018	mg/L	5	08/17/23 17:58	EPA200.8		AES
Uranium	0.0027	0.0025	0.0002	mg/L	5	08/17/23 17:58	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0024	mg/L	5	08/17/23 17:58	EPA200.8		AES

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

SEEP #3

2308177-06 (Ground Water)

Sampled Date: 08/08/23 16:24

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Mercury by CVAFS

Mercury	<100	100	24.8	ng/L	1	08/15/23 10:24	EPA245.7		CAI
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Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B232354 - General Prep - Wet Chem										
Reference (B232354-SRM1)				Prepared & Analyzed: 08/10/23						
pH	7.02		pH Units	7.00		100	98.57-101.42			
Batch B232361 - General Prep - Wet Chem										
Blank (B232361-BLK1)				Prepared & Analyzed: 08/11/23						
Total Organic Carbon	ND	0.500	mg/L							
LCS (B232361-BS1)				Prepared & Analyzed: 08/11/23						
Total Organic Carbon	9.89	0.500	mg/L	10.0		98.9	85-115			
LCS Dup (B232361-BSD1)				Prepared & Analyzed: 08/11/23						
Total Organic Carbon	9.88	0.500	mg/L	10.0		98.8	85-115	0.101	20	
Batch B232364 - General Prep - Wet Chem										
Blank (B232364-BLK1)				Prepared & Analyzed: 08/11/23						
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B232364-SRM1)				Prepared & Analyzed: 08/11/23						
Total Dissolved Solids	445	10.0	mg/L	400		111	85-115			
Batch B232381 - Total Recoverable by ICP										
Blank (B232381-BLK1)				Prepared: 08/15/23 Analyzed: 08/16/23						
SAR	0.00		No Unit							
Batch B232412 - Lachat										
Blank (B232412-BLK1)				Prepared: 08/16/23 Analyzed: 08/18/23						
Nitrate/Nitrite as N	ND	0.020	mg/L as N							
LCS (B232412-BS1)				Prepared: 08/16/23 Analyzed: 08/18/23						
Nitrate/Nitrite as N	1.06	0.020	mg/L as N	1.00		106	90-110			
LCS Dup (B232412-BSD1)				Prepared: 08/16/23 Analyzed: 08/18/23						
Nitrate/Nitrite as N	1.06	0.020	mg/L as N	1.00		106	90-110	0.189	20	
Batch B232433 - General Prep - Wet Chem										
Blank (B232433-BLK1)				Prepared & Analyzed: 08/17/23						
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232433 - General Prep - Wet Chem (Continued)

Blank (B232433-BLK1) (Continued)

Prepared & Analyzed: 08/17/23

Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L

LCS (B232433-BS1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	103	10.0	mg/L	100	103	85-115
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LCS Dup (B232433-BSD1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	101	10.0	mg/L	100	101	85-115	1.96	20
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Reference (B232433-SRM1)

Prepared & Analyzed: 08/17/23

Alkalinity, Total as CaCO ₃	73.0	10.0	mg/L	72.7	100	85-115
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Batch B232436 - Lachat

Blank (B232436-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	ND	0.020	mg/L as N
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LCS (B232436-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.08	0.020	mg/L as N	1.00	108	90-110
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LCS Dup (B232436-BSD1)

Prepared: 08/17/23 Analyzed: 08/18/23

Nitrate/Nitrite as N	1.08	0.020	mg/L as N	1.00	108	90-110	0.371	20
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Batch B232458 - IC- Ion Chromatograph

Blank (B232458-BLK1)

Prepared & Analyzed: 08/18/23

Chloride	ND	1.00	mg/L
Sulfate	ND	1.00	mg/L

LCS (B232458-BS1)

Prepared & Analyzed: 08/18/23

Chloride	25.7	1.00	mg/L	25.0	103	90-110
Sulfate	27.0	1.00	mg/L	25.0	108	90-110

LCS Dup (B232458-BSD1)

Prepared & Analyzed: 08/18/23

Chloride	25.7	1.00	mg/L	25.0	103	90-110	0.0505	20
Sulfate	27.0	1.00	mg/L	25.0	108	90-110	0.222	20

Batch B232474 - IC- Ion Chromatograph

Blank (B232474-BLK1)

Prepared: 08/21/23 Analyzed: 08/22/23

Chloride	ND	1.00	mg/L
Fluoride	ND	0.100	mg/L

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232474 - IC- Ion Chromatograph (Continued)

Blank (B232474-BLK1) (Continued)

Prepared: 08/21/23 Analyzed: 08/22/23

Sulfate	ND	1.00	mg/L
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LCS (B232474-BS1)

Prepared: 08/21/23 Analyzed: 08/22/23

Chloride	26.0	1.00	mg/L	25.0	104	90-110
Fluoride	2.42	0.100	mg/L	2.50	96.7	90-110
Sulfate	25.7	1.00	mg/L	25.0	103	90-110

LCS Dup (B232474-BSD1)

Prepared: 08/21/23 Analyzed: 08/22/23

Chloride	26.1	1.00	mg/L	25.0	104	90-110	0.480	20
Fluoride	2.42	0.100	mg/L	2.50	96.8	90-110	0.124	20
Sulfate	25.8	1.00	mg/L	25.0	103	90-110	0.397	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326

Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom Bird

Reported:
08/24/23 14:55

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232406 - Dissolved ICP

Blank (B232406-BLK1)

Prepared: 08/16/23 Analyzed: 08/17/23

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 (B232406-BS1)

Prepared: 08/16/23 Analyzed: 08/17/23

Aluminum	4.03	0.050	mg/L	4.00	101	85-115
Calcium	3.97	0.100	mg/L	4.00	99.2	85-115
Iron	4.00	0.050	mg/L	4.00	99.9	85-115
Magnesium	20.4	0.100	mg/L	20.0	102	85-115
Potassium	8.10	1.00	mg/L	8.00	101	85-115
Silicon	4.04	0.500	mg/L	4.00	101	85-115
Sodium	3.15	1.00	mg/L	3.24	97.2	85-115

LCS Dup (B232406-BSD1)

Prepared: 08/16/23 Analyzed: 08/17/23

Aluminum	3.95	0.050	mg/L	4.00	98.8	85-115	1.96	20
Calcium	3.85	0.100	mg/L	4.00	96.3	85-115	2.90	20
Iron	3.89	0.050	mg/L	4.00	97.3	85-115	2.66	20
Magnesium	19.8	0.100	mg/L	20.0	99.0	85-115	2.81	20
Potassium	7.88	1.00	mg/L	8.00	98.5	85-115	2.80	20
Silicon	3.92	0.500	mg/L	4.00	98.1	85-115	2.84	20
Sodium	3.08	1.00	mg/L	3.24	95.1	85-115	2.16	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232448 - Dissolved ICPMS

Blank (B232448-BLK1)

Prepared & Analyzed: 08/17/23

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	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 (B232448-BS1)

Prepared & Analyzed: 08/17/23

Arsenic	0.0511	0.0005	mg/L	0.0500	102	85-115
Cadmium	0.0505	0.0005	mg/L	0.0500	101	85-115
Copper	0.0465	0.0005	mg/L	0.0500	93.1	85-115
Lead	0.0504	0.0005	mg/L	0.0500	101	85-115
Manganese	0.0512	0.0005	mg/L	0.0500	102	85-115
Molybdenum	0.0497	0.0005	mg/L	0.0500	99.3	85-115
Selenium	0.260	0.0010	mg/L	0.250	104	85-115
Uranium	0.0520	0.0005	mg/L	0.0500	104	85-115
Zinc	0.0477	0.0020	mg/L	0.0500	95.5	85-115

LCS Dup (B232448-BSD1)

Prepared & Analyzed: 08/17/23

Arsenic	0.0510	0.0005	mg/L	0.0500	102	85-115	0.108	20
Cadmium	0.0506	0.0005	mg/L	0.0500	101	85-115	0.0699	20
Copper	0.0465	0.0005	mg/L	0.0500	93.0	85-115	0.133	20
Lead	0.0505	0.0005	mg/L	0.0500	101	85-115	0.124	20
Manganese	0.0508	0.0005	mg/L	0.0500	102	85-115	0.720	20
Molybdenum	0.0499	0.0005	mg/L	0.0500	99.8	85-115	0.507	20
Selenium	0.255	0.0010	mg/L	0.250	102	85-115	1.78	20
Uranium	0.0515	0.0005	mg/L	0.0500	103	85-115	0.965	20
Zinc	0.0479	0.0020	mg/L	0.0500	95.9	85-115	0.464	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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GCC Energy, LLC
6473 CR 120
Hesperus CO, 81326Project: GCC GW Baseline
Project Name / Number: [none]
Project Manager: Tom BirdReported:
08/24/23 14:55

Dissolved Mercury by CVAFS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B232367 - EPA 245.7

Blank (B232367-BLK1)

Prepared: 08/11/23 Analyzed: 08/15/23

Mercury	ND	100	ng/L
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LCS (B232367-BS1)

Prepared: 08/11/23 Analyzed: 08/15/23

Mercury	1810	100	ng/L	2000	90.5	76-113
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LCS Dup (B232367-BSD1)

Prepared: 08/11/23 Analyzed: 08/15/23

Mercury	1790	100	ng/L	2000	89.6	76-113	0.968	20
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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 Wells, Project Manager

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75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006
COC - Revision 6.0

[illegible]

Project Information

Printed: 08/09/2023 1:49 pm

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 S&S Baseline

Project Number: GCC S&S Baseline

Client PM: Tom Bird

Comments: All Metals Are Field Filtered. Send Out PRESERVED bottles per Landon. 11-01-18

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

SAR-Calc

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

Project Information

Printed: 08/09/2023 1:49 pm

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: GCC GW Baseline

Client PM: Tom Bird

Comments: All Metals Are Field Filtered. Send Out PRESERVED bottles per Landon. 11-01-18

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	



SAMPLE CONDITION RECEIPT FORM

Client Name: G.C.C. ENERGY

Work Order # 2308-177

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo

Custody Seals on Box/Cooler Present: ☐ Yes ☒ No

Seals Intact: ☐ Yes ☐ No

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

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: Observed Temp: 2.5 °C Correction Factor: 0 °C Final Temp: 2.5 °C

*Temp should be above freezing to 6°C

Date/Initials of person examining contents: 8/9/22
EL

Labeled by Initials: _____
(if different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>7H</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☒ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	☒ W ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

