

"Safety as a Value"

GCC Energy, LLC 6473 County Road 120 Hesperus, CO 81326

April 12, 2017

State of Colorado Division of Reclamation, Mining & Safety 1313 Sherman Street, Room 215 Denver, Colorado 80203-2273

Attn: Rob Zuber

Re: Field Well Water Analysis; King I & King II 1st Quarter 2017

Mr. Zuber:

Please find enclosed a copy of the King I quarterly water analysis for the Wiltse Well for the 1st quarter of 2017.

Also, please find enclosed a copy of the King II quarterly water analysis for the #1 upgradient monitoring well, the #2 down-gradient monitoring well, the Hay Gulch Irrigation Ditch down-gradient, the Hay Gulch Irrigation Ditch up-gradient, and MW-HGA-4 (upgradient from King I mine).

Please call Tom Bird at (970) 385-4528 x 6503 if you have any questions or comments.

Sincerelv

Tom Bird Manager, Coal Services GCC Energy, LLC



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

04 April 2017

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 03/21/17 16:47. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

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

Sincerely,

Deblie Zufett

Debbie Zufelt Reports 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.

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.



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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Wiltse Well	1703167-01	Water	03/21/17 12:50	03/21/17 16:47

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Page 2 of 17



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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:01

Wiltse Well

		170)3167-01 (W	/ater)					
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate as CaCO3*	410	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Carbonate as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Total as CaCO3*	410	10.0		mg/L	5	04/04/17	2320 B		JDA
Chloride	72.5	5.00	0.717	mg/L	5	03/27/17	EPA300.0		JDA
Fluoride*	< 0.500	0.500	0.0798	mg/L	5	03/27/17	EPA300.0		JDA
Nitrate/Nitrite as N*	0.492	0.020	0.011	mg/L	1	04/03/17	EPA353.2		JDA
pH*	7.22			pH Units	1	03/23/17	EPA150.1		BDV
Total Dissolved Solids	1480	10.0		mg/L	1	03/28/17	EPA160.1		JDA
Sulfate	731	20.0	3.13	mg/L	20	03/29/17	EPA300.0		JDA
Dissolved Metals by ICP									
Aluminum*	< 0.050	0.050	0.020	mg/L	1	03/27/17	EPA200.7		LLG
Calcium*	205	0.100	0.036	mg/L	1	03/27/17	EPA200.7		LLG
Hardness as CaCO3	1040	0.662	0.195	mg/L	1	03/27/17	2340 B		LLG
Iron*	0.286	0.050	0.014	mg/L	1	03/27/17	EPA200.7		LLG
Magnesium*	128	0.100	0.026	mg/L	1	03/27/17	EPA200.7		LLG
Potassium*	4.61	1.00	0.094	mg/L	1	03/27/17	EPA200.7		LLG
Silica (Si02)	14.7	1.07	0.298	mg/L	1	03/27/17	Calculation		LLG
Silicon	6.85	0.500	0.139	mg/L	1	03/27/17	EPA200.7		LLG
Sodium*	110	1.00	0.087	mg/L	1	03/27/17	EPA200.7		LLG
Dissolved Metals by ICPMS									
Arsenic*	0.0009	0.0005	0.00008	mg/L	1	03/24/17	EPA200.8		LLG
Cadmium*	< 0.0001	0.0001	0.00009	mg/L	1	03/24/17	EPA200.8		LLG
Copper*	0.0023	0.0001	0.00003	mg/L	1	03/24/17	EPA200.8		LLG
Lead*	< 0.0005	0.0005	0.00002	mg/L	1	03/24/17	EPA200.8		LLG
Manganese*	0.440	0.0005	0.0003	mg/L	1	03/24/17	EPA200.8		LLG
Molybdenum*	0.0016	0.0005	0.00006	mg/L	1	03/24/17	EPA200.8		LLG
Selenium*	0.0027	0.0010	0.0002	mg/L	1	03/24/17	EPA200.8		LLG
Uranium	0.0024	0.0001	0.00001	mg/L	1	03/24/17	EPA200.8		LLG
Zinc*	0.0194	0.0020	0.0009	mg/L	1	03/24/17	EPA200.8		LLG

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ellie Zufett

Debbie Zufelt, Reports Manager



Mercury*

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

03/24/17

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EPA245.1

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LLG

GCC Energy, LLC	Bena	rtad.									
Hesperus CO, 81326	1105	Project Manager: Tom Bird 04/04/17 15:01									
Wiltse Well											
	1703167-01 (Water)										
Analyte	Result	RL	MDL	Units	Dilution Analyz	ed Method	Notes	Analyst			
Dissolved Mercury by CVAA											

0.00009

mg/L

< 0.0002

0.0002

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Page 4 of 17



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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:01

General Chemistry - Quality Control

Analyte	Regult	Reporting	Unite	Spike Level	Source	%PEC	%REC	רוק ק	RPD Limit	Notos		
Analyte Ratch B703100 - Canaral Pron. Wat Cham	Kesult	Limit	Units	Level	Kesult	%KEU	Limits	KPD	Limit	inotes		
Bach B/05190 - General Frep - wet Chem												
Duplicate (B703190-DUP1)	Sou	rce: 1703167-	01 Prepa	ared & Ana	lyzed: 03/23	8/17						
pH	7.24		pH Units		7.22			0.277	20			
Reference (B703190-SRM1)			Prepa	ared & Ana	lyzed: 03/23	3/17						
pH	9.14		pH Units	9.08	<u> </u>	101	7.807-102.19					
Batch B703210 - General Prep - Wet Chem												
Blank (B703210-BLK1)			Prep	ared & Ana	lyzed: 03/27	7/17						
Chloride	ND	1.00	mg/L		<u> </u>							
Fluoride	ND	0.100	mg/L									
Sulfate	ND	1.00	mg/L									
LCS (B703210-BS1)		Prepared & Analyzed: 03/27/17										
Chloride	23.1	1.00	mg/L	25.0		92.4	90-110					
Fluoride	2.38	0.100	mg/L	2.50		95.1	90-110					
Sulfate	23.8	1.00	mg/L	25.0		95.1	90-110					
LCS Dup (B703210-BSD1)		Prepared & Analyzed: 03/27/17										
Chloride	23.3	1.00	mg/L	25.0		93.2	90-110	0.806	20			
Fluoride	2.42	0.100	mg/L	2.50		96.9	90-110	1.92	20			
Sulfate	23.9	1.00	mg/L	25.0		95.8	90-110	0.691	20			
Batch B703225 - General Prep - Wet Chem												
Blank (B703225-BLK1)			Prepa	ared & Ana	lyzed: 03/28	8/17						
Total Dissolved Solids	ND	10.0	mg/L									
Duplicate (B703225-DUP1)	Sou	rce: 1703165-	01 Prepa	ared & Ana	lyzed: 03/28	8/17						
Total Dissolved Solids	300	10.0	mg/L		335			11.0	20			
Reference (B703225-SRM1)			Pren	ared & Ana	lvzed: 03/28	8/17						
Total Dissolved Solids	375	10.0	mg/L	390		96.2	85-115					
Batch B704008 - General Prep - Wet Chem												
Blank (B704008-BLK1)			Pren	ared & Ana	lvzed: 04/03	8/17						
Nitrate/Nitrite as N	ND	0.020	mg/L		<u> </u>							
L CE (D704009 DE1)			Dron	anad & Ama	lurad: 04/02	2/17						
Nitrate/Nitrite as N	1.01	0.020	mg/L		lyzed. 04/03	101	90-110					
		0.020		1.00		.01	20 110					
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Dol: 5 latt			shall	Green Analy	tical Laborator	ies be liable	e for incidental or	consequent	ial damages.	A		
June Luper			amo	unt paid by cli	ient for analyse	es. All clain	ns, including thos	e for neglige	ence and any o	other		
0 0			caus	e whatsoever,	shall be deem	ed waived u	inless made in wi	riting and red	ceived within			

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thirty days after completion of the applicable service.



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GCC Energy, LLC	Project: GCC GW Baseline										
6473 CR 120	Project Name / Number: [none]									Reported:	
Hesperus CO, 81326		Project M	lanager: To	om Bird					04/04/17	7 15:01	
	G	eneral Chei	nistry - (Quality C	ontrol						
		((Continu	ed)							
		Reporting		Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch B704008 - General Prep - Wet Chem((Continued)										
LCS Dup (B704008-BSD1)			Prep	ared & Ana	lyzed: 04/03	3/17					
Nitrate/Nitrite as N	1.01	0.020	mg/L	1.00		101	90-110	0.367	20		
Batch B704014 - General Prep - Wet Chem											
			Prep	ared & Ana	lyzed: 04/04	4/17					
Alkalinity, Total as CaCO3	ND	10.0	mg/L								
LCS (B704014-BS1)			Prep	ared & Ana	lyzed: 04/04	4/17					
Alkalinity, Total as CaCO3	109	10.0	mg/L	100		109	85-115				
LCS Dup (B704014-BSD1)			Prep	ared & Ana	lyzed: 04/04	4/17					
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115	3.74	20		

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:01

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B703201 - Dissolved Metals, 2	00.7/200.8									
Blank (B703201-BLK1)			Prep	ared & Anal	lyzed: 03/27	7/17				
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 (B703201-BS1)			Prep	ared & Anal	lyzed: 03/27	7/17				
Aluminum	4.75	0.050	mg/L	5.00		95.0	85-115			
Calcium	4.83	0.100	mg/L	5.00		96.7	85-115			
Iron	4.87	0.050	mg/L	5.00		97.4	85-115			
Magnesium	24.6	0.100	mg/L	25.0		98.2	85-115			
Potassium	9.66	1.00	mg/L	10.0		96.6	85-115			
Silicon	5.31	0.500	mg/L	5.00		106	85-115			
Sodium	7.92	1.00	mg/L	8.10		97.8	85-115			
LCS Dup (B703201-BSD1)			Prep	ared & Anal	lyzed: 03/27	7/17				
Aluminum	5.02	0.050	mg/L	5.00		100	85-115	5.50	20	
Calcium	5.11	0.100	mg/L	5.00		102	85-115	5.53	20	
Iron	5.02	0.050	mg/L	5.00		100	85-115	3.06	20	
Magnesium	26.1	0.100	mg/L	25.0		105	85-115	6.20	20	
Potassium	10.2	1.00	mg/L	10.0		102	85-115	5.40	20	
Sodium	8.42	1.00	mg/L	8.10		104	85-115	6.07	20	

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Page 7 of 17



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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:01

Dissolved Metals by ICPMS - Quality Control

		Poportina		Spiles	Source		% PEC		PDD	
Analyte	Result	Limit	Units	Spike Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B703185 - Dissolved Metals,	200.7/200.8		0.110	Lever	ittouit	, viale	2	10.0		110100
Blank (B703185-BLK1)			Prep	ared: 03/23/	'17 Analyze	ed: 03/24/1	7			
Arsenic	ND	0.0005	mg/L							
Cadmium	ND	0.0001	mg/L							
Copper	ND	0.0001	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	0.0001	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B703185-BS1)			Prep	ared: 03/23/	17 Analyze	ed: 03/24/1	7			
Arsenic	0.0491	0.0005	mg/L	0.0500		98.2	85-115			
Cadmium	0.0486	0.0001	mg/L	0.0500		97.2	85-115			
Copper	0.0474	0.0001	mg/L	0.0500		94.8	85-115			
Lead	0.0484	0.0005	mg/L	0.0500		96.7	85-115			
Manganese	0.0485	0.0005	mg/L	0.0500		96.9	85-115			
Molybdenum	0.0471	0.0005	mg/L	0.0500		94.1	85-115			
Selenium	0.240	0.0010	mg/L	0.250		96.2	85-115			
Uranium	0.0471	0.0001	mg/L	0.0500		94.2	85-115			
Zinc	0.0473	0.0020	mg/L	0.0500		94.6	85-115			
LCS Dup (B703185-BSD1)			Prep	ared: 03/23/	17 Analyze	ed: 03/24/1	7			
Arsenic	0.0484	0.0005	mg/L	0.0500		96.8	85-115	1.39	20	
Cadmium	0.0474	0.0001	mg/L	0.0500		94.7	85-115	2.57	20	
Copper	0.0457	0.0001	mg/L	0.0500		91.5	85-115	3.59	20	
Lead	0.0495	0.0005	mg/L	0.0500		98.9	85-115	2.23	20	
Manganese	0.0467	0.0005	mg/L	0.0500		93.4	85-115	3.74	20	
Molybdenum	0.0482	0.0005	mg/L	0.0500		96.4	85-115	2.40	20	
Selenium	0.235	0.0010	mg/L	0.250		93.9	85-115	2.37	20	
Uranium	0.0504	0.0001	mg/L	0.0500		101	85-115	6.72	20	
Zinc	0.0482	0.0020	mg/L	0.0500		96.4	85-115	1.87	20	

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GCC Energy, LLC	Project: GCC GW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:01

Dissolved Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B703179 - EPA 245.1/7470										
Blank (B703179-BLK1)			Prep	oared: 03/23/	17 Analyza	ed: 03/24/17	7			
Mercury	ND	0.0002	mg/L							
LCS (B703179-BS1)			Prep	oared: 03/23/1	17 Analyze	ed: 03/24/1'	7			
Mercury	0.0021	0.0002	mg/L	0.00200		104	85-115			
LCS Dup (B703179-BSD1)			Prep	oared: 03/23/1	17 Analyz	ed: 03/24/1'	7			
Mercury	0.0021	0.0002	mg/L	0.00200		104	85-115	0.288	20	

Notes and Definitions

 DET
 Analyte DETECTED

 ND
 Analyte NOT DETECTED at or above the reporting limit

 NR
 Not Reported

 dry
 Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.

 RPD
 Relative Percent Difference

 LCS
 Laboratory Control Sample (Blank Spike)

 RL
 Report Limit

MDL Method Detection Limit

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ellie Zufett

Debbie Zufelt, Reports Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	SI THENNILL	(-	В	ill to	o (if	diff	fere	nt):		-		A	NALY	SIS R	EQUE	ST	
Project Manager	TIN BUI			P.0.	#:										Τ					
Address IAI	th C.Z. 12			Con	npany	/:														
City: HISDA	M(State: ()	Zip: \$12	26	Attr	n:															
Phone #: (A	10 1385-4529Email: THEFDE.6	alc.rom		Add	iress:															
Additional Report	Additional Report To: LBECKERSMIKEHY AVOGOODL . WM																			
Project Name:							Zip						-	s						
Project Number:														5						
Sampler Name (I	Print): HSSILA LUNG/MULAAN	NeFar land		Fax	or Er	mail:		_	_					S						
FOR LAB USE ONLY		Coll	ected		Matrix	(chec	k one)	=	#0	fcon	taine	rs	3						
Lab I.D.	Sample Name or Location	Date	Time	GROUNDWATER	SURFACEWATEF	PRODUCEDWATER	SOIL	OTHER :	No preservation (generation	HNO3	HCI H ₅ SO ₄	Other:	Other:	GUL GW						
103-167-0	1 Wiltse Well	3/21/17	12:50pm	X					1	1	1	Ł		X	-				-	
					-	+	-	-	-	+	+	+		++	+			+	+	_
											1	1								
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Relinquished By HSIM LANA Relinquished By Relinquished By Michael G. NCFARLAND Michael Michael Relinquished By:	Date: 3/21/17- Time: 3-21-17 Date: 16:47 Date: Time:	Received By: Michael Vallate Received By: Received By:	ADDITIONAL-REMARKS: Report to State? (Circle) Yes No RUSH TOC to 5- UNY TAT Do hut FOST FOV (Radium 224/228)
Delivered By: (Circle One) Sampler - UPS - FedEx - Kangaroo - Other:		Temperature at reciept: 2426 onice MV	* Metals sample was field filtered

† GAL cannot always accept verbal changes. Please fax or email written change requests.

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

Project Information

GCC Energy, LLC

6473 CR 120 Hesperus, CO 81326 **Debbie Zufelt** Laboratory PM:

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

King Coal 3/21/2017

GCC Energy, LLC Invoice To: **Project Name:** GCC GW Baseline Invoice Bid: GCC GW Baseline GCC GW Baseline **Project Number:** Tom Bird **Invoice Manager:** Client PM: Tom Bird **Comments:**

Comment Analysis Alkalinity, Bicarbonate Alkalinity, Carbonate Alkalinity, Hydroxide Alkalinity, Total Aluminum Dissolved by ICP Arsenic Dissolved by ICPMS Cadmium Dissolved by ICPMS Chloride by IC Copper Dissolved by ICPMS Fluoride by IC Hardness, diss Iron Dissolved by ICP Lead Dissolved by ICPMS Manganese Dissolved by ICPMS Mercury Dissolved by CVAA Molybdenum Dissolved by ICPM Nitrate/Nitrite as N pH Potassium Dissolved by ICP Selenium Dissolved by ICPMS Silica Dissolved by ICP Package Sodium Dissolved by ICP Solids, Total Dissolved (TDS) Subcontract Analysis 1 TOC Sulfate by IC Uranium Dissolved by ICPMS Zinc Dissolved by ICPMS Hardness, diss subanalyses: Calcium Dissolved by ICP Magnesium Dissolved by ICP Silica Dissolved by ICP Package subanalyses:

Silicon Dissolved by ICP

Page 11 of 17 Page 1 of 1



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LABORATORY REPORT

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Arizona	AZ0432	Nevada	IN00035		
Arkansas	IN00035	New Hampshire*	2124		
California	2920	New Mexico	IN00035		
Colorado	IN035	New Jersey*	IN598		
Colorado Radiochemistry	IN035	New York*	11398		
Connecticut	PH-0132	North Carolina	18700		
Delaware	IN035	North Dakota	R-035		
Florida*	E87775	Ohio	87775		
Georgia	929	Oklahoma	D9508		
Hawaii	IN035	Oregon (Primary AB)*	4074-001		
Idaho	IN00035/E87775	Pennsylvania*	68-00466		
Illinois*	200001	Puerto Rico	IN00035		
Illinois Microbiology	200001	Rhode Island	LAO00343		
Indiana Chemistry	C-71-01	South Carolina	95005		
Indiana Microbiology	M-76-07	South Dakota	IN00035		
Iowa	098	Tennessee	TN02973		
Kansas*	E-10233	Texas*	T104704187-15-8		
Kentucky	90056	Texas/TCEQ	TX207		
Louisiana*	LA160002	Utah*	IN00035		
Maine	IN00035	Vermont	VT-8775		
Maryland	209	Virginia*	460275		
Massachusetts	M-IN035	Washington	C837		
Michigan	9926	West Virginia	9927 C		
Minnesota*	018-999-338	Wisconsin	999766900		
Mississippi	IN035	Wyoming	IN035		
Missouri	880				

*NELAP/TNI Recognized Accreditation Bodies



110 South Hill Street South Bend, IN 46617 Tel: (574) 233-4777 Fax: (574) 233-8207 1 800 332 4345

Laboratory Report

Client:	Green Analytical Laboratories	Report:	385129
Δttn·	Debbie Zufelt	Priority:	Immediate Written
Α	75 Suttle Street Durango, CO 81303	Status: PWS ID:	Final Not Supplied

	Sample Information										
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time						
3659560	1703-167-01/Wiltse Well	5310 C	03/21/17 12:50	Client	03/23/17 09:15						
Report Summary											

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Trott at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly YLOTT Analytical Services Manager

03/28/2017

Date

Title

*

!

Sampling Point: 1703-167-01/Wiltse Well

Symbol:

PWS ID: Not Supplied

	General Chemistry										
Analyte ID #	Analyte)	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #	
	Total Organic Carbo	on (TOC)	5310 C		0.500	3.40	mg/L		03/24/17 08:10	3659560	
FEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.											
Rea	Reg Limit Type: MCI				SMCI		AI				

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Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

🐝 euro	ofing	S	ator	n Analytic	al				110 S. South I T: 1.80 F: 1.57	Hill Street Bend, IN 46617 0.332.4345 4.233.8207	Order # Batch #	68	314	L 9
www.eatonanalytical.com Shaded are	ea for FFA us	se only			C	HAIN OF	CUSTOD	Y RECO	RD		Page	of		
REPORT TO:		se only		SAMPLER (Signature	e)		PW	SID#	STATE (sample or	igin) PROJECT NAME	PO#	-	-	-
Green Analytical Laboratories 75 Suttle st. Durango, CO 81303 BILL TO:		Jessica	Jessica Luna		POPULATI			GCC Energy	6.4:-17	s		ME		
San	Same			COMPLIANCE MONITORING		X				GW Baseling	rL0	NTAINER	CODE	ILL GNNO
LAB Number	DATE		1	S/	AMPLING SITE			TEST NA	ME	SAMPLE REMARKS	CHLORINATED	OF CO	ATRIX	JRNAR
1 3659560	3-21-17	1 1250	X	Wiltse	Well		To	oc p	HKZ-	1703-167-01	YES NO	*	5 GW	F
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3	1974) 2387		+					/				-		-
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6	0.0													-
7							/							
8	198					/						-	1.	
9	(4-) (4-)					/						-	-	
10							1	1		1.1-		1		<u> </u>
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12 .	2							FIL	gala	ent.	TICT	1.	/	
13	21							1 1 1				1		
14												/		
RELINQUISHED BY:(Signat	ure)	DATE 3-21-11		RECEIVED BY:(Signa	iture)	DATE	TIME	LAB RESERV	ES THE RIGHT TO RETUR	N UNUSED PORTIONS OF NON-	AQUEOUS SAMPLES	TO CLIENT		
	ture)	DATE	TIME	RECEIVED BY:(Signa	iture)	DATE	TIME							-
RELINQUISHED BY:(Signat	ture)	DATE		RECEIVED FOR LABO	RATORY BY:	DATE	TIME COND		ECEIPT (check one):	nt_2.8 °C Upon	Receipt	· . N/A		
MATRIX CODE	S:	TURN-ARC	OUND TIM	E (TAT) - SURCHARG	SES		1.00 1.00					-	-	
DW-DRINKING WATER RW-REAGENT WATER GW-GROUND WATER EW-EXPOSURE WATER SW-SURFACE WATER PW-POOL WATER WW-WASTE WATER		SW = Standard RV* = Rush Ver RW* = Rush Wr	l Written: (15 v rbal: (5 workin ritten: (5 worki	vorking days) 0% g days) 50% ng days) 75% d service not available (for all testing	IV* = Immediate IW* =Immediate SP* = Weekend STAT* = Less I	e Verbal: (3 working d e Written: (3 working d i, Holiday han 48 hours	ays) 100% days) 125% CALL CALL		Samples received unar than 48 hours holding may be subject to addi	mounced with less time remaining tional charges,			
		1	,		e. un too ting					06-LO-F0435 Issue 4	1.0 Effective Dat	e: 2014-	05-01	

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agree to in writing by DEEA.



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

04 April 2017

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

Enclosed are the results of analyses for samples received by the laboratory on 03/22/17 16:22. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

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

Sincerely,

Deblie Zufett

Debbie Zufelt Reports 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.

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.



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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Well #1 Upgradient	1703180-01	Water	03/22/17 10:10	03/22/17 16:22
Well #2 Downgradient	1703180-02	Water	03/22/17 12:40	03/22/17 16:22
MW-HGA-4	1703180-03	Water	03/22/17 11:55	03/22/17 16:22
Hay Gulch Ditch Upgradient	1703180-04	Water	03/22/17 11:00	03/22/17 16:22
Hay Gulch Ditch Downgradient	1703180-05	Water	03/22/17 09:10	03/22/17 16:22

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Debbie Zufelt, Reports Manager

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Page 2 of 28



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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Well #1 Upgradient

		17()3180-01 (W	/ater)					
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate as CaCO3*	640	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Carbonate as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Total as CaCO3*	640	10.0		mg/L	5	04/04/17	2320 B		JDA
Chloride	4.53	1.00	0.143	mg/L	1	03/27/17	EPA300.0		JDA
Fluoride*	0.337	0.100	0.0160	mg/L	1	03/27/17	EPA300.0		JDA
Nitrate/Nitrite as N*	< 0.020	0.020	0.011	mg/L	1	04/03/17	EPA353.2		JDA
pH*	7.46			pH Units	1	03/23/17	EPA150.1		BDV
Total Dissolved Solids	775	10.0		mg/L	1	03/28/17	EPA160.1		JDA
Sulfate	156	5.00	0.782	mg/L	5	03/29/17	EPA300.0		JDA
Dissolved Metals by ICP									
Aluminum*	< 0.050	0.050	0.020	mg/L	1	03/28/17	EPA200.7		LLG
Calcium*	75.7	0.100	0.036	mg/L	1	03/28/17	EPA200.7		LLG
Hardness as CaCO3	391	0.662	0.195	mg/L	1	03/28/17	2340 B		LLG
Iron*	2.01	0.050	0.014	mg/L	1	03/28/17	EPA200.7		LLG
Magnesium*	49.1	0.100	0.026	mg/L	1	03/28/17	EPA200.7		LLG
Potassium*	3.30	1.00	0.094	mg/L	1	03/28/17	EPA200.7		LLG
Silica (Si02)	14.2	1.07	0.298	mg/L	1	03/29/17	Calculation		LLG
Silicon	6.64	0.500	0.139	mg/L	1	03/29/17	EPA200.7		LLG
Sodium*	167	1.00	0.087	mg/L	1	03/28/17	EPA200.7		LLG
Dissolved Metals by ICPMS									
Arsenic*	0.0009	0.0005	0.00008	mg/L	1	03/29/17	EPA200.8		LLG
Cadmium*	< 0.0001	0.0001	0.00009	mg/L	1	03/29/17	EPA200.8		LLG
Copper*	0.0020	0.0001	0.00003	mg/L	1	03/29/17	EPA200.8		LLG
Lead*	< 0.0005	0.0005	0.00002	mg/L	1	03/29/17	EPA200.8		LLG
Manganese*	0.491	0.0005	0.0003	mg/L	1	03/29/17	EPA200.8		LLG
Molybdenum*	< 0.0005	0.0005	0.00006	mg/L	1	03/29/17	EPA200.8		LLG
Selenium*	0.0245	0.0010	0.0002	mg/L	1	03/29/17	EPA200.8		LLG
Uranium	0.0002	0.0001	0.00001	mg/L	1	03/29/17	EPA200.8		LLG
Zinc*	< 0.0020	0.0020	0.0009	mg/L	1	03/29/17	EPA200.8		LLG

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GCC Energy, LLC 6473 CR 120	Reported:										
Hesperus CO, 81326	rus CO, 81326 Project Manager: Tom Bird										
Well #1 Upgradient											
	1703180-01 (Water)										
Analyte	Result	RL	MDL	Units	Dilution Analyzed	Method	Notes	Analyst			

Dissolved Mercury by CVAA Mercury*

0.00009 mg/L

< 0.0002

0.0002

03/28/17

EPA245.1

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Well #2 Downgradient

	170)3180-02 (W	/ater)					
Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
375	10.0		mg/L	5	04/04/17	2320 B		JDA
<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
375	10.0		mg/L	5	04/04/17	2320 B		JDA
23.3	1.00	0.143	mg/L	1	03/27/17	EPA300.0		JDA
0.228	0.100	0.0160	mg/L	1	03/27/17	EPA300.0		JDA
< 0.020	0.020	0.011	mg/L	1	04/03/17	EPA353.2		JDA
7.72			pH Units	1	03/23/17	EPA150.1		BDV
635	10.0		mg/L	1	03/28/17	EPA160.1		JDA
153	5.00	0.782	mg/L	5	03/29/17	EPA300.0		JDA
< 0.050	0.050	0.020	mg/L	1	03/28/17	EPA200.7		LLG
81.0	0.100	0.036	mg/L	1	03/28/17	EPA200.7		LLG
485	0.662	0.195	mg/L	1	03/28/17	2340 B		LLG
0.213	0.050	0.014	mg/L	1	03/28/17	EPA200.7		LLG
68.7	0.100	0.026	mg/L	1	03/28/17	EPA200.7		LLG
1.94	1.00	0.094	mg/L	1	03/28/17	EPA200.7		LLG
10.9	1.07	0.298	mg/L	1	03/29/17	Calculation		LLG
5.12	0.500	0.139	mg/L	1	03/29/17	EPA200.7		LLG
21.8	1.00	0.087	mg/L	1	03/28/17	EPA200.7		LLG
0.0009	0.0005	0.00008	mg/L	1	03/29/17	EPA200.8		LLG
< 0.0001	0.0001	0.00009	mg/L	1	03/29/17	EPA200.8		LLG
0.0007	0.0001	0.00003	mg/L	1	03/29/17	EPA200.8		LLG
< 0.0005	0.0005	0.00002	mg/L	1	03/29/17	EPA200.8		LLG
0.384	0.0005	0.0003	mg/L	1	03/29/17	EPA200.8		LLG
0.0021	0.0005	0.00006	mg/L	1	03/29/17	EPA200.8		LLG
0.0045	0.0010	0.0002	mg/L	1	03/29/17	EPA200.8		LLG
0.0014	0.0001	0.00001	mg/L	1	03/29/17	EPA200.8		LLG
< 0.0020	0.0020	0.0009	mg/L	1	03/29/17	EPA200.8		LLG
	Result 375 <10.0	Result RL 375 10.0 <10.0	Result RL MDL 375 10.0	Result RL MDL Units 375 10.0 mg/L <10.0	Result RL MDL Units Dilution 375 10.0 mg/L 5 <10.0	Result RL MDL Units Dilution Analyzed 375 10.0 mg/L 5 04/04/17 <10.0	Result RL MDL Units Dilution Analyzed Method 375 10.0 mg/L 5 04/04/17 2320 B <10.0	1703180-02 (Water) Result RL MDL Units Dilution Analyzed Method Notes 375 10.0 mg/L 5 04/04/17 2320 B <10.0

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Debbie Zufelt, Reports Manager



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GCC Energy, LLC 6473 CR 120 Hesperus CO, 81326	Project: GCC GW & SW Baseline Project Name / Number: [none] Project Manager: Tom Bird									
1703180-02 (Water)										
Analyte	Result	RL	MDL	Units	Dilution Analyzed	Method	Notes	Analyst		

Dissolved Mercury by CVAA Mercury*

0.00009 mg/L

< 0.0002

0.0002

03/28/17

EPA245.1

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

MW-HGA-4

		17()3180-03 (W	/ater)					
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate as CaCO3*	465	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Carbonate as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA
Alkalinity, Total as CaCO3*	465	10.0		mg/L	5	04/04/17	2320 B		JDA
Chloride	8.75	1.00	0.143	mg/L	1	03/27/17	EPA300.0		JDA
Fluoride*	0.485	0.100	0.0160	mg/L	1	03/27/17	EPA300.0		JDA
Nitrate/Nitrite as N*	< 0.020	0.020	0.011	mg/L	1	04/03/17	EPA353.2		JDA
pH*	7.17			pH Units	1	03/23/17	EPA150.1		BDV
Total Dissolved Solids	710	10.0		mg/L	1	03/28/17	EPA160.1		JDA
Sulfate	229	5.00	0.782	mg/L	5	03/29/17	EPA300.0		JDA
Dissolved Metals by ICP									
Aluminum*	< 0.050	0.050	0.020	mg/L	1	03/28/17	EPA200.7		LLG
Calcium*	118	0.100	0.036	mg/L	1	03/28/17	EPA200.7		LLG
Hardness as CaCO3	611	0.662	0.195	mg/L	1	03/28/17	2340 B		LLG
Iron*	7.29	0.050	0.014	mg/L	1	03/28/17	EPA200.7		LLG
Magnesium*	76.7	0.100	0.026	mg/L	1	03/28/17	EPA200.7	M5	LLG
Potassium*	2.13	1.00	0.094	mg/L	1	03/28/17	EPA200.7		LLG
Silica (Si02)	16.8	1.07	0.298	mg/L	1	03/29/17	Calculation		LLG
Silicon	7.86	0.500	0.139	mg/L	1	03/29/17	EPA200.7		LLG
Sodium*	27.4	1.00	0.087	mg/L	1	03/28/17	EPA200.7		LLG
Dissolved Metals by ICPMS									
Arsenic*	0.0029	0.0005	0.00008	mg/L	1	03/29/17	EPA200.8		LLG
Cadmium*	< 0.0001	0.0001	0.00009	mg/L	1	03/29/17	EPA200.8		LLG
Copper*	0.0008	0.0001	0.00003	mg/L	1	03/29/17	EPA200.8		LLG
Lead*	< 0.0005	0.0005	0.00002	mg/L	1	03/29/17	EPA200.8		LLG
Manganese*	2.78	0.0005	0.0003	mg/L	1	03/29/17	EPA200.8		LLG
Molybdenum*	0.0024	0.0005	0.00006	mg/L	1	03/29/17	EPA200.8		LLG
Selenium*	0.0030	0.0010	0.0002	mg/L	1	03/29/17	EPA200.8		LLG
Uranium	0.0004	0.0001	0.00001	mg/L	1	03/29/17	EPA200.8		LLG
Zinc*	0.0046	0.0020	0.0009	mg/L	1	03/29/17	EPA200.8		LLG

Green Analytical Laboratories

ellie Zufett

Debbie Zufelt, Reports Manager



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GCC Energy, LLC 6473 CR 120 Hesperus CO, 81326	Proje	Reported:								
MW-HGA-4										
1703180-03 (Water)										
Analyte	Result	RL	MDL	Units	Dilution Analyzed	Method	Notes	Analyst		

Dissolved Mercury by CVAA Mercury*

0.00009 mg/L

< 0.0002

0.0002

1 03/

03/28/17 EPA245.1

LLG

Green Analytical Laboratories

ellie Zufett

Debbie Zufelt, Reports Manager

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Page 8 of 28



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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Hay Gulch Ditch Upgradient

1703180-04 (Water)											
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst		
General Chemistry											
Alkalinity, Bicarbonate as CaCO3*	185	10.0		mg/L	5	04/04/17	2320 B		JDA		
Alkalinity, Carbonate as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA		
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA		
Alkalinity, Total as CaCO3*	185	10.0		mg/L	5	04/04/17	2320 B		JDA		
Chloride	22.7	1.00	0.143	mg/L	1	03/27/17	EPA300.0		JDA		
Fluoride*	0.215	0.100	0.0160	mg/L	1	03/27/17	EPA300.0		JDA		
Nitrate/Nitrite as N*	0.053	0.020	0.011	mg/L	1	04/03/17	EPA353.2		JDA		
Oil & Grease (HEM)	< 5.00	5.00	0.763	mg/L	1	03/29/17	EPA1664 A		BDV		
pH*	8.34			pH Units	1	03/23/17	EPA150.1		BDV		
SAR	0.30			No Unit	1	03/28/17	Calculation		LLG		
Total Dissolved Solids	285	10.0		mg/L	1	03/28/17	EPA160.1		JDA		
Total Suspended Solids*	2.50	2.00		mg/L	1	03/28/17	EPA160.2		JDA		
Sulfate	87.7	5.00	0.782	mg/L	5	03/29/17	EPA300.0		JDA		
Dissolved Metals by ICP											
Aluminum*	< 0.050	0.050	0.020	mg/L	1	03/28/17	EPA200.7		LLG		
Calcium*	53.6	0.100	0.036	mg/L	1	03/28/17	EPA200.7		LLG		
Hardness as CaCO3	257	0.662	0.195	mg/L	1	03/28/17	2340 B		LLG		
Iron*	< 0.050	0.050	0.014	mg/L	1	03/28/17	EPA200.7		LLG		
Magnesium*	29.8	0.100	0.026	mg/L	1	03/28/17	EPA200.7		LLG		
Potassium*	1.75	1.00	0.094	mg/L	1	03/28/17	EPA200.7		LLG		
Silica (Si02)	9.04	1.07	0.298	mg/L	1	03/29/17	Calculation		LLG		
Silicon	4.23	0.500	0.139	mg/L	1	03/29/17	EPA200.7		LLG		
Sodium*	10.9	1.00	0.087	mg/L	1	03/28/17	EPA200.7		LLG		

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Hay Gulch Ditch Upgradient

	1703180-04 (Water)											
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst			
Dissolved Metals by ICPMS												
Arsenic*	0.0005	0.0005	0.00008	mg/L	1	03/29/17	EPA200.8		LLG			
Cadmium*	< 0.0001	0.0001	0.00009	mg/L	1	03/29/17	EPA200.8		LLG			
Copper*	0.0008	0.0001	0.00003	mg/L	1	03/29/17	EPA200.8		LLG			
Lead*	< 0.0005	0.0005	0.00002	mg/L	1	03/29/17	EPA200.8		LLG			
Manganese*	0.0070	0.0005	0.0003	mg/L	1	03/29/17	EPA200.8		LLG			
Molybdenum*	0.0006	0.0005	0.00006	mg/L	1	03/29/17	EPA200.8		LLG			
Selenium*	0.0023	0.0010	0.0002	mg/L	1	03/29/17	EPA200.8		LLG			
Uranium	0.0003	0.0001	0.00001	mg/L	1	03/29/17	EPA200.8		LLG			
Zinc*	0.0022	0.0020	0.0009	mg/L	1	03/29/17	EPA200.8		LLG			
Total Mercury by CVAA												
Mercury*	< 0.0002	0.0002	0.00005	mg/L	1	03/28/17	EPA245.1		LLG			

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Hay Gulch Ditch Downgradient

1703180-05 (Water)										
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst	
General Chemistry										
Alkalinity, Bicarbonate as CaCO3*	320	10.0		mg/L	5	04/04/17	2320 B		JDA	
Alkalinity, Carbonate as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA	
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0		mg/L	5	04/04/17	2320 B		JDA	
Alkalinity, Total as CaCO3*	320	10.0		mg/L	5	04/04/17	2320 B		JDA	
Chloride	31.9	1.00	0.143	mg/L	1	03/27/17	EPA300.0		JDA	
Fluoride*	0.224	0.100	0.0160	mg/L	1	03/27/17	EPA300.0		JDA	
Nitrate/Nitrite as N*	< 0.020	0.020	0.011	mg/L	1	04/03/17	EPA353.2		JDA	
Oil & Grease (HEM)	<5.00	5.00	0.763	mg/L	1	03/29/17	EPA1664 A		BDV	
pH*	8.15			pH Units	1	03/23/17	EPA150.1		BDV	
SAR	0.44			No Unit	1	03/29/17	Calculation		LLG	
Total Dissolved Solids	615	10.0		mg/L	1	03/28/17	EPA160.1		JDA	
Total Suspended Solids*	12.7	2.00		mg/L	1	03/28/17	EPA160.2		JDA	
Sulfate	204	5.00	0.782	mg/L	5	03/29/17	EPA300.0		JDA	
Dissolved Metals by ICP										
Aluminum*	< 0.050	0.050	0.020	mg/L	1	03/29/17	EPA200.7		LLG	
Calcium*	112	0.100	0.036	mg/L	1	03/29/17	EPA200.7		LLG	
Hardness as CaCO3	503	0.662	0.195	mg/L	1	03/29/17	2340 B		LLG	
Iron*	< 0.050	0.050	0.014	mg/L	1	03/29/17	EPA200.7		LLG	
Magnesium*	54.6	0.100	0.026	mg/L	1	03/29/17	EPA200.7		LLG	
Potassium*	2.33	1.00	0.094	mg/L	1	03/29/17	EPA200.7		LLG	
Silica (Si02)	12.2	1.07	0.298	mg/L	1	03/29/17	Calculation		LLG	
Silicon	5.70	0.500	0.139	mg/L	1	03/29/17	EPA200.7		LLG	
Sodium*	22.5	1.00	0.087	mg/L	1	03/29/17	EPA200.7		LLG	

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Hay Gulch Ditch Downgradient

		17()3180-05 (W	'ater)					
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Arsenic*	0.0006	0.0005	0.00008	mg/L	1	03/29/17	EPA200.8		LLG
Cadmium*	< 0.0001	0.0001	0.00009	mg/L	1	03/29/17	EPA200.8		LLG
Copper*	0.0004	0.0001	0.00003	mg/L	1	03/29/17	EPA200.8		LLG
Lead*	< 0.0005	0.0005	0.00002	mg/L	1	03/29/17	EPA200.8		LLG
Manganese*	0.0112	0.0005	0.0003	mg/L	1	03/29/17	EPA200.8		LLG
Molybdenum*	< 0.0005	0.0005	0.00006	mg/L	1	03/29/17	EPA200.8		LLG
Selenium*	0.0022	0.0010	0.0002	mg/L	1	03/29/17	EPA200.8		LLG
Uranium	0.0009	0.0001	0.00001	mg/L	1	03/29/17	EPA200.8		LLG
Zinc*	< 0.0020	0.0020	0.0009	mg/L	1	03/29/17	EPA200.8		LLG
Total Mercury by CVAA									
Mercury*	< 0.0002	0.0002	0.00005	mg/L	1	03/28/17	EPA245.1		LLG

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

General Chemistry - Quality Control

Applyto	Darreli	Reporting	Unit-	Spike	Source	0/852	%REC	רים ק	RPD	Not
	Result	Limit	Units	Level	Kesult	%REC	Limits	КРД	Limit	Notes
Baten B703190 - General Prep - Wet Chem										
Duplicate (B703190-DUP1)	Sou	irce: 1703167-01	Prepa	red & Anal	lyzed: 03/23	3/17				
pH	7.24	I	pH Units		7.22			0.277	20	
Reference (B703190-SRM1)			Prepa	red & Anal	lyzed: 03/23	3/17				
pH	9.14	I	pH Units	9.08		101	7.807-102.19			
Batch B703210 - General Prep - Wet Chem										
Blank (B703210-BLK1)			Prepa	red & Anal	lyzed: 03/27	7/17				
Chloride	ND	1.00	mg/L							
Fluoride	ND	0.100	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B703210-BS1)			Prepa	red & Anal	lyzed: 03/27	7/17				
Chloride	23.1	1.00	mg/L	25.0		92.4	90-110			
Fluoride	2.38	0.100	mg/L	2.50		95.1	90-110			
Sulfate	23.8	1.00	mg/L	25.0		95.1	90-110			
LCS Dup (B703210-BSD1)			Prepa	red & Anal	lyzed: 03/27	7/17				
Chloride	23.3	1.00	mg/L	25.0		93.2	90-110	0.806	20	
Fluoride	2.42	0.100	mg/L	2.50		96.9	90-110	1.92	20	
Sulfate	23.9	1.00	mg/L	25.0		95.8	90-110	0.691	20	
Batch B703216 - General Prep - Wet Chem										
Blank (B703216-BLK1)			Prepa	red & Anal	lyzed: 03/24	4/17				
Oil & Grease (HEM)	ND	5.00	mg/L							
LCS (B703216-BS1)			Prepa	red & Anal	lyzed: 03/24	4/17				
Oil & Grease (HEM)	37.1	5.00	mg/L	40.0		92.8	85-115			
LCS Dup (B703216-BSD1)			Prepa	red & Anal	lyzed: 03/24	4/17				
Oil & Grease (HEM)	35.8	5.00	mg/L	40.0	-	89.5	85-115	3.57	20	
Batch B703225 - General Prep - Wet Chem										
Blank (B703225-BLK1)			Prepa	red & Anal	lyzed: 03/28	8/17				
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (B703225-DUP1)	Sou	ırce: 1703165-01	l Prepa	red & Anal	lyzed: 03/28	3/17				
Total Dissolved Solids	300	10.0	mg/L		335			11.0	20	
Green Analytical Laboratories			The r	esults in this	report apply to This analytic	the sample	s analyzed in acc	ordance wit	h the chain of	

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Laboratories								www.Gr	eenAnalyti	cal.com
GCC Energy, LLC 6473 CR 120 Hesperus CO, 81326	Project: GCC GW & SW Baseline Project Name / Number: [none] Project Manager: Tom Bird								Repo 04/04/1	rted: 7 15:24
	G	General Cher (nistry - (Continu	Quality C ed)	ontrol					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B703225 - General Prep - Wet Chem (Continued)								
Reference (B703225-SRM1)			Prep	ared & Ana	lyzed: 03/28	8/17				
Total Dissolved Solids	375	10.0	mg/L	390		96.2	85-115			
Batch B703230 - General Prep - Wet Chem										
Blank (B703230-BLK1)			Prep	ared & Ana	lyzed: 03/28	8/17				
Total Suspended Solids	ND	2.00	mg/L							
Duplicate (B703230-DUP1)	Sou	urce: 1703180-(04 Prep	ared & Ana	lyzed: 03/28	8/17				
Total Suspended Solids	3.00	2.00	mg/L		2.50			18.2	20	
Reference (B703230-SRM1)			Prep	ared & Ana	lyzed: 03/28	8/17				
Total Suspended Solids	90.0	2.00	mg/L	100	•	90.0	85-115			
Batch B704008 - General Prep - Wet Chem										
Blank (B704008-BLK1)			Prep	ared & Ana	lyzed: 04/0.	3/17				
Nitrate/Nitrite as N	ND	0.020	mg/L							
LCS (B704008-BS1)			Prep	ared & Ana	lyzed: 04/0.	3/17				
Nitrate/Nitrite as N	1.01	0.020	mg/L	1.00	-	101	90-110			
LCS Dup (B704008-BSD1)			Prep	ared & Ana	lvzed: 04/0.	3/17				
Nitrate/Nitrite as N	1.01	0.020	mg/L	1.00		101	90-110	0.367	20	
Batch B704014 - General Prep - Wet Chem										
Blank (B704014-BLK1)			Prep	ared & Ana	lyzed: 04/04	4/17				
Alkalinity, Total as CaCO3	ND	10.0	mg/L		2					
LCS (B704014-BS1)			Prep	ared & Ana	lyzed: 04/04	4/17				
Alkalinity, Total as CaCO3	109	10.0	mg/L	100		109	85-115			
LCS Dup (B704014-BSD1)			Prep	ared & Ana	lyzed: 04/04	4/17				
Alkalinity, Total as CaCO3	105	10.0	mg/L	100		105	85-115	3.74	20	

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Dissolved Metals by ICP - Quality Control

Australia	Densk	Reporting	11	Spike	Source	0/DEC	%REC	DDD	RPD	Neter
Analyte	Kesult	Limit	Units	Level	Result	%REC	Limits	KPD	Limit	Notes
Batch B703229 - Dissolved Metals, 2	00.7/200.8									
Blank (B703229-BLK1)			Prep	ared & Ana	lyzed: 03/28	8/17				
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 (B703229-BS1)			Prep	ared & Ana	lyzed: 03/28	8/17				
Aluminum	4.76	0.050	mg/L	5.00		95.2	85-115			
Calcium	4.88	0.100	mg/L	5.00		97.5	85-115			
Iron	4.92	0.050	mg/L	5.00		98.4	85-115			
Magnesium	24.7	0.100	mg/L	25.0		98.9	85-115			
Potassium	9.56	1.00	mg/L	10.0		95.6	85-115			
Silicon	5.21	0.500	mg/L	5.00		104	85-115			
Sodium	8.13	1.00	mg/L	8.10		100	85-115			
LCS Dup (B703229-BSD1)			Prep	ared & Ana	lyzed: 03/28	8/17				
Aluminum	5.36	0.050	mg/L	5.00		107	85-115	11.9	20	
Calcium	5.51	0.100	mg/L	5.00		110	85-115	12.2	20	
Iron	5.48	0.050	mg/L	5.00		110	85-115	10.8	20	
Magnesium	27.9	0.100	mg/L	25.0		111	85-115	11.9	20	
Potassium	10.7	1.00	mg/L	10.0		107	85-115	11.6	20	
Silicon	5.14	0.500	mg/L	5.00		103	85-115	1.33	20	
Sodium	9.10	1.00	mg/L	8.10		112	85-115	11.2	20	

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Page 15 of 28



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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Dissolved Metals by ICPMS - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B703200 - Dissolved Metals, 2	200.7/200.8									
Blank (B703200-BLK1)			Prep	ared: 03/24/	17 Analyz	ed: 03/29/1	7			
Arsenic	ND	0.0005	mg/L							
Cadmium	ND	0.0001	mg/L							
Copper	ND	0.0001	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	0.0001	mg/L							
Zinc	ND	0.0020	mg/L							
LCS (B703200-BS1)			Prep	ared: 03/24/	17 Analyze	ed: 03/29/1'	7			
Arsenic	0.0471	0.0005	mg/L	0.0500		94.3	85-115			
Cadmium	0.0467	0.0001	mg/L	0.0500		93.3	85-115			
Copper	0.0474	0.0001	mg/L	0.0500		94.8	85-115			
Lead	0.0487	0.0005	mg/L	0.0500		97.4	85-115			
Manganese	0.0481	0.0005	mg/L	0.0500		96.3	85-115			
Molybdenum	0.0468	0.0005	mg/L	0.0500		93.6	85-115			
Selenium	0.241	0.0010	mg/L	0.250		96.2	85-115			
Uranium	0.0458	0.0001	mg/L	0.0500		91.5	85-115			
Zinc	0.0473	0.0020	mg/L	0.0500		94.6	85-115			
LCS Dup (B703200-BSD1)			Prep	ared: 03/24/	17 Analyz	ed: 03/29/1'	7			
Arsenic	0.0459	0.0005	mg/L	0.0500		91.9	85-115	2.60	20	
Cadmium	0.0485	0.0001	mg/L	0.0500		97.0	85-115	3.88	20	
Copper	0.0501	0.0001	mg/L	0.0500		100	85-115	5.47	20	
Lead	0.0487	0.0005	mg/L	0.0500		97.5	85-115	0.147	20	
Manganese	0.0506	0.0005	mg/L	0.0500		101	85-115	5.01	20	
Molybdenum	0.0480	0.0005	mg/L	0.0500		96.0	85-115	2.57	20	
Selenium	0.237	0.0010	mg/L	0.250		95.0	85-115	1.29	20	
Uranium	0.0463	0.0001	mg/L	0.0500		92.5	85-115	1.08	20	
Zinc	0.0483	0.0020	mg/L	0.0500		96.7	85-115	2.16	20	

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Total Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B703207 - EPA 245.1/7470										
Blank (B703207-BLK1)			Prep	oared: 03/27/1	17 Analyze	ed: 03/28/1	7			
Mercury	ND	0.0002	mg/L							
LCS (B703207-BS1)			Prep	oared: 03/27/1	17 Analyze	ed: 03/28/1	7			
Mercury	0.0022	0.0002	mg/L	0.00200		108	85-115			
LCS Dup (B703207-BSD1)			Prep	oared: 03/27/1	17 Analyze	ed: 03/28/1	7			
Mercury	0.0024	0.0002	mg/L	0.00200		119	85-115	9.39	20	BS

Dissolved Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B703208 - EPA 245.1/7470										
Blank (B703208-BLK1)			Prep	ared: 03/27/	17 Analyz	ed: 03/28/17	7			
Mercury	ND	0.0002	mg/L							
LCS (B703208-BS1)			Prep	ared: 03/27/	17 Analyz	ed: 03/28/17	7			
Mercury	0.0021	0.0002	mg/L	0.00200		103	85-115			
LCS Dup (B703208-BSD1)	Prepared: 03/27/17 Analyzed: 03/28/17									
Mercury	0.0021	0.0002	mg/L	0.00200		106	85-115	2.11	20	

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GCC Energy, LLC	Project: GCC GW & SW Baseline	
6473 CR 120	Project Name / Number: [none]	Reported:
Hesperus CO, 81326	Project Manager: Tom Bird	04/04/17 15:24

Notes and Definitions

M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
BS1	Laboratory control sample recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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ellie Zufett

Debbie Zufelt, Reports Manager

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Email: TBY/L @ g(CLOM City: roject Name(optional): UBCLCELLSNUT(EHIGNGLOIGLO.CM State: Zip: roject Number(optional): Phone #: Sampler Name (Print): HSNUL LUMU / Michaul METAVAND Fax or Email: For Lab Use Sample Name or Location Date Time Date Time Out HT2 AWIT (MALARIAL) VIII #1 Upprovide of Upprovide Opprovide of Upprovi	hone #: (17)-	385-4528			Add	ress:											
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Relinquiched But	Date:	Received By:
Reiniquisited by.	Time:	
Delivered By: (Circle One) Sampler - UPS - FedEx - Kangaroo - Other:		Temperature at reciept: 1.3 / 1.5 on ice MN

† GAL cannot always accept verbal changes. Please fax or email written change requests.
 * Chain of Custody must be signed in "Reliquished By:" as an acceptance of services and all applicable charges.

Project Information

GCC Energy, LLC

6473 CR 120 Hesperus, CO 81326 Laboratory PM: Debbie Zufelt Phone:(970) 385-4528 Fax:(970) 385-4638 King Coal 3/22/2017

Project Name:	GCC GW Baseline	Invoice To:	GCC Energy, LLC
Project Number:	GCC GW Baseline	Invoice Bid:	GCC GW Baseline
Client PM:	Tom Bird	Invoice Manager:	Tom Bird
Comments:			

Analysis	Comment	
Alkalinity, Bicarbonate		
Alkalinity, Carbonate		
Alkalinity, Hydroxide		
Alkalinity, Total		
Aluminum Dissolved by ICP		
Arsenic Dissolved by ICPM	S	
Cadmium Dissolved by ICP!	MS	
Chloride by IC		
Copper Dissolved by ICPMS	5	
Fluoride by IC		
Hardness, diss		
Iron Dissolved by ICP		
Lead Dissolved by ICPMS		
Manganese Dissolved by IC	PMS	
Mercury Dissolved by CVA	A	
Molybdenum Dissolved by I	СРМ	
Nitrate/Nitrite as N		
pН		
Potassium Dissolved by ICP		
Selenium Dissolved by ICPM	AS	
Silica Dissolved by ICP Pack	kage	
Sodium Dissolved by ICP		
Solids, Total Dissolved (TD	S)	
Subcontract Analysis 1	TOC	
Sulfate by IC		
Uranium Dissolved by ICPM	1S	
Zinc Dissolved by ICPMS		
Hardness, diss subanalyses:		
Calcium Dissolved by ICP		
Magnesium Dissolved by IC	P	
Silica Dissolved by ICP Packa	age subanalyses:	

Silicon Dissolved by ICP

Page 20 of 28	
Page 1 of 1	

Project Information

GCC Energy, LLC

6473 CR 120

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Hesperus, CO 81326 Laboratory PM: Debbie Zufelt Phone:(970) 385-4528 Fax:(970) 385-4638 King Coal 3/22/2017

Page 21 of 28 Page 1 of 2

Project Name:GCC SW BaselineInvoice To:GCC Energy, LLCProject Number:GCC SW BaselineInvoice Bid:GCC SW BaselineClient PM:Tom BirdInvoice Manager:Tom BirdComments:Tom BirdTom BirdTom Bird

Alkalinity, Bicarbonate Alkalinity, Carbonate Alkalinity, Carbonate Alkalinity, Hydroxide Alkalinity, Total Alkulinity,	Analysis	Comment		
Alkalinity, Carbonate Alkalinity, Hydroxide Alkalinity, Hydroxide Alkalinity, Total	Alkalinity, Bicarbonate			
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Eaton Analytical

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
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Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies



110 South Hill Street South Bend, IN 46617 Tel: (574) 233-4777 Fax: (574) 233-8207 1 800 332 4345

Laboratory Report

Client:	Green Analytical Laboratories	Report:	385130
Attn:	Debbie Zufelt	Priority:	Immediate Written
	75 Suttle Street	Status:	Final
	Durango, CO 81303	PWS ID:	Not Supplied

Sample Information											
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time						
3659561	1703-180-1/Well #1 Upgradient	5310 C	03/22/17 10:10	Client	03/23/17 09:15						
3659562	1703-180-2/Well #2 Down	5310 C	03/22/17 12:40	Client	03/23/17 09:15						
3659563	1703-180-3/MW-HGA-4	5310 C	03/22/17 11:55	Client	03/23/17 09:15						
3659564	1703-180-4/Hay Gulch Upgradien	5310 C	03/22/17 11:00	Client	03/23/17 09:15						
3659565	1703-180-5/Hay Gulch Down	5310 C	03/22/17 09:10	Client	03/23/17 09:15						
	Report Summary										

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Trott at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly YLOTT Analytical Services Manager

03/28/2017

Date

Title

Sampling Point: 1703-180-1/Well #1 Upgradient

	General Chemistry										
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #		
	Total Organic Carbon (TOC)	5310 C		0.500	3.84	mg/L		03/24/17 08:28	3659561		

Sampling Point: 1703-180-2/Well #2 Down

	General Chemistry										
Analyte ID #	Analyte	Method	Method Reg MRL† Result Limit			Units	Preparation Date	Analyzed Date	EEA ID #		
	Total Organic Carbon (TOC)	5310 C		0.500	3.52	mg/L		03/24/17 08:47	3659562		

Sampling Point: 1703-180-3/MW-HGA-4

	General Chemistry										
Analyte ID #	Analyte Analyte Method Reg MRL† Result Units Preparation Analyzed EE/ ID # Date Date ID # Date Date ID #										
	Total Organic Carbon (TOC)	5310 C		0.500	4.54	mg/L		03/24/17 09:05	3659563		

Sampling Point: 1703-180-4/Hay Gulch Upgradien

	General Chemistry										
Analyte ID #	Analyte	Method	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #			
	Total Organic Carbon (TOC)	5310 C		0.500	2.49	mg/L		03/24/17 09:24	3659564		

Sampling Point: 1703-180-5/Hay Gulch Down

	General Chemistry										
Analyte ID #	Analyte	Method Reg MRL† R Limit			Result	Units	Preparation Date	Analyzed Date	EEA ID #		
	Total Organic Carbon (TOC)	5310 C		0.500	2.31	mg/L		03/24/17 09:42	3659565		

Page 2 of 3

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

PWS ID: Not Supplied

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PWS ID: Not Supplied

PWS ID: Not Supplied

Report #: 385130

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

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Shaded area	for EEA use	e only		SAMPLER (Signature)			F	PWS ID #	STATE (sample origin)	PROJECT NAME	PO	#		-	
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DW-DRINKING WATER RW-REAGENT WATER GW-GROUND WATER EW-EXPOSURE WATER SW-SURFACE WATER PW-POOL WATER		SW = Standar RV* = Rush V RW* = Rush V	rd Written: (15 erbal: (5 worki Vritten: (5 worl	working days) 0% ng days) 50% king days) 75%		IV" = Immediat IW" =Immediat SP" = Weeken STAT" = Less t	e Verbal: (3 work e Written: (3 work d, Holiday han 48 hours	king days) 100% king days) 125% CALL CALL		Samples received unar than 48 hours bolding may be subject to addi	inounced w lime remain lional charg	ith less ing jes.		ł	

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agree to in writing by EEA.

FORM-024

Green Analytical 75 Suttle Street Durango, CO 813 Phone: 970-247-4 FAX: 970-247-42 Supplier:	Laboratories 303 4220 227 Eaton	Phone: FAX: Account# Reference: Contact:		PURCHASE REQUEST PO Number: GA 17 - 120 Date Ordered: 3-21-17 Ordered By: Date Required:	
Part Number /	Description				
Analysis	Description	Quantity Un		Date Rec'd Insp	By Comments
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Total: \$_

Page 7 of 7

Dept. Approval: M. Valuntie

Date: 3-22-17

Page ____ of ____