

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Gold Hill Mill, Permit No. M-1994-117 Water Monitoring Plan Quarterly Reporting

1 message

Avrom Howard <aeh@nebuconsulting.com> To: amy.eschberger@state.co.us Cc: Mike Bynum <Mike@bzrez.com>, Mark Steen <goldhillbooks@yahoo.com> Tue, Dec 31, 2019 at 12:56 PM

Ms. Eschberger,

Please see the letter and related attachment, below.

Thanks.

Avrom E. Howard, MSc, PGeo Project Manager, Gold Hill Project

2 attachments



19-12 GHM M-1994-117 water data.xlsx 53K

COLORADO MILLING COMPANY, LLC P.O. BOX 327, MOAB, UT 84532

December 31, 2019

Amy Eschberger, Environmental Protection Specialist COLORADO DIVISION OF MINING, RECLAMATION AND SAFETY 1313 Sherman Street, Room 215 Denver, CO 80203

Sent via email, to: amy.eschberger@state.co.us

Re: Gold Hill Mill, Permit No. M-1994-117 Water Monitoring Plan Quarterly Reporting

Ms. Eschberger:

Mr. Bynum forwarded me a copy of your letter dated December 16, 2019, pertaining to water monitoring data for the Gold Hill Mill permit. I understand that he replied to you by email, as well, assuring you that this oversight in water quality reporting would be promptly addressed. We have all of the measurements and analyses and are pleased to submit them to you at this time.

All of the ACZ laboratory data were submitted to you in an email sent to you immediately before this one so I have not attached them to the email that this letter was attached to. However, I have attached a master EXCEL spreadsheet containing all of the well measurements as well as the analytical data. Please note that even though your letter does not specify a requirement for measurements from the tailings pond there are data from this location, in the rows identified as "TP".

I will continue to update this spreadsheet on a quarterly basis and submit it to you, and once I obtain UTM coordinates for the various locations will create a GIS project so that all the data can be better displayed, tracked and analyzed both spatially and temporally. Results are pending for the most recent samples taken on December 16, 2019. When these results are obtained I will forward them to you and update the spreadsheet.

I trust you will find all of this information to your satisfaction and would look forward to receiving your confirmation in this regard. Meantime, should you have any questions or concerns please do not hesitate to contact me. My mobile number is 970-234-9757 and my email address is <u>aeh@nebuconsulting.com</u>.

Kind regards,

Avrom E. Howard, MSc, PGeo Project Manager, Gold Hill Project

	LOCATIONS				WELL MEAS	UREMENTS
LOCATION ID	NORTHING	EASTING	DATE	ΤΙΜΕ	DEPTH (ft)	рН
W1			12/15/16	9:20	39.58	7.94
W2			12/15/16	9:35	50.42	7.63
W3			12/15/16	9:45	26.08	7.48
W4			12/15/16	10:00	30.42	7.46
ТР			12/15/16	-	-	-
W1			03/20/17	10:22	41.50	7.93
W2			03/20/17	10:37	57.33	7.72
W3			03/20/17	10:47	28.17	7.50
W4			03/20/17	10:54	32.67	7.57
ТР			03/20/17	11:50	-	7.80
W1			06/21/17	11:00	33.70	7.84
W2			06/21/17	11:08	31.60	7.25
W3			06/21/17	11:20	20.10	7.25
W4			06/21/17	11:25	26.80	7.10
ТР			06/21/17	12:12	-	7.36
W1			09/20/17	10:55	37.90	8.00
W2			09/20/17	11:10	41.60	7.53
W3			09/20/17	11:20	25.00	7.42
W4			09/20/17	11:26	30.30	7.10
ТР			09/20/17	12:20	-	7.68
W1			12/19/17	10:30	38.70	7.81
W2			12/19/17	10:41	43.30	7.84
W3			12/19/17	10:56	41.80	6.76
W4			12/19/17	11:09	31.30	7.39
ТР			12/19/17	10:00	-	-
W1			03/13/18	10:55	41.30	7.85
W2			03/13/18	11:10	52.30	7.75
W3			03/13/18	11:20	28.20	7.32
W4			03/13/18	11:30	33.20	8.00
ТР			03/13/18	-	-	-
W1			06/14/18	10:15	33.50	7.87
W2			06/14/18	10:20	33.33	7.74
W3			06/14/18	10:27	21.08	7.46
W4			06/14/18	10:40	27.08	7.40
ТР			06/14/18	9:30	-	7.65
W1			09/18/18	10:20	38.10	8.18
W2			09/18/18	10:35	43.40	7.45
W3			09/18/18	10:40	27.10	7.75

W4	09/18/18	19:50	31.50	7.40
ТР	09/18/18	12:56	-	7.25
W1	12/10/18	9:20	40.08	8.02
W2	12/10/18	9:35	51.33	7.59
W3	12/10/18	9:50	28.42	7.47
W4	12/10/18	10:00	30.58	7.43
ТР	12/10/18	-	-	-
W1	03/24/19	10:41	38.08	8.12
W2	03/24/19	10:55	56.58	7.71
W3	03/24/19	11:10	30.33	7.31
W4	03/24/19	11:25	35.75	7.40
ТР	03/24/19	-	-	-
W1	06/24/19	8:15	29.50	8.10
W2	06/24/19	8:26	29.08	7.74
W3	06/24/19	8:35	20.25	7.35
W4	06/24/19	8:45	26.75	7.26
ТР	06/24/19	10:30	-	7.40
W1	09/23/19	9:35	38.17	8.28
W2	09/23/19	9:45	41.17	7.56
W3	09/23/19	9:55	26.42	7.63
W4	09/23/19	10:00	30.42	7.21
ТР	09/23/19	9:10	-	8.06
W1	12/16/19	11:25	42.50	7.95
W2	12/16/19	12:35	50.20	7.59
W3	12/16/19	12:50	27.80	7.65
W4	12/16/19	13:15	31.70	7.36
ТР	12/16/19	-	-	-

					WATER ANAL	YSES (ppm)
TEMP (°C)	CONDUCTIVITY (uS/cm)	SAMPLE ID	DATE	As	Cd	Mn
7.9	602	0161215 W1	12/16/16	-	-	0.006
7.7	754	0161215 W2	12/16/16	-	-	<0.02
8.0	721	0161215 W3	12/16/16	-	-	<0.02
7.8	675	0161215 W4	12/16/16	-	-	0.237
-	-	-	-	-	-	-
9.3	632	0170320 W1	03/21/17	-	-	0.008
9.3	778	0170320 W2	03/21/17	-	-	<0.02
8.8	746	0170320 W3	03/21/17	-	-	<0.02
8.4	695	0170320 W4	03/21/17	-	-	0.075
8.1	637	0170320 T.P.	03/21/17	0.0013	<0.0001	1.410
10.4	414	0170621 W1	06/22/17	-	-	<0.02
10.0	558	0170621 W2	06/22/17	-	-	<0.02
9.5	649	0170621 W3	06/22/17	-	-	0.130
10.1	399	0170621 W4	06/22/17	-	-	0.009
21.6	246	0170621 TP	06/22/17	0.0015	<0.0001	0.270
9.3	430	0170920-W1	09/21/17	-	-	<0.02
9.4	642	0170920-W2	09/21/17	-	-	<0.02
8.8	586	0170920-W3	09/21/17	-	-	<0.02
8.3	472	0170920-W4	09/21/17	-	-	<0.02
14.0	324	0170920-TP	09/21/17	0.0019	<0.0001	0.060
9.1	575	7/012/19 W1	12/21/17	-	-	<0.02
8.6	715	7/012/19 W2	12/21/17	-	-	<0.02
8.1	622	7/012/19 W3	12/21/17	-	-	<0.02
7.9	625	7/012/19 W4	12/21/17	-	-	0.009
-	-	17/012/19 TP	12/21/17	0.0017	0.0002	<0.02
9.0	566	18-03-13 W1	03/14/18	0.0003	0.0001	<0.02
8.4	727	18-03-13 W2	03/14/18	-	-	<0.02
8.1	655	18-03-13 W3	03/14/18	-	-	<0.02
7.9	746	18-03-13 W4	03/14/18	-	-	0.357
-	-	-	-	-	-	-
10.0	403	18-12-10-W1	12/11/18	<0.0004	0.00014	<0.02
9.7	533	18-12-10-W2	12/11/18	-	-	<0.02
9.2	672	18-12-10-W3	12/11/18	_	-	<0.02
9.3	704	18-12-10-W4	12/11/18	-	-	0.122
19.6	1,800	-	-	-	-	-
10.5	411	18-03-13 W1	10/02/18	<0.0004	0.0002	<0.02
10.3	627	18-03-13 W2	10/02/18	-	-	<0.02
19.3	662	18-03-13 W3	10/02/18	-	-	<0.02

9.5	747	18-03-31 W4	10/02/18	-	-	0.087
7.6	1,524	018-03-BTP	10/02/18	0.0009	<0.0001	<0.02
8.2	443	18-12-10-W1	12/11/18	<0.0004	0.00014	<0.02
7.6	642	18-12-10-W2	12/11/18	-	-	<0.02
7.6	636	18-12-10-W3	12/11/18	-	-	<0.02
7.2	694	18-12-10-W4	12/11/18	-	-	0.122
-	-	-	-	-	-	-
9.1	321	0190325 W1	03/26/19	0.0003	0.00013	<0.02
8.7	580	0190325 W2	03/26/19	-	-	<0.02
8.1	646	0190325 W3	03/26/19	-	-	<0.02
7.8	651	0190325 W4	03/26/19	-	-	0.023
-	-	-	-	-	-	-
8.1	452)190624-W-1	06/25/19	<0.0004	0.00025	<0.02
7.7	523)190624-W-2	06/25/19	-	-	<0.02
7.4	638	0190624-W-3	06/25/19	-	-	<0.02
7.4	409)190624-W-4	06/25/19	-	-	<0.02
8.7	1,655	0190624-TP	06/25/19	0.0007	0.00018	0.140
9.2	531	0190923 W1	10/09/19	<0.0004	0.00021	<0.02
9.1	567	0190923 W2	10/09/19	-	-	<0.02
8.6	571	0190923 W3	10/09/19	-	-	<0.02
8.3	522	0190923 W4	10/09/19	-	-	0.010
11.2	1,999	0190923 TP	10/09/19	0.0007	<0.0001	<0.02
8.5	523					
7.9	590					
7.9	569					
6.7	586					
-	-					

Zn	Residue	Sulfate
0.01	380	191
0.39	512	275
<0.02	452	168
<0.02	422	150
-	-	-
0.01	408	213
0.45	552	285
0.02	464	164
<0.02	436	155
<0.02	2,040	1,330
0.13	236	102
0.14	350	195
<0.02	388	159
0.06	226	58
<0.02	2,120	1,380
0.01	226	110
0.20	394	226
0.02	330	138
<0.02	286	98
<0.02	2,800	1,890
0.02	334	159
0.32	476	241
<0.02	390	153
<0.02	380	121
0.04	3,380	1,970
0.01	364	165
0.31	506	246
0.02	414	153
<0.02	476	167
-	-	-
0.01	254	115
0.18	434	211
0.01	394	155
<0.02	430	164
	-	
<0.02	252	110
0.17	416	207
0.02	404	181

<0.02	472	172
<0.02	3,470	2,540
0.01	254	115
0.18	434	211
0.01	394	155
<0.02	430	164
-	-	-
<0.02	232	77
0.02	432	151
0.13	436	197
<0.02	424	140
-	_	_
0.02	262	120
0.08	350	155
<0.02	414	159
<0.02	230	43
0.02	1,610	943
0.02	328	158
0.14	374	180
<0.02	342	129
<0.02	316	91
0.45	2,020	1,220
	•	



January 04, 2017

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L34668

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 16, 2016. This project has been assigned to ACZ's project number, L34668. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L34668. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after February 03, 2017. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Sue well

Sue Webber has reviewed and approved this report.







Project ID:	
Sample ID:	0161215 MW1

ACZ Sample ID:	L34668-01
Date Sampled:	12/15/16 09:02
Date Received:	12/16/16
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual X	(Q Uni	ts MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0006	В	mg/	L 0.0002	0.001	12/21/16 20:17	′ msh
Cadmium, dissolved	M200.8 ICP-MS	1	0.0001	В	mg/	L 0.0001	0.0005	12/20/16 20:38	s msh
Manganese, dissolved	M200.7 ICP	1	0.257		mg/	L 0.005	0.03	12/19/16 19:38	aeb
Zinc, dissolved	M200.7 ICP	1	0.04	В	mg/	L 0.01	0.05	12/19/16 19:38	aeb
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	(Q Uni	ts MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual X	(Q Uni	ts MDL	PQL	Date 12/17/16 11:59	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual X	(Q Uni	ts MDL	PQL		sck
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 1	Result 1520	Qual X	(Q Uni mg/		PQL 20	12/17/16 11:59	sck gss

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	0161215 W1

ACZ Sample ID:	L34668-02
Date Sampled:	12/15/16 09:20
Date Received:	12/16/16
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.006	В		mg/L	0.005	0.03	12/19/16 19:41	aeb
Zinc, dissolved	M200.7 ICP	1	0.01	В		mg/L	0.01	0.05	12/19/16 19:41	aeb
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/17/16 12:03	sck
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							12/16/16 16:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	380			mg/L	10	20	12/17/16 10:49	sck
Sulfate	D516-02/-07 - Turbidimetric	20	191		*	mg/L	20	100	01/03/17 17:42	bsu

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0161215 W2

ACZ Sample ID:	L34668-03
Date Sampled:	12/15/16 09:35
Date Received:	12/16/16
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	12/19/16 19:50	aeb
Zinc, dissolved	M200.7 ICP	1	0.39			mg/L	0.01	0.05	12/19/16 19:50	aeb
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/17/16 12:06	sck
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							12/16/16 16:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	512			mg/L	10	20	12/17/16 10:52	sck
Sulfate	D516-02/-07 - Turbidimetric	20	275		*	mg/L	20	100	01/03/17 17:42	bsu

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID:	
Sample ID:	0161215 W3

ACZ Sample ID: L34668-04 Date Sampled: 12/15/16 09:45 Date Received: 12/16/16 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	12/19/16 19:53	aeb
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/19/16 19:53	aeb
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/17/16 12:10	sck
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						12/16/16 16:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	452		mg/L	10	20	12/17/16 10:54	sck
Sulfate	D516-02/-07 - Turbidimetric	5	168	*	mg/L	5	25	01/03/17 17:25	bsu

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID: Sample ID: 0161215 W4

ACZ Sample ID:	L34668-05
Date Sampled:	12/15/16 10:00
Date Received:	12/16/16
Sample Matrix:	Surface Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.237		mg/L	0.005	0.03	12/19/16 19:57	aeb
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/19/16 19:57	aeb
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/17/16 12:14	sck
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						12/16/16 16:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	422		mg/L	10	20	12/19/16 16:34	emk
Sulfate	D516-02/-07 - Turbidimetric	5	150	*	mg/L	5	25	12/27/16 15:27	krh



Project ID: Sample ID: 0161215 MW5

ACZ Sample ID:	L34668-06
Date Sampled:	12/15/16 10:20
Date Received:	12/16/16
Sample Matrix:	Surface Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0035			mg/L	0.0002	0.001	12/21/16 20:26	msh
Cadmium, dissolved	M200.8 ICP-MS	1	0.0002	В		mg/L	0.0001	0.0005	12/20/16 20:44	msh
Manganese, dissolved	M200.7 ICP	1	0.073			mg/L	0.005	0.03	12/19/16 20:00	aeb
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	12/19/16 20:00	aeb
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/17/16 12:18	sck
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							12/16/16 16:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	660			mg/L	10	20	12/19/16 16:36	emk
Sulfate	D516-02/-07 - Turbidimetric	20	331		*	mg/L	20	100	12/27/16 16:11	krh

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0161215 CG

ACZ Sample ID:	L34668-07
Date Sampled:	12/15/16 10:50
Date Received:	12/16/16
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0002	В		mg/L	0.0002	0.001	12/21/16 20:28	msh
Cadmium, dissolved	M200.8 ICP-MS	1	0.0008			mg/L	0.0001	0.0005	12/20/16 20:46	msh
Manganese, dissolved	M200.7 ICP	1	0.033			mg/L	0.005	0.03	12/19/16 20:03	aeb
Zinc, dissolved	M200.7 ICP	1	0.24			mg/L	0.01	0.05	12/19/16 20:03	aeb
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/17/16 12:22	sck
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							12/16/16 16:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	250			mg/L	10	20	12/17/16 10:57	sck



Inorganic Reference

Report Header	Explanations								
Batch	A distinct set of samples analyzed at a specific time								
Found	Value of the QC Type	Value of the QC Type of interest							
Limit	Upper limit for RPD, in %.								
Lower	Lower Recovery Limit,	in % (except for LCSS, mg/Kg)							
MDL	Method Detection Limit	t. Same as Minimum Reporting Limit u	nless omitted or e	qual to the PQL (see comment #5).					
	Allows for instrument a	nd annual fluctuations.							
PCN/SCN	A number assigned to	reagents/standards to trace to the mar	nufacturer's certific	ate of analysis					
PQL	Practical Quantitation L	imit. Synonymous with the EPA term	"minimum level".						
QC	True Value of the Cont	rol Sample or the amount added to the	Spike						
Rec	Recovered amount of	the true value or spike added, in % (ex	cept for LCSS, mg	/Kg)					
RPD	Relative Percent Differ	ence, calculation used for Duplicate Q0	C Types						
Upper	Upper Recovery Limit,	in % (except for LCSS, mg/Kg)							
Sample	Value of the Sample of	finterest							
QC Sample Ty	pes								
AS	Analytical Spike (Post I	Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate					
ASD	Analytical Spike (Post I	Digestion) Duplicate	LFB	Laboratory Fortified Blank					
ССВ	Continuing Calibration	Blank	LFM	Laboratory Fortified Matrix					
CCV	Continuing Calibration	Verification standard	LFMD	Laboratory Fortified Matrix Duplicate					
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank					
ICB	Initial Calibration Blank		MS	Matrix Spike					
ICV	Initial Calibration Verific	cation standard	MSD	Matrix Spike Duplicate					
ICSAB	Inter-element Correction	on Standard - A plus B solutions	PBS	Prep Blank - Soil					
LCSS	Laboratory Control Sar	nple - Soil	PBW	Prep Blank - Water					
LCSSD	Laboratory Control Sar	nple - Soil Duplicate	PQV	Practical Quantitation Verification standard					
LCSW	Laboratory Control Sar	nple - Water	SDL	Serial Dilution					
QC Sample Ty	pe Explanations								
Blanks		Verifies that there is no or minimal c	ontamination in the	e prep method or calibration procedure.					
Control Sar	nples	Verifies the accuracy of the method,	including the prep	procedure.					
Duplicates		Verifies the precision of the instrume	ent and/or method.						
Spikes/Fort	ified Matrix	Determines sample matrix interferen	nces, if any.						
Standard		Verifies the validity of the calibration							
ACZ Qualifiers	(Qual)								
В	Analyte concentration	detected at a value between MDL and	PQL. The associat	ed value is an estimated quantity.					
н	Analysis exceeded me	thod hold time. pH is a field test with a	n immediate hold t	ime.					
L	Target analyte respons	se was below the laboratory defined ne	gative threshold.						
U	The material was analy	/zed for, but was not detected above th	e level of the asso	ciated value.					
	The associated value is	s either the sample quantitation limit or	the sample detect	ion limit.					
Method Refere	nces								
(1)		ethods for Chemical Analysis of Water	and Wastes, Marc	h 1983.					
(2)		ethods for the Determination of Inorgan							
(0)									

(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
 (5) Standard Methods for the Examination of Water and Wastewater.

Comments

(3) (4)

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.	

EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.

- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

REP001.03.15.02



Arsenic, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG415166													
WG415166ICV	ICV	12/21/16 19:40	MS161128-3	.05		.04956	mg/L	99	90	110			
WG415166ICB	ICB	12/21/16 19:42				U	mg/L		-0.0006	0.0006			
WG415166LFB	LFB	12/21/16 19:44	MS161201-3	.0501		.04775	mg/L	95	85	115			
L34668-01AS	AS	12/21/16 20:19	MS161201-3	.0501	.0006	.0504	mg/L	99	70	130			
L34668-01ASD	ASD	12/21/16 20:21	MS161201-3	.0501	.0006	.05093	mg/L	100	70	130	1	20	
Cadmium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG415093													
WG415093ICV	ICV	12/20/16 19:57	MS161128-3	.05		.05028	mg/L	101	90	110			
WG415093ICB	ICB	12/20/16 19:59				U	mg/L		-0.0003	0.0003			
WG415093LFB	LFB	12/20/16 20:01	MS161201-3	.05005		.04947	mg/L	99	85	115			
L34667-03AS	AS	12/20/16 20:34	MS161201-3	.05005	U	.04689	mg/L	94	70	130			
L34667-03ASD	ASD	12/20/16 20:36	MS161201-3	.05005	U	.04698	mg/L	94	70	130	0	20	
Manganese, dis	solved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG415005													
WG415005ICV	ICV	12/19/16 18:15	II161209-1	2		1.9072	mg/L	95	95	105			
WG415005ICB	ICB	12/19/16 18:21				U	mg/L		-0.015	0.015			
WG415005LFB	LFB	12/19/16 18:34	II161130-2	.5		.5306	mg/L	106	85	115			
L34667-03AS	AS	12/19/16 19:31	II161130-2	.5	.076	.5952	mg/L	104	85	115			
L34667-03ASD	ASD	12/19/16 19:34	ll161130-2	.5	.076	.5997	mg/L	105	85	115	1	20	
Residue, Filtera	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG414956													
WG414956PBW	PBW	12/17/16 10:00				U	mg/L		-20	20			
WG414956LCSW	LCSW	12/17/16 10:02	PCN52083	260		250	mg/L	96	80	120			
L34668-07DUP	DUP	12/17/16 11:00	. 0.102000	200	250	252	mg/L				1	10	
WG415023													
WG415023PBW	PBW	12/19/16 16:30				U	mg/L		-20	20			
							-						
WG415023LCSW	LCSW	12/19/16 16:31	PCN52083	260		264	mg/L	102	80	120			



Inorganic QC Summary

Colorado Milling Company, LLC

Sulfate			D516-02/-0)7 - Turbi	dimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG415250													
WG415250ICB	ICB	12/27/16 14:34				U	mg/L		-3	3			
WG415250ICV	ICV	12/27/16 14:34	WI161227-2	20		21	mg/L	105	90	110			
WG415250LFB	LFB	12/27/16 15:19	WI160815-8	10		10.2	mg/L	102	90	110			
L34771-01AS	AS	12/27/16 16:00	SO4TURB	10	1040	1040	mg/L	0	90	110			M3
L34668-06DUP	DUP	12/27/16 16:11			331	331	mg/L				0	20	
WG415603													
WG415603ICB	ICB	01/03/17 9:50				U	mg/L		-3	3			
WG415603ICV	ICV	01/03/17 9:50	WI161227-2	20		20.8	mg/L	104	90	110			
WG415603LFB	LFB	01/03/17 17:17	WI160815-8	10		9.9	mg/L	99	90	110			
L34356-05DUP	DUP	01/03/17 17:17			U	U	mg/L				0	20	RA
L34356-06AS	AS	01/03/17 17:39	WI160815-8	10	U	13.1	mg/L	131	90	110			M1
L34684-01DUP	DUP	01/03/17 17:39			U	U	mg/L				0	20	RA
L34684-02AS	AS	01/03/17 17:58	SO4TURB50X	10	741	785	mg/L	440	90	110			M3
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG415005													
WG415005ICV	ICV	12/19/16 18:15	II161209-1	2		1.943	mg/L	97	95	105			
WG415005ICB	ICB	12/19/16 18:21				U	mg/L		-0.03	0.03			
WG415005LFB	LFB	12/19/16 18:34	II161130-2	.4942		.515	mg/L	104	85	115			
L34667-03AS	AS	12/19/16 19:31	II161130-2	.4942	.02	.533	mg/L	104	85	115			
L34667-03ASD	ASD	12/19/16 19:34	II161130-2	.4942	.02	.54	mg/L	105	85	115	1	20	

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L34668-01	WG415603	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L34668-02	WG415603	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
_34668-03	WG415603	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L34668-04	WG415603	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
_34668-05	WG415250	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
_34668-06	WG415250	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L34668-07	WG415603	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L34668

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Colorado Milling Company, LLC	ACZ Proje	ect ID:		L34668
	Date Rece	eived:	12/16/201	6 10:54
	Receive	•		
	Date Pr	inted:	12/	16/2016
Receipt Verification		VEO	NO	NA
1) Is a foreign soil permit included for applicable samples?		YES	NO	X
2) Is the Chain of Custody form or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time an	alyses?	Х		
6) Is the Chain of Custody form complete and accurate?		Х		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the	samples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		X		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and	d Time?	Х		
11) For preserved bottle types, was the pH checked and within limits? 1				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
Chain of Custody Related Remarks				

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	$Rad(\mu R/Hr)$	Custody Seal Intact?
4130	3.9	<=6.0	14	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



Colorado Milling Company, LLC	ACZ Project ID:	L34668
	Date Received:	12/16/2016 10:54
	Received By:	
	Date Printed:	12/16/2016
¹ The preservation of the following bottle types is not		

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ALIA Laboratories, 2773 Downhill Drive Steamboat Springs, CO 80487 (8 Report to:			C C					
Report to: Name: Marla, A Steen				0 n n		~ ~ ~		
		Addre	$\overline{\mathbf{x}}$	20.12	<u>ere (</u>	525		
Company: (oloracles multing comp	any	Talam		napmi	1 Tries	web		
E-mail: gold for time a grand, G	21M	Telep	none:					
Copy of Report to:			_					
Name: Gorden Susteries		E-mai	1:045)	velen.	swee	ney(<u>Q qmai</u>	J.Co
Company: CMCLLC		Telep	hone:	303-	440-	0633) 	
Invoice to:								
Name: Mark. A. Steen		Addre	ss: f	0. Be	70 15	23		
Company: Colo Willing CO.LLC			len	zmení	<u>λ</u>	Colo		
E-mail: gold ton time @ Gmail, C	Com	Telepl	hone:	•				
If sample(s) received past holding time (HT), or if ins							YES	
analysis before expiration, shall ACZ proceed with re If "No" then ACZ will contact client for further instruction. If neither "YES" nor "NO	•				even if HT is e	cpired, and da	NO] 1
Are samples for SDWA Compliance Monitoring?		Yes		N				
If yes, please include state forms. Results will be rep		for Colo	orado.					
Sampler's Name: <u>LEWIS PERK</u> iw Sampler's Site I	nformation *I attest to the auther	State_	Cole				_ Time Zone	
*Sampler's Signature: <u>Auric Perkins</u>	tampering with the s		way, is con	sidered fraud a	nd punishable	by State Law.	_	
PROJECT INFORMATION			ANAL	YSES REQU	ESTED (attac	ch list or us	e quote numbe	r)
Quote #:		lers						
PO#:		Containers			[
Reporting state for compliance testing: Contestant	<i>ч</i> р	- S						
Check box if samples include NRC licensed material? SAMPLE IDENTIFICATION DATE:TIME	 Matrix	f f						
							+	\rightarrow
0161215 mw1 12/15/16 9:62							+ +	<u> </u>
$\frac{016 215}{016 215} \times \frac{1}{12} = \frac{12}{15} \frac{15}{16} \frac{9}{35} = \frac{12}{15} \frac{15}{16} \frac{9}{35} = \frac{12}{15} \frac{15}{16} \frac{15}{16} \frac{15}{16} = \frac{15}{15} \frac{15}{16} \frac{15}{16} \frac{15}{16} = \frac{15}{15} \frac{15}{16} \frac{15}{16}$								
0161215 W3 12/15/16 9:45							┨──┼──	-
0161215 W4 12/1610:00			-				+	
01612(5) MW 5 $1245/16$ 10:20								
0161215 CG 12/15/16 10:50		1						
Case more Frezen		Bar	1.10	000			+ +	
	-1410-	₽~~^ ((M	$\frac{1}{1}$			<u>†</u> − † −	+
tailingpend Frezen						_	╉── ┼──	+
Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · D	W (Drinki	ng Wate	r) · SL (Slud	ge) · SO (S	oil) · OL (O	.⊷	ecify)
C REMARKS					• 			
Call Gordon Sween metals to Be av all gamples are	Ney Q	303	3-4	42-16)6Z	For	the	
5 matels to BO M	NALIA	ed	for.					
	na j	ΓA	4.0	<u></u>	ام م م	land		
# all complex and	ican	, tu	JUN 1	UP (ruid	uy		
Please refer to ACZ's terms a	& conditions I	ocated	on the	reverse s	ide of thi	s COC.		
	TE:TIME		F	RECEIVE	D BY:		DATE	:TIME
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	~1	~	Ba	· 1	<u>, 1</u>		12/15	5/16
					· · · /			T

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Analytical Report

March 31, 2017

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L36113

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 21, 2017. This project has been assigned to ACZ's project number, L36113. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L36113. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after April 30, 2017. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Live Wellin

Sue Webber has reviewed and approved this report.







Project ID:	
Sample ID:	0170320 MW1

ACZ Sample ID:	L36113-01
Date Sampled:	03/20/17 10:08
Date Received:	03/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0009	В		mg/L	0.0002	0.001	03/30/17 13:23	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0006			mg/L	0.0001	0.0005	03/30/17 13:23	mfm
Manganese, dissolved	M200.7 ICP	1	0.084			mg/L	0.005	0.03	03/27/17 19:56	gss
Zinc, dissolved	M200.7 ICP	1	0.06			mg/L	0.01	0.05	03/27/17 19:56	gss
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
									Batto	
Lab Filtration (0.45um filter)	SOPWC050	1							03/23/17 12:34	
(1 1								emk
filter) Lab Filtration (0.45um)		1 1 1	1550			mg/L	10	20	03/23/17 12:34	emk enb

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

ACZ Sample ID:	L36113-02
Date Sampled:	03/20/17 10:22
Date Received:	03/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.008	В	mg/L	0.005	0.03	03/27/17 19:59	gss
Zinc, dissolved	M200.7 ICP	1	0.01	В	mg/L	0.01	0.05	03/27/17 19:59	gss
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						03/23/17 12:37	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						03/22/17 15:07	enb
Residue, Filterable (TDS) @180C	SM2540C	1	408		mg/L	10	20	03/22/17 16:28	keh
Sulfate	D516-02/-07 - Turbidimetric	10	213	*	mg/L	10	50	03/29/17 14:13	bce

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

0170320 W2

Project ID: Sample ID:

Colorado Milling Company, LLC

ACZ Sample ID:	L36113-03
Date Sampled:	03/20/17 10:37
Date Received:	03/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	03/27/17 20:14	gss
Zinc, dissolved	M200.7 ICP	1	0.45			mg/L	0.01	0.05	03/27/17 20:14	gss
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							03/23/17 12:41	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							03/22/17 15:10	enb
Residue, Filterable (TDS) @180C	SM2540C	1	552			mg/L	10	20	03/22/17 16:31	keh
Sulfate	D516-02/-07 - Turbidimetric	10	285		*	mg/L	10	50	03/29/17 14:13	bce

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID:	
Sample ID:	0170320 W3

ACZ Sample ID: L36113-04 Date Sampled: 03/20/17 10:47 Date Received: 03/21/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	03/27/17 20:18	gss
Zinc, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	03/27/17 20:18	gss
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						03/23/17 12:44	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						03/22/17 15:13	enb
Residue, Filterable (TDS) @180C	SM2540C	1	464		mg/L	10	20	03/22/17 16:33	keh
Sulfate	D516-02/-07 - Turbidimetric	5	164	*	mg/L	5	25	03/29/17 14:00	bce

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID:	
Sample ID:	0170320 W4

ACZ Sample ID: L36113-05 Date Sampled: 03/20/17 10:54 Date Received: 03/21/17 Sample Matrix: Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.075			mg/L	0.005	0.03	03/27/17 20:21	gss
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	03/27/17 20:21	gss
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							03/23/17 12:48	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							03/22/17 15:16	enb
Residue, Filterable (TDS) @180C	SM2540C	1	436			mg/L	10	20	03/22/17 16:36	keh
Sulfate	D516-02/-07 - Turbidimetric	5	155		*	mg/L	5	25	03/29/17 13:56	bce



Project ID:	
Sample ID:	0170320 MW5

ACZ Sample ID:	L36113-06
Date Sampled:	03/20/17 11:10
Date Received:	03/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.004			mg/L	0.0002	0.001	03/30/17 13:26	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0003	В		mg/L	0.0001	0.0005	03/30/17 13:26	mfm
Manganese, dissolved	M200.7 ICP	1	0.032			mg/L	0.005	0.03	03/27/17 20:24	gss
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	03/27/17 20:24	gss
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							03/23/17 12:51	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							03/22/17 15:18	enb
()	M200.7/200.8/3005A SM2540C	1 1	664			mg/L	10	20	03/22/17 15:18 03/22/17 16:39	



Project ID:	
Sample ID:	0170320 CM

ACZ Sample ID:	L36113-07
Date Sampled:	03/20/17 11:22
Date Received:	03/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual 2	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В		mg/L	0.0002	0.001	03/30/17 13:35	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0016			mg/L	0.0001	0.0005	03/30/17 13:35	i mfm
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	03/27/17 20:27	gss
Zinc, dissolved	M200.7 ICP	1	0.51			mg/L	0.01	0.05	03/27/17 20:27	gss
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual 2	XQ	Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual)	XQ	Units	MDL	PQL	Date 03/23/17 12:55	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual X	XQ	Units	MDL	PQL		emk
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1	Result 826	Qual 2	XQ	Units mg/L	MDL 10	PQL 20	03/23/17 12:55	emk enb



Project ID: Sample ID: 0170320 CG

ACZ Sample ID:	L36113-08
Date Sampled:	03/20/17 11:34
Date Received:	03/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0002	0.001	03/30/17 13:44	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0011		mg/L	0.0001	0.0005	03/30/17 13:44	mfm
Manganese, dissolved	M200.7 ICP	1	0.019	В	mg/L	0.005	0.03	03/27/17 20:30	gss
Zinc, dissolved	M200.7 ICP	1	0.35		mg/L	0.01	0.05	03/27/17 20:30	gss
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						03/23/17 12:58	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						03/22/17 15:24	enb
Residue, Filterable (TDS) @180C	SM2540C	1	348		mg/L	10	20	03/22/17 16:44	keh
Sulfate	D516-02/-07 - Turbidimetric	5	196	*	mg/L	5	25	03/29/17 13:56	bce

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	0170320 T.P.

ACZ Sample ID:	L36113-09
Date Sampled:	03/20/17 11:50
Date Received:	03/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	2	0.0013	В	mg/L	0.0004	0.002	03/30/17 13:48	mfm
Cadmium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	03/30/17 13:48	mfm
Manganese, dissolved	M200.7 ICP	2	1.41		mg/L	0.01	0.05	03/27/17 20:33	gss
Zinc, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	03/27/17 20:33	gss
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual XQ	Units	MDL	PQL	Date 03/23/17 13:02	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual XQ	Units	MDL	PQL		emk
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 2	Result 2040	Qual XQ	Units mg/L	MDL 20	PQL 40	03/23/17 13:02	emk enb



Inorganic Reference

Report Header	Explanations						
Batch	A distinct set of samp	bles analyzed at a specific time					
Found	Value of the QC Type	e of interest					
Limit	Upper limit for RPD, i	n %.					
Lower	Lower Recovery Limi	it, in % (except for LCSS, mg/Kg)					
MDL	Method Detection Lin	nit. Same as Minimum Reporting Limit u	nless omitted or e	qual to the PQL (see comment #5).			
	Allows for instrument	and annual fluctuations.					
PCN/SCN	A number assigned to	o reagents/standards to trace to the mar	nufacturer's certific	ate of analysis			
PQL	Practical Quantitation	Limit. Synonymous with the EPA term	"minimum level".				
QC	True Value of the Cor	ntrol Sample or the amount added to the	Spike				
Rec	Recovered amount o	f the true value or spike added, in % (ex	cept for LCSS, mg	/Kg)			
RPD	Relative Percent Diffe	erence, calculation used for Duplicate Q	C Types				
Upper	Upper Recovery Limi	it, in % (except for LCSS, mg/Kg)					
Sample	Value of the Sample	of interest					
QC Sample Ty	200						
AS	Analytical Spike (Pos	t Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate			
ASD		t Digestion) Duplicate	LFB	Laboratory Fortified Blank			
CCB			LFM	Laboratory Fortified Matrix			
CCV	Continuing Calibration Blank Continuing Calibration Verification standard		LFMD	Laboratory Fortified Matrix Duplicate			
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank			
ICB	Initial Calibration Blan	ak.	MS	Matrix Spike			
ICV	Initial Calibration Dari		MSD	Matrix Spike Duplicate			
ICSAB		tion Standard - A plus B solutions	PBS	Prep Blank - Soil			
LCSAB	Laboratory Control Sa		PBW	Prep Blank - Water			
LCSSD	•	ample - Soil Duplicate	PQV	Practical Quantitation Verification standard			
LCSW	Laboratory Control Sa		SDL	Serial Dilution			
20011	Laboratory Control Co		GDE				
QC Sample Ty	pe Explanations						
Blanks		Verifies that there is no or minimal c	ontamination in the	e prep method or calibration procedure.			
Control Sar	nples	Verifies the accuracy of the method	, including the prep procedure.				
Duplicates		Verifies the precision of the instrume	ent and/or method.				
Spikes/For	tified Matrix	Determines sample matrix interferer	nces, if any.				
Standard		Verifies the validity of the calibration					
ACZ Qualifiers	(Qual)						
В	Analyte concentration	n detected at a value between MDL and	PQL. The associat	ted value is an estimated quantity.			

- H Analysis exceeded method hold time. pH is a field test with an immediate hold time.
- L Target analyte response was below the laboratory defined negative threshold.
- U The material was analyzed for, but was not detected above the level of the associated value.
 - The associated value is either the sample quantitation limit or the sample detection limit.

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.
omments	
(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier
(4)	
(4)	associated with the result.

REP001.03.15.02



Arsenic, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG420339													
WG420339ICV	ICV	03/30/17 12:23	MS170301-3	.05		.05157	mg/L	103	90	110			
WG420339ICB	ICB	03/30/17 12:27				U	mg/L		-0.0006	0.0006			
WG420339LFB	LFB	03/30/17 12:30	MS170321-3	.0501		.05332	mg/L	106	85	115			
L36113-06AS	AS	03/30/17 13:29	MS170321-3	.0501	.004	.05731	mg/L	106	70	130			
L36113-06ASD	ASD	03/30/17 13:32	MS170321-3	.0501	.004	.05426	mg/L	100	70	130	5	20	
Cadmium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG420339													
WG420339ICV	ICV	03/30/17 12:23	MS170301-3	.05		.05518	mg/L	110	90	110			
WG420339ICB	ICB	03/30/17 12:27				U	mg/L		-0.0003	0.0003			
WG420339LFB	LFB	03/30/17 12:30	MS170321-3	.05005		.0505	mg/L	101	85	115			
L36113-06AS	AS	03/30/17 13:29	MS170321-3	.05005	.0003	.05019	mg/L	100	70	130			
L36113-06ASD	ASD	03/30/17 13:32	MS170321-3	.05005	.0003	.04794	mg/L	95	70	130	5	20	
Manganese, diss	solved		M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG420090													
WG420090ICV	ICV	03/27/17 19:18	II170316-1	2		1.935	mg/L	97	95	105			
WG420090ICB	ICB	03/27/17 19:24				U	mg/L		-0.015	0.015			
WG420090LFB	LFB	03/27/17 19:36	II170317-5	.5		.4998	mg/L	100	85	115			
L36113-02AS	AS	03/27/17 20:02	II170317-5	.5	.008	.5095	mg/L	100	85	115			
L36113-02ASD	ASD	03/27/17 20:05	II170317-5	.5	.008	.509	mg/L	100	85	115	0	20	
L36116-02AS	AS	03/27/17 20:43	II170317-5	.5	U	.4914	mg/L	98	85	115			
L36116-02ASD	ASD	03/27/17 20:52	II170317-5	.5	U	.4898	mg/L	98	85	115	0	20	
Residue, Filteral	ole (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG419871													
WG419871PBW	PBW	03/22/17 15:52				U	mg/L		-20	20			
WG419871LCSW	LCSW	03/22/17 15:54	PCN52651	260		264	mg/L	102	80	120			
L36124-16DUP	DUP	03/22/17 16:52			216	218	mg/L				1	10	
Sulfate			D516-02/-(07 - Turbi	dimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG420241													
WG420241ICB	ICB	03/29/17 9:26				U	mg/L		-3	3			
WG420241ICV	ICV	03/29/17 9:26	WI170321-2	20		19.4	mg/L	97	90	110			
WG420241LFB	LFB	03/29/17 13:47	WI170131-8	9.99		10	mg/L	100	90	110			
L36063-01DUP	DUP	03/29/17 13:47			3.8	3.7	mg/L				3	20	R
L36063-02AS	AS	03/29/17 13:47	WI170131-8	9.99	13	24.3	mg/L	113	90	110			Μ
L36116-03DUP	DUP	03/29/17 13:51			13.9	13.8	mg/L				1	20	
							-						



Zinc, dissolved			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG420090													
WG420090ICV	ICV	03/27/17 19:18	II170316-1	2		1.976	mg/L	99	95	105			
WG420090ICB	ICB	03/27/17 19:24				U	mg/L		-0.03	0.03			
WG420090LFB	LFB	03/27/17 19:36	ll170317-5	.4942		.517	mg/L	105	85	115			
L36113-02AS	AS	03/27/17 20:02	ll170317-5	.4942	.01	.529	mg/L	105	85	115			
L36113-02ASD	ASD	03/27/17 20:05	ll170317-5	.4942	.01	.52	mg/L	103	85	115	2	20	
L36116-02AS	AS	03/27/17 20:43	ll170317-5	.4942	U	.512	mg/L	104	85	115			
L36116-02ASD	ASD	03/27/17 20:52	II170317-5	.4942	U	.505	mg/L	102	85	115	1	20	

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Inorganic Extended Qualifier Report

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L36113-01	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L36113-02	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L36113-03	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L36113-04	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L36113-05	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L36113-06	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L36113-07	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L36113-08	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L36113-09	NG420241	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L36113

No certification qualifiers associated with this analysis

ACZ	Laboratorie	s, Inc.
	Steamboat Springs, CO	

Sample Receipt

NO

NA X

> X X

ACZ Project ID: L36113 Date Received: 03/21/2017 09:51 Received By: Date Printed: 3/21/2017

YES

Х

X X

Х

Receipt Verification

 Is a foreign soil permit included for applicable samples?

- 2) Is the Chain of Custody form or other directive shipping papers present?
- 3) Does this project require special handling procedures such as CLP protocol?
- 4) Are any samples NRC licensable material?
- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody form complete and accurate?
- 7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples? A change was made in the Sample I.D. Line 1-4 6-9 section prior to ACZ custody.

Samples/Containers

NO YES NA 8) Are all containers intact and with no leaks? Х 9) Are all labels on containers and are they intact and legible? Х 10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time? Х 11) For preserved bottle types, was the pH checked and within limits? 1 Х 12) Is there sufficient sample volume to perform all requested work? Х 13) Is the custody seal intact on all containers? Х 14) Are samples that require zero headspace acceptable? Х 15) Are all sample containers appropriate for analytical requirements? Х 16) Is there an Hg-1631 trip blank present? Х 17) Is there a VOA trip blank present? Х 18) Were all samples received within hold time? Х

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	$Rad(\mu R/Hr)$	Custody Seal Intact?
4682	5.3	<=6.0	13	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



Colorado I	Milling	Company,	LLC
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ACZ Project ID: L36113 Date Received: 03/21/2017 09:51 Received By: Date Printed: 3/21/2017

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

HCZ Laboratories, Inc.	C3G113 CHAIN of CUST
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334	5493
Report to:	
Name: Mark Stern	Address: P.O.Box 1523
Company: colorado milling company	Renarment, Colo
E-mail: gold for time @grad , Com	Telephone:
Copy of Report to:	
Name: Collden Swleney	E-mail: Gordone eureenin @g me
Company: CMCLLC	Telephone: 303-440-0633
Invoice to:	
Name: March Steen	Address: P.O. Buy 1523
Company: Colo Milling Go LLC	Lennment, Colo
E-mail: and ton time @ a mail - com	Telephone:
If sample(s) received past holding time (HT), or if insufficier	
analysis before expiration, shall ACZ proceed with requeste	-
ff "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicate Are samples for SDWA Compliance Monitoring?	I, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified Yes No
If yes, please include state forms. Results will be reported t	
Sampler's Name: 2. Pentring Sampler's Site Informa	
*Sampler's Signature: () 1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	he authenticity and validity of this sample. I understand that intentionally mislabeling the time with the sample in anyway, is considered fraud and punishable by State Law.
PROJECT INFORMATION	ANALYSES REQUESTED (attach list or use quote numbe
Quote #:	
PO#:	Containers Containers CO コノルフ 3/シルフ 3/シルフ 3/シルフ
Reporting state for compliance testing: Colinado	
Check box if samples include NRC licensed material?	
SAMPLE IDENTIFICATION DATE:TIME	
0100320 mw1 3/20/17 10:08 mm	
0170320 w1 3/20/17 10:22m	
U10320 W2 3/20/17 10:37 MM	
0170320 W3 3/2011 10:47 MM	3 × ×
07760320 W4 3/2017 10:54m	3 × ×
Q1780320 MWS 3120/17 11:10 M	$\frac{3}{1}$ × ×
0170320 CM 3/2017 11:22AM	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
0170320 CQ CG $32d17$ $11'34m$	
O1703 20 T.P. 3/20/17 N: 50 MM Matrix SW (Surface Water) - GW (Ground Water) - WW (Waste W	3 X X Ater) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Sp
a D Condina Surphoness (g) 3	02-447-1067 For the Metal
card command and the	
to be analyzed rol	
all samples are raw	03-442-1062 For the metals , Gilter as needed
	tions located on the reverse side of this COC.
RELINQUISHED BY: DATE:TH	
Leurs Pertin 3/20/1	
	3795 fron iEn Ar 343
	BOUNT GO B301



Analytical Report

July 17, 2017

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L38018

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 22, 2017. This project has been assigned to ACZ's project number, L38018. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L38018. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 16, 2017. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

re Welly

Sue Webber has reviewed and approved this report.







Project ID: Sample ID: 0170621 TP

ACZ Sample ID:	L38018-01
Date Sampled:	06/21/17 12:12
Date Received:	06/22/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	2	0.0015	В		mg/L	0.0004	0.002	07/03/17 18:18	enb
Cadmium, dissolved	M200.8 ICP-MS	2		U		mg/L	0.0002	0.001	07/03/17 18:18	enb
Manganese, dissolved	M200.7 ICP	2	0.27		*	mg/L	0.01	0.05	07/05/17 17:51	aeh
Zinc, dissolved	M200.7 ICP	2		U	*	mg/L	0.02	0.1	07/05/17 17:51	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							07/03/17 11:31	che
· ·	SOPWC050 M200.7/200.8/3005A	1 1							07/03/17 11:31 06/27/17 9:40	che sck
filter) Lab Filtration (0.45um)		1 1 1	2120			mg/L	10	20		sck



Project ID:	
Sample ID:	0170621 MW1

ACZ Sample ID:	L38018-02
Date Sampled:	06/21/17 10:45
Date Received:	06/22/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0007	В		mg/L	0.0002	0.001	07/03/17 18:27	enb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0002	В		mg/L	0.0001	0.0005	07/03/17 18:27	enb
Manganese, dissolved	M200.7 ICP	1	0.220		*	mg/L	0.005	0.03	07/05/17 17:54	aeh
Zinc, dissolved	M200.7 ICP	1	0.08		*	mg/L	0.01	0.05	07/05/17 17:54	aeh
Wet Chemistry		Dilution	Decult	Qual	YO		MDI	BOI	Data	Applyot
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							07/03/17 11:33	che
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							06/27/17 9:40	sck
()	M200.7/200.8/3005A SM2540C	1 1	1480			mg/L	10	20	06/27/17 9:40 06/26/17 15:35	

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Project ID:	
Sample ID:	0170621 W1

ACZ Sample ID: L38018-03 Date Sampled: 06/21/17 11:00 Date Received: 06/22/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XC	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	07/05/17 17:57	aeh
Zinc, dissolved	M200.7 ICP	1	0.13		mg/L	0.01	0.05	07/05/17 17:57	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XC	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						07/03/17 11:35	che
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						06/27/17 9:40	sck
Residue, Filterable (TDS) @180C	SM2540C	1	236		mg/L	10	20	06/26/17 15:37	che
Sulfate	D516-02/-07 - Turbidimetric	5	102	*	mg/L	5	25	07/12/17 14:33	bce

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Colorado Milling Company, LLC

Project ID:	
Sample ID:	0170621 W2

ACZ Sample ID: L38018-04 Date Sampled: 06/21/17 11:08 Date Received: 06/22/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	07/05/17 18:00	aeh
Zinc, dissolved	M200.7 ICP	1	0.14		mg/L	0.01	0.05	07/05/17 18:00	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						07/03/17 11:37	che
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						06/27/17 9:40	sck
Residue, Filterable (TDS) @180C	SM2540C	1	350		mg/L	10	20	06/26/17 15:39	che
Sulfate	D516-02/-07 - Turbidimetric	5	195	*	mg/L	5	25	07/12/17 14:33	bce

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Colorado Milling Company, LLC

Project ID:	
Sample ID:	0170621 W3

ACZ Sample ID: L38018-05 Date Sampled: 06/21/17 11:20 Date Received: 06/22/17 Sample Matrix: Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.130			mg/L	0.005	0.03	07/05/17 18:04	aeh
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/05/17 18:04	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							07/03/17 11:39	che
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							06/27/17 9:40	sck
Residue, Filterable (TDS) @180C	SM2540C	1	388		*	mg/L	10	20	06/26/17 15:42	che
Sulfate	D516-02/-07 - Turbidimetric	5	159		*	mg/L	5	25	07/12/17 14:33	bce

ACZ	Laboratories, Inc.
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ACZ Sample ID:	L38018-06
Date Sampled:	06/21/17 11:25
Date Received:	06/22/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.009	В		mg/L	0.005	0.03	07/05/17 18:13	aeh
Zinc, dissolved	M200.7 ICP	1	0.06			mg/L	0.01	0.05	07/05/17 18:13	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							07/03/17 13:30	jnp
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							06/27/17 9:40	sck
Residue, Filterable (TDS) @180C	SM2540C	1	226		*	mg/L	10	20	06/26/17 15:44	che
Sulfate	D516-02/-07 - Turbidimetric	5	58.1		*	mg/L	5	25	07/12/17 14:33	bce

ACZ	Laboratories, Inc.
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Project ID:	
Sample ID:	0170621 MW5

ACZ Sample ID:	L38018-07
Date Sampled:	06/21/17 11:45
Date Received:	06/22/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0035		mg/L	0.0002	0.001	07/03/17 18:30	enb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	07/03/17 18:30	enb
Manganese, dissolved	M200.7 ICP	1	0.017	В	mg/L	0.005	0.03	07/05/17 18:16	aeh
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	07/05/17 18:16	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um	SOPWC050	4							
filter)		I						07/03/17 13:33	jnp
filter) Lab Filtration (0.45um) & Acidification		1						07/03/17 13:33 06/27/17 9:40	jnp sck
Lab Filtration (0.45um)		1 1 1	648	*	mg/L	10	20		sck

ACZ	Laboratories, Inc.
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Project ID:	
Sample ID:	0170621

ACZ Sample ID:	L38018-08
Date Sampled:	06/21/17 12:00
Date Received:	06/22/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В		mg/L	0.0002	0.001	07/03/17 18:33	enb
Cadmium, dissolved	M200.8 ICP-MS	1	0.019			mg/L	0.0001	0.0005	07/03/17 18:33	enb
Manganese, dissolved	M200.7 ICP	1	2.9			mg/L	0.005	0.03	07/05/17 18:26	aeh
Zinc, dissolved	M200.7 ICP	1	5.62			mg/L	0.01	0.05	07/05/17 18:26	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual	XQ	Units	MDL	PQL	Date 07/03/17 13:37	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual	XQ	Units	MDL	PQL		
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 1	Result 1010	Qual	XQ *	Units mg/L	MDL 10	PQL 20	07/03/17 13:37	jnp sck

ACZ	Laboratories, Inc.
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Project ID:	
Sample ID:	0170621 CG

ACZ Sample ID:	L38018-09
Date Sampled:	06/21/17 12:45
Date Received:	06/22/17
Sample Matrix:	Surface Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0002	В		mg/L	0.0002	0.001	07/03/17 18:42	enb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0011			mg/L	0.0001	0.0005	07/03/17 18:42	enb
Manganese, dissolved	M200.7 ICP	1	0.015	В		mg/L	0.005	0.03	07/05/17 18:29	aeh
Zinc, dissolved	M200.7 ICP	1	0.29			mg/L	0.01	0.05	07/05/17 18:29	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							07/03/17 13:40	jnp
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							06/27/17 9:40	sck
Residue, Filterable (TDS) @180C	SM2540C	1	276		*	mg/L	10	20	06/26/17 15:49	che
Sulfate	D516-02/-07 - Turbidimetric	5	167		*	mg/L	5	25	07/12/17 15:20	bce



Inorganic Reference

	,									
Report Header	r Explanations									
Batch	A distinct set of sa	imples analyzed at a specific time								
Found	Value of the QC T	ype of interest								
Limit	Upper limit for RP									
Lower	Lower Recovery L	imit, in % (except for LCSS, mg/Kg)								
MDL	-	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5).								
	Allows for instrum	Allows for instrument and annual fluctuations.								
PCN/SCN	A number assigne	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis								
PQL	Practical Quantitat	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".								
QC	True Value of the	True Value of the Control Sample or the amount added to the Spike								
Rec	Recovered amour	nt of the true value or spike added, in % (ex	cept for LCSS, mg	/Kg)						
RPD	Relative Percent [Difference, calculation used for Duplicate Q	C Types							
Upper	Upper Recovery L	imit, in % (except for LCSS, mg/Kg)								
Sample	Value of the Samp	ble of interest								
QC Sample Ty										
AS	Analytical Spike (F	Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate						
ASD		Post Digestion) Duplicate	LFB	Laboratory Fortified Blank						
CCB	Continuing Calibra		LFM	Laboratory Fortified Matrix						
CCV	•	ation Verification standard	LFMD	Laboratory Fortified Matrix Duplicate						
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank						
ICB	Initial Calibration E	Blank	MS	Matrix Spike						
ICV		/erification standard	MSD	Matrix Spike Duplicate						
ICSAB		rection Standard - A plus B solutions	PBS	Prep Blank - Soil						
LCSS	Laboratory Contro	·	PBW	Prep Blank - Water						
LCSSD		I Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard						
LCSW	Laboratory Contro	I Sample - Water	SDL	Serial Dilution						
OC Somalo Tu	vpe Explanations									
Blanks	pe Explanations	Verifies that there is no or minimal c	ontamination in the	e prep method or calibration procedure.						
Control Sa	moles	Verifies the accuracy of the method,								
Duplicates	inpico	Verifies the precision of the instrume								
•	tified Matrix	Determines sample matrix interferer								
Standard		Verifies the validity of the calibration								
ACZ Qualifiers	s (Qual)									
В	,	tion detected at a value between MDL and								
Н	-	d method hold time. pH is a field test with a		time.						
L	• •	ponse was below the laboratory defined ne	•							
U	The material was	analyzed for, but was not detected above th	ne level of the asso	ociated value.						
	The associated va	alue is either the sample quantitation limit or	the sample detect	tion limit.						
Method Refere	ences									
(1)	EPA 600/4-83-020). Methods for Chemical Analysis of Water	and Wastes, Marc	sh 1983.						
(2)	EPA 600/R-93-10	0. Methods for the Determination of Inorga	nic Substances in	Environmental Samples, August 1993.						

(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.

- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.

- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

REP001.03.15.02



Inorganic QC Summary

Colorado Milling Company, LLC

Arsenic, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG426053													
WG426053ICV	ICV	07/03/17 17:08	MS170420-2	.05		.05095	mg/L		90	110			
WG426053ICV	ICV	07/03/17 17:08	MS170420-2					102	90	110			
WG426053ICB	ICB	07/03/17 17:11				U	mg/L		-0.0006	0.0006			
WG426053LFB	LFB	07/03/17 17:14	MS170524-3					98	85	115			
WG426053LFB	LFB	07/03/17 17:14	MS170524-3	.0501		.04911	mg/L		85	115			
L38018-08AS	AS	07/03/17 18:36	MS170524-3	.0501	.0005	.05522	mg/L		70	130			
L38018-08AS	AS	07/03/17 18:36	MS170524-3					109	70	130			
L38018-08ASD	ASD	07/03/17 18:39	MS170524-3	.0501	.0005	.0571	mg/L		70	130		20	
L38018-08ASD	ASD	07/03/17 18:39	MS170524-3					113	70	130		20	
L38018-08ASD	ASD	07/03/17 18:39	MS170524-3						70	130	3	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG426053													
WG426053ICV	ICV	07/03/17 17:08	MS170420-2					99	90	110			
WG426053ICV	ICV	07/03/17 17:08	MS170420-2	.05		.04962	mg/L		90	110			
WG426053ICB	ICB	07/03/17 17:11				U	mg/L		-0.0003	0.0003			
WG426053LFB	LFB	07/03/17 17:14	MS170524-3	.05005		.04817	mg/L		85	115			
WG426053LFB	LFB	07/03/17 17:14	MS170524-3					96	85	115			
L38018-08AS	AS	07/03/17 18:36	MS170524-3	.05005	.019	.06827	mg/L		70	130			
L38018-08AS	AS	07/03/17 18:36	MS170524-3					98	70	130			
L38018-08ASD	ASD	07/03/17 18:39	MS170524-3	.05005	.019	.06986	mg/L		70	130		20	
L38018-08ASD	ASD	07/03/17 18:39	MS170524-3						70	130	2	20	
L38018-08ASD	ASD	07/03/17 18:39	MS170524-3					102	70	130		20	
Manganese, di	ssolved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG426159	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,												
WG426159ICV	ICV	07/05/17 16:51	II170629-1	2		1.8905	mg/L		95	105			
WG426159ICV	ICV	07/05/17 16:51	II170629-1	2		1.0305	iiig/L	95	95 95	105			
WG426159ICB	ICB	07/05/17 16:57	117 0029-1			U	mg/L	30	-0.015	0.015			
WG420159ICB WG426159LFB	LFB	07/05/17 17:10	II170629-3	.5		.4934	mg/L		-0.013	115			
WG420159LFB	LFB	07/05/17 17:10	II170629-3	.5		.4904	iiig/L	99	85 85	115			
L37995-01AS	AS		II170629-3					-20	85 85				М
		07/05/17 17:16		-	0.0	0.400	m m //	-20		115			M
L37995-01AS	AS	07/05/17 17:16	II170629-3	.5	9.2	9.102	mg/L		85	115		20	M
L37995-01ASD	ASD	07/05/17 17:19	II170629-3	.5	9.2	9.011	mg/L	20	85	115		20	M
L37995-01ASD	ASD	07/05/17 17:19	II170629-3					-38	85	115	4	20	M
L37995-01ASD	ASD	07/05/17 17:19	II170629-3					<u> </u>	85	115	1	20	M
L38018-05AS	AS	07/05/17 18:07	II170629-3	_				95	85	115			
L38018-05AS	AS	07/05/17 18:07	II170629-3	.5	.13	.6031	mg/L		85	115			
L38018-05ASD	ASD	07/05/17 18:10	II170629-3						85	115	1	20	
L38018-05ASD	ASD	07/05/17 18:10	II170629-3					93	85	115		20	
L38018-05ASD	ASD	07/05/17 18:10	II170629-3	.5	.13	.5965	mg/L		85	115		20	



Inorganic QC Summary

Colorado Milling Company, LLC

Residue, Filtera	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG425506													
WG425506PBW	PBW	06/26/17 15:20				U	mg/L		-20	20			
WG425506LCSW	LCSW	06/26/17 15:21	PCN53196	260		254	mg/L		80	120			
WG425506LCSW	LCSW	06/26/17 15:21	PCN53196					98	80	120			
L38018-04DUP	DUP	06/26/17 15:40									3	10	
L38018-04DUP	DUP	06/26/17 15:40			350	360	mg/L					10	
L38025-02DUP	DUP	06/26/17 15:59									45	10	RA
L38025-02DUP	DUP	06/26/17 15:59			38	24	mg/L					10	RA
Sulfate			D516-02/-0)7 - Turb	idimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG426638													
WG426638ICB	ICB	07/12/17 9:57				U	mg/L		-3	3			
WG426638ICV	ICV	07/12/17 9:57	WI170706-7					100	90	110			
WG426638ICV	ICV	07/12/17 9:57	WI170706-7	20		20	mg/L		90	110			
WG426638LFB	LFB	07/12/17 13:38	WI170131-8					99	90	110			
WG426638LFB	LFB	07/12/17 13:38	WI170131-8	9.99		9.9	mg/L		90	110			
L38013-03DUP	DUP	07/12/17 14:33									2	20	RA
L38013-03DUP	DUP	07/12/17 14:33			31.6	30.9	mg/L					20	RA
L38018-01AS	AS	07/12/17 14:39	SO4TURB50X					-300	90	110			M3
L38018-01AS	AS	07/12/17 14:39	SO4TURB50X	10	1380	1350	mg/L		90	110			M3
WG426640													
WG426640ICB	ICB	07/12/17 9:57				U	mg/L		-3	3			
WG426640ICV	ICV	07/12/17 9:57	WI170706-7					100	90	110			
WG426640ICV	ICV	07/12/17 9:57	WI170706-7	20		20	mg/L		90	110			
WG426640LFB	LFB	07/12/17 15:13	WI170131-8	9.99		9.3	mg/L		90	110			
WG426640LFB	LFB	07/12/17 15:13	WI170131-8					93	90	110			
L38012-01DUP	DUP	07/12/17 15:20			36.4	35.1	mg/L					20	RA
L38012-01DUP	DUP	07/12/17 15:20									4	20	RA
L38012-02AS	AS	07/12/17 15:32	SO4TURB5X					192	90	110			M1
L38012-02AS	AS	07/12/17 15:32	SO4TURB5X	10	15.3	34.5	mg/L		90	110			M1



Zinc, dissolved			M200.7	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG426159													
WG426159ICV	ICV	07/05/17 16:51	II170629-1	2		1.949	mg/L		95	105			
WG426159ICV	ICV	07/05/17 16:51	II170629-1					97	95	105			
WG426159ICB	ICB	07/05/17 16:57				U	mg/L		-0.03	0.03			
WG426159LFB	LFB	07/05/17 17:10	II170629-3	.4845098		.547	mg/L		85	115			
WG426159LFB	LFB	07/05/17 17:10	II170629-3					113	85	115			
L37995-01AS	AS	07/05/17 17:16	II170629-3					-48	85	115			M3
L37995-01AS	AS	07/05/17 17:16	II170629-3	.4845098	8.87	8.378	mg/L		85	115			M3
L37995-01ASD	ASD	07/05/17 17:19	II170629-3					-57	85	115		20	M3
L37995-01ASD	ASD	07/05/17 17:19	II170629-3	.4845098	8.87	8.332	mg/L		85	115		20	M3
L37995-01ASD	ASD	07/05/17 17:19	II170629-3						85	115	1	20	M3
L38018-05AS	AS	07/05/17 18:07	II170629-3	.4845098	U	.507	mg/L		85	115			
L38018-05AS	AS	07/05/17 18:07	II170629-3					105	85	115			
L38018-05ASD	ASD	07/05/17 18:10	II170629-3					104	85	115		20	
L38018-05ASD	ASD	07/05/17 18:10	II170629-3	.4845098	U	.502	mg/L		85	115		20	
L38018-05ASD	ASD	07/05/17 18:10	II170629-3						85	115	1	20	



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L38018-01	WG426159	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG426638	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG426159	Zinc, dissolved	M200.7 ICP	МЗ	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L38018-02	WG426159	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG426638	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG426159	Zinc, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L38018-03	WG426638	Sulfate	D516-02/-07 - Turbidimetric	МЗ	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L38018-04	WG426638	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L38018-05	WG425506	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG426638	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L38018-06	WG425506	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG426638	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L38018-07	WG425506	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG426638	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L38018-08	WG425506	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG426638	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L38018-09	WG425506	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG426640	Sulfate	D516-02/-07 - Turbidimetric	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L38018

No certification qualifiers associated with this analysis

ACZ	Laboratorie	s, Inc.
2773 Downhill Drive	Steamboat Springs, CO	80487 (800) 334-5493

Sample Receipt

ACZ Project ID: L38018 Date Received: 06/22/2017 10:32 Received By: Date Printed: 6/22/2017

Receipt Verification

1) Is a foreign soil permit included for applicable samples?	
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- 2) Is the Chain of Custody form or other directive shipping papers present?
- 3) Does this project require special handling procedures such as CLP protocol?
- 4) Are any samples NRC licensable material?
- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody form complete and accurate?
- 7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples? A change was made in the Sample I.D. Line 1 and 5 section prior to ACZ custody.

Samples/Containers

NO YES NA 8) Are all containers intact and with no leaks? Х 9) Are all labels on containers and are they intact and legible? Х 10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time? Х 11) For preserved bottle types, was the pH checked and within limits? 1 Х 12) Is there sufficient sample volume to perform all requested work? Х 13) Is the custody seal intact on all containers? Х 14) Are samples that require zero headspace acceptable? Х 15) Are all sample containers appropriate for analytical requirements? Х 16) Is there an Hg-1631 trip blank present? Х 17) Is there a VOA trip blank present? Х Х 18) Were all samples received within hold time?

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	$Rad(\mu R/Hr)$	Custody Seal Intact?
4306	1.9	<=6.0	12	Yes

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

YES	NO	NA
		Х
Х		
		Х
		Х
Х		
Х		
Х		



Colorado Milling Company, LLC	

ACZ Project ID: L38018 Date Received: 06/22/2017 10:32 Received By: Date Printed: 6/22/2017

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Labo 2773 Downhill Drive Steamboat Sp	oratories, Inc.	UF 1-5493	30	18	CHAIN o	of CUSTO	ΟY
Report to:							
Name: Marh, A. St	en		Addre	ss: P.O.F	300 1523		
Company: Colevado Mi	thing company			Lener	unt, colo		
E-mail: Gold ton time	airmail com		Telepł	none:	•		
Copy of Report to:							
Name: Cordyn Swel	Miu		E-mail	: arsno	lon sween	We Camail.	4m
Company: CMC LL	<u> </u>				-440-0633		
Invoice to:		4 L	•		· ·		
Name: Marh-A.Ste	е п/А		Addre	ss QN	Brik 1577		
Company: Color Willing	· ·			Rename	with Into		
	@armail.com	1	Telepl				
If sample(s) received past holdin		JL nt HT rer				YES X	
analysis before expiration, shall				-]
If "NO" then ACZ will contact client for further instru				th the requested ana		data will be qualified	
Are samples for SDWA Complian	•		Yes or Colo	rado.	No [<u>×</u>]		
Sampler's Name: LEWIS PEN			State	Cola	Zip code 80302	Time Zone/W	ηητ
*Sampler's Signature:		o the authenti	city and va		. I understand that intentionally raud and punishable by State La	mislabeling the time/date/l	
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Reporting state for compliance test	ing: Colerado		ntai		52		
Check box if samples include NRC	• · · · •				64		
SAMPLE IDENTIFICATION	DATE:TIME	Matrix	to #		and		
0170671 TP	6/21/17 12:12pm	pω					
0170621 MW1	11 10:45 MW	GWU					
0170621 W1	11 (1:00 HW				X		
0170 6 21 WZ	11 11:08 HM				X		
USANCE .					K E		
0170621 W3	() 11:20 AM	GW			X		
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0170621 MW5 0170621 C.M 0170621 C.G	11 12:00 4000				X		1
0170621 CG	11 12:45 pm	+					<u> </u>
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REMARKS							
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Analytical Report

October 13, 2017

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L40020

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 21, 2017. This project has been assigned to ACZ's project number, L40020. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L40020. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after November 12, 2017. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed and approved this report.





ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	0170920-TP

ACZ Sample ID:	L40020-01
Date Sampled:	09/20/17 12:20
Date Received:	09/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	2	0.0019	В	mg/L	0.0004	0.002	10/09/17 20:19	mfm
Cadmium, dissolved	M200.8 ICP-MS	2		U	mg/L	0.0002	0.001	10/09/17 20:19	mfm
Manganese, dissolved	M200.7 ICP	2	0.06		mg/L	0.01	0.05	10/05/17 16:24	aeh
Zinc, dissolved	M200.7 ICP	2		U	mg/L	0.02	0.1	10/05/17 16:24	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual XQ	Units	MDL	PQL	Date 09/29/17 10:24	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual XQ	Units	MDL	PQL		ecc
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 1	Result 2800	Qual XQ	Units mg/L	MDL 10	PQL 20	09/29/17 10:24	ecc aeh

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	0170920-MW1

ACZ Sample ID:	L40020-02
Date Sampled:	09/20/17 10:40
Date Received:	09/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0007	В	mg/L	0.0002	0.001	10/09/17 20:22	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0005	10/09/17 20:22	mfm
Manganese, dissolved	M200.7 ICP	1	0.122		mg/L	0.005	0.03	10/05/17 16:27	aeh
Zinc, dissolved	M200.7 ICP	1	0.10		mg/L	0.01	0.05	10/05/17 16:27	aeh
Wet Chemistry									
Demonstration and the second		Dille Altered	D 14		A 11-14-	MIDI	DOI	D-4-	A
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual X	Q Units	MDL	PQL	Date 09/29/17 10:41	Analyst ecc
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual X	Q Units	MDL	PQL		ecc
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 1	Result 1450	Qual X	Q Units mg/L	MDL 10	PQL 20	09/29/17 10:41	ecc aeh

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID:	
Sample ID:	0170920-W1

ACZ Sample ID: L40020-03 Date Sampled: 09/20/17 10:55 Date Received: 09/21/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	10/05/17 16:37	aeh
Zinc, dissolved	M200.7 ICP	1	0.01	В	mg/L	0.01	0.05	10/05/17 16:37	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						09/29/17 10:57	ecc
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						10/04/17 14:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	226		mg/L	10	20	09/25/17 11:15	ecc
Sulfate	D516-02/-07 - Turbidimetric	5	110	*	mg/L	5	25	10/05/17 11:05	las

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID: Sample ID: 0170920-W2

ACZ Sample ID: L40020-04 Date Sampled: 09/20/17 11:10 Date Received: 09/21/17 Sample Matrix: Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	10/05/17 16:40	aeh
Zinc, dissolved	M200.7 ICP	1	0.20			mg/L	0.01	0.05	10/05/17 16:40	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/29/17 11:14	ecc
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							10/04/17 14:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	394			mg/L	10	20	09/25/17 11:18	ecc
Sulfate	D516-02/-07 - Turbidimetric	10	226		*	mg/L	10	50	10/05/17 11:02	las

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID:	
Sample ID:	0170920-W3

ACZ Sample ID: L40020-05 Date Sampled: 09/20/17 11:20 Date Received: 09/21/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	10/05/17 16:43	aeh
Zinc, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	10/05/17 16:43	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						09/29/17 11:30	ecc
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						10/04/17 14:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	330		mg/L	10	20	09/25/17 11:20	ecc
Sulfate	D516-02/-07 - Turbidimetric	5	138	*	mg/L	5	25	10/05/17 11:05	las

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID:	
Sample ID:	0170920-W4

ACZ Sample ID: L40020-06 Date Sampled: 09/20/17 11:26 Date Received: 09/21/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	10/05/17 16:47	aeh
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	10/05/17 16:47	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						09/29/17 11:47	ecc
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						10/04/17 14:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	286		mg/L	10	20	09/25/17 11:23	ecc
Sulfate	D516-02/-07 - Turbidimetric	5	98.0	*	mg/L	5	25	10/05/17 11:05	las



Project ID: Sample ID: 0170920-MW5

ACZ Sample ID:	L40020-07
Date Sampled:	09/20/17 11:52
Date Received:	09/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0031			mg/L	0.0002	0.001	10/09/17 20:25	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0003	В		mg/L	0.0001	0.0005	10/09/17 20:25	mfm
Manganese, dissolved	M200.7 ICP	1	0.022	В		mg/L	0.005	0.03	10/05/17 16:50	aeh
Zinc, dissolved	M200.7 ICP	1	0.01	В		mg/L	0.01	0.05	10/05/17 16:50	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/29/17 12:04	ecc
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							10/04/17 14:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	622			mg/L	10	20	09/25/17 11:26	ecc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0170920-CMP

ACZ Sample ID:	L40020-08
Date Sampled:	09/20/17 11:44
Date Received:	09/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В		mg/L	0.0002	0.001	10/09/17 20:28	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0083			mg/L	0.0001	0.0005	10/09/17 20:28	mfm
Manganese, dissolved	M200.7 ICP	1	2.27			mg/L	0.005	0.03	10/05/17 16:53	aeh
Zinc, dissolved	M200.7 ICP	1	3.03			mg/L	0.01	0.05	10/05/17 16:53	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/29/17 12:20	ecc
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							10/04/17 14:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	1120			mg/L	10	20	09/25/17 11:28	ecc
Sulfate	D516-02/-07 - Turbidimetric	25	687		*	mg/L	25	125	10/05/17 11:09	las

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0170920-CG

ACZ Sample ID:	L40020-09
Date Sampled:	09/20/17 12:01
Date Received:	09/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XC	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0002	0.001	10/09/17 20:44	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.001		mg/L	0.0001	0.0005	10/09/17 20:44	mfm
Manganese, dissolved	M200.7 ICP	1	0.021	В	mg/L	0.005	0.03	10/05/17 16:56	aeh
Zinc, dissolved	M200.7 ICP	1	0.24		mg/L	0.01	0.05	10/05/17 16:56	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XC	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						09/29/17 12:37	ecc
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						10/04/17 14:30	aeh
(/	M200.7/200.8/3005A SM2540C	1 1	286		mg/L	10	20	10/04/17 14:30 09/25/17 13:50	



Inorganic Reference

Report Header	· Explanations									
Batch	A distinct set of sa	amples analyzed at a specific time								
Found	Value of the QC T	ype of interest								
Limit	Upper limit for RP	D, in %.								
Lower	Lower Recovery L	Lower Recovery Limit, in % (except for LCSS, mg/Kg)								
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5).									
	Allows for instrum	Allows for instrument and annual fluctuations.								
PCN/SCN	A number assigne	ed to reagents/standards to trace to the mar	nufacturer's certific	ate of analysis						
PQL	Practical Quantita	tion Limit. Synonymous with the EPA term	"minimum level".							
QC	True Value of the	Control Sample or the amount added to the	Spike							
Rec	Recovered amou	nt of the true value or spike added, in % (ex	cept for LCSS, mg	/Kg)						
RPD	Relative Percent I	Difference, calculation used for Duplicate QC	C Types							
Upper	Upper Recovery L	imit, in % (except for LCSS, mg/Kg)								
Sample	Value of the Sam	ple of interest								
QC Sample Ty	pes									
AS	Analytical Spike (I	Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate						
ASD	Analytical Spike (I	Post Digestion) Duplicate	LFB	Laboratory Fortified Blank						
ССВ	Continuing Calibra	ation Blank	LFM	Laboratory Fortified Matrix						
CCV	Continuing Calibra	ation Verification standard	LFMD	Laboratory Fortified Matrix Duplicate						
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank						
ICB	Initial Calibration	Blank	MS	Matrix Spike						
ICV	Initial Calibration	/erification standard	MSD	Matrix Spike Duplicate						
ICSAB	Inter-element Cor	rection Standard - A plus B solutions	PBS	Prep Blank - Soil						
LCSS	Laboratory Contro	ol Sample - Soil	PBW	Prep Blank - Water						
LCSSD	Laboratory Contro	ol Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard						
LCSW	Laboratory Contro	ol Sample - Water	SDL	Serial Dilution						
QC Sample Ty	pe Explanations									
Blanks		Verifies that there is no or minimal c	ontamination in the	e prep method or calibration procedure.						
Control Sa	mples	Verifies the accuracy of the method,	including the prep	procedure.						
Duplicates		Verifies the precision of the instrume	ent and/or method.							
Spikes/For	tified Matrix	Determines sample matrix interferer	Determines sample matrix interferences, if any.							
Standard		Verifies the validity of the calibration								
ACZ Qualifiers	(Qual)									
В	Analyte concentra	tion detected at a value between MDL and	PQL. The associa	ted value is an estimated quantity.						
Н	Analysis exceeded method hold time. pH is a field test with an immediate hold time.									
L	Target analyte res	ponse was below the laboratory defined ne	gative threshold.							
U	The material was	analyzed for, but was not detected above th	ne level of the asso	ociated value.						
	The associated va	alue is either the sample quantitation limit or	the sample detect	tion limit.						
Method Refere	ences									
(1)	EPA 600/4-83-02	0. Methods for Chemical Analysis of Water	and Wastes, Marc	ch 1983.						
(2)	EPA 600/R-93-10	0. Methods for the Determination of Inorga	nic Substances in	Environmental Samples, August 1993.						
(0)										

(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.

- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.

- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

REP001.03.15.02



Arsenic, dissolv	ed		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG433116													
WG433116ICV	ICV	10/09/17 19:23	MS170901-1	.05		.0516	mg/L	103	90	110			
WG433116ICB	ICB	10/09/17 19:26				U	mg/L		-0.0006	0.0006			
WG433116LFB	LFB	10/09/17 19:29	MS170919-2	.0501		.05017	mg/L	100	85	115			
L40020-08AS	AS	10/09/17 20:32	MS170919-2	.0501	.0005	.05649	mg/L	112	70	130			
L40020-08ASD	ASD	10/09/17 20:35	MS170919-2	.0501	.0005	.05274	mg/L	104	70	130	7	20	
Cadmium, disso	lved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG433116													
WG433116ICV	ICV	10/09/17 19:23	MS170901-1	.05		.05052	mg/L	101	90	110			
WG433116ICB	ICB	10/09/17 19:26				U	mg/L		-0.0003	0.0003			
WG433116LFB	LFB	10/09/17 19:29	MS170919-2	.05005		.04962	mg/L	99	85	115			
L40020-08AS	AS	10/09/17 20:32	MS170919-2	.05005	.0083	.05706	mg/L	97	70	130			
L40020-08ASD	ASD	10/09/17 20:35	MS170919-2	.05005	.0083	.05667	mg/L	97	70	130	1	20	
Manganese, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG432897													
WG432897ICV	ICV	10/05/17 15:38	II171002-1	2		2.0058	mg/L	100	95	105			
WG432897ICB	ICB	10/05/17 15:45				U	mg/L		-0.015	0.015			
WG432897LFB	LFB	10/05/17 15:58	II171003-4	.5		.5063	mg/L	101	85	115			
L39986-05AS	AS	10/05/17 16:14	II171003-4	.5	U	.5168	mg/L	103	85	115			
L39986-05ASD	ASD	10/05/17 16:17	II171003-4	.5	U	.5101	mg/L	102	85	115	1	20	
L40074-01AS	AS	10/05/17 17:22	II171003-4	.5	U	.5022	mg/L	100	85	115			
L40074-01ASD	ASD	10/05/17 17:26	II171003-4	.5	U	.501	mg/L	100	85	115	0	20	
Residue, Filtera	ble (TDS) @180C	SM25400	2									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG432013													
WG432013PBW	PBW	09/25/17 11:00				U	mg/L		-20	20			
WG432013LCSW	LCSW	09/25/17 11:02	PCN54006	260		246	mg/L	95	80	120			
L40020-08DUP	DUP	09/25/17 11:31			1120	1120	mg/L				0	10	
WG432039													
WG432039PBW	PBW	09/25/17 13:45				U	mg/L		-20	20			
WG432039LCSW	LCSW	09/25/17 13:47	PCN54006	260		252	mg/L	97	80	120			
L40049-05DUP	DUP	09/25/17 14:16			1140	1160	mg/L				2	10	



Inorganic QC Summary

Colorado Milling Company, LLC

Sulfate			D516-02/-	07 - Turbi	idimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG432834													
WG432834ICB	ICB	10/05/17 9:00				U	mg/L		-3	3			
WG432834ICV	ICV	10/05/17 9:00	WI170922-1	20		20	mg/L	100	90	110			
WG432834LFB	LFB	10/05/17 10:27	WI170809-6	10		10.2	mg/L	102	90	110			
L40020-09AS	AS	10/05/17 11:06	SO4TURB5X	10	152	159	mg/L	70	90	110			M3
L40020-08DUP	DUP	10/05/17 11:09			687	681	mg/L				1	20	
WG432953													
WG432953ICB	ICB	10/06/17 8:38				U	mg/L		-3	3			
WG432953ICV	ICV	10/06/17 8:38	WI170922-1	20		19.1	mg/L	96	90	110			
WG432953LFB	LFB	10/06/17 10:57	WI170809-6	10		10.6	mg/L	106	90	110			
L40027-01AS	AS	10/06/17 11:04	SO4TURB5X	10	95.6	105	mg/L	94	90	110			
L40020-07DUP	DUP	10/06/17 11:12			307	308	mg/L				0	20	
Zinc, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG432897													
WG432897ICV	ICV	10/05/17 15:38	II171002-1	2		1.985	mg/L	99	95	105			
WG432897ICB	ICB	10/05/17 15:45				U	mg/L		-0.03	0.03			
WG432897LFB	LFB	10/05/17 15:58	II171003-4	.4942		.537	mg/L	109	85	115			
L39986-05AS	AS	10/05/17 16:14	II171003-4	.4942	U	.538	mg/L	109	85	115			
L39986-05ASD	ASD	10/05/17 16:17	II171003-4	.4942	U	.534	mg/L	108	85	115	1	20	
L40074-01AS	AS	10/05/17 17:22	II171003-4	.4942	U	.526	mg/L	106	85	115			
L40074-01ASD	ASD	10/05/17 17:26	II171003-4	.4942	U	.511	mg/L	103	85	115	3	20	



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Inorganic Extended Qualifier Report

Colorado Milling Company, LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L40020-01	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L40020-02	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L40020-03	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L40020-04	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L40020-05	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L40020-06	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L40020-08	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L40020-09	WG432834	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L40020

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Colorado Milling Company, LLC	ACZ Proje Date Rece		19/21/201	L4002
	Receive		5121120	17 10.1
	Date Pr		9/	22/201 [.]
Receipt Verification				
		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				Х
2) Is the Chain of Custody form or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protoco	1?		Х	
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold t	ime analyses?	Х		
6) Is the Chain of Custody form complete and accurate?		Х		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving	ng the samples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody form match for Sample ID, Da	ate, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits? 1				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
		NA indic	ates Not A	oplicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	$Rad(\mu R/Hr)$	Custody Seal Intact?
4827	2.7	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



Colorado Milling Company, LLC	
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ACZ Project ID: L40020 Date Received: 09/21/2017 10:10 Received By: Date Printed: 9/22/2017

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

	boratories, Inc		4002	⊙ (of CUST
2773 Downhill Drive Steamboar	t Springs, CO 80487 (800) 3	34-5493	v			
Report to:	sting		A dalue e e :		1.150	7
Name: Mayle, A.	JULY CHANNEL	.x	Address:	r. D. 130	p 152	<u>.</u>
Company: Colonito E-mail: Gold ton tim	milling companie		 Telephone:	engym	byu;	
V	creg may cem	I	relephone.			
Copy of Report to:					0.1.00	
	weeney	-	E-mail: Of	-		rey Og m
Company: CVIC L			Telephone:	20,3-7		> > >
Invoice to:				DAR	1180-	7
Name: Mary Ste	en forte	-	Address:	M.U. DO	p 152.4	5
	milling Cor LCC	_	v	namur		b
E-mail: <u>Gold ton to</u> If sample(s) received past hole	<u>mt (GMail ، Len</u> ding time (HT), or if insuffici		Telephone: nains to con	plete		YES
analysis before expiration, sh	all ACZ proceed with reques	sted short	HT analyses	?		NO 🗌
If "NO" then ACZ will contact client for further in Are samples for SDWA Compl		,	roceed with the req	uested analyses, ever	if HT is expired, a	and data will be qualified
If yes, please include state for						
Sampler's Name: <u>& , Perth</u>			State Cold			Time Zone
*Sampler's Signature: 🥂	ris Pertrins tamper			his sample. I underst onsidered fraud and p		ally mislabeling the time/ > Law.
PROJECT INFORMATION			AN	LYSES REQUEST	ED (attach list	or use quote numbe
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Reporting state for compliance to	esting:		Ē		X	
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Check box if samples include NI	N DATE:TIME	3	of		SOT XX	
Check box if samples include NF SAMPLE IDENTIFICATION Or 1709 20 - TP 01709 20 - MW1	N DATE:TIME 9/20/17 12:26 pm 9/20/17 10:40 mm	3	of		X	
Check box if samples include NF SAMPLE IDENTIFICATION 070920 - TP 070920 - WW1 070920 - W1	N DATE:TIME 9/20/17 12:20 PM 9/20/17 10:40 MM 9/20/17 10:55 AM	3 1 3 1 3	of		X	
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Check box if samples include NF SAMPLE IDENTIFICATION 070920 - TP 070920 - WW1 070920 - W1 0770920 - W2	N DATE:TIME 9/20/17 12:20 PM 9/20/17 10:40 MM 9/20/17 10:55 AN 9/20/17 11:10 MM	3 1 3 1 3 1 3	of		X X X	
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Analytical Report

January 10, 2018

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L41908

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 21, 2017. This project has been assigned to ACZ's project number, L41908. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L41908. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after February 09, 2018. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Sue Wellen

Sue Webber has reviewed and approved this report.





ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 017/012/19 TP

ACZ Sample ID:	L41908-01
Date Sampled:	12/19/17 10:00
Date Received:	12/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	2	0.0017	В	mg/L	0.0004	0.002	01/08/18 21:47	′ mfm
Cadmium, dissolved	M200.8 ICP-MS	2	0.0002	В	mg/L	0.0002	0.001	01/08/18 21:47	′ mfm
Manganese, dissolved	M200.7 ICP	2		U	mg/L	0.01	0.05	01/05/18 0:08	aeh
Zinc, dissolved	M200.7 ICP	2	0.04	В	mg/L	0.02	0.1	01/05/18 0:08	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/28/17 14:59	mh
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						01/03/18 15:00	scp
Residue, Filterable (TDS) @180C	SM2540C	2	3380		mg/L	20	40	12/21/17 16:45	mh
Sulfate	D516-02/-07 - Turbidimetric	100	1970	*	mg/L	100	500	12/29/17 13:19	jmm

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 017/012/19 MW1

ACZ Sample ID:	L41908-02
Date Sampled:	12/19/17 10:17
Date Received:	12/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.001			mg/L	0.0002	0.001	01/08/18 21:50	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0011			mg/L	0.0001	0.0005	01/08/18 21:50	mfm
Manganese, dissolved	M200.7 ICP	1	0.147			mg/L	0.005	0.03	01/05/18 0:11	aeh
Zinc, dissolved	M200.7 ICP	1	0.14			mg/L	0.01	0.05	01/05/18 0:11	aeh
Wet Chemistry										
		BALL AT			XO		LAD!	DOI	N 1	
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual	XQ	Units	MDL	PQL	Date 12/28/17 15:02	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual	XQ	Units	MDL	PQL		mh
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 1	Result 1460	Qual	XQ	Units mg/L	MDL 10	PQL 20	12/28/17 15:02	mh scp

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID:	
Sample ID:	017/012/19 W1

ACZ Sample ID: **L41908-03** Date Sampled: 12/19/17 10:30 Date Received: 12/21/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	01/05/18 0:14	aeh
Zinc, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	01/05/18 0:14	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/28/17 15:05	mh
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						01/03/18 15:00	scp
Residue, Filterable (TDS) @180C	SM2540C	1	334		mg/L	10	20	12/21/17 16:51	mh
Sulfate	D516-02/-07 - Turbidimetric	5	159	*	mg/L	5	25	12/29/17 12:53	jmm

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID: Sample ID: 017/012/19 W2

ACZ Sample ID: L41908-04 Date Sampled: 12/19/17 10:41 Date Received: 12/21/17 Sample Matrix: Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	01/05/18 0:17	aeh
Zinc, dissolved	M200.7 ICP	1	0.32			mg/L	0.01	0.05	01/05/18 0:17	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/28/17 15:08	mh
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							01/03/18 15:00	scp
Residue, Filterable (TDS) @180C	SM2540C	1	476			mg/L	10	20	12/21/17 16:55	mh
Sulfate	D516-02/-07 - Turbidimetric	10	241		*	mg/L	10	50	12/29/17 13:07	jmm

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID:	
Sample ID:	017/012/19 W3

ACZ Sample ID: L41908-05 Date Sampled: 12/19/17 10:56 Date Received: 12/21/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	01/05/18 0:21	aeh
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	01/05/18 0:21	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/28/17 15:11	mh
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						01/03/18 15:00	scp
Residue, Filterable (TDS) @180C	SM2540C	1	390		mg/L	10	20	12/21/17 16:58	mh
Sulfate	D516-02/-07 - Turbidimetric	5	153	*	mg/L	5	25	01/02/18 11:27	jmm

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Project ID:	
Sample ID:	017/012/19 W4

ACZ Sample ID: L41908-06 Date Sampled: 12/19/17 11:09 Date Received: 12/21/17 Sample Matrix: Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.009	В	mg/L	0.005	0.03	01/05/18 14:35	dcm
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	01/05/18 14:35	dcm
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/28/17 15:15	mh
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						01/03/18 15:00	scp
Residue, Filterable (TDS) @180C	SM2540C	1	380		mg/L	10	20	12/21/17 17:01	mh
Sulfate	D516-02/-07 - Turbidimetric	5	121	*	mg/L	5	25	01/02/18 11:30	jmm

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 017/012/19 MW5

ACZ Sample ID:	L41908-07
Date Sampled:	12/19/17 12:25
Date Received:	12/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0027		mg/L	0.0002	0.001	01/08/18 21:53	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	01/08/18 21:53	mfm
Manganese, dissolved	M200.7 ICP	1	0.007	В	mg/L	0.005	0.03	01/05/18 14:38	dcm
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	01/05/18 14:38	dcm
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/28/17 15:18	s mh
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						01/03/18 15:00	scp
Residue, Filterable (TDS) @180C	SM2540C	1	656		mg/L	10	20	12/21/17 17:05	mh
Sulfate	D516-02/-07 - Turbidimetric	10	322	*	mg/L	10	50	01/02/18 12:00	jmm

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 017/012/19 CMP

ACZ Sample ID:	L41908-08
Date Sampled:	12/19/17 12:35
Date Received:	12/21/17
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0004	В		mg/L	0.0002	0.001	01/08/18 21:56	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.008			mg/L	0.0001	0.0005	01/08/18 21:56	mfm
Manganese, dissolved	M200.7 ICP	1	2.02			mg/L	0.005	0.03	01/05/18 14:41	dcm
Zinc, dissolved	M200.7 ICP	1	3.41			mg/L	0.01	0.05	01/05/18 14:41	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/28/17 15:21	mh
(1 1							12/28/17 15:21 01/03/18 15:00	
filter) Lab Filtration (0.45um)		1 1 1	1070			mg/L	10	20		scp

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 017/012/19 CG

ACZ Sample ID:	L41908-09
Date Sampled:	12/19/17 12:50
Date Received:	12/21/17
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual >	KQ U	nits MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U	m	g/L 0.0002	0.001	01/08/18 21:59	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0015		m	g/L 0.0001	0.0005	01/08/18 21:59	mfm
Manganese, dissolved	M200.7 ICP	1	0.013	В	m	g/L 0.005	0.03	01/05/18 14:44	dcm
Zinc, dissolved	M200.7 ICP	1	0.44		m	g/L 0.01	0.05	01/05/18 14:44	dcm
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual)	KQ U	nits MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/28/17 15:24	mh
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						01/03/18 15:00	scp
Residue, Filterable (TDS) @180C	SM2540C	1	396		m	g/L 10	20	12/21/17 17:11	mh
Sulfate	D516-02/-07 - Turbidimetric	10	223		m	g/L 10	50	01/02/18 12:00	jmm



Inorganic Reference

eport Heade	r Explanations						
Batch	A distinct set of s	amples analyzed at a specific time					
Found	Value of the QC Type of interest						
Limit	Upper limit for RPD, in %.						
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)						
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5).						
	Allows for instrument and annual fluctuations.						
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis						
PQL	Practical Quantita	ation Limit. Synonymous with the EPA term	"minimum level".				
QC	True Value of the	Control Sample or the amount added to the	e Spike				
Rec	Recovered amou	int of the true value or spike added, in % (ex	cept for LCSS, mg	/Kg)			
RPD	Relative Percent	Difference, calculation used for Duplicate Q	C Types				
Upper	Upper Recovery	Limit, in % (except for LCSS, mg/Kg)					
Sample	Value of the Sam	ple of interest					
C Sample Ty	rpes						
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate			
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank			
ССВ	Continuing Calibr	ation Blank	LFM	Laboratory Fortified Matrix			
CCV	Continuing Calibr	ation Verification standard	LFMD	Laboratory Fortified Matrix Duplicate			
DUP	Sample Duplicate	9	LRB	Laboratory Reagent Blank			
ICB	Initial Calibration	Blank	MS	Matrix Spike			
ICV	Initial Calibration	Verification standard	MSD	Matrix Spike Duplicate			
ICSAB	Inter-element Co	rrection Standard - A plus B solutions	PBS	Prep Blank - Soil			
LCSS	Laboratory Contr	ol Sample - Soil	PBW	Prep Blank - Water			
LCSSD	Laboratory Contr	ol Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard			
LCSW	Laboratory Contr	ol Sample - Water	SDL	Serial Dilution			
Sample Ty	pe Explanations						
Blanks		Verifies that there is no or minimal o	contamination in the	e prep method or calibration procedure.			
Control Sa	mples	Verifies the accuracy of the method	, including the prep	procedure.			
Duplicates		Verifies the precision of the instrume	ent and/or method.				
Spikes/For	tified Matrix	Determines sample matrix interferen	nces, if any.				
Standard		Verifies the validity of the calibration	l.				
Z Qualifiers	s (Qual)						
В	Analyte concentr	ation detected at a value between MDL and	PQL. The associat	ted value is an estimated quantity.			
Н	Analysis exceede	ed method hold time. pH is a field test with a	an immediate hold t	ime.			

- L Target analyte response was below the laboratory defined negative threshold.
- U The material was analyzed for, but was not detected above the level of the associated value.
- The associated value is either the sample quantitation limit or the sample detection limit.

Method References EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983. (1) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (2) (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (4) EPA SW-846. Test Methods for Evaluating Solid Waste. (5) Standard Methods for the Examination of Water and Wastewater. Comments QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations. (1) (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis. (3) Animal matrices for Inorganic analyses are reported on an "as received" basis. (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result. (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit. For a complete list of ACZ's Extended Qualifiers, please click: http://www.acz.com/public/extquallist.pdf

REP001.03.15.02



WG439579 WG439579ICV ICV 01/08/18 20:59 MS171115-2 .05 .05087 mg/L 102 90 110 WG439579IC8 ICB 01/08/18 21:02 U mg/L -0.0006 0.0006 WG439579LFB LFB 01/08/18 21:05 MS171129-3 .0501 .04822 mg/L 96 85 115 L41807-05AS AS 01/08/18 21:23 MS171129-3 .1002 .003 .10528 mg/L 102 70 130 20 L41807-05AS AS 01/08/18 21:26 MS171129-3 .1002 .003 .10554 mg/L 102 70 130 0 20 L41807-05AS AS 01/08/18 21:26 MS171129-3 .1002 .003 .10554 mg/L 102 70 130 0 20 L41807-05AS AS 01/08/18 22:20 MS171129-3 .0501 .0028 .05364 mg/L 102 70 130 0 20 L41935-04AS AS 01/08/18 22:23 MS171129-3 .0501 .0028 .05	Arsenic, dissolv	ed		M200.8 IC	P-MS									
WG438579ICV WG439579ICB UG438579ICB UG438579ICB UG438571 ICV UG438571 0108/18 20.59 UG438571 MS171129.3 UG438571 0.0087 UG438571 102 UG43871 000 UG2 0.008 UG2 100 UG2 000 UG2 100 UG2 100	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG4385791CB ICB 0108/18 21:00 MST1129-3 .0002 .0003 .04822 mgl. 96 85 115 L1807-05AS AS 0108/18 21:23 MST11293 .1002 .003 10554 mgl. 96 85 115 L1807-05AS AS 0108/18 21:23 MST111293 .0002 .003 10554 mgl. 102 70 130 0 20 L41935-04AS AS 0108/18 22:20 MST111293 .0001 .0002 .0051 mgl. 97 70 130 4 20 Cadmium, disserv M2008 ICP-MS MST11152 .0501 .0002 .0003 <td>WG439579</td> <td></td>	WG439579													
WG439879LFB LFB 0108/18 21:05 MS171129-3 .0501 .04822 mpL 96 85 115	WG439579ICV	ICV	01/08/18 20:59	MS171115-2	.05		.05087	mg/L	102	90	110			
L41807-05AS AS 0108/18 21:2 MS171129-3 .1002 .003 .10528 mg/L 102 70 130	WG439579ICB	ICB	01/08/18 21:02				U	mg/L		-0.0006	0.0006			
L41807-05ASD L41935-04ASD ASD ASD 01/08/18 22:20 01/08/18 22:20 MS171129-3 MS171129-3 0.001 .0028 .0554 0.028 mgL 0.028 102 0.028 mgL 0.028 102 0.028 mgL 0.028 102 0.028 mgL 0.028 102 0.028 mgL 0.028 101 0.028 70 130 0 20 Cadmium, dissource Cadmium, dissource MC439579 M2 Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439579 VIC 0108/18 20:05 MS171115-2 0.5 0.5091 mgL 100 85 115 116	WG439579LFB	LFB	01/08/18 21:05	MS171129-3	.0501		.04822	mg/L	96	85	115			
L41935-04AS AS 0108/18 22:20 MS171129-3 .0501 .0028 .0518' mgL 101 70 130 4 20 Cadminn, dissove M200.8 ICP-MS M200.8 ICP-MS M200.8 ICP-MS M200.8 ICP-MS M200.8 ICP-MS M200.8 ICP-MS WG439573 WG439573 WG439573 UNICATION (INC) 0.00 MS171129-3 .05005 .05294 mgL 106 90 110 . K K M200.8 ICP-MS WG439573 UNICATION (INC) 0108/18 20:55 MS1711129-3 .05005 .05294 mgL 106 90 110 . <t< td=""><td>L41807-05AS</td><td>AS</td><td>01/08/18 21:23</td><td>MS171129-3</td><td>.1002</td><td>.003</td><td>.10528</td><td>mg/L</td><td>102</td><td>70</td><td>130</td><td></td><td></td><td></td></t<>	L41807-05AS	AS	01/08/18 21:23	MS171129-3	.1002	.003	.10528	mg/L	102	70	130			
L41935-04ASD ASD 0108/18 22:2 MS171129-3 .0501 .002 .0517 mg/L 97 70 130 4 20 Cadmium, dissume in the construction of the constru	L41807-05ASD		01/08/18 21:26	MS171129-3	.1002		.10554	mg/L	102			0	20	
Cadmium, dissolved M200.8 ICP-MS CadZi D Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439579IC ICV 01/08/18 20:59 MS171115-2 .05 .05294 mg/L 106 90 110 .00003 .00033 .0003								-						
Ac2 ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439579(CV ICV 01/08/18 20:59 MS171115-2 .05 .05294 mg/L 106 90 110	L41935-04ASD	ASD	01/08/18 22:23	MS171129-3	.0501	.0028	.05157	mg/L	97	70	130	4	20	
WG439579(CV ICV 01/08/18 20:59 MS171115-2 .0.5 .0.5294 mg/L 106 90 110 WG439579(CK ICB 01/08/18 21:02 U mg/L 0.0003 0.0003 0.0003 WG439579(CR ICB 01/08/18 21:05 MS171129-3 .05013 mg/L 100 85 115 L41807-05AS AS 01/08/18 21:26 MS171129-3 .0001 U .00726 mg/L 101 70 130 4 20 L41807-05AS AS 01/08/18 22:20 MS171129-3 .05005 U .04862 mg/L 97 70 130 4 20 L41935-04AS AS 01/08/18 22:23 MS171129-3 .05005 U .0473 mg/L 97 70 130 4 20 L41935-04AS AS 01/08/18 22:23 MS171129-3 .05005 U .0473 mg/L 97 70 130 4 20 L41935-04AS AS <	Cadmium, disso	lved		M200.8 IC	P-MS									
WG439579ICV ICV 01/08/18 20:59 MS171115-2 .05 .05294 mg/L 106 90 110 WG439579ICB ICB 01/08/18 21:05 MS171129-3 .05005 .05013 mg/L 100 85 115 L41807-05AS AS 01/08/18 21:26 MS171129-3 .1001 U .090726 mg/L 97 70 130 4 20 L41807-05AS AS 01/08/18 21:26 MS171129-3 .05005 U .04862 mg/L 97 70 130 4 20 L41935-04AS AS 01/08/18 22:23 MS171129-3 .05005 U .0482 mg/L 97 70 130 4 20 L41935-04AS AS 01/08/18 22:23 MS171129-3 .05005 U .0482 mg/L 97 70 130 4 20 L41935-04AS AS 01/08/18 22:23 MS171129-3 .05005 U .0482 mg/L 95 70 130 4 20 VG4393731CP ICV Malyzad PCN/SCN	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG439579ICB ICB 01/08/18 21:02 U mg/L -0.0003 0.0003 WG439579ICB IFB 01/08/18 21:02 MS171129-3 .05005 .05013 mg/L 100 85 115 L41807-05AS AS 01/08/18 21:23 MS171129-3 .0011 U .09726 mg/L 97 70 130 L41807-05ASD AS 01/08/18 22:20 MS171129-3 .05005 U .04862 mg/L 97 70 130 4 20 L41935-04AS AS 01/08/18 22:20 MS171129-3 .05005 U .0473 mg/L 95 70 130 3 20 Maganese, dissected MS100/18/18 22:20 MS171129-3 .05005 U .0473 mg/L 95 70 130 3 20 MG439373CW Vert Analyzed PCN/SCN QC Sample Found Init Rec Lower Upper RPD Linit Qual WG439373LV ICV 01/04/18 23:53 II171220-5 .5 U .5013 mg/L </td <td>WG439579</td> <td></td>	WG439579													
WG439579ICB ICB 01/08/18 21:02 U mg/L -0.0003 0.0003 WG439579ICB IFB 01/08/18 21:03 MS171129-3 .05005 .05013 mg/L 100 85 115 L41807-05AS AS 01/08/18 21:23 MS171129-3 .1001 U .09726 mg/L 97 70 130 L41807-05ASD AS 01/08/18 22:20 MS171129-3 .05005 U .04862 mg/L 97 70 130 4 20 L41935-04AS AS 01/08/18 22:20 MS171129-3 .05005 U .0473 mg/L 97 70 130 3 20 Maganese, dissected MS100/18/18 22:20 MS171129-3 .05005 U .0473 mg/L 95 70 130 3 20 MG439373CW CV Analyzed PCN/SCN QC Sample Found Ints Rec Lower Upper RPD Lmit Qual WG439373ICW ICV 01/04/18 23:53 II17122-5 .5 .05052 mg/L 101 </td <td>WG439579ICV</td> <td>ICV</td> <td>01/08/18 20:59</td> <td>MS171115-2</td> <td>.05</td> <td></td> <td>.05294</td> <td>mg/L</td> <td>106</td> <td>90</td> <td>110</td> <td></td> <td></td> <td></td>	WG439579ICV	ICV	01/08/18 20:59	MS171115-2	.05		.05294	mg/L	106	90	110			
L41807-05AS AS 01/08/18 21:23 MS171129-3 .1001 U .09726 mg/L 97 70 130 L41807-05ASD ASD 01/08/18 22:20 MS171129-3 .05005 U .04862 mg/L 97 70 130 L41935-04ASD ASD 01/08/18 22:23 MS171129-3 .05005 U .0473 mg/L 97 70 130 ASD 01/08/18 22:23 MS171129-3 .05005 U .0473 mg/L 97 70 130 AG2 ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439373/CV ICV 01/04/18 23:35 II17122-1 2 1.9635 mg/L 98 95 105 WG439373/CB ICB 01/04/18 23:35 II17122-5 .5 U .9605 mg/L 99 85 115 L41827-02AS AS 01/05/18 10:20 II17122-5 .5 U .5012 mg/L 99 85 115 L41827-02AS AS 01/05/18 0.05 II17122-5 .5 U .5013 mg/L 99 85 115 L41827-02AS AS 01/05/18 0.05 II17122-5 .5 U .5013 mg/L 98 95 105 WG4393451ICV ICV 01/05/18 13:59 II17122-5 .5 U .5013 mg/L 99 85 115 L41827-02AS AS 01/05/18 0.05 II17122-5 .5 U .5013 mg/L 99 85 115 L41827-02AS AS 01/05/18 10:0 II17122-5 .5 U .5013 mg/L 98 95 105 WG439451ICV ICV 01/05/18 13:59 II17122-5 .5 U .5022 mg/L 101 85 115 L41827-02AS AS 01/05/18 10:0 II17122-5 .5 U .5013 mg/L 98 95 105 L41827-02AS AS 01/05/18 10:1 II17122-5 .5 U .5012 mg/L 100 85 115 L41827-02AS AS 01/05/18 10:1 II17122-5 .5 U .5012 mg/L 100 85 115 L41827-02AS AS 01/05/18 10:2 II17122-5 .5 U .5022 mg/L 101 85 115 L41827-02AS AS 01/05/18 10:2 II17122-5 .5 U .5022 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5022 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5022 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5165 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5165 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5165 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5165 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5165 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5165 mg/L 103 85 115 L41827-02AS AS 01/05/18 14:28 II17122-5 .5 U .5165 mg/L 98 80 120	WG439579ICB	ICB	01/08/18 21:02				U	mg/L		-0.0003	0.0003			
L41807-05ASD L41935-04AS ASD 01/08/18 21:26 MS171129-3 MS171129-3 MS171129-3 .1001 MS171129-3 U .1009 .04862 mg/L mg/L 101 70 130 4 20 L41935-04ASD ASD 01/08/18 22:20 MS171129-3 .05005 U .04862 mg/L 97 70 130 3 20 Manganese, dissues Veet M200.7 ICP Veet MS171129-3 .05005 U .0473 mg/L 95 70 130 4 20 MG439373 MS171129-3 .05005 QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439373ICV ICV 01/04/18 23:55 II171220-5 .5 U mg/L 98 95 105 U Ket Lower Limit Qual WG439373ICV ICV 01/04/18 23:55 II171220-5 .5 U .911 101 85 115 1 20 UG439373ICV ICV 01/06/18 16:05 II171220-5 .5 U .951 <td>WG439579LFB</td> <td>LFB</td> <td>01/08/18 21:05</td> <td>MS171129-3</td> <td>.05005</td> <td></td> <td>.05013</td> <td>mg/L</td> <td>100</td> <td>85</td> <td>115</td> <td></td> <td></td> <td></td>	WG439579LFB	LFB	01/08/18 21:05	MS171129-3	.05005		.05013	mg/L	100	85	115			
L41935-04AS L41935-04ASD AS ASD 01/08/18 22:20 01/08/18 22:23 MS171129-3 MS171129-3 0.5005 U .04862 .0473 mg/L 97 70 130 3 20 Manganese, dissociation MS0 MS171129-3 .05005 U .0473 mg/L 97 70 130 3 20 Manganese, dissociation MS0 MS171129-3 .05005 U .0473 mg/L 95 70 130 3 20 Manganese, dissociation MS0 MS00.7 ICP M200.7 ICP MS00.7 ICP QC Sample Found Units Rec Lower Upper RPD Linit Qual WG439373ICV ICV 01/04/18 23:53 II171220-5 .5 .5052 mg/L 98 95 105 .5 .5052 mg/L 99 85 115 .41827-02AS AS 01/05/18 0.02 II171220-5 .5 U .911 .911 85 115 .41827-02AS .430 .0105 .5 .5 .5 .5 .5 .5 .5 .5 <	L41807-05AS	AS	01/08/18 21:23	MS171129-3	.1001	U	.09726	mg/L	97	70	130			
L41935-04ASD ASD 01/08/18 22:23 MS171129-3 .05005 U .0473 mg/L 95 70 130 3 20 Manganese, dissotre Type Analyzad PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439373 UCV 01/04/18 23:35 II171221-1 2 1.9635 mg/L 98 95 105 . . Ker Lower Upper RPD Limit Qual WG439373 UCV 01/04/18 23:35 II171221-1 2 1.9635 mg/L 98 95 105 .	L41807-05ASD	ASD	01/08/18 21:26	MS171129-3	.1001	U	.1009	mg/L	101	70	130	4	20	
Manganese, dissolved M200.7 ICP Ac2 Ib Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439373 WG439373ICV ICV 01/04/18 23:35 II171221-1 2 1.9635 mg/L 98 95 105 V V VG439373ICV ICV 01/04/18 23:43 U mg/L -0.015 0.015 V V VG439373ICB ICB 01/04/18 23:43 II171220-5 5 U mg/L 98 95 105 V V 14827-02ASD ASD 01/05/18 0:02 II171220-5 5 U .4951 mg/L 99 85 115 1 20 VG439451 V VG439451 U mg/L 100 85 115 1 20 VG439451 U mg/L 90 85 105 V VG439451 V VG439451 U mg/L 100 85 115	L41935-04AS	AS	01/08/18 22:20	MS171129-3	.05005	U	.04862	mg/L	97	70	130			
AcZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG439373 WG439373ICV ICV 01/04/18 23:35 II171221-1 2 1.9635 mg/L 98 95 105 405 WG439373ICV ICV 01/04/18 23:35 II171220-5 .5 .5052 mg/L -0.015 0.015 405 WG439373ICFB LFB 01/04/18 23:53 II171220-5 .5 U .4951 mg/L 99 85 115 41827-02AS AS 01/05/18 0:05 II171220-5 .5 U .5013 mg/L 100 85 115 1 20 WG439451ICV ICV 01/05/18 13:59 II171220-5 .5 U mg/L -0.015 0.015 WG439451 WG439451ICFB ICB 01/05/18 14:18 II171220-5 .5 U .5165 mg/L 1005 85 115 14827-02AS AS </td <td>L41935-04ASD</td> <td>ASD</td> <td>01/08/18 22:23</td> <td>MS171129-3</td> <td>.05005</td> <td>U</td> <td>.0473</td> <td>mg/L</td> <td>95</td> <td>70</td> <td>130</td> <td>3</td> <td>20</td> <td></td>	L41935-04ASD	ASD	01/08/18 22:23	MS171129-3	.05005	U	.0473	mg/L	95	70	130	3	20	
WG439373 WG439373CV ICV 01/04/18 23:35 II171221-1 2 1.9635 mg/L 98 95 105 WG439373IC8 ICB 01/04/18 23:41 U mg/L -0.015 0.015 0.015 WG439373IC8 ICB 01/04/18 23:43 U mg/L -0.015 0.015 0.015 WG439373L7 LFB 01/04/18 23:53 II171220-5 .5 U mg/L 99 85 115 L41827-02AS ASD 01/05/18 0:02 II171220-5 .5 U .5013 mg/L 100 85 115 1 20 WG439451 VS 01/05/18 13:59 II171220-5 .5 U .5013 mg/L 99 85 115 1 20 WG439451 ICV 01/05/18 13:59 II171220-5 .5 U .5013 mg/L 100 85 115 1 20 WG439451CV ICV 01/05/18 14:05 U mg/L -0.015 0.015 .015 .015 .115 14122.12 .141827-02AS AS	Manganese, dis	solved		M200.7 IC	P									
WG439373ICV ICV 01/04/18 23:35 II171221-1 2 1.9635 mg/L 98 95 105 WG439373ICB ICB 01/04/18 23:41 1 1 88 95 105 0.015 WG439373ICB IFB 01/04/18 23:53 II171220-5 .5 .5052 mg/L 101 85 115 1 20 L41827-02AS AS 01/05/18 0.02 II171220-5 .5 U .4951 mg/L 99 85 115 1 20 WG439451 ASD 01/05/18 0.05 II171220-5 .5 U .5013 mg/L 100 85 115 1 20 WG439451 ICV 01/05/18 10:59 II171220-5 .5 U mg/L 98 95 105 . . . WG439451 ICV 01/05/18 13:59 II171220-5 .5 U mg/L 105 85 115 	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG439373ICB ICB 01/04/18 23:41 U mg/L -0.015 0.015 WG439373LFB LFB 01/04/18 23:53 II171220-5 .5 .5052 mg/L 101 85 115 L41827-02AS AS 01/05/18 0:02 II171220-5 .5 U .4951 mg/L 99 85 115 1 20 WG439451 W ASD 01/05/18 10:05 II171220-5 .5 U .5013 mg/L 99 85 115 1 20 WG439451 V U 01/05/18 13:59 II171220-5 .5 U .5013 mg/L 98 95 105 V V WG439451 ICV 01/05/18 13:59 II171220-5 .5 U mg/L 105 85 115 V V V WG439451LFB LFB 01/05/18 14:18 II171220-5 .5 U .5165 mg/L 103 85 115 3 20 V L41827-02AS ASD 01/05/18 14:28 II171220-5 .5 U <t< td=""><td>WG439373</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	WG439373													
WG439373LFB LFB 01/04/18 23:53 II171220-5 .5 .5052 mg/L 101 85 115 L41827-02AS AS 01/05/18 0:02 II171220-5 .5 U .4951 mg/L 99 85 115 L41827-02AS ASD 01/05/18 0:05 II171220-5 .5 U .5013 mg/L 100 85 115 1 20 WG439451 V ICV 01/05/18 13:59 II171220-5 .5 U .5052 mg/L 98 95 105 1 20 WG439451 ICV 01/05/18 13:59 II171220-5 .5 U ng/L 98 95 105 V V WG439451LFB ICB 01/05/18 14:05 II171220-5 .5 .5226 mg/L 105 85 115 V V WG439451LFB LFB 01/05/18 14:28 II171220-5 .5 U .5165 mg/L 103 85 115 J 20 II17 L41827-02ASD ASD 01/05/18 14:31 II171220-5 <t< td=""><td>WG439373ICV</td><td>ICV</td><td>01/04/18 23:35</td><td>II171221-1</td><td>2</td><td></td><td>1.9635</td><td>mg/L</td><td>98</td><td>95</td><td>105</td><td></td><td></td><td></td></t<>	WG439373ICV	ICV	01/04/18 23:35	II171221-1	2		1.9635	mg/L	98	95	105			
L41827-02ASD AS 01/05/18 0:02 II171220-5 .5 U .4951 mg/L 99 85 115 L41827-02ASD ASD 01/05/18 0:05 II171220-5 .5 U .5013 mg/L 100 85 115 1 20 WG439451 V ICV 01/05/18 13:59 II171220-1 2 1.9665 mg/L 98 95 105 .5 </td <td>WG439373ICB</td> <td>ICB</td> <td>01/04/18 23:41</td> <td></td> <td></td> <td></td> <td>U</td> <td>mg/L</td> <td></td> <td>-0.015</td> <td>0.015</td> <td></td> <td></td> <td></td>	WG439373ICB	ICB	01/04/18 23:41				U	mg/L		-0.015	0.015			
L41827-02ASD ASD 01/05/18 0:05 II171220-5 .5 U .5013 mg/L 100 85 115 1 20 WG439451 V ICV 01/05/18 13:59 II171220-1 2 1.9665 mg/L 98 95 105 V V VG439451 ICB 01/05/18 14:05 .5 U mg/L 0.015 0.015 0.015 V V VG439451 ICB 01/05/18 14:05 .5 .5226 mg/L 105 85 115 .5 .5226 mg/L 103 85 115 .5 <td< td=""><td>WG439373LFB</td><td>LFB</td><td>01/04/18 23:53</td><td>II171220-5</td><td>.5</td><td></td><td>.5052</td><td>mg/L</td><td>101</td><td>85</td><td>115</td><td></td><td></td><td></td></td<>	WG439373LFB	LFB	01/04/18 23:53	II171220-5	.5		.5052	mg/L	101	85	115			
WG439451 WG4394511CV ICV 01/05/18 13:59 II171220-1 2 1.9665 mg/L 98 95 105 WG4394511CB ICB 01/05/18 14:05 U mg/L -0.015 0.015 WG4394511CB ICB 01/05/18 14:18 II171220-5 .5 .5226 mg/L 105 85 115 L41827-02AS AS 01/05/18 14:28 II171220-5 .5 U .5165 mg/L 103 85 115 L41827-02AS ASD 01/05/18 14:28 II171220-5 .5 U .532 mg/L 106 85 115 .5 L41827-02ASD ASD 01/05/18 14:28 II171220-5 .5 U .532 mg/L 106 85 115 .5 .5 U .532 mg/L 106 <td< td=""><td>L41827-02AS</td><td>AS</td><td>01/05/18 0:02</td><td>II171220-5</td><td>.5</td><td>U</td><td>.4951</td><td>mg/L</td><td>99</td><td>85</td><td>115</td><td></td><td></td><td></td></td<>	L41827-02AS	AS	01/05/18 0:02	II171220-5	.5	U	.4951	mg/L	99	85	115			
WG439451ICV ICV 01/05/18 13:59 II171220-1 2 1.9665 mg/L 98 95 105 WG439451ICB ICB 01/05/18 14:05 0 0 mg/L 0.015 0.015 0.015 WG439451ICB ICB 01/05/18 14:05 .5 .5226 mg/L 105 85 115 WG439451LFB LFB 01/05/18 14:28 II171220-5 .5 U .5165 mg/L 103 85 115 L41827-02ASD ASD 01/05/18 14:31 II171220-5 .5 U .532 mg/L 106 85 115 3 20 Residue, Filterable (TDS) @180C SM2540C SM2540C ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG438782PBW PBW 12/21/17 15:59 260 260 256 mg/L 98 80 120 120	L41827-02ASD	ASD	01/05/18 0:05	II171220-5	.5	U	.5013	mg/L	100	85	115	1	20	
WG4394511CB ICB 01/05/18 14:05 U mg/L -0.015 0.015 WG4394511LFB LFB 01/05/18 14:18 II171220-5 .5 .5226 mg/L 105 85 115 L41827-02AS AS 01/05/18 14:28 II171220-5 .5 U .5165 mg/L 103 85 115 L41827-02ASD ASD 01/05/18 14:31 II171220-5 .5 U .532 mg/L 106 85 115 .5 20 Residue, Filterable (TDS) @105/18 14:31 II171220-5 .5 U .532 mg/L 106 85 115 .5 20 Residue, Filterable (TDS) @105/18 14:31 II171220-5 .5 U .532 mg/L 106 85 115 .5 20 Residue, Filterable (TDS) @180C SM2540C SM2540C SM2540C No No <t< td=""><td>WG439451</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	WG439451													
WG439451LFB LFB 01/05/18 14:18 II171220-5 .5 U .5226 mg/L 105 85 115 L41827-02AS AS 01/05/18 14:28 II171220-5 .5 U .5165 mg/L 103 85 115 L41827-02ASD ASD 01/05/18 14:31 II171220-5 .5 U .5165 mg/L 103 85 115 3 20 Residue, Filterable (TDS) @180C SM2540C SM2540C SM2540C SM2540C V Sample Found Units Rec Lower Upper RPD Limit Qual WG438782 WG438782 LCSW 12/21/17 15:59 PCN54004 260 16 mg/L -20 20 20 V V V V 256 mg/L 98 80 120 V	WG439451ICV	ICV	01/05/18 13:59	II171220-1	2		1.9665	mg/L	98	95	105			
L41827-02AS AS 01/05/18 14:28 II171220-5 .5 U .5165 mg/L 103 85 115 3 20 Residue, Filterable (TDS) @180C SM2540C ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG438782PBW PBW 12/21/17 15:59 PCN54004 260 16 mg/L -20 20 20 100	WG439451ICB	ICB	01/05/18 14:05				U	mg/L		-0.015	0.015			
L41827-02ASD ASD 01/05/18 14:31 II171220-5 .5 U .532 mg/L 106 85 115 3 20 Residue, Filterable (TDS) @180C SM2540C ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG438782PBW PBW 12/21/17 15:59 PCN54004 260 16 mg/L -20 20 20 100	WG439451LFB	LFB	01/05/18 14:18	II171220-5	.5		.5226	mg/L	105	85	115			
Residue, Filterable (TDS) @180C SM2540C ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG438782PBW PBW 12/21/17 15:59 16 mg/L -20 20 20 WG438782LCSW LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120	L41827-02AS	AS	01/05/18 14:28	II171220-5	.5	U	.5165	mg/L	103	85	115			
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG438782 WG438782PBW PBW 12/21/17 15:59 16 mg/L -20 20 20 VG438782LCSW LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120 VG438782LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120 VG438782LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120 VG438782LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120 VG438782LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120 VG438782LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120 VG438782LCSW 12/21/17 16:02 PCN54004 260 256 PCN54004 12/21/17	L41827-02ASD	ASD	01/05/18 14:31	II171220-5	.5	U	.532	mg/L	106	85	115	3	20	
WG438782 16 mg/L -20 20 WG438782LCSW LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120	Residue, Filteral	ble (TDS) @180C	SM2540C										
WG438782PBW PBW 12/21/17 15:59 16 mg/L -20 20 WG438782LCSW LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG438782LCSW LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120														
WG438782LCSW LCSW 12/21/17 16:02 PCN54004 260 256 mg/L 98 80 120	WG438782													
		PBW	12/21/17 15:59				16	mg/L		-20	20			
	WG438782PBW			PCN54004	260			-	98					



Sulfate			D516-02/-	07 - Turb	idimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG439075													
WG439075ICB	ICB	12/29/17 10:14				U	mg/L		-3	3			
WG439075ICV	ICV	12/29/17 10:14	WI171228-8	20		18.7	mg/L	94	90	110			
WG439075LFB	LFB	12/29/17 12:47	WI171212-5	10		9.4	mg/L	94	90	110			
L37466-31DUP	DUP	12/29/17 12:47			2.2	2.1	mg/L				5	20	RA
L41908-01AS	AS	12/29/17 13:19	SO4TURB	10	1970	2020	mg/L	500	90	110			M3
WG439137													
WG439137ICB	ICB	01/02/18 11:12				U	mg/L		-3	3			
WG439137ICV	ICV	01/02/18 11:12	WI171228-8	20		18.3	mg/L	92	90	110			
WG439137LFB	LFB	01/02/18 11:21	WI171212-5	10		9.3	mg/L	93	90	110			
L41871-01DUP	DUP	01/02/18 11:28			19600	20700	mg/L				5	20	
L41969-01AS	AS	01/02/18 11:53	SO4TURB5X	10	55.2	65.5	mg/L	103	90	110			
L41967-01DUP	DUP	01/02/18 11:56			92.6	112	mg/L				19	20	
L41872-01AS	AS	01/02/18 12:00	SO4TURB	10	2900	2820	mg/L	-800	90	110			M3
Zinc, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG439373													
WG439373ICV	ICV	01/04/18 23:35	II171221-1	2		1.935	mg/L	97	95	105			
WG439373ICB	ICB	01/04/18 23:41				U	mg/L		-0.03	0.03			
WG439373LFB	LFB	01/04/18 23:53	II171220-5	.4942		.517	mg/L	105	85	115			
L41827-02AS	AS	01/05/18 0:02	II171220-5	.4942	U	.525	mg/L	106	85	115			
L41827-02ASD	ASD	01/05/18 0:05	II171220-5	.4942	U	.512	mg/L	104	85	115	3	20	
WG439451													
WG439451ICV	ICV	01/05/18 13:59	II171220-1	2		1.992	mg/L	100	95	105			
WG439451ICB	ICB	01/05/18 14:05				U	mg/L		-0.03	0.03			
WG439451LFB	LFB	01/05/18 14:18	II171220-5	.4942		.547	mg/L	111	85	115			
L41827-02AS	AS	01/05/18 14:28	II171220-5	.4942	U	.541	mg/L	109	85	115			
L41827-02ASD	ASD	01/05/18 14:31	II171220-5	.4942	U	.534	mg/L	108	85	115	1	20	



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Inorganic Extended Qualifier Report

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L41908-01	WG439075	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L41908-02	WG439075	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L41908-03	WG439075	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L41908-04	WG439075	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L41908-05	WG439137	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L41908-06	WG439137	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L41908-07	WG439137	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L41908-08	WG439137	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L41908

No certification qualifiers associated with this analysis

ACZ	Laborato	rie	s, Ir	າc.
2773 Downhill Drive				

2113 Downniii Drive Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Sample Receipt

ACZ Project ID: L41908 Date Received: 12/21/2017 12:33 Received By: Date Printed: 12/22/2017

Receipt Verification

- 1) Is a foreign soil permit included for applicable samples?
- 2) Is the Chain of Custody form or other directive shipping papers present?
- 3) Does this project require special handling procedures such as CLP protocol?
- 4) Are any samples NRC licensable material?
- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody form complete and accurate?
- 7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?

A change was made in the Sample ID: Line 1 and Analyses Requested Section 4 section prior to ACZ custody.

Samples/Containers

8) Are all containers intact and with no leaks?
9) Are all labels on containers and are they intact and legible?

- 10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?
- 11) For preserved bottle types, was the pH checked and within limits? 1
- 12) Is there sufficient sample volume to perform all requested work?
- 13) Is the custody seal intact on all containers?
- 14) Are samples that require zero headspace acceptable?
- 15) Are all sample containers appropriate for analytical requirements?
- 16) Is there an Hg-1631 trip blank present?
- 17) Is there a VOA trip blank present?
- 18) Were all samples received within hold time?

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	$Rad(\mu R/Hr)$	Custody Seal Intact?
5308	4	<=6.0	13	Yes

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s) but was thawed by receipt at ACZ.

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

YES	NO	NA
		Х
Х		
	Х	
		Х
Х		
Х		
Х		

YES	NO	NA
Х		
Х		
Х		
		Х
Х		
		Х
		Х
Х		
		Х
		Х
Х		

NA indicates Not Applicable



Colorado Milling Company, LLC	ACZ Project ID:	L41908
	Date Received:	12/21/2017 12:33
	Received By:	
	Date Printed:	12/22/2017

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

HLif Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334		410	101	Š	CHAI	N of	CUSTO	DDY
Report to:								
Name: Marviz A, Steen		Addres	s: P	O.B.	2 1	521	3	
Company: Colerado Milling (e.]		hen	amen	it, G	lo		
E-mail: gold for fine @ mail com	ł	Teleph	one:	1	.,			
Copy of Report to:								
Name: Conden Swelney		E-mail:	OVI	rd.m	su	een	eyOg	-Mai
Company: CMC LLC	1	Teleph	<u> </u>	<u> </u>			900)
Invoice to:	-							
Name: Mark, A. steen		Addres	s: P	5 Ber	0 15	フこ		
Company: Colen Melling Colle	1	<u> </u>	Ren	- <u>~ ~</u>	+ 6	Un		
E-mail: goldton tune, (2) a mail, Com	1	Teleph		ð	~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
If sample(s) received past holding time (HT), or if insufficie	nt HT re	mains to	comple	ete			YES	\downarrow
analysis before expiration, shall ACZ proceed with request If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indical				ed analyses. ev	en if HT is expla	ed, and data	NO	
Are samples for SDWA Compliance Monitoring?		Yes		No	$\mathbf{\Sigma}$			
If yes, please include state forms. Results will be reported		for Color	ado.					
Sampler's Name: LEWIS (EU2KI Sampler's Site Information)		State (olo				Time Zone	
*Sampler's Signature:			ay, is consid	lered fraud and	punishable by	State Law.		
PROJECT INFORMATION			ANALY	SES REQUES	TED (attach	list or use	quote number)
Quote #:		ers			L E			
		Containers			Ing	Ì		
Reporting state for compliance testing:	T							
Check box if samples include NRC licensed material? SAMPLE IDENTIFICATION DATE:TIME	Matrix	# •			H			
017/D12/19 TB TP 12/19/17 10:00 AM								
017/012/19 MW1 12/19/17 10:17 HV	M 3							
017/012/19/01 12/19/17 10:30	1 3				-			
017/012/19 WZ 12/19/17 10:414	13							
017/012/19 W3 12/19/17 10:56AM	3							
017/012/19 W4 12/19/17 11:09#	3							
017/012/19 MW5 12/19/17 12:25PM								
017 1012119 CMP 12/19/17 12:35"	3							
217/012/19 CG 12/19/17 12:50PM	-							
Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste W	Nater) · D	W (Drinkir	g Water)	· SL (Sludge	e) · SO (Soi) · OL (O	il) · Other (Spe	ecify)
REMARKS	<u> </u>	11.1		1	<u>^</u>		-	A .
call golden sweeing a	305	5-44	2-10	64	ちち	ne :	mua	
to be analized 101	4-		0+00		a no al	<i>ი</i> 0	4	
call gorden sweeney @ to be analysed for all camples are	_ Ra	wit	UND'	(\mathcal{M})		~er		
							ş.	
Please refer to ACZ's terms & cone RELINQUISHED BY: DATE:T		ocated o		everse sid		COC.	DATE	TIME
		100	/ C	-steivielu	-ет.		DATE	112-
Keurs Pentrins 12/20/2	017	270	is Ac h	DHIL	<u>λ</u>		12/10	μŢ
l	1. ju	55		100				
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Analytical Report

March 29, 2018

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L43155

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 14, 2018. This project has been assigned to ACZ's project number, L43155. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L43155. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after April 28, 2018. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Live Weller

Sue Webber has reviewed and approved this report.





ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	018-03-13 MW1

ACZ Sample ID:	L43155-01
Date Sampled:	03/13/18 10:45
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.001			mg/L	0.0002	0.001	03/22/18 16:06	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0005			mg/L	0.0001	0.0005	03/27/18 12:33	mfm
Manganese, dissolved	M200.7 ICP	1	0.147			mg/L	0.005	0.03	03/21/18 13:03	aeh
Zinc, dissolved	M200.7 ICP	1	0.13			mg/L	0.01	0.05	03/21/18 13:03	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual	XQ	Units	MDL	PQL	Date 03/22/18 11:40	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual	XQ	Units	MDL	PQL		enb
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 1	Result 1500	Qual	XQ	Units mg/L	MDL 10	PQL 20	03/22/18 11:40	enb aeh

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	018-03-13 W1

ACZ Sample ID:	L43155-02
Date Sampled:	03/13/18 10:55
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	s MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0002	0.001	03/22/18 16:15	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	03/27/18 12:35	i mfm
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	03/21/18 13:06	aeh
Zinc, dissolved	M200.7 ICP	1	0.01	В	mg/L	0.01	0.05	03/21/18 13:06	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	s MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						03/22/18 11:41	enb
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						03/20/18 11:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	364		mg/L	10	20	03/16/18 11:41	emk
Sulfate	D516-02/-07 - Turbidimetric	5	165		* mg/L	5	25	03/19/18 9:01	kea

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	018-03-13 W2

ACZ Sample ID:	L43155-03
Date Sampled:	03/13/18 11:10
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	03/21/18 13:16	aeh
Zinc, dissolved	M200.7 ICP	1	0.31			mg/L	0.01	0.05	03/21/18 13:16	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							03/22/18 11:43	enb
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							03/20/18 11:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	506			mg/L	10	20	03/16/18 11:43	emk
Sulfate	D516-02/-07 - Turbidimetric	20	246		*	mg/L	20	100	03/19/18 9:11	kea

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

ACZ Sample ID:	L43155-04
Date Sampled:	03/13/18 11:20
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	03/21/18 13:19	aeh
Zinc, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	03/21/18 13:19	aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						03/22/18 11:44	enb
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						03/20/18 11:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	414		mg/L	10	20	03/16/18 11:45	emk
Sulfate	D516-02/-07 - Turbidimetric	5	153	*	mg/L	5	25	03/19/18 9:01	kea

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:	
Sample ID:	018-03-13 W4

ACZ Sample ID:	L43155-05
Date Sampled:	03/13/18 11:30
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.357			mg/L	0.005	0.03	03/21/18 13:22	aeh
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	03/21/18 13:22	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							03/22/18 11:46	enb
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							03/20/18 11:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	476			mg/L	10	20	03/16/18 11:47	emk
Sulfate	D516-02/-07 - Turbidimetric	5	167		*	mg/L	5	25	03/19/18 9:01	kea

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-03-13 MW5

ACZ Sample ID:	L43155-06
Date Sampled:	03/13/18 12:15
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual X	(Q Uni	ts MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0027		mg/	0.0002	0.001	03/22/18 16:18	8 mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/	0.0001	0.0005	03/27/18 12:38	8 mfm
Manganese, dissolved	M200.7 ICP	1	0.018	В	mg/	0.005	0.03	03/21/18 13:25	5 aeh
Zinc, dissolved	M200.7 ICP	1	0.01	В	mg/	0.01	0.05	03/21/18 13:25	5 aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	(Q Uni	ts MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						03/22/18 11:48	8 enb
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						03/20/18 11:30) aeh
Residue, Filterable (TDS) @180C	SM2540C	1	666		mg/	10	20	03/16/18 11:49) emk
Sulfate	D516-02/-07 - Turbidimetric	20	329	ł	* mg/	20	100	03/19/18 9:11	kea

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-03-13 CASH MINE

ACZ Sample ID:	L43155-07
Date Sampled:	03/13/18 12:00
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0008	В		mg/L	0.0002	0.001	03/22/18 16:21	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0008			mg/L	0.0001	0.0005	03/27/18 12:41	mfm
Manganese, dissolved	M200.7 ICP	1	15.1			mg/L	0.005	0.03	03/21/18 13:35	aeh
Zinc, dissolved	M200.7 ICP	1	1.16			mg/L	0.01	0.05	03/21/18 13:35	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							03/22/18 11:49	enb
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							03/20/18 11:30	aeh
Residue, Filterable (TDS) @180C	SM2540C	1	1870			mg/L	10	20	03/16/18 11:51	emk
Sulfate	D516-02/-07 - Turbidimetric	50	1160		*	mg/L	50	250	03/19/18 9:13	kea

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-03-13 CASH GULCH

ACZ Sample ID:	L43155-08
Date Sampled:	03/13/18 12:36
Date Received:	03/14/18
Sample Matrix:	Ground Water

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	03/22/18 16:25	mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0014			mg/L	0.0001	0.0005	03/22/18 16:25	mfm
Manganese, dissolved	M200.7 ICP	1	0.011	В		mg/L	0.005	0.03	03/21/18 13:38	aeh
Zinc, dissolved	M200.7 ICP	1	0.39			mg/L	0.01	0.05	03/21/18 13:38	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							03/22/18 11:51	enb
	SOPWC050	1 1							03/22/18 11:51 03/20/18 11:30	enb
filter) Lab Filtration (0.45um)	SOPWC050	1 1 1	420			mg/L	10	20		enb aeh



Inorganic Reference

port Header	r Explanations		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit u	nless omitted or ed	qual to the PQL (see comment #5).
	Allows for instrument and annual fluctuations.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	ufacturer's certifica	ate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term '	'minimum level".	
QC	True Value of the Control Sample or the amount added to the		
Rec	Recovered amount of the true value or spike added, in % (exc	•	/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	C Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Ty AS	pes Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
AS ASD	Analytical Spike (Post Digestion) Analytical Spike (Post Digestion) Duplicate	LESWD	Laboratory Fortified Blank
ASD CCB		LFB LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Blank Continuing Calibration Verification standard	LFM LFMD	,
DUP	5	LFMD LRB	Laboratory Fortified Matrix Duplicate
	Sample Duplicate Initial Calibration Blank	LRB MS	Laboratory Reagent Blank
ICB			Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
1004	Laboratory Control Comple Water	-	
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
	Laboratory Control Sample - Water pe Explanations	-	
	pe Explanations	SDL	
Sample Ty	pe Explanations Verifies that there is no or minimal co	SDL	Serial Dilution
Sample Ty Blanks	pe Explanations Verifies that there is no or minimal co	SDL ontamination in the including the prep	Serial Dilution e prep method or calibration procedure. procedure.
Sample Ty Blanks Control Sar Duplicates	pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method,	SDL ontamination in the including the prep ent and/or method.	Serial Dilution e prep method or calibration procedure. procedure.
Sample Ty Blanks Control Sar Duplicates	mples Verifies that there is no or minimal converting the accuracy of the method, Verifies the precision of the instrument	SDL ontamination in the including the prep ent and/or method. icces, if any.	Serial Dilution e prep method or calibration procedure. procedure.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort	pe Explanations Verifies that there is no or minimal co mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferen Verifies the validity of the calibration.	SDL ontamination in the including the prep ent and/or method. icces, if any.	Serial Dilution e prep method or calibration procedure. procedure.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard	pe Explanations Verifies that there is no or minimal co mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferen Verifies the validity of the calibration.	SDL ontamination in the including the prep ent and/or method. aces, if any.	Serial Dilution
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers	rpe Explanations wples Verifies that there is no or minimal complex wples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual)	SDL ontamination in the including the prep ent and/or method. icces, if any.	Serial Dilution proper method or calibration procedure. procedure. ed value is an estimated quantity.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B	rpe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. Verifies the validity of the calibration. c (Qual) Analyte concentration detected at a value between MDL and the value between MDL and th	SDL ontamination in the including the prep ent and/or method. inces, if any. PQL. The associat n immediate hold t	Serial Dilution proper method or calibration procedure. procedure. ed value is an estimated quantity.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H	rpe Explanations with the explanations with explanations with exp	SDL ontamination in the including the prep ent and/or method. inces, if any. PQL. The associat n immediate hold t gative threshold.	Serial Dilution procedure. procedure. e dvalue is an estimated quantity. ime.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L	pe Explanations mples Verifies that there is no or minimal complex tified Matrix Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined negotiate	SDL ontamination in the including the prep ent and/or method. inces, if any. PQL. The associat n immediate hold t gative threshold. ie level of the associat	Serial Dilution procedure. procedure. ed value is an estimated quantity. ime. ciated value.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near the material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	SDL ontamination in the including the prep ent and/or method. inces, if any. PQL. The associat n immediate hold t gative threshold. ie level of the associat	Serial Dilution procedure. procedure. ed value is an estimated quantity. ime. ciated value.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near the material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	SDL ontamination in the including the prep ent and/or method. icces, if any. PQL. The associat n immediate hold t gative threshold. ie level of the asso the sample detect	Serial Dilution procedure. red value is an estimated quantity. ime. ciated value. ion limit.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and the Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or sinces	SDL ontamination in the including the prep ent and/or method. icces, if any. PQL. The associat n immediate hold t gative threshold. ie level of the asso the sample detect and Wastes, Marc	Serial Dilution a prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. h 1983.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2)	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. c (Qual) Analyte concentration detected at a value between MDL and the Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or sinces EPA 600/4-83-020. Methods for Chemical Analysis of Water	SDL ontamination in the including the prep ent and/or method. Inces, if any. PQL. The associate n immediate hold to gative threshold. In e level of the associate the sample detect and Wastes, Marco- nic Substances in I	Serial Dilution proper method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3)	pe Explanations Verifies that there is no or minimal or minimal or minimal or verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or sences EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Metals	SDL ontamination in the including the prep ent and/or method. Inces, if any. PQL. The associate n immediate hold to gative threshold. In e level of the associate the sample detect and Wastes, Marco- nic Substances in I	Serial Dilution procedure. red value is an estimated quantity. ime. rciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2)	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. c (Qual) Analyte concentration detected at a value between MDL and the Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or sences EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan	SDL ontamination in the including the prep ent and/or method. Inces, if any. PQL. The associat n immediate hold t gative threshold. In e level of the associat the sample detect and Wastes, Marc nic Substances in I in Environmental S	Serial Dilution proper method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Referent (1) (2) (3) (4) (5)	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. c (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or sences EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep ent and/or method. Inces, if any. PQL. The associat n immediate hold t gative threshold. In e level of the associat the sample detect and Wastes, Marc nic Substances in I in Environmental S	Serial Dilution procedure. red value is an estimated quantity. ime. rciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Referent (1) (2) (3) (4) (5)	pe Explanations Verifies that there is no or minimal complex mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or PICES EPA 600/R-93-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. EPA 600/R-94-111. Methods for the Determination of Inorgant EPA 600/R-94-111. Methods for the Examination of Water. Standard Methods for the Examination of Water and Wasteward	SDL ontamination in the including the prep ent and/or method. ices, if any. PQL. The associat n immediate hold t gative threshold. In level of the associated the sample detect and Wastes, Marc nic Substances in lin in Environmental S ater.	Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Referent (1) (2) (3) (4) (5) mments (1)	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or Sences EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-93-100. EPA 600/R-94-111. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Examination of Water and Wasteward GC results calculated from raw data.	SDL ontamination in the including the prep ent and/or method. ices, if any. PQL. The associat n immediate hold t gative threshold. I elevel of the associat the sample detect and Wastes, Marc nic Substances in f in Environmental S ater.	Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Referent (1) (2) (3) (4) (5) mments (1) (2)	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or sences EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightl Soil, Sludge, and Plant matrices for Inorganic analyses are results	SDL ontamination in the including the prep ent and/or method. ices, if any. PQL. The associat n immediate hold t gative threshold. In level of the associated the sample detect and Wastes, Marc nic Substances in f in Environmental S ater.	Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Referent (1) (2) (3) (4) (5) mments (1) (2) (3) (4) (5)	pe Explanations Verifies that there is no or minimal or minimal or verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferen Verifies the validity of the calibration. c(Qual) Analyte concentration detected at a value between MDL and the Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or Proces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "astications"	SDL ontamination in the including the prep ent and/or method. ices, if any. PQL. The associat n immediate hold t gative threshold. In level of the associated the sample detect and Wastes, Marc nic Substances in f in Environmental S ater.	Serial Dilution a prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. ight basis.
Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Referent (1) (2) (3) (4) (5) mments (1) (2)	pe Explanations Verifies that there is no or minimal comples mples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. s (Qual) Analyte concentration detected at a value between MDL and I Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined near The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or sences EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightl Soil, Sludge, and Plant matrices for Inorganic analyses are results	SDL ontamination in the including the prep ent and/or method. ices, if any. PQL. The associat n immediate hold t gative threshold. In level of the associated the sample detect and Wastes, Marc nic Substances in f in Environmental S ater.	Serial Dilution a prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. ight basis.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

REP001.03.15.02



Inorganic QC Summary

Colorado Milling Company, LLC

Arsenic, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG443924													
WG443924ICV	ICV	03/22/18 15:16	MS180219-2	.05		.04909	mg/L	98	90	110			
WG443924ICB	ICB	03/22/18 15:19				U	mg/L		-0.0006	0.0006			
WG443924LFB	LFB	03/22/18 15:23	MS180302-2	.0501		.04399	mg/L	88	85	115			
L43155-01AS	AS	03/22/18 16:09	MS180302-2	.0501	.001	.05331	mg/L	104	70	130			
L43155-01ASD	ASD	03/22/18 16:12	MS180302-2	.0501	.001	.05544	mg/L	109	70	130	4	20	E
Cadmium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG443924													
WG443924ICV	ICV	03/22/18 15:16	MS180219-2	.05		.05026	mg/L	101	90	110			
WG443924ICB	ICB	03/22/18 15:19				U	mg/L		-0.0003	0.0003			
WG443924LFB	LFB	03/22/18 15:23	MS180302-2	.05005		.04651	mg/L	93	85	115			
L43155-01AS	AS	03/22/18 16:09	MS180302-2	.05005	.0004	.05091	mg/L	101	70	130			E
L43155-01ASD	ASD	03/22/18 16:12	MS180302-2	.05005	.0004	.05112	mg/L	101	70	130	0	20	E6
WG444163													
WG444163ICV	ICV	03/27/18 12:25	MS180219-2	.05		.05066	mg/L	101	90	110			
WG444163ICB	ICB	03/27/18 12:28				U	mg/L		-0.0003	0.0003			
WG444163LFB	LFB	03/27/18 12:30	MS180302-2	.05005		.04656	mg/L	93	85	115			
L43190-01AS	AS	03/27/18 13:09	MS180302-2	.05005	U	.04728	mg/L	94	70	130			
L43190-01ASD	ASD	03/27/18 13:12	MS180302-2	.05005	U	.04495	mg/L	90	70	130	5	20	
L43146-02AS	AS	03/27/18 13:33	MS180302-2	.05005	.0002	.04842	mg/L	96	70	130			
L43146-02ASD	ASD	03/27/18 13:35	MS180302-2	.05005	.0002	.04813	mg/L	96	70	130	1	20	
Manganese, dise	solved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG443817													
WG443817ICV	ICV	03/21/18 12:37	II180305-1	2		1.9567	mg/L	98	95	105			
WG443817ICB	ICB	03/21/18 12:44				U	mg/L		-0.015	0.015			
WG443817LFB	LFB	03/21/18 12:57	II180319-4	.5		.5038	mg/L	101	85	115			
L43155-02AS	AS	03/21/18 13:09	II180319-4	.5	U	.5125	mg/L	103	85	115			
L43155-02ASD	ASD	03/21/18 13:13	II180319-4	.5	U	.5135	mg/L	103	85	115	0	20	
Residue, Filteral	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG443517													
WG443517PBW	PBW	03/16/18 11:30				10	mg/L		-20	20			
WG443517LCSW	LCSW	03/16/18 11:31	PCN55379	260		266	mg/L	102	80	120			
L43155-07DUP	DUP	03/16/18 11:53			1870	1860	mg/L				1	10	
L43181-14DUP	DUP	03/16/18 12:14			5800	5790	mg/L				0	10	



Inorganic QC Summary

Colorado Milling Company, LLC

Sulfate			D516-02/-(07 - Turbi	dimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG443603													
WG443603ICB	ICB	03/19/18 8:40				U	mg/L		-3	3			
WG443603ICV	ICV	03/19/18 8:40	WI180308-2	20		20	mg/L	100	90	110			
WG443603LFB	LFB	03/19/18 8:53	WI171212-5	10		9.5	mg/L	95	90	110			
L43155-02AS	AS	03/19/18 9:01	WI171212-5	50	165	174	mg/L	18	90	110			M3
L43155-01DUP	DUP	03/19/18 9:11			901	908	mg/L				1	20	
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG443817													
WG443817ICV	ICV	03/21/18 12:37	II180305-1	2		2.001	mg/L	100	95	105			
WG443817ICB	ICB	03/21/18 12:44				U	mg/L		-0.03	0.03			
WG443817LFB	LFB	03/21/18 12:57	II180319-4	.4942		.512	mg/L	104	85	115			
L43155-02AS	AS	03/21/18 13:09	II180319-4	.4942	.01	.531	mg/L	105	85	115			



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Colorado Milling Company, LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L43155-01	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L43155-02	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L43155-03	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L43155-04	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L43155-05	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L43155-06	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L43155-07	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L43155-08	WG443603	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L43155

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC	ACZ Projec	t ID:		L43155
	Date Recei	ived:	03/14/201	8 11:30
	Received	d By:		
	Date Prir	nted:	3/	15/2018
Receipt Verification				
1) to a fareign acil permit included for applicable complex?	Γ	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				X
2) Is the Chain of Custody form or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?			Х	
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time an	alyses?	Х		
6) Is the Chain of Custody form complete and accurate?		Х		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the	samples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and	d Time?	Х		
11) For preserved bottle types, was the pH checked and within limits? $ ^{1}$				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
	_	Х		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?	
4474	2.1	<=6.0	14	Yes	

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



ACZ Project ID: L43155 Date Received: 03/14/2018 11:30 Received By: Date Printed: 3/15/2018

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ALia Laboratories, Inc.	(RI	155		CHAI	N of	CUS	STODY
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334 54	93\/)/)/					
Report to:			6 0			2	
Name: Martz. A, Stees	Addre	ss: [*	<u>0 150</u>	X /1		<u> </u>	
Company: Colorado milling company		<u>v</u> zi	novt	<u>, C</u>	\mathcal{ILC})	
E-mail: gold for time & gmail, com	Telep	hoñe:					
Copy of Report to:							
Name: ORdany Sweeney	E-mai	1: <u>70</u> ,	2don	Sw	Cen	ve√	Rama
Company: CMIC LLC	Telep	hone: 🐧	<u> 303-</u>	440)-0	63.	37
Invoice to:							
Name: Mark Steen	Addre	ss: /	.013	$\delta o \chi$	15	23	
Company: CMMC. LhC		ひひろ		it C	6		
E-mail: Coulton time formall.com				1			
If sample(s) received past holding time (HT), or if insufficient H	T remains f	o compl	ete			YES	
analysis before expiration, shall ACZ proceed with requested single for the state of the state o	hort HT and Z will proceed wi	alyses?	ed analyses ave	n if HT is avai	nd, and de-	NO a will be gu	
Are samples for SDWA Compliance Monitoring?	Yes		No		, and call	ve qu	
If yes, please include state forms. Results will be reported to PC		rado.			-		
Sampler's Namez' PCRKING Sampler's Site Information		$C \alpha c$	<u>)</u> Zip (:ode <u>%</u>	302	Time 2	Zone <u>11 12 (</u>
tampering with t	the sample in any	way, is consid	lered fraud and p	ounishable by	State Law.		e time/date/location o
PROJECT INFORMATION		ANALY	SES REQUES	TED (attach	list or use	quote ni	imber)
Quote #:	ers –						
PO#:	Containers			X			
Reporting state for compliance testing:				N'P			
Check box if samples include NRC licensed material? SAMPLE IDENTIFICATION DATE:TIME Mat	ۍ ا			08			
	1/1X 4#			1 N			
0/8-03-13 TP SROZEN	3			+0			
				+X			
5/8-03-13 W (03/13/18 10:55 3 018-03-13 WZ 03/13/18 11:10 3							
18-03-13 W3 (3/13/19/1:20)							
	۶			$\uparrow \frown$			
D18-03+13 W4 03/13/18 11:30 3	, , , , , , , , , , , , , , , , , , , ,			\leftarrow			
		-					
018-03-12 MILUS 13/12/10 17:15 3			1	1/2			
218-03-13 MWS 03/13/18 12:15 3				X			
218-03-13 Cash Mine 03/13/18 12:00 3				X			
218-03-13 Cash Mine 03/13/18 12:00 3 218-03-13 Cash (Mich 03/13/18 12:36 3		ng Water) ·	SL (Sludge)	SO (Soil)	· OL (Oi) · Other	(Specify)
018-03-13 Cash Mine 03/13/18 12:00 3 018-03-13 Cash Culch 03/13/18 12:36 3		ng Water) ·	SL (Sludge)	SO (Soil)	· OL (Oi) · Other	(Specify)
D18-(13-13 Cosh Mine 03/13/18 12:00) D18-03-13 Cosh Mine 03/13/18 12:00) D18-03-13 Cosh Guich 03/13/18 12:36 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) REMARKS	· DW (Drinkir						
DIB-U3-13 Cash Mine 03/13/18 12:00 3 DIB-03-13 Cash Guich 03/13/18 12:36 3 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) REMARKS Call GORdon Sweene	DW (Drinkir	'30					
D18-(13-13 Cosh Mine 03/13/18 12:00) D18-03-13 Cosh Mine 03/13/18 12:00) D18-03-13 Cosh Guich 03/13/18 12:36 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) REMARKS	DW (Drinkir	'30					
DIB-U3-13 Cash Mine 03/13/18 12:00 3 DIB-03-13 Cash Guch 03/13/18 12:36 3 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) REMARKS Call Gordon Sweene Metal to be analized	DW (Drinkir Cy at for	30 •	3-49	/Z-,	106	2 -	for
DIB-U3-13 Cash Mine 03/13/18 12:00 3 DIB-03-13 Cash Guich 03/13/18 12:36 3 Matrix SW (Surface Water) GW (Ground Water) WW (Waste Water) REMARKS CALL GORdon Sweene Metal to be analized ALL Samples are Ro	DW (Drinkir Cy at for cu)	30 575	3-49 ter o	12-, us 1	106 106	2 -	for
DIB-U3-13 Cash Mine 03/13/18 12:00 3 DIB-03-13 Cash Guch 03/13/18 12:36 3 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) REMARKS Call Gordon Sweene Metal to be analized	DW (Drinkir Cy at for cu)	30 5-27	3-49 ter o	2- / 25 /	106 106	z –	for l
DIB-U3-13 Cash Mine 03/13/18 12:00 3 DIB-U3-13 Cash Mine 03/13/18 12:00 3 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) REMARKS Call Gordon Sweene Metal to be analized All Samples are Re Please refer to ACZ's terms & conditions RELINQUISHED BY: DATE:TIME	DW (Drinkir CY at fOR s located o	30 5/27 on the re	3 - 44 FER C verse side	$2 - \frac{1}{2}$	106 106 100	2 - Lec DA	for L
<u>DIB-U3-13 Cash Mine 03/13/18 12:00 3</u> <u>DIB-03-13 Cash Mine 03/13/18 12:36 3</u> <u>Matrix</u> SW (Surface Water) GW (Ground Water) WW (Waste Water) REMARKS <u>Call Gordon Sweene</u> <u>Metal to be analized</u> <u>All Samples are reference</u> <u>Please reference</u> & conditions	DW (Drinkir CY at fOR s located o	30 5/27 on the re	3 - 49 FER O verse side	$2 - \frac{1}{2}$	106 106 100	2 - Lec DA	for l



October 02, 2018

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L47001

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 19, 2018. This project has been assigned to ACZ's project number, L47001. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L47001. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after November 01, 2018. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

re Well.

Sue Webber has reviewed and approved this report.





Project ID: Sample ID: 018-03-BTP

ACZ Sample ID:	L47001-01
Date Sampled:	09/18/18 12:56
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	2	0.0009	В		mg/L	0.0004	0.002	10/01/18 22:00	bsu
Cadmium, dissolved	M200.8 ICP-MS	2		U		mg/L	0.0001	0.0005	10/01/18 22:00	bsu
Manganese, dissolved	M200.7 ICP	2		U		mg/L	0.01	0.05	09/28/18 18:19	dcm
Zinc, dissolved	M200.7 ICP	2		U		mg/L	0.02	0.1	09/28/18 18:19	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/21/18 16:03	kja
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							09/27/18 15:00	dcm
Residue, Filterable	SM2540C	2	3470			mg/L	20	40	09/20/18 16:23	nmc
(TDS) @180C	01120-00	2	0410			iiig/L	20	10	00/20/10 10:20	mino



Project ID: Sample ID: 018-03-13 MW1

ACZ Sample ID:	L47001-02
Date Sampled:	09/18/18 10:07
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0006	В		mg/L	0.0002	0.001	10/01/18 22:02	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00016	В		mg/L	0.00005	0.0003	10/01/18 22:02	bsu
Manganese, dissolved	M200.7 ICP	1	0.008	В		mg/L	0.005	0.03	09/28/18 18:22	dcm
Zinc, dissolved	M200.7 ICP	1	0.06			mg/L	0.01	0.05	09/28/18 18:22	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Parameter Lab Filtration (0.45um filter)	EPA Method SOPWC050	Dilution 1	Result	Qual	XQ	Units	MDL	PQL	Date 09/21/18 16:06	
Lab Filtration (0.45um	SOPWC050	Dilution 1 1	Result	Qual	XQ	Units	MDL	PQL		kja
Lab Filtration (0.45um filter) Lab Filtration (0.45um)	SOPWC050	Dilution 1 1 1	Result 1470	Qual	XQ *	Units mg/L	MDL 10	PQL 20	09/21/18 16:06	kja dcm



Project ID: Sample ID: 018-03-13 W1

ACZ Sample ID:	L47001-03
Date Sampled:	09/18/18 10:20
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0002	0.001	10/01/18 22:04	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.00005	0.0003	10/01/18 22:04	bsu
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	09/28/18 18:25	dcm
Zinc, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	09/28/18 18:25	dcm
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						09/21/18 16:08	kja
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						09/27/18 15:00	dcm
Residue, Filterable (TDS) @180C	SM2540C	1	252	*	mg/L	10	20	09/21/18 13:52	kja
Sulfate	D516-02/-07 - Turbidimetric	5	110	*	mg/L	5	25	09/24/18 13:07	mss2



Project ID: Sample ID: 018-03-13 W2

ACZ Sample ID:	L47001-04
Date Sampled:	09/18/18 10:35
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual X	Q Unit	s MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/l	0.005	0.03	09/28/18 18:28	dcm
Zinc, dissolved	M200.7 ICP	1	0.17		mg/l	. 0.01	0.05	09/28/18 18:28	dcm
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	Q Unit	s MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						09/21/18 16:11	kja
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						09/27/18 15:00	dcm
Residue, Filterable (TDS) @180C	SM2540C	1	416		* mg/l	10	20	09/21/18 13:54	kja
Sulfate	D516-02/-07 - Turbidimetric	20	207		* mg/l	20	100	09/24/18 13:29	mss2



Project ID: Sample ID: 018-03-13 W3

ACZ Sample ID:	L47001-05
Date Sampled:	09/18/18 10:40
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	09/28/18 18:36	dcm
Zinc, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	09/28/18 18:36	dcm
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						09/21/18 16:13	kja
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1						09/27/18 15:00	dcm
Residue, Filterable (TDS) @180C	SM2540C	1	404	*	mg/L	10	20	09/21/18 13:56	kja
Sulfate	D516-02/-07 - Turbidimetric	5	181	*	mg/L	5	25	09/24/18 13:07	mss2



Project ID: Sample ID: 018-03-31 W4

ACZ Sample ID:	L47001-06
Date Sampled:	09/18/18 10:50
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.087			mg/L	0.005	0.03	09/28/18 18:39	dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	09/28/18 18:39	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/21/18 16:15	kja
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							09/27/18 15:01	dcm
Residue, Filterable (TDS) @180C	SM2540C	1	472		*	mg/L	10	20	09/21/18 13:58	kja
Sulfate	D516-02/-07 - Turbidimetric	5	172		*	mg/L	5	25	09/24/18 14:17	mss2



Project ID: Sample ID: 018-03-31 MW5

ACZ Sample ID:	L47001-07
Date Sampled:	09/18/18 11:15
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0017			mg/L	0.0002	0.001	10/01/18 22:06	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00034			mg/L	0.00005	0.0003	10/01/18 22:06	bsu
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	09/28/18 18:43	dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	09/28/18 18:43	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/21/18 16:18	kja
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							09/27/18 15:01	dcm
Residue, Filterable (TDS) @180C	SM2540C	1	666		*	mg/L	10	20	09/21/18 14:00	kja
Sulfate	D516-02/-07 - Turbidimetric	20	331		*	mg/L	20	100	09/24/18 14:23	mss2



Project ID: Sample ID: 018-03-31 CM

ACZ Sample ID:	L47001-08
Date Sampled:	09/18/18 11:30
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В		mg/L	0.0002	0.001	10/01/18 22:08	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00609			mg/L	0.00005	0.0003	10/01/18 22:08	bsu
Manganese, dissolved	M200.7 ICP	1	1.29			mg/L	0.005	0.03	09/28/18 18:52	dcm
Zinc, dissolved	M200.7 ICP	1	2.87			mg/L	0.01	0.05	09/28/18 18:52	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/21/18 16:20	kja
		1 1							09/21/18 16:20 09/27/18 15:01	kja dcm
filter) Lab Filtration (0.45um)		1 1 1	1040		*	mg/L	10	20		dcm



Project ID: Sample ID: 018-03-31 CG

ACZ Sample ID:	L47001-09
Date Sampled:	09/18/18 11:50
Date Received:	09/19/18
Sample Matrix:	Groundwater

Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	10/01/18 22:10	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00105			mg/L	0.00005	0.0003	10/01/18 22:10	bsu
Manganese, dissolved	M200.7 ICP	1	0.031			mg/L	0.005	0.03	09/28/18 18:55	dcm
Zinc, dissolved	M200.7 ICP	1	0.20			mg/L	0.01	0.05	09/28/18 18:55	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/21/18 16:23	kja
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							09/27/18 15:01	dcm
Residue, Filterable (TDS) @180C	SM2540C	1	336		*	mg/L	10	20	09/21/18 14:04	kja
Sulfate	D516-02/-07 - Turbidimetric	5	179		*	mg/L	5	25	09/24/18 14:17	mss2



Inorganic Reference

Report Header	r Explanations			
Batch	A distinct set of sa	amples analyzed at a specific time		
Found	Value of the QC	Type of interest		
Limit	Upper limit for RF	PD, in %.		
Lower	Lower Recovery	Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection	Limit. Same as Minimum Reporting Limit un	nless omitted or ea	qual to the PQL (see comment #5).
	Allows for instrum	ent and annual fluctuations.		
PCN/SCN	A number assign	ed to reagents/standards to trace to the man	ufacturer's certifica	ate of analysis
PQL	Practical Quantita	tion Limit. Synonymous with the EPA term "	'minimum level".	
QC	True Value of the	Control Sample or the amount added to the	Spike	
Rec	Recovered amou	nt of the true value or spike added, in % (exc	cept for LCSS, mg	/Kg)
RPD	Relative Percent	Difference, calculation used for Duplicate QC	C Types	
Upper	Upper Recovery	Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sam	ple of interest		
QC Sample Ty	vpes			
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibr	ation Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibr	ation Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank
ICB	Initial Calibration	Blank	MS	Matrix Spike
ICV	Initial Calibration	Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Cor	rection Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Contro	ol Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Contro	ol Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Contro	ol Sample - Water	SDL	Serial Dilution
QC Sample Ty	vpe Explanations			
Blanks		Verifies that there is no or minimal co	ontamination in the	prep method or calibration procedure.
Control Sa	mples	Verifies the accuracy of the method,	including the prep	procedure.
Duplicates		Verifies the precision of the instrume	ent and/or method.	
Spikes/For	tified Matrix	Determines sample matrix interferen	ces, if any.	
Standard		Verifies the validity of the calibration.		
ACZ Qualifiers	s (Qual)			
В	Analyte concentra	ation detected at a value between MDL and I	PQL. The associat	ed value is an estimated quantity.
Н	Analysis exceede	d method hold time. pH is a field test with an	n immediate hold t	ime.
L	Target analyte rea	sponse was below the laboratory defined neg	gative threshold.	
U	The material was	analyzed for, but was not detected above th	e level of the asso	ciated value.
	The associated v	alue is either the sample quantitation limit or	the sample detect	ion limit.
Method Refere	ences			
(1)	EPA 600/4-83-02	0. Methods for Chemical Analysis of Water	and Wastes, Marc	h 1983.

(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
 (5) Standard Methods for the Examination of Water and Wastewater.

Comments

(2) (3)

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.

EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.

EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.

- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

ACZ Project ID: L47001

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolv	ved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG457555													
WG457555ICV	ICV	10/01/18 21:38	MS180914-2	.05		.04879	mg/L	98	90	110			
WG457555ICB	ICB	10/01/18 21:40				U	mg/L		-0.00044	0.00044			
WG457555LFB	LFB	10/01/18 21:42	MS180830-2	.0501		.04876	mg/L	97	85	115			
L46978-13AS	AS	10/01/18 21:51	MS180830-2	.0501	.0011	.05031	mg/L	98	70	130			
L46978-13ASD	ASD	10/01/18 21:53	MS180830-2	.0501	.0011	.04974	mg/L	97	70	130	1	20	
L47004-03AS	AS	10/01/18 22:17	MS180830-2	.0501	.0002	.04488	mg/L	89	70	130			
L47004-03ASD	ASD	10/01/18 22:23	MS180830-2	.0501	.0002	.04596	mg/L	91	70	130	2	20	
Cadmium, disso	olved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG457555													
WG457555ICV	ICV	10/01/18 21:38	MS180914-2	.05		.048347	mg/L	97	90	110			
WG457555ICB	ICB	10/01/18 21:40				U	mg/L		-0.00011	0.00011			
WG457555LFB	LFB	10/01/18 21:42	MS180830-2	.05005		.047795	mg/L	95	85	115			
L46978-13AS	AS	10/01/18 21:51	MS180830-2	.05005	U	.045268	mg/L	90	70	130			
L46978-13ASD	ASD	10/01/18 21:53	MS180830-2	.05005	U	.043932	mg/L	88	70	130	3	20	
L47004-03AS	AS	10/01/18 22:17	MS180830-2	.05005	.00017	.043236	mg/L	86	70	130			
L47004-03ASD	ASD	10/01/18 22:23	MS180830-2	.05005	.00017	.044225	mg/L	88	70	130	2	20	
Manganese, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG457450													
WG457450ICV	ICV	09/28/18 17:58	II180824-2	2		1.9565	mg/L	98	95	105			
WG457450ICB	ICB	09/28/18 18:03				U	mg/L		-0.015	0.015			
WG457450LFB	LFB	09/28/18 18:16	II180926-3	.5005		.4906	mg/L	98	85	115			
L47001-04AS	AS	09/28/18 18:31	II180926-3	.5005	U	.4897	mg/L	98	85	115			
L47001-04ASD	ASD	09/28/18 18:33	II180926-3	.5005	U	.4884	mg/L	98	85	115	0	20	
Residue, Filtera	ble (TDS	5) @180C	SM25400	;									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG456844													
WG456844PBW	PBW	09/20/18 16:13				10	mg/L		-20	20			
WG456844LCSW	LCSW	09/20/18 16:15	PCN56349	260		276	mg/L	106	80	120			
L47015-02DUP	DUP	09/20/18 16:44			2540	2550	mg/L				0	10	
WG456908													
WG456908PBW	PBW	09/21/18 13:45				10	mg/L		-20	20			
WG456908PBW WG456908LCSW	PBW LCSW	09/21/18 13:45 09/21/18 13:46	PCN56349	260		10 262	mg/L mg/L	101	-20 80	20 120			

ACZ Project ID: L47001

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate			D516-02/-(07 - Turbi	idimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG457007													
WG457007ICB	ICB	09/24/18 12:31				U	mg/L		-3	3			
WG457007ICV	ICV	09/24/18 12:31	WI180919-3	20		19.7	mg/L	99	90	110			
WG457007LFB	LFB	09/24/18 12:56	WI180919-5	10.03		10	mg/L	100	90	110			
L47000-05DUP	DUP	09/24/18 13:34			U	U	mg/L				0	20	RA
L47001-01AS	AS	09/24/18 13:49	SO4TURB20X	100	2540	2500	mg/L	-40	90	110			M3
WG457008													
WG457008ICB	ICB	09/24/18 12:31				U	mg/L		-3	3			
WG457008ICV	ICV	09/24/18 12:31	WI180919-3	20		19.7	mg/L	99	90	110			
WG457008LFB	LFB	09/24/18 14:09	WI180919-5	10.03		10	mg/L	100	90	110			
L47001-06DUP	DUP	09/24/18 14:17			172	176	mg/L				2	20	
L47001-07AS	AS	09/24/18 14:38	SO4TURB20X	10	331	346	mg/L	150	90	110			M3
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG457450													
WG457450ICV	ICV	09/28/18 17:58	II180824-2	2		2.014	mg/L	101	95	105			
WG457450ICB	ICB	09/28/18 18:03				U	mg/L		-0.03	0.03			
WG457450LFB	LFB	09/28/18 18:16	II180926-3	.4942		.519	mg/L	105	85	115			
L47001-04AS	AS	09/28/18 18:31	II180926-3	.4942	.17	.675	mg/L	102	85	115			
L47001-04ASD	ASD	09/28/18 18:33	II180926-3	.4942	.17	.678	mg/L	103	85	115	0	20	

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Colorado Milling Company, LLC

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Inorganic Extended Qualifier Report

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L47001-01	WG457007	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L47001-02	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457007	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L47001-03	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457007	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L47001-04	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457007	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L47001-05	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457007	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L47001-06	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457008	Sulfate	D516-02/-07 - Turbidimetric	M3	
L47001-07	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457008	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L47001-08	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457008	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L47001-09	WG456908	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG457008	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L47001

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

ACZ Project ID: L47001 Date Received: 09/19/2018 11:42 Received By: Date Printed: 9/20/2018

Dat	e i finteu.	57	20/2010
Receipt Verification			
	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			Х
2) Is the Chain of Custody form or other directive shipping papers present?	Х		
3) Does this project require special handling procedures such as CLP protocol?		Х	
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analyses?	Х		
6) Is the Chain of Custody form complete and accurate?	Х		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples	? X		
A change was made in the Sample Identification Line 1 section prior to ACZ custody.			
Samples/Containers			
	YES	NO	NA

8) Are all containers intact and with no leaks? Х 9) Are all labels on containers and are they intact and legible? Х 10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time? Х 11) For preserved bottle types, was the pH checked and within limits? 1 Х 12) Is there sufficient sample volume to perform all requested work? Х 13) Is the custody seal intact on all containers? Х Х 14) Are samples that require zero headspace acceptable? 15) Are all sample containers appropriate for analytical requirements? Х 16) Is there an Hg-1631 trip blank present? Х 17) Is there a VOA trip blank present? Х 18) Were all samples received within hold time? Х NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
5052	2.5	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



Colorado Milling Company, LLC	ACZ Project ID:	L47001
	Date Received:	09/19/2018 11:42
	Received By:	
	Date Printed:	9/20/2018
¹ The preservation of the following bottle types is not		

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc		LIZ	2001	С	HAIN c	of CUST	ODY
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 33	4-5493						
Report to: Name: Mark Steen 1			$\sim D$			-17	
Name: //akk Jreen	-	1	<u>ss: p. (</u> V2m		<u>>X / 5</u>	123	
E-mail: Salet ton time of a wall, cim	-	Telep	0		\mathcal{O}_{-}	· · · · ·	
Copy of Report to:							
Name: GORDON SWEENEY	-	E-mai	1.C OPA	Acres 6		re lag	Mail
Company: CMC LLC	-	Telep		$\frac{2}{3}-4$	41-0	<u>76</u> 777	<u> </u>
Invoice to:					10		
Name: Mark Steen		Addre	ss' PI	n Ro	次 / 5	523	
Company: CMC //C	1		<u>~~/~/</u> //\^K	ma	H CC)	
E-mail: Gold tow time & mail.co	m	Telep	hone:		γ	·	
If sample(s) received past holding time (HT), or if insufficie	ent HT re	emains t	to complete	9		YES	
analysis before expiration, shall ACZ proceed with request If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indica				analyses, even i	f HT is expired, and	NO	
Are samples for SDWA Compliance Monitoring?		Yes		No			
If yes, please include state forms. Results will be reported		for Colo	orado.	·	6000		
Sampler's Name: <u>KMI/C.P</u> Sampler's Site Inform	to the authen	ticity and va	LOLO alidity of this sam	ple. I understar	d that intentionally	Time Zone	
*Sampler's Signature:tamperin PROJECT INFORMATION	ng with the sa	ample in any			D <i>(attach list o</i>	aw. use quote numbe	2 <i>r</i>)
Quote #		4					
PO#:		- in -					
Reporting state for compliance testing:		onta					
Check box if samples include NRC licensed material?		of Containers					
SAMPLE IDENTIFICATION DATE:TIME	Matrix				NY		
9 /10/18 018-03-137A 9/18/18 / 1.2:56	3						
C18-03-13 MW1 9/18/19 10:01							
018-03-13 NI 9/18/18 10:20	33				X		
03-03-13 WZ 9/18/18 10:35 08-03-13 W3 9/18/18 10:35	13						
<u> </u>	+~						-
	3			-	X		1
	3 7				X		
018-03-31 W4 9/18/18 10:50	N M M				X X X		
018-03-31 W4 9/18/18 10:50 018-03-31 MW5 9/18/18 11:15 018-03-31 CM 9/18/18 11:30 78-03-31 CG 9/18/18 11:50	Mer W				X		
0/8-03-3/ 0/4 9/18/18 10:50 0/8-03-3/ MU5 9/18/18 11:15 0/8-03-3/ C MM 9/18/18 11:30 78-03-3/ C 9/18/18 11:50 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waster)	Mer W)W (Drink	ing Water)	SL (Sludge)	X	. (Oil) · Other (Sp	pecify)
018-03-31 004 9/18/18 10:50 018-03-31 1105 9/18/18 11:15 018-03-31 0115 9/18/18 11:15 018-03-31 0115 9/18/18 11:30 018-03-31 0115 9/18/18 11:30 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18 11:50	Water) D				SO (Soil) OI		
018-03-31 004 9/18/18 10:50 018-03-31 1105 9/18/18 11:15 018-03-31 0115 9/18/18 11:15 018-03-31 0115 9/18/18 11:30 018-03-31 0115 9/18/18 11:30 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18/18 11:50 018-03-31 016 9/18 11:50	Water) D				SO (Soil) OI		
018-03-31 W4 9/18/18 10:50 018-03-31 MW5 9/18/18 11:15 018-03-31 C.MM 9/18/18 11:30 Watrix SW (Surface Water) · GW (Ground Water) · WW (Waster) Matrix SW (Surface Water) · GW (Ground Water) · WW (Waster) EMARKS	Water) D	ne	1 at		SO (Soil) OI		
018-03-31 W4 9/18/18 10:50 018-03-31 MW5 9/18/18 11:15 018-03-31 C.M. 9/18/18 11:30 Watrix SW (Surface Water) WW (Waster) Matrix SW (Surface Water) GW (Ground Water) WW (Waster) EMARKS CELC GORdon Swo Metal to be analized	Water) D CC	ve> for	, at	303	SO (Soil) OI	2-106.	
018-03-31 W4 9/18/18 10:50 018-03-31 MW5 9/18/18 11:15 018-03-31 C.M. 9/18/18 11:30 18-03-31 C.M. 9/18/18 11:30 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waster) Matrix SW (Surface Water) · GW (Ground Water) · WW (Waster) EMARKS CELC GORELON SWO Metal to be analize All samples are Rai	Water) D CC / CL	ne> for 50	, at	303 as	50 (Soil) 01 3 - 440	2-106. led	
018-03-31 W4 9/18/18 10:50 018-03-31 MW5 9/18/18 11:15 018-03-31 C.M. 9/18/18 11:30 Watrix SW (Surface Water) WW (Waster) Matrix SW (Surface Water) GW (Ground Water) WW (Waster) EMARKS CELC GORdon Swo Metal to be analized	Water) D CC	ne> for 50	, at , , , , , , , , , , , , , , , , , , ,	303 as	SO (Soil) OI S - 440 Of this CO	2-106. led	
018-03-31 W4 9/18/18 10:50 018-03-31 MW5 9/18/18 11:15 018-03-31 CM 9/18/18 11:15 018-03-31 CG 9/18/18 11:30 78-03-31 CG 9/18/18 11:30 Matrix SW (Surface Water) · GW (Ground Water) · WW (Waster) Matrix SW (Surface Water) · GW (Ground Water) · GW	Water) D CC	ne> for 50	, at , , , , , , , , , , , , , , , , , , ,	30.3 as i	SO (Soil) OI S - 440 Of this CO	2-106. led	Z for

LEAPMON 104890021546

White - Return with sample.

n sample. Yellow - Retain for your records.

22C 9-19palge 19 of 129



December 26, 2018

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L48761

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 11, 2018. This project has been assigned to ACZ is project number, L48761. Please reference this number in all future inquiries.

All analyses were performed according to ACZ^S Quality Assurance Plan. The enclosed results relate only to the samples received under L48761. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ^S current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 25, 2019. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ is stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

sue gible

Sue Webber has reviewed and approved this report.





ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-12-10-MW1

ACZ Sample ID:	L48761-01
Date Sampled:	12/10/18 09:10
Date Received:	12/11/18
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								12/18/18 13:50) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В		mg/L	0.0002	0.001	12/20/18 12:33	3 mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.00007	В		mg/L	0.00005	0.0003	12/20/18 12:33	3 mfm
Manganese, dissolved	M200.7 ICP	1	0.010	В		mg/L	0.005	0.03	12/20/18 15:12	2 aeh
Zinc, dissolved	M200.7 ICP	1	0.04	В		mg/L	0.01	0.05	12/20/18 15:12	2 aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/12/18 18:29) nmc
Residue, Filterable (TDS) @180C	SM2540C	1	1440			mg/L	10	20	12/11/18 18:06	6 nmc
Sulfate	D516-02/-07 - Turbidimetric	40	814		*	mg/L	40	200	12/14/18 15:08	3 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-12-10-W1

ACZ Sample ID:	L48761-02
Date Sampled:	12/10/18 09:20
Date Received:	12/11/18
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								12/18/18 13:50) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	12/20/18 12:3	5 mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.00014	В		mg/L	0.00005	0.0003	12/20/18 12:3	5 mfm
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	12/20/18 15:15	5 aeh
Zinc, dissolved	M200.7 ICP	1	0.01	В		mg/L	0.01	0.05	12/20/18 15:15	5 aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/12/18 18:36	6 nmc
Residue, Filterable (TDS) @180C	SM2540C	1	254			mg/L	10	20	12/13/18 13:17	7 mh
Sulfate	D516-02/-07 - Turbidimetric	5	115		*	mg/L	5	25	12/14/18 14:08	3 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-12-10-W2

ACZ Sample ID:	L48761-03
Date Sampled:	12/10/18 09:35
Date Received:	12/11/18
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								12/18/18 13:50) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	12/20/18 15:32	2 aeh
Zinc, dissolved	M200.7 ICP	1	0.18			mg/L	0.01	0.05	12/20/18 15:32	2 aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/12/18 18:44	nmc
Residue, Filterable (TDS) @180C	SM2540C	1	434			mg/L	10	20	12/13/18 13:20) mh
Sulfate	D516-02/-07 - Turbidimetric	10	211		*	mg/L	10	50	12/14/18 14:11	wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-12-10-W3

ACZ Sample ID:	L48761-04
Date Sampled:	12/10/18 09:50
Date Received:	12/11/18
Sample Matrix:	Groundwater

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A							12/18/18 13:50) rap
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	12/20/18 15:35	5 aeh
Zinc, dissolved	M200.7 ICP	1	0.01	В	mg/L	0.01	0.05	12/20/18 15:35	5 aeh
Wet Chemistry									
Parameter	EPA Method	Dilution	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1						12/12/18 18:57	1 nmc
Residue, Filterable (TDS) @180C	SM2540C	1	394		mg/L	10	20	12/13/18 13:23	3 mh
Sulfate	D516-02/-07 - Turbidimetric	5	155	*	* mg/L	5	25	12/14/18 14:08	3 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-12-10-W4

ACZ Sample ID:	L48761-05
Date Sampled:	12/10/18 10:00
Date Received:	12/11/18
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								12/18/18 13:50) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.122			mg/L	0.005	0.03	12/20/18 15:38	3 aeh
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	12/20/18 15:38	3 aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/12/18 18:58	3 nmc
Residue, Filterable (TDS) @180C	SM2540C	1	430			mg/L	10	20	12/13/18 13:26	6 mh
Sulfate	D516-02/-07 - Turbidimetric	5	164		*	mg/L	5	25	12/14/18 14:09	9 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-12-10-MW5

ACZ Sample ID:	L48761-06
Date Sampled:	12/10/18 10:45
Date Received:	12/11/18
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								12/18/18 13:50) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0017			mg/L	0.0002	0.001	12/20/18 12:37	7 mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.0003			mg/L	0.00005	0.0003	12/20/18 12:37	7 mfm
Manganese, dissolved	M200.7 ICP	1	0.015	В		mg/L	0.005	0.03	12/20/18 15:42	2 aeh
Zinc, dissolved	M200.7 ICP	1	0.01	В		mg/L	0.01	0.05	12/20/18 15:42	2 aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/12/18 19:05	5 nmc
Residue, Filterable (TDS) @180C	SM2540C	1	662			mg/L	10	20	12/13/18 13:29	9 mh
Sulfate	D516-02/-07 - Turbidimetric	10	337		*	mg/L	10	50	12/14/18 14:1	1 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 018-12-10-CG

ACZ Sample ID:	L48761-07
Date Sampled:	12/10/18 11:15
Date Received:	12/11/18
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								12/18/18 13:50) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	12/20/18 12:42	2 mfm
Cadmium, dissolved	M200.8 ICP-MS	1	0.001			mg/L	0.00005	0.0003	12/20/18 12:42	2 mfm
Manganese, dissolved	M200.7 ICP	1	0.010	В		mg/L	0.005	0.03	12/20/18 15:45	5 aeh
Zinc, dissolved	M200.7 ICP	1	0.32			mg/L	0.01	0.05	12/20/18 15:45	5 aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							12/12/18 19:13	3 nmc
Residue, Filterable (TDS) @180C	SM2540C	1	350			mg/L	10	20	12/13/18 13:3 ⁻	l mh
Sulfate	D516-02/-07 - Turbidimetric	10	206		*	mg/L	10	50	12/14/18 14:27	7 wtc



Inorganic Reference

Rep	oort Header I	Explanations							
	Batch	A distinct set of samples analyzed at a specific time							
	Found	Value of the QC Type of interest							
	Limit	Upper limit for RPD, in %.							
	Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)							
	MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5).							
		Allows for instrument and annual fluctuations.							
	PCN/SCN	A number assigned to reagents/standards to trace to the manufactu	irers certificate	e of analysis					
	PQL	Practical Quantitation Limit. Synonymous with the EPA term "minim	um level".						
	QC	True Value of the Control Sample or the amount added to the Spike							
	Rec	Recovered amount of the true value or spike added, in % (except for	r LCSS, mg/K	g)					
	RPD	Relative Percent Difference, calculation used for Duplicate QC Type	S						
	Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)							
	Sample	Value of the Sample of interest							
00	Sample Typ								
	AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate					
			LESWD	, , ,					
	ASD	Analytical Spike (Post Digestion) Duplicate		Laboratory Fortified Blank					
	CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix					
	CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate					
	DUP	Sample Duplicate	LRB	Laboratory Reagent Blank					
	ICB	Initial Calibration Blank	MS	Matrix Spike					
	ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate					
	ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil					

QC Sample Type Explanations

Laboratory Control Sample - Soil

Laboratory Control Sample - Water

Laboratory Control Sample - Soil Duplicate

LCSS

LCSSD

LCSW

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

PBW

PQV

SDL

Prep Blank - Water

Serial Dilution

Practical Quantitation Verification standard

ACZ Qualifie	rs (Quai)
В	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
Н	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value.
	The associated value is either the sample quantitation limit or the sample detection limit.

lethod Ref	erences							
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.							
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.							
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.							
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.							
(5)	Standard Methods for the Examination of Water and Wastewater.							
comments								
(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.							
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.							
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.							
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier							
	associated with the result.							
(5)	If the MDL equals the PQL or the MDL column is omitted, the	he PQL is the reporting limit.						
For a co	omplete list of ACZs Extended Qualifiers, please click:	http://www.acz.com/public/extquallist.pdf						

REP001.03.15.02

ACZ Project ID: L48761

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

	50.												
Arsenic, dissolve	əd		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG463158													
WG463158ICV	ICV	12/20/18 12:17	MS181210-2	.05		.05053	mg/L	101	90	110			
WG463158ICB	ICB	12/20/18 12:19		100		U	mg/L		-0.00044	0.00044			
WG463158LFB	LFB	12/20/18 12:21	MS181208-2	.05005		.04832	mg/L	97	85	115			
L48757-03AS	AS	12/20/18 12:30	MS181208-2	.05005	.0005	.04666	mg/L	92	70	130			
L48757-03ASD	ASD	12/20/18 12:32	MS181208-2	.05005	.0005	.04827	mg/L	95	70	130	3	20	
Cadmium, dissol	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qua
NG463158													
NG463158ICV	ICV	12/20/18 12:17	MS181210-2	.05		.051464	mg/L	103	90	110			
WG463158ICB	ICB	12/20/18 12:19				U	mg/L		-0.00011	0.00011			
WG463158LFB	LFB	12/20/18 12:21	MS181208-2	.05005		.047859	mg/L	96	85	115			
L48757-03AS	AS	12/20/18 12:21	MS181208-2	.05005	.00006	.048586	mg/L	97	70	130			
L48757-03ASD	ASD	12/20/18 12:32	MS181208-2	.05005	.00006	.048649	mg/L	97	70	130	0	20	
Manganese, diss	olved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qua
WG463174													
WG463174ICV	ICV	12/20/18 14:30	II181217-1	2		1.9445	mg/L	97	95	105			
WG463174ICB	ICB	12/20/18 14:36		2		U	mg/L	51	-0.015	0.015			
WG463174LFB	LFB	12/20/18 14:49	II181219-2	.4995		.4842	mg/L	97	85	115			
L48761-02AS	AS	12/20/18 15:19	II181219-2	.4995	U	.4804	mg/L	96	85	115			
L48761-02ASD	ASD	12/20/18 15:29	II181219-2	.4995	U	.482	mg/L	96	85	115	0	20	
L48773-04AS	AS	12/20/18 16:08	II181219-2	.4995	U	.4824	mg/L	97	85	115	Ū	20	
L48773-04ASD	ASD	12/20/18 16:11	II181219-2	.4995	U	.484	mg/L	97	85	115	0	20	
Residue, Filterab	ole (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG462378	210												
WG462378PBW	PBW	12/11/18 17:09				10	mg/L		-20	20			
WG462378LCSW	LCSW	12/11/18 17:11	PCN56953	260		260	mg/L	100	80	120			
L48761-01DUP	DUP	12/11/18 18:09		200	1440	1450	mg/L	100	00	120	1	10	
WG462560	20.	12,11,10 10100				1100	0						
NG462560PBW	PBW	12/13/18 13:09				U	mg/L		-20	20			
WG462560LCSW	LCSW	12/13/18 13:11	PCN57516	260		256	mg/L	98	80	120			
L48775-03DUP	DUP	12/13/18 13:43			154	152	mg/L		20		1	10	
L40775-03D0F			DE40.00/	07 - Turbi	dimetric								
			D516-02/-										
Sulfate	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qua
Sulfate ACZ ID WG462670	Туре	Analyzed		-	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qua
Sulfate ACZ ID	Туре	Analyzed 12/14/18 8:36		-	Sample	Found	Units mg/L	Rec%	Lower		RPD	Limit	Qua
Sulfate ACZ ID WG462670 WG462670ICB				-	Sample			Rec% 97		Upper 3 110	RPD	Limit	Qua
Sulfate ACZ ID WG462670 WG462670ICB WG462670ICV	ICB ICV	12/14/18 8:36	PCN/SCN	QC 20	Sample	U	mg/L	97	-3 90	3 110	RPD	Limit	Qua
Sulfate ACZ ID WG462670	ICB	12/14/18 8:36 12/14/18 8:36	PCN/SCN WI181203-1	QC	Sample	U 19.4	mg/L mg/L		-3	3	RPD 15	Limit 20	Qua

ACZ Project ID: L48761

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved			M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG463174													
WG463174ICV	ICV	12/20/18 14:30	II181217-1	2		1.973	mg/L	99	95	105			
WG463174ICB	ICB	12/20/18 14:36				U	mg/L		-0.03	0.03			
WG463174LFB	LFB	12/20/18 14:49	II181219-2	.4942		.514	mg/L	104	85	115			
L48761-02AS	AS	12/20/18 15:19	II181219-2	.4942	.01	.534	mg/L	106	85	115			
L48761-02ASD	ASD	12/20/18 15:29	II181219-2	.4942	.01	.528	mg/L	105	85	115	1	20	
L48773-04AS	AS	12/20/18 16:08	II181219-2	.4942	.01	.531	mg/L	105	85	115			
L48773-04ASD	ASD	12/20/18 16:11	II181219-2	.4942	.01	.533	mg/L	106	85	115	0	20	



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC

Inorganic Extended Qualifier Report

ACZ Project ID: L48761

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L48761-01	NG462670	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L48761-02	NG462670	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L48761-03	NG462670	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L48761-04	NG462670	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L48761-05	NG462670	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L48761-06	NG462670	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L48761-07	NG462670	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L48761

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493			imple ceipt	
Colorado mining Company, 220	ACZ Proje			L48761
	Date Rece		2/11/201	8 11:34
	Receive Date Pr	•	10/	11/2018
Receipt Verification	Date FI	inited.	12/	11/2010
		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				Х
2) Is the Chain of Custody form or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?			Х	
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time analy	yses?	Х		
6) Is the Chain of Custody form complete and accurate?		Х		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the sa	mples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and T	Гime?	Х		
11) For preserved bottle types, was the pH checked and within limits? 1				Х
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?		Х		
		NA indica	tes Not Ap	plicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
4467	0.1	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s) but was thawed by receipt at ACZ.

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



ACZ Project ID: L48761 Date Received: 12/11/2018 11:34 Received By: Date Printed: 12/11/2018

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ALIZ La 2773 Downhill Drive Steamboard	boratories, Inc. Springs, CO 80487 (800) 334-54	UN 18	SI SI	CHAIN of	00010	
Report to:						
Name: March A.	steen	Address:	P.O.B.	NU 1523		
Company: Colorado mil	ling company	X	enamon	t Calo		
	re amail, com	Telephon				
Copy of Report to:						
<i>a</i> ,	PRANIN	E-mail: 0	value Su	Demail	Gameil	
Name: Content Str Company: CMC	LC	Telephon	preten 54	10-06-33	<u>eginau</u>	<u>. (O</u>
Invoice to:		reiepiien				
		A data a s	$\Omega = \Omega$	1200		
Name: Mark St			P.O. Box	1523		
Company: CMC	LLC A Carola II Com		mornent	Loco		
E-mail: Gold for fin	ding time (HT), or if insufficient I	Telephon			YES	
analysis before expiration, sha	all ACZ proceed with requested s istruction. If neither "YES" nor "NO" is indicated, A	short HT analys	ies?	if LIT is evaluated and d		
Are samples for SDWA Compl		Yes	No		na wiii be quained	
If yes, please include state for	ms. Results will be reported to F	QL for Colorad	lo.			
Sampler's Name: <u>L. Certi</u>	Sampler's Site Informatio	n State_Co		ode <u>80302</u>		
*Sampler's Signature:			of this sample. I underst is considered fraud and p			te/locatio
PROJECT INFORMATION		·····	ANALYSES REQUEST	ED (attach list or u	se quote number)	
Quote #:		S		0		
PO#:		Containers		1 t		
Reporting state for compliance to	esting:	- 5		DY		
Check box if samples include NF		- T		E J		
SAMPLE IDENTIFICATIO	N DATE:TIME M	atrix 🏶			╉──╂──	_
-018-12-10-TP-				<u> </u>	┥──┤───	—
018-12-10-MWI	12/10/18 9:10AM					+
018-12-10-11	12/10/18 9:20AM			× ×	+	+-
018-12-10-WI 018-12-10-WZ	12/10/18 9:35 AM					+
	saluto alcoppi					+
018-12-10-W3	12/10/18 9:50AM			<u> </u>	<u> </u>	+
018-12-10-24	12/10/18 10:00 MM				┥──┤──	+
018-12-10-MW5	12/10/18 10:45 PM			<u> </u>		+
018-12-10-CG	12/10/18 11:15 AM				+	+
	GW (Ground Water) WW (Waste Wate	r) · DW (Drinking)	Mater) SL (Sludge)	- <u>- </u>	Oil) · Other (Sper	
REMARKS	SVV (Ground Water) · VVVV (Waste Wate	r) · Dvv (Drinking v	/vater) · SL (Sludge)	· SO (Soil) · OL (Jil) · Other (Spec	uty)
	CIL Godina City	DO AN ALL Q	202 11(12	-1062 1	Totho	
1	all south sur	muje,	003-770		JUNC	
3 metals to	Call Gordon Swo be analized For all Samples	_			. 1	
3	all Samples	are Ra	wfelter	as me	ided	
RELINQUISHED	refer to ACZ's terms & conditionary Sector Con		RECEIVED B		DATE:1	TIME
			_	A (
_ Leurs Rerhu	s 12/10/18		Troning UDED		12/10/	da
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f }		60	Roz			



Analytical Report

April 05, 2019

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L50766

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 26, 2019. This project has been assigned to ACZ's project number, L50766. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L50766. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after May 05, 2019. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

re Welle

Sue Webber has reviewed and approved this report.





Project ID: Sample ID: 0190325 MW1

ACZ Sample ID:	L50766-01
Date Sampled:	03/25/19 10:30
Date Received:	03/26/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								03/28/19 14:00) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0007	В		mg/L	0.0002	0.001	04/02/19 19:09) bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00009	В		mg/L	0.00005	0.0003	04/02/19 19:09) bsu
Manganese, dissolved	M200.7 ICP	1	0.019	В		mg/L	0.005	0.03	04/02/19 12:38	3 dcm
Zinc, dissolved	M200.7 ICP	1	0.05			mg/L	0.01	0.05	04/02/19 12:38	3 dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							04/02/19 12:18	8 emk
Residue, Filterable (TDS) @180C	SM2540C	1	1450			mg/L	10	20	03/28/19 13:27	′ mh
Sulfate	D516-02/-07 - Turbidimetric	40	866		*	mg/L	40	200	04/03/19 13:54	wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190325 W1

ACZ Sample ID:	L50766-02
Date Sampled:	03/25/19 10:41
Date Received:	03/26/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								03/28/19 14:00) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В		mg/L	0.0002	0.001	04/02/19 19:10) bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00013	В		mg/L	0.00005	0.0003	04/02/19 19:10) bsu
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	04/02/19 12:41	l dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	04/02/19 12:41	l dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							04/02/19 12:22	2 emk
Residue, Filterable (TDS) @180C	SM2540C	1	232			mg/L	10	20	03/28/19 13:29) mh
Sulfate	D516-02/-07 - Turbidimetric	5	76.6		*	mg/L	5	25	04/03/19 13:14	wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID: Sample ID: 0190325 W2

ACZ Sample ID: L50766-03 Date Sampled: 03/25/19 10:55 Date Received: 03/26/19 Sample Matrix: Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								03/28/19 14:00	rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	04/02/19 12:44	dcm
Zinc, dissolved	M200.7 ICP	1	0.02	В		mg/L	0.01	0.05	04/02/19 12:44	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							04/02/19 12:26	emk
Residue, Filterable (TDS) @180C	SM2540C	1	432			mg/L	10	20	03/28/19 13:32	mh
Sulfate	D516-02/-07 - Turbidimetric	5	151		*	mg/L	5	25	04/03/19 13:52	wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID: Sample ID: 0190325 W3

ACZ Sample ID: L50766-04 Date Sampled: 03/25/19 11:10 Date Received: 03/26/19 Sample Matrix: Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								03/28/19 14:00	rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	04/02/19 12:53	dcm
Zinc, dissolved	M200.7 ICP	1	0.13			mg/L	0.01	0.05	04/02/19 12:53	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							04/02/19 12:30	emk
Residue, Filterable (TDS) @180C	SM2540C	1	436			mg/L	10	20	03/28/19 13:34	mh
Sulfate	D516-02/-07 - Turbidimetric	10	197		*	mg/L	10	50	04/03/19 13:54	wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190325 W4

ACZ Sample ID:	L50766-05						
Date Sampled:	03/25/19 11:25						
Date Received:	03/26/19						
Sample Matrix:	Groundwater						

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								03/28/19 14:00	rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.023	В		mg/L	0.005	0.03	04/02/19 12:56	dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	04/02/19 12:56	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							04/02/19 12:34	emk
Residue, Filterable (TDS) @180C	SM2540C	1	424			mg/L	10	20	03/28/19 13:37	mh
Sulfate	D516-02/-07 - Turbidimetric	5	140		*	mg/L	5	25	04/03/19 13:38	wtc



Project ID: Sample ID: 0190325 MW5

ACZ Sample ID:	L50766-06						
Date Sampled:	03/25/19 11:45						
Date Received:	03/26/19						
Sample Matrix:	Groundwater						

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								03/28/19 14:00) rap
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0017			mg/L	0.0002	0.001	04/02/19 19:12	2 bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00021	В		mg/L	0.00005	0.0003	04/02/19 19:12	2 bsu
Manganese, dissolved	M200.7 ICP	1	0.006	В		mg/L	0.005	0.03	04/02/19 12:59	9 dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	04/02/19 12:59	9 dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							04/02/19 12:38	3 emk
Residue, Filterable (TDS) @180C	SM2540C	1	688		*	mg/L	10	20	03/28/19 16:57	1 nmc
Sulfate	D516-02/-07 - Turbidimetric	20	327		*	mg/L	20	100	04/03/19 15:43	3 wtc



Inorganic Reference

Report Header	r Explanations										
Batch	Batch A distinct set of samples analyzed at a specific time										
Found	Value of the QC Type of interest										
Limit	Upper limit for RPD,	Upper limit for RPD, in %.									
Lower	Lower Recovery Lin	Lower Recovery Limit, in % (except for LCSS, mg/Kg)									
MDL	Method Detection L	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5).									
	Allows for instrumer	Allows for instrument and annual fluctuations.									
PCN/SCN	A number assigned	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis									
PQL	Practical Quantitatio	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".									
QC	True Value of the C	ontrol Sample or the amount added to the	Spike								
Rec	Recovered amount	of the true value or spike added, in % (exe	cept for LCSS, mg	/Kg)							
RPD	Relative Percent Dif	fference, calculation used for Duplicate QC	C Types								
Upper	Upper Recovery Lin	nit, in % (except for LCSS, mg/Kg)									
Sample	Value of the Sample	e of interest									
QC Sample Ty AS		et Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate							
	Analytical Spike (Po	• ,	LEB								
ASD		est Digestion) Duplicate		Laboratory Fortified Blank							
CCB	Continuing Calibrati		LFM	Laboratory Fortified Matrix							
CCV		on Verification standard	LFMD	Laboratory Fortified Matrix Duplicate							
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank							
ICB	Initial Calibration Bla		MS	Matrix Spike							
ICV	Initial Calibration Ve		MSD	Matrix Spike Duplicate							
ICSAB		ction Standard - A plus B solutions	PBS	Prep Blank - Soil							
LCSS	Laboratory Control		PBW	Prep Blank - Water							
LCSSD		Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard							
LCSW	Laboratory Control	Sample - Water	SDL	Serial Dilution							
QC Sample Ty	pe Explanations										
Blanks		Verifies that there is no or minimal c	ontamination in the	e prep method or calibration procedure.							
Control Sa	mples	Verifies the accuracy of the method,	including the prep	procedure.							
Duplicates		Verifies the precision of the instrume	ent and/or method.								
Spikes/For	tified Matrix	Determines sample matrix interferen	nces, if any.								
Standard		Verifies the validity of the calibration									
ACZ Qualifiers	s (Qual)										
В	Analyte concentration	on detected at a value between MDL and	PQL. The associat	ted value is an estimated quantity.							
н	Analysis exceeded	method hold time. pH is a field test with a	n immediate hold t	lime.							
L	Target analyte resp	onse was below the laboratory defined ne	gative threshold.								
U	The material was ar	nalyzed for, but was not detected above th	e level of the asso	ociated value.							
	The associated valu	ie is either the sample quantitation limit or	the sample detect	tion limit.							
Method Refere	ences										
(1)		Methods for Chemical Analysis of Water	and Wastes Marc								

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.							
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.							
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.							
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.							
(5)	Standard Methods for the Examination of Water and Wastewater.							
Comments								
(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.							
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.							
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.							
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier							
	associated with the result.							
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.							
Eor a co	malata list of ACZ's Extended Qualifiers places slick: http://www.acz.com/public/extguallist.pdf							

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

REP001.03.15.02

ACZ Project ID: L50766

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolv	ved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG469338													
WG469338ICV	ICV	04/02/19 18:56	MS190225-2	.05		.05281	mg/L	106	90	110			
WG469338ICB	ICB	04/02/19 18:58				U	mg/L		-0.00044	0.00044			
WG469338LFB	LFB	04/02/19 18:59	MS190208-2	.05005		.0507	mg/L	101	85	115			
L50603-02AS	AS	04/02/19 19:05	MS190208-2	.05005	.0049	.05712	mg/L	104	70	130			
L50603-02ASD	ASD	04/02/19 19:07	MS190208-2	.05005	.0049	.05546	mg/L	101	70	130	3	20	
Cadmium, disso	olved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG469338													
WG469338ICV	ICV	04/02/19 18:56	MS190225-2	.05		.051144	mg/L	102	90	110			
WG469338ICB	ICB	04/02/19 18:58				U	mg/L		-0.00011	0.00011			
WG469338LFB	LFB	04/02/19 18:59	MS190208-2	.05005		.048952	mg/L	98	85	115			
L50603-02AS	AS	04/02/19 19:05	MS190208-2	.05005	U	.049064	mg/L	98	70	130			
L50603-02ASD	ASD	04/02/19 19:07	MS190208-2	.05005	U	.047825	mg/L	96	70	130	3	20	
Manganese, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG469162													
WG469162ICV	ICV	04/02/19 12:17	II190211-1	2		1.966	mg/L	98	95	105			
WG469162ICB	ICB	04/02/19 12:23				U	mg/L		-0.015	0.015			
WG469162LFB	LFB	04/02/19 12:35	II190312-3	.4995		.5058	mg/L	101	85	115			
L50766-03AS	AS	04/02/19 12:47	II190312-3	.4995	U	.5071	mg/L	102	85	115			
L50766-03ASD	ASD	04/02/19 12:50	II190312-3	.4995	U	.5126	mg/L	103	85	115	1	20	
Residue, Filtera	ble (TDS) @180C	SM25400	>									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG469038													
WG469038PBW	PBW	03/28/19 12:41				U	mg/L		-20	20			
WG469038LCSW	LCSW	03/28/19 12:43	PCN58058	260		274	mg/L	105	80	120			
L50766-05DUP	DUP	03/28/19 13:40			424	430	mg/L				1	10	
WG469083													
						~~				00			57
WG469083PBW	PBW	03/28/19 16:46				28	mg/L		-20	20			B7
	PBW LCSW	03/28/19 16:46 03/28/19 16:48	PCN58058	260		28 282	mg/L mg/L	108	-20 80	20 120			В/

ACZ Project ID: L50766

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate			D516-02/-(07 - Turbi	idimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG469454													
WG469454ICB	ICB	04/03/19 10:56				U	mg/L		-3	3			
WG469454ICV	ICV	04/03/19 10:56	WI190322-1	20		19.8	mg/L	99	90	110			
WG469454LFB	LFB	04/03/19 13:04	WI181024-4	10.03		10.4	mg/L	104	90	110			
L50766-05DUP	DUP	04/03/19 13:38			140	140	mg/L				0	20	
L50766-04AS	AS	04/03/19 13:54	SO4TURB10X	10	197	183	mg/L	-140	90	110			M3
WG469470													
WG469470LFB	LFB	04/03/19 15:41	WI181024-4	10.03		10.3	mg/L	103	90	110			
L50766-06DUP	DUP	04/03/19 15:43			327	327	mg/L				0	20	
L50781-01AS	AS	04/03/19 15:44	SO4TURB60X	9.99	881	932	mg/L	511	90	110			M3
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG469162													
WG469162ICV	ICV	04/02/19 12:17	II190211-1	2		1.917	mg/L	96	95	105			
WG469162ICB	ICB	04/02/19 12:23				U	mg/L		-0.03	0.03			
WG469162LFB	LFB	04/02/19 12:35	II190312-3	.4942		.498	mg/L	101	85	115			
L50766-03AS	AS	04/02/19 12:47	II190312-3	.4942	.02	.516	mg/L	100	85	115			
L50766-03ASD	ASD	04/02/19 12:50	II190312-3	.4942	.02	.513	mg/L	100	85	115	1	20	

2773 Downhill Drive Steamboat Springs, CO 80487 4

(800) 334-5493

Colorado Milling Company, LLC

ACZ Project ID: L50766

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L50766-01	WG469454	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L50766-02	WG469454	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L50766-03	WG469454	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L50766-04	WG469454	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L50766-05	WG469454	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L50766-06	WG469083	Residue, Filterable (TDS) @180C	SM2540C	B7	Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank.
	WG469470	Sulfate	D516-02/-07 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L50766

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Colorado Milling Company, LLC

ACZ Project ID: L50766 Date Received: 03/26/2019 11:40 Received By: Date Printed: 3/26/2019

VES

Х

NA indicates Not Applicable

NO

NA

Х

Х

Х

Х

Х

Receipt Verification 1) Is a foreign soil permit included for applicable samples? 2) Is the Chain of Custody form or other directive shipping papers present? 3) Does this project require special handling procedures such as CLP protocol? 4) Are any samples NRC licensable material? 5) If samples are received past hold time, proceed with requested short hold time analyses? 6) Is the Chain of Custody form complete and accurate? 7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples? Х A change was made in the sample id section prior to ACZ custody.

Samples/Containers

	TES	
8) Are all containers intact and with no leaks?	Х	
9) Are all labels on containers and are they intact and legible?	Х	
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	Х	
11) For preserved bottle types, was the pH checked and within limits? 1		
12) Is there sufficient sample volume to perform all requested work?	Х	
13) Is the custody seal intact on all containers?		
14) Are samples that require zero headspace acceptable?		
15) Are all sample containers appropriate for analytical requirements?	Х	
16) Is there an Hg-1631 trip blank present?		
17) Is there a VOA trip blank present?		
	[]	_

18) Were all samples received within hold time?

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
5153	0.1	<=6.0	14	Yes

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

ou.	0/20/2010								
YES	NO	NA							
		Х							
Х									
	Х								
		Х							
Х									
Х									



ACZ Project ID: L50766 Date Received: 03/26/2019 11:40 Received By: Date Printed: 3/26/2019

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334						f CUST	
Report to:							
Name: Marh, A. Steen		Addre	<u>ss: P.O.</u>	Ber	1522		
Company: Gleracio mill company		(tenzmi	nt	Colo		
E-mail: gold for time @g mail Com		Telepł	ione:				
Copy of Report to:							
Name: Gooden sweeney		E-mail		+ 90	vden s	weeny &	gma
Company: CMC LLC V		Telepł	none: 30	3-'4	40-06	33	•
Invoice to:							
Name: mouth steen			<u>ss: P.O.E</u>				
Company: Colorado milling COLLC		2	<u>tenzme</u>	nt,	Colo_		
E-mail: gold for time @ g mail. Com		Telep		·			
If sample(s) received past holding time (HT), or if insufficien analysis before expiration, shall ACZ proceed with requeste			-			YES NO	
If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicate		proceed wit			f HT is expired, and	data will be qualifie	d
Are samples for SDWA Compliance Monitoring? If yes, please include state forms. Results will be reported to	o POL f	Yes or Colo	rado.	No			
Sampler's Name: R. Rechurg Sampler's Site Informa		State_	1 0	_ Zip co	ode_8030	2_ Time Zon	e Mi
D / O 1 *lattest to	the authent	icity and va nple in any	lidity of this sample. way, is considered fi	l understar	d that intentionally	mislabeling the time	
PROJECT INFORMATION			ANALYSES R	EQUESTE	D (attach list or	use quote numb	er)
Quote #:		Sle			(0		
PO#:		taine			A T		
Reporting state for compliance testing:		Containers			SI		
Check box if samples include NRC licensed material?	D.G Anis	fo #			0FS		
SAMPLE IDENTIFICATION DATE: TIME	Matrix つ	*					
0190325 WI 3125/19 1014/4W 0190325 WZ 3125/19 10:554							
0190325 W3 3/25/19 11:10 AM	13				×		
0190325 WY 3/25/19 11:25A	n 3				×		
0190325 MW5 3125/19 11:45	3				X		
tailing Pond Frizen	0				┨		
cash mine Pond Frezen	0				<u> </u>		
Cash Gulch Creek Frezen Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste V		M (Drink	ing Water) S	(Sludge)		(Oil) · Other /S	
Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste V REMARKS	aler) D		ing water) GL	(Judge)			, , , , , , , , , , , , , , , , , , ,
	$\cdot \cap$	1 ~~	. L/112 -	DL-	Gan	notala	
Carrypian sweme	J C	203	~ 7 9 2	002	FOLIT	10000	
to be analized for	-				mesale	5	
Call gordon sweener to be analized For all samples a	re R	aw	filter .	aer	, unit	1	
Please refer to ACZ's terms & cond							
RELINQUISHED BY: DATE:TI	ME		RECE	IVED E	BY:	DAT	E:TIM
denno Rentring 3/25/19		υ.	35 Fr	ONI	1007	03/	141
		Λ	< BOV	ົ້	10/08		1
				4		3-76-19	11:4



Analytical Report

July 12, 2019

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L52747

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 25, 2019. This project has been assigned to ACZ's project number, L52747. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L52747. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 11, 2019. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

re gible

Sue Webber has reviewed and approved this report.



ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190624-TP

ACZ Sample ID:	L52747-01
Date Sampled:	06/24/19 10:30
Date Received:	06/25/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0007	В		mg/L	0.0002	0.001	07/08/19 20:50) bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00018	В		mg/L	0.00005	0.0003	07/08/19 20:50) bsu
Manganese, dissolved	M200.7 ICP	1	0.14			mg/L	0.01	0.05	07/11/19 20:05	dcm
Zinc, dissolved	M200.7 ICP	1	0.02	В		mg/L	0.01	0.05	07/11/19 20:05	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:06	6 kja
Residue, Filterable (TDS) @180C	SM2540C	1	1610		*	mg/L	20	40	06/25/19 17:00) oah/en b
Sulfate	D516-02/-07 - Turbidimetric	50	943		*	mg/L	50	250	07/02/19 12:41	ttg



Project ID: Sample ID: 0190624-MW1

ACZ Sample ID:	L52747-02
Date Sampled:	06/24/19 08:05
Date Received:	06/25/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В		mg/L	0.0002	0.001	07/08/19 20:52	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00016	В		mg/L	0.00005	0.0003	07/08/19 20:52	bsu
Manganese, dissolved	M200.7 ICP	1	0.03	В		mg/L	0.01	0.05	07/11/19 20:08	dcm
Zinc, dissolved	M200.7 ICP	1	0.03	В		mg/L	0.01	0.05	07/11/19 20:08	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:10	kja
Residue, Filterable (TDS) @180C	SM2540C	1	1420		*	mg/L	20	40	06/25/19 17:02	oah/en b
Sulfate	D516-02/-07 - Turbidimetric	50	777		*	mg/L	50	250	07/02/19 12:41	ttg

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190624-W-1

ACZ Sample ID:	L52747-03
Date Sampled:	06/24/19 08:15
Date Received:	06/25/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	07/08/19 20:54	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00025	В		mg/L	0.00005	0.0003	07/08/19 20:54	l bsu
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:11	dcm
Zinc, dissolved	M200.7 ICP	1	0.02	В		mg/L	0.01	0.05	07/11/19 20:11	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:13	8 kja
Residue, Filterable (TDS) @180C	SM2540C	1	262		*	mg/L	20	40	06/25/19 17:04	l oah/en b
Sulfate	D516-02/-07 - Turbidimetric	5	120		*	mg/L	5	25	07/02/19 12:27	′ ttg

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

0190624-W-2

Project ID:

Sample ID:

Colorado Milling Company, LLC

ACZ Sample ID:	L52747-04
Date Sampled:	06/24/19 08:26
Date Received:	06/25/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:14	dcm
Zinc, dissolved	M200.7 ICP	1	0.08			mg/L	0.01	0.05	07/11/19 20:14	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:17	kja
Residue, Filterable (TDS) @180C	SM2540C	1	350		*	mg/L	20	40	06/27/19 15:20	eij
Sulfate	D516-02/-07 - Turbidimetric	5	155			mg/L	5	25	07/03/19 7:35	rbt

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID: Sample ID: 0190624-W-3

ACZ Sample ID: L52747-05 Date Sampled: 06/24/19 08:35 Date Received: 06/25/19 Sample Matrix: Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:23	dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:23	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:20	kja
Residue, Filterable (TDS) @180C	SM2540C	1	414		*	mg/L	20	40	06/27/19 15:22	eij
Sulfate	D516-02/-07 - Turbidimetric	5	159			mg/L	5	25	07/03/19 7:35	rbt

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Colorado Milling Company, LLC

Project ID: Sample ID: 0190624-W-4

ACZ Sample ID: L52747-06 Date Sampled: 06/24/19 08:45 Date Received: 06/25/19 Sample Matrix: Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:26	dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:26	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:24	kja
Residue, Filterable (TDS) @180C	SM2540C	1	230		*	mg/L	20	40	06/27/19 15:24	eij
Sulfate	D516-02/-07 - Turbidimetric	5	42.6			mg/L	5	25	07/03/19 7:35	rbt

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190624-MW-5

ACZ Sample ID:	L52747-07
Date Sampled:	06/24/19 09:10
Date Received:	06/25/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0016			mg/L	0.0002	0.001	07/08/19 20:56	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00025	В		mg/L	0.00005	0.0003	07/08/19 20:56	bsu
Manganese, dissolved	M200.7 ICP	1	0.01	В		mg/L	0.01	0.05	07/11/19 20:29	dcm
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:29	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:27	kja
Residue, Filterable (TDS) @180C	SM2540C	1	686		*	mg/L	20	40	06/27/19 15:26	eij
Sulfate	D516-02/-07 - Turbidimetric	25	309			mg/L	25	125	07/03/19 7:51	rbt

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190624-CMP

ACZ Sample ID:	L52747-08					
Date Sampled:	06/24/19 09:20					
Date Received:	06/25/19					
Sample Matrix:	Groundwater					

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0004	В		mg/L	0.0002	0.001	07/08/19 21:01	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.0184			mg/L	0.00005	0.0003	07/08/19 21:01	bsu
Manganese, dissolved	M200.7 ICP	1	4.79			mg/L	0.01	0.05	07/11/19 20:38	dcm
Zinc, dissolved	M200.7 ICP	1	5.89			mg/L	0.01	0.05	07/11/19 20:38	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:31	kja
Residue, Filterable (TDS) @180C	SM2540C	1	1270		*	mg/L	20	40	06/27/19 15:28	eij
Sulfate	D516-02/-07 - Turbidimetric	25	760			mg/L	25	125	07/03/19 7:42	rbt

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190624-CG

ACZ Sample ID:	L52747-09					
Date Sampled:	06/24/19 09:40					
Date Received:	06/25/19					
Sample Matrix:	Groundwater					

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/02/19 8:50	mfm
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	07/08/19 21:03	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00066			mg/L	0.00005	0.0003	07/08/19 21:03	bsu
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/19 20:41	dcm
Zinc, dissolved	M200.7 ICP	1	0.19			mg/L	0.01	0.05	07/11/19 20:41	dcm
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							06/28/19 15:35	kja
Residue, Filterable (TDS) @180C	SM2540C	1	290		*	mg/L	20	40	06/27/19 15:30	eij
Sulfate	D516-02/-07 - Turbidimetric	5	151			mg/L	5	25	07/03/19 7:37	rbt



Inorganic Reference

Batch	A distinct set of samples analyzed at a specific time									
Found	Value of the QC Type of interest									
Limit	Upper limit for RPD, in %.									
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)									
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5).									
	Allows for instrument and annual fluctuations.									
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis									
PQL	Practical Quantitation Limit. Synonymous with the EPA term	"minimum level".								
QC	True Value of the Control Sample or the amount added to the	e Spike								
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)									
RPD	Relative Percent Difference, calculation used for Duplicate Q	C Types								
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)									
Sample	Value of the Sample of interest									
Sample Ty	rpes									
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate							
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank							
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix							
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate							
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank							
ICB	Initial Calibration Blank	MS	Matrix Spike							
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate							
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil							
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water							
LCSS LCSSD	Laboratory Control Sample - Soil Laboratory Control Sample - Soil Duplicate	PBW PQV	Prep Blank - Water Practical Quantitation Verification standard							
			•							
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV	Practical Quantitation Verification standard							
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water vpe Explanations	PQV SDL	Practical Quantitation Verification standard							
LCSSD LCSW Sample Ty	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water ype Explanations Verifies that there is no or minimal c	PQV SDL contamination in the	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure.							
LCSSD LCSW Sample Ty Blanks	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water Pe Explanations Verifies that there is no or minimal of Werifies the accuracy of the method	PQV SDL contamination in the , including the prep	Practical Quantitation Verification standard Serial Dilution							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water Pe Explanations Verifies that there is no or minimal of Werifies the accuracy of the method	PQV SDL contamination in the , including the prep ent and/or method.	Practical Quantitation Verification standard Serial Dilution							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water Pe Explanations Merifies that there is no or minimal of Verifies the accuracy of the method Verifies the precision of the instrument	PQV SDL contamination in the , including the prep ent and/or method. nces, if any.	Practical Quantitation Verification standard Serial Dilution							
LCSSD LCSW Sample Ty Blanks Control Sa Duplicates Spikes/For	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water The Explanations The Ex	PQV SDL contamination in the , including the prep ent and/or method. nces, if any.	Practical Quantitation Verification standard Serial Dilution							
LCSSD LCSW Sample Ty Blanks Control Sau Duplicates Spikes/For Standard	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water The Explanations The Ex	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. 1.	Practical Quantitation Verification standard Serial Dilution							
LCSSD LCSW Sample Ty Blanks Control Sa Duplicates Spikes/For Standard	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water Ppe Explanations Werifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrument tified Matrix Determines sample matrix interferent Verifies the validity of the calibration s (Qual)	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat	Practical Quantitation Verification standard Serial Dilution							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates Spikes/For Standard Z Qualifiers B	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water rpe Explanations mples Verifies that there is no or minimal or verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferer Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. n. PQL. The associat an immediate hold t	Practical Quantitation Verification standard Serial Dilution							
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LCSSD LCSW Sample Ty Blanks Control Sar Duplicates Spikes/For Standard Z Qualifiers B H L	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat an immediate hold t egative threshold. ne level of the asso	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. procedure.							
LCSSD LCSW Sample Ty Blanks Control Sar Duplicates Spikes/For Standard Z Qualifiers B H L	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water rpe Explanations Merifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrument tified Matrix Determines sample matrix interferent Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat an immediate hold t egative threshold. ne level of the asso	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. procedure.							
LCSSD LCSW Sample Ty Blanks Control Sau Duplicates Spikes/For Standard Z Qualifiers B H L U	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water rpe Explanations Merifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrument tified Matrix Determines sample matrix interferent Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. n. PQL. The associat in immediate hold t egative threshold. ne level of the associat the sample detect	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit.							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates Spikes/For Standard Z Qualifiers B H L U	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water rpe Explanations Type Explanations Type Expla	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat mimmediate hold t egative threshold. ne level of the asso the sample detect and Wastes, Marc	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. bciated value. ion limit. bciated value. bciat							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates Spikes/For Standard Z Qualifiers B H L U	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water pe Explanations Werifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or ences EPA 600/4-83-020. Methods for Chemical Analysis of Water	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat an immediate hold t egative threshold. ne level of the asso the sample detect and Wastes, Marc nic Substances in I	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. th 1983. Environmental Samples, August 1993.							
LCSSD LCSW Sample Ty Blanks Control Sar Duplicates Spikes/For Standard Z Qualifiers B H L U	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water pe Explanations Type Explanations Merifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration 5 (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or ences EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat an immediate hold t egative threshold. ne level of the asso the sample detect and Wastes, Marc nic Substances in I	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. th 1983. Environmental Samples, August 1993.							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates Spikes/For Standard Z Qualifiers B H L U U thod Reference (1) (2) (3)	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water pe Explanations Werifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferer Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or ences EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorga	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat in immediate hold t egative threshold. ne level of the asso the sample detect and Wastes, Marc nic Substances in I s in Environmental S	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. th 1983. Environmental Samples, August 1993.							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates Spikes/For Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4)	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water pe Explanations Werifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferer Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or ences EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorga EPA SW-846. Test Methods for Evaluating Solid Waste.	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat in immediate hold t egative threshold. ne level of the asso the sample detect and Wastes, Marc nic Substances in I s in Environmental S	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. th 1983. Environmental Samples, August 1993.							
LCSSD LCSW Sample Ty Blanks Control Sat Duplicates Spikes/For Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5)	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water pe Explanations Werifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferer Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or ences EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorga EPA SW-846. Test Methods for Evaluating Solid Waste.	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat an immediate hold t egative threshold. ne level of the associat the sample detect and Wastes, Marc nic Substances in I s in Environmental S vater.	Practical Quantitation Verification standard Serial Dilution a prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. beciated value. ion limit. th 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.							
LCSSD LCSW Sample Ty Blanks Control Sau Duplicates Spikes/For Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5)	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water pe Explanations Werifies that there is no or minimal of mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or ences EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorga EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat an immediate hold t gative threshold. ne level of the associat the sample detect and Wastes, Marc nic Substances in I a in Environmental S rater.	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ociated value. ion limit. th 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.							
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LCSSD LCSW Sample Ty Blanks Control Sat Duplicates Spikes/For Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water mple Explanations Werifies that there is no or minimal of the model mples Verifies the accuracy of the method Verifies the precision of the instrume tified Matrix Determines sample matrix interferer Verifies the validity of the calibration s (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or ences EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastew QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "a"	PQV SDL contamination in the , including the prep ent and/or method. nces, if any. PQL. The associat in immediate hold t egative threshold. ne level of the associat the sample detect and Wastes, Marc nic Substances in I s in Environmental S vater.	Practical Quantitation Verification standard Serial Dilution e prep method or calibration procedure. procedure. ted value is an estimated quantity. ime. ciated value. ion limit. ch 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. alues are used in the calculations. eight basis.							

https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

ACZ Project ID: L52747

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolv	ved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG476405													
WG476405ICV	ICV	07/08/19 20:39	MS190630-2	.05		.04965	mg/L	99	90	110			
WG476405ICB	ICB	07/08/19 20:41				U	mg/L		-0.00044	0.00044			
WG476405LFB	LFB	07/08/19 20:43	MS190606-3	.05005		.04785	mg/L	96	85	115			
L52681-01AS	AS	07/08/19 20:46	MS190606-3	.05005	.0015	.05174	mg/L	100	70	130			
L52681-01ASD	ASD	07/08/19 20:48	MS190606-3	.05005	.0015	.05161	mg/L	100	70	130	0	20	
Cadmium, disso	olved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG476405													
WG476405ICV	ICV	07/08/19 20:39	MS190630-2	.05		.049849	mg/L	100	90	110			
WG476405ICB	ICB	07/08/19 20:41				U	mg/L		-0.00011	0.00011			
WG476405LFB	LFB	07/08/19 20:43	MS190606-3	.05005		.046727	mg/L	93	85	115			
L52681-01AS	AS	07/08/19 20:46	MS190606-3	.05005	U	.048422	mg/L	97	70	130			
L52681-01ASD	ASD	07/08/19 20:48	MS190606-3	.05005	U	.048562	mg/L	97	70	130	0	20	
Manganese, dis	solved		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG476730													
WG476730ICV	ICV	07/11/19 19:43	II190702-1	2		1.897	mg/L	95	95	105			
WG476730ICB	ICB	07/11/19 19:49				U	mg/L		-0.03	0.03			
WG476730LFB	LFB	07/11/19 20:02	II190701-2	.4995		.511	mg/L	102	85	115			
L52747-04AS	AS	07/11/19 20:17	II190701-2	.4995	U	.498	mg/L	100	85	115			
L52747-04ASD	ASD	07/11/19 20:20	II190701-2	.4995	U	.5	mg/L	100	85	115	0	20	
Residue, Filtera	ble (TDS	i) @180C	SM25400	2									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG475549													
WG475549PBW	PBW	06/25/19 16:30				U	mg/L		-40	40			
WG475549LCSW	LCSW	06/25/19 16:32	PCN58472	260		262	mg/L	101	80	120			
L52752-06DUP	DUP	06/25/19 17:19			162	150	mg/L				8	10	RA
WG475765													
WG475765PBW	PBW	06/27/19 15:15				U	mg/L		-40	40			
WG475705FBW	1 0 1												
WG475765LCSW	LCSW	06/27/19 15:16	PCN58472	260		270	mg/L	104	80	120			

ACZ Project ID: L52747

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate			D516-02/-	07 - Turbi	dimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG476077													
WG476077ICB	ICB	07/02/19 10:10				U	mg/L		-3	3			
WG476077ICV	ICV	07/02/19 10:10	WI190625-1	20		19.2	mg/L	96	90	110			
WG476077LFB	LFB	07/02/19 12:15	WI181024-4	10.03		9.1	mg/L	91	90	110			
L52731-01DUP	DUP	07/02/19 12:39			957	944	mg/L				1	20	
L52731-03AS	AS	07/02/19 12:39	SO4TURB50X	10	859	849	mg/L	-100	90	110			M3
WG476155													
WG476155ICB	ICB	07/03/19 7:19				U	mg/L		-3	3			
WG476155ICV	ICV	07/03/19 7:19	WI190625-1	20		19.2	mg/L	96	90	110			
WG476155LFB	LFB	07/03/19 7:29	WI181024-4	10.03		9.3	mg/L	93	90	110			
L52714-01AS	AS	07/03/19 7:29	WI181024-4	10.03	20.9	31.4	mg/L	105	90	110			
L52714-02DUP	DUP	07/03/19 7:29			21	20.8	mg/L				1	20	
Zinc, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG476730													
WG476730ICV	ICV	07/11/19 19:43	II190702-1	2		1.909	mg/L	95	95	105			
WG476730ICB	ICB	07/11/19 19:49				U	mg/L		-0.03	0.03			
WG476730LFB	LFB	07/11/19 20:02	II190701-2	.50075		.495	mg/L	99	85	115			
L52747-04AS	AS	07/11/19 20:17	II190701-2	.50075	.08	.557	mg/L	95	85	115			
L52747-04ASD	ASD	07/11/19 20:20	II190701-2	.50075	.08	.558	mg/L	95	85	115	0	20	

2773 Downhill Drive Steamboat Springs, CO 80487 40

(800) 334-5493

Colorado Milling Company, LLC

ACZ Project ID: L52747

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L52747-01	WG475549	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG476077	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L52747-02	WG475549	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG476077	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L52747-03	WG475549	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG476077	Sulfate	D516-02/-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L52747-04	WG475765	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L52747-05	WG475765	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L52747-06	WG475765	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L52747-07	WG475765	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L52747-08	WG475765	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L52747-09	WG475765	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L52747

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Colorado Milling Company, LLC	ACZ Proje	ct ID:		L52747
	Date Rece	eived:	06/25/201	9 12:26
	Receive	d By:		
	Date Pri	nted:	6/	26/2019
Receipt Verification				
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody form or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?)	~	X	
4) Are any samples NRC licensable material?				X
5) If samples are received past hold time, proceed with requested short hold tim	ne analyses?	Х		
6) Is the Chain of Custody form complete and accurate?		Х		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving	g the samples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date				
TO Do the sample labels and Chain of Custody form match for Sample ID, Date	e, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits? ¹	e, and Time?	Х		X
	e, and Time?	X X		X
11) For preserved bottle types, was the pH checked and within limits? 1	e, and Time?			X X
 11) For preserved bottle types, was the pH checked and within limits? 12) Is there sufficient sample volume to perform all requested work? 	e, and Time?			
 11) For preserved bottle types, was the pH checked and within limits? 12) Is there sufficient sample volume to perform all requested work? 13) Is the custody seal intact on all containers? 	e, and Time?			X
 11) For preserved bottle types, was the pH checked and within limits? 12) Is there sufficient sample volume to perform all requested work? 13) Is the custody seal intact on all containers? 14) Are samples that require zero headspace acceptable? 	e, and Time?	X		X
 11) For preserved bottle types, was the pH checked and within limits? 12) Is there sufficient sample volume to perform all requested work? 13) Is the custody seal intact on all containers? 14) Are samples that require zero headspace acceptable? 15) Are all sample containers appropriate for analytical requirements? 	e, and Time?	X		X X

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6223	2.8	<=6.0	15	N/A

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



ACZ Project ID: L52747 Date Received: 06/25/2019 12:26 Received By: Date Printed: 6/26/2019

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc		52	74	7	С	HAIN	l of (CUSTO	DY
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 33	4-5493			-					
Report to:	4	1					7 7		
Name: Mark, A. Steen	-	Addre	নি	<u>,0,1</u>	Sep	13	25		
Company: colorado milling Company	н Г			mop	men	л, (ores		
E-mail: gold for time & grinail, Com		Telepi	none:						
Copy of Report to:	4	-	-						
Name: Gordon Swelny	1	E-mail	<u>: Gr</u>	rder	<u>n sj</u>	welin	reyle	Og-ma	<u>ile (</u>
Company: CMC LLC		Telepi	none:	303	3-40	10-0	063	<u>3</u>	
Invoice to:									
Name: Mark Steen		Addre	ss: F	<i>?0</i> .	Bo	6 1	523		
Company: Colerado milline Co	1		Ler	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	rent	F. C	olo		
E-mail: gold ton time @ g. may. Con	7	Telepl		1					
If sample(s) received past holding time (HT), or if insufficie		emains t	o comp	olete				YES	
analysis before expiration, shall ACZ proceed with reques			-						
f "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indice Are samples for SDWA Compliance Monitoring?	ited, ACZ wil	Yes	th the reque	sted analy	NO	HT is expire	ed, and data	will be qualified	
If yes, please include state forms. Results will be reported	to PQL		rado.	I					
Sampler's Name: Renning Sampler's Site Inform	nation	State	(olo		Zip co	de 80	302	Time Zone	Sec.
Park 'I attest	to the auther ng with the s				understan	d that intent	ionally mista	beling the time/d	
PROJECT INFORMATION			ANAL	YSES RE	QUESTE	D (attach I	list or use	quote number)	
Quote #:		Ś							
PO#:		ine				te			
Reporting state for compliance testing:		Containers				5 C			
Check box if samples include NRC licensed material?	1	Ŭ U				20			
SAMPLE IDENTIFICATION DATE: TIME	Matrix	-				14 2			
0100624- TP 6/24/19-10:30#	M 3					×			
0190624-mw1 6/24/19-8:05A	· M 3					X			
01906 24 - W-1 6/24/19-8:15 AV	1 3					\times			
0190624 - W-Z 6/24/14-8:264						\times			
	1								
0190624 - W-3 6/24/14-8:35~	m 3					×			\top
0190624 - W-4 624/19-8:454	$\frac{1}{1}$					×			1
0190624 - MW-5 6/24/19 - 9/10 AM	1 3	1				. X			+
0190624-cmp 6/24/19-9:20 M	M 3					×			+
01906 24-CG 624/19-9:40 PM					· .				+
Matrix SW (Surface Water) GW (Ground Water) WW (Waste)W (Drinki	ing Wate	r) SL (S	Sludge) ·	SO (Soil)) · OL (Oil) Other (Spe	ecify)
REMARKS							1		
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Call Gordon to Be and all Samples a Please refer to ACZ's terms & cor RELINQUISHED BY: DATE:	nditions FIME		on the		e side /ED B	of this Y:		DATE	TIME
Call Gordon to Be anal alganuples a Please refer to ACZ's terms & cor	nditions FIME		on the		e side	of this Y:			TIME

FRU20450.0907411241332

White - Return with sample. Yellow - Retain for your records.

Page 18 of 18



October 09, 2019

Report to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502 Bill to: Mark Steen Colorado Milling Company , LLC PO Box 1523 Longmont, CO 80502

Project ID: ACZ Project ID: L54800

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 24, 2019. This project has been assigned to ACZ is project number, L54800. Please reference this number in all future inquiries.

All analyses were performed according to ACZ^S Quality Assurance Plan. The enclosed results relate only to the samples received under L54800. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ^S current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after November 08, 2019. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZS stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

re 9, 10 (1)

Sue Webber has reviewed and approved this report.



ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 TP

ACZ Sample ID:	L54800-01
Date Sampled:	09/23/19 09:10
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:0	8 kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	2	0.0007	В		mg/L	0.0004	0.002	09/30/19 18:5	5 bsu
Cadmium, dissolved	M200.8 ICP-MS	2		U		mg/L	0.0001	0.0005	09/30/19 18:5	5 bsu
Manganese, dissolved	M200.7 ICP	2		U	*	mg/L	0.02	0.1	10/07/19 17:0	8 kja
Zinc, dissolved	M200.7 ICP	2	0.45		*	mg/L	0.02	0.1	10/07/19 17:0	8 kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 10:34	4 mlh
Residue, Filterable (TDS) @180C	SM2540C	1	2020			mg/L	20	40	09/25/19 10:4	5 jck
Sulfate	D516-02/-07 - Turbidimetric	80	1220		*	mg/L	80	400	10/04/19 14:0	5 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 MW1

ACZ Sample ID:	L54800-02
Date Sampled:	09/23/19 09:25
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:12	2 kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0006	В		mg/L	0.0002	0.001	09/30/19 19:00) bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00015	В		mg/L	0.00005	0.0003	09/30/19 19:00) bsu
Manganese, dissolved	M200.7 ICP	1	0.09		*	mg/L	0.01	0.05	10/07/19 17:11	1 kja
Zinc, dissolved	M200.7 ICP	1	0.05		*	mg/L	0.01	0.05	10/07/19 17:1	1 kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 10:40) mlh
Residue, Filterable (TDS) @180C	SM2540C	1	1440			mg/L	20	40	09/25/19 10:47	7 jck
Sulfate	D516-02/-07 - Turbidimetric	40	853		*	mg/L	40	200	10/04/19 14:02	2 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 W1

ACZ Sample ID:	L54800-03
Date Sampled:	09/23/19 09:35
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:16	6 kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1		U		mg/L	0.0002	0.001	09/30/19 19:02	2 bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00021	В		mg/L	0.00005	0.0003	09/30/19 19:02	2 bsu
Manganese, dissolved	M200.7 ICP	1		U	*	mg/L	0.01	0.05	10/07/19 17:14	1 kja
Zinc, dissolved	M200.7 ICP	1	0.02	В	*	mg/L	0.01	0.05	10/07/19 17:14	1 kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 10:46	6 mlh
Residue, Filterable (TDS) @180C	SM2540C	1	328			mg/L	20	40	09/25/19 10:52	2 jck
Sulfate	D516-02/-07 - Turbidimetric	5	158		*	mg/L	5	25	10/04/19 13:37	7 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 W2

ACZ Sample ID:	L54800-04
Date Sampled:	09/23/19 09:45
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:20) kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	10/07/19 17:17	7 kja
Zinc, dissolved	M200.7 ICP	1	0.14		*	mg/L	0.01	0.05	10/07/19 17:17	7 kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 10:52	2 mlh
Residue, Filterable (TDS) @180C	SM2540C	1	374			mg/L	20	40	09/25/19 10:55	ō jck
Sulfate	D516-02/-07 - Turbidimetric	5	180		*	mg/L	5	25	10/04/19 13:38	3 wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 W3

ACZ Sample ID:	L54800-05
Date Sampled:	09/23/19 09:55
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:24	kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	10/07/19 17:21	kja
Zinc, dissolved	M200.7 ICP	1		U	*	mg/L	0.01	0.05	10/07/19 17:21	kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 10:58	s mlh
Residue, Filterable (TDS) @180C	SM2540C	1	342			mg/L	20	40	09/25/19 10:57	jck
Sulfate	D516-02/-07 - Turbidimetric	5	129		*	mg/L	5	25	10/04/19 13:37	wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 W4

ACZ Sample ID:	L54800-06
Date Sampled:	09/23/19 10:00
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:28	s kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1	0.01	В		mg/L	0.01	0.05	10/07/19 17:24	kja
Zinc, dissolved	M200.7 ICP	1		U	*	mg/L	0.01	0.05	10/07/19 17:24	kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 11:04	mlh
Residue, Filterable (TDS) @180C	SM2540C	1	316			mg/L	20	40	09/25/19 11:00) jck
Sulfate	D516-02/-07 - Turbidimetric	5	91.0		*	mg/L	5	25	10/04/19 13:37	/ wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 MW5

ACZ Sample ID:	L54800-07
Date Sampled:	09/23/19 10:25
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:32	2 kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0017			mg/L	0.0002	0.001	09/30/19 19:04	l bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00023	В		mg/L	0.00005	0.0003	09/30/19 19:04	l bsu
Manganese, dissolved	M200.7 ICP	1	0.01	В		mg/L	0.01	0.05	10/07/19 17:27	7 kja
Zinc, dissolved	M200.7 ICP	1		U	*	mg/L	0.01	0.05	10/07/19 17:27	7 kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 11:10) mlh
Residue, Filterable (TDS) @180C	SM2540C	1	680			mg/L	20	40	09/25/19 11:02	2 jck
Sulfate	D516-02/-07 - Turbidimetric	20	336		*	mg/L	20	100	10/04/19 13:40) wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 CMP

ACZ Sample ID:	L54800-08
Date Sampled:	09/23/19 10:32
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:36	i kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В		mg/L	0.0002	0.001	09/30/19 19:06	bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.0107			mg/L	0.00005	0.0003	09/30/19 19:06	bsu
Manganese, dissolved	M200.7 ICP	1	3.97			mg/L	0.01	0.05	10/07/19 17:30	kja
Zinc, dissolved	M200.7 ICP	1	4.34		*	mg/L	0.01	0.05	10/07/19 17:30	kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 11:16	6 mlh
Residue, Filterable (TDS) @180C	SM2540C	1	1180			mg/L	20	40	09/25/19 11:05	jck
Sulfate	D516-02/-07 - Turbidimetric	20	700		*	mg/L	20	100	10/04/19 14:02	wtc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID: Sample ID: 0190923 CG

ACZ Sample ID:	L54800-09
Date Sampled:	09/23/19 11:00
Date Received:	09/24/19
Sample Matrix:	Groundwater

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								09/26/19 16:4	0 kja
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.0007	В		mg/L	0.0002	0.001	09/30/19 19:0	7 bsu
Cadmium, dissolved	M200.8 ICP-MS	1	0.00042			mg/L	0.00005	0.0003	09/30/19 19:0	7 bsu
Manganese, dissolved	M200.7 ICP	1	0.04	В		mg/L	0.01	0.05	10/07/19 17:3	3 kja
Zinc, dissolved	M200.7 ICP	1	0.22		*	mg/L	0.01	0.05	10/07/19 17:3	3 kja
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							09/27/19 11:2	2 mlh
Residue, Filterable (TDS) @180C	SM2540C	1	310			mg/L	20	40	09/25/19 11:0	7 jck
Sulfate	D516-02/-07 - Turbidimetric	5	157		*	mg/L	5	25	10/04/19 13:3	8 wtc



Inorganic Reference

eport Header	r Explanations									
Batch	A distinct set of samples analyzed at a specific time									
Found	Value of the QC Type of interest									
Limit	Upper limit for RPD, in %.									
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)									
MDL	Method Detection Limit. Same as Minimum Reporting Limit un	nless omitted or e	qual to the PQL (see comment #5).							
	Allows for instrument and annual fluctuations.									
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturers certificate of analysis									
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".									
QC	True Value of the Control Sample or the amount added to the Spike									
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)									
RPD	Relative Percent Difference, calculation used for Duplicate QC	C Types								
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)									
Sample	Value of the Sample of interest									
C Sample Ty	pes									
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate							
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank							
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix							
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate							
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank							
ICB	Initial Calibration Blank	MS	Matrix Spike							
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate							
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil							
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water							
			•							
I CSSD	Laboratory Control Sample - Soil Duplicate	POV	Practical Quantitation Verification standard							
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution							
LCSW	Laboratory Control Sample - Water									
<i>LCSW</i> C Sample Ty	Laboratory Control Sample - Water pe Explanations	SDL	Serial Dilution							
<i>LCSW</i> C Sample Ty Blanks	Laboratory Control Sample - Water pe Explanations Verifies that there is no or minimal co	SDL	Serial Dilution							
LCSW C Sample Tyj Blanks Control Sar	Laboratory Control Sample - Water pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method,	SDL ontamination in the including the prep	Serial Dilution							
LCSW C Sample Ty Blanks Control Sar Duplicates	Laboratory Control Sample - Water pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume	SDL ontamination in the including the prep nt and/or method.	Serial Dilution							
LCSW C Sample Tyj Blanks Control Sar	Laboratory Control Sample - Water pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume	SDL ontamination in the including the prep nt and/or method. ces, if any.	Serial Dilution							
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LCSW C Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard CZ Qualifiers B	Laboratory Control Sample - Water pe Explanations weifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferen Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F	SDL ontamination in the including the prep nt and/or method. ces, if any.	Serial Dilution e prep method or calibration procedure. p procedure. ted value is an estimated quantity.							
LCSW C Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard CZ Qualifiers B H	Laboratory Control Sample - Water pe Explanations weifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferen Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an analysis exceeded method hold time.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t	Serial Dilution e prep method or calibration procedure. p procedure. ted value is an estimated quantity.							
LCSW C Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard CZ Qualifiers B H L	Laboratory Control Sample - Water pe Explanations Werifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. state Verifies the validity of the calibration.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold.	Serial Dilution e prep method or calibration procedure. p procedure. ted value is an estimated quantity. time.							
LCSW C Sample Ty Blanks Control Sar Duplicates Spikes/Fort Standard CZ Qualifiers B H	Laboratory Control Sample - Water pe Explanations weifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferen Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an analysis exceeded method hold time.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the assoc	Serial Dilution e prep method or calibration procedure. p procedure. ted value is an estimated quantity. time. pciated value.							
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LCSW C Sample Typ Blanks Control Sar Duplicates Spikes/Fort Standard CZ Qualifiers B H L U ethod Refere (1) (2) (3)	Laboratory Control Sample - Water pe Explanations Werifies that there is no or minimal comples Verifies the accuracy of the method, Verifies the precision of the instrume tified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or ences EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	SDL entamination in the including the prep nt and/or method. ces, if any. PQL. The associate n immediate hold to gative threshold. e level of the associate the sample detect and Wastes, Marc in Environmental s	Serial Dilution e prep method or calibration procedure. p procedure. ted value is an estimated quantity. time. ciated value. tion limit. th 1983. Environmental Samples, August 1993.							
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https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

ACZ Project ID: L54800

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolv	ed		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG482771													
WG482771ICV	ICV	09/30/19 18:38	MS190806-2	.05		.04991	mg/L	100	90	110			
WG482771ICB	ICB	09/30/19 18:40				U	mg/L		-0.00044	0.00044			
WG482771LFB	LFB	09/30/19 18:42	MS190905-3	.05005		.05183	mg/L	104	85	115			
L54798-03AS	AS	09/30/19 18:49	MS190905-3	.05005	.0009	.0529	mg/L	104	70	130			
L54798-03ASD	ASD	09/30/19 18:51	MS190905-3	.05005	.0009	.05515	mg/L	108	70	130	4	20	
Cadmium, dissolved M200.8 ICP-MS													
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG482771													
WG482771ICV	ICV	09/30/19 18:38	MS190806-2	.05		.049473	mg/L	99	90	110			
WG482771ICB	ICB	09/30/19 18:40				U	mg/L		-0.00011	0.00011			
WG482771LFB	LFB	09/30/19 18:42	MS190905-3	.05005		.051317	mg/L	103	85	115			
L54798-03AS	AS	09/30/19 18:49	MS190905-3	.05005	.00091	.050532	mg/L	99	70	130			
L54798-03ASD	ASD	09/30/19 18:51	MS190905-3	.05005	.00091	.054531	mg/L	107	70	130	8	20	
Manganese, dis	solved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG483269													
WG483269ICV	ICV	10/07/19 16:11	II190926-2	2		1.978	mg/L	99	95	105			
WG483269ICB	ICB	10/07/19 16:17				U	mg/L		-0.03	0.03			
WG483269LFB	LFB	10/07/19 16:30	II190920-2	.5015		.523	mg/L	104	85	115			
L54769-26AS	AS	10/07/19 16:52	II190920-2	.5015	4.34	4.427	mg/L	17	85	115			M3
L54769-26ASD	ASD	10/07/19 16:55	II190920-2	.5015	4.34	4.415	mg/L	15	85	115	0	20	M3
L54841-01AS	AS	10/07/19 17:50	II190920-2	2.5075	.14	2.949	mg/L	112	85	115			
L54841-01ASD	ASD	10/07/19 17:53	II190920-2	2.5075	.14	2.983	mg/L	113	85	115	1	20	
Residue, Filteral	ble (TDS	6) @180C	SM2540C	;									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG482365													
WG482365PBW	PBW	09/25/19 10:20				U	mg/L		-40	40			
WG482365LCSW	LCSW	09/25/19 10:22	PCN59650	1000		1000	mg/L	100	80	120			
L54800-02DUP	DUP	09/25/19 10:50			1440	1450	mg/L				1	10	
L54804-02DUP	DUP	09/25/19 11:12			542	544	mg/L				0	10	
Sulfate			D516-02/-	-07 - Turbi	dimetric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG483144													
WG483144ICB	ICB	10/04/19 8:45				U	mg/L		-3	3			
WG483144ICV	ICV	10/04/19 8:45	WI190926-3	20		20.9	mg/L	105	90	110			
	LFB	10/04/19 13:05	WI190801-3	10.01		9.6	mg/L	96	90	110			
WG483144LFB		10/04/10 10:00											
WG483144LFB L54825-36DUP	DUP	10/04/19 13:09			9.5	8.8	mg/L				8	20	RA

ACZ Project ID: L54800

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved			M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG483269													
WG483269ICV	ICV	10/07/19 16:11	II190926-2	2		1.982	mg/L	99	95	105			
WG483269ICB	ICB	10/07/19 16:17				U	mg/L		-0.03	0.03			
WG483269LFB	LFB	10/07/19 16:30	II190920-2	.50075		.546	mg/L	109	85	115			
L54769-26AS	AS	10/07/19 16:52	II190920-2	.50075	1.69	2.077	mg/L	77	85	115			M3
L54769-26ASD	ASD	10/07/19 16:55	II190920-2	.50075	1.69	2.064	mg/L	75	85	115	1	20	M3
L54841-01AS	AS	10/07/19 17:50	II190920-2	2.50375	U	2.924	mg/L	117	85	115			M1
L54841-01ASD	ASD	10/07/19 17:53	II190920-2	2.50375	U	3.146	mg/L	126	85	115	7	20	M1

2773 Downhill Drive Steamboat Springs, CO 80487

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Colorado Milling Company, LLC

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Inorganic Extended Qualifier Report

ACZ Project ID: L54800

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L54800-01	NG483269	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG483144	Sulfate	D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L54800-02	NG483269	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG483144	Sulfate	D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L54800-03	NG483269	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG483144	Sulfate	D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L54800-04	NG483144	Sulfate	D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L54800-05	NG483144	Sulfate	D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L54800-06	NG483144	Sulfate	D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L54800-07	NG483144	Sulfate	D516-02/-07 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L54800-08	NG483144		D516-02/-07 - Turbidimetric		Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



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Colorado Milling Company, LLC

ACZ Project ID: L54800

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L54800-09	NG483144	Sulfate	D516-02/-07 - Turbidimetric		Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG483269	Zinc, dissolved	M200.7 ICP		Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ Project ID: L54800

No certification qualifiers associated with this analysis

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

NO

Х

NA X

х

ACZ Project ID: L54800 Date Received: 09/24/2019 12:18 Received By: Date Printed: 9/25/2019

YES

Х

Х

X X

Receipt Verification

1)	ls a foreign	soil permi	t included for	r applicable s	amples?

- 2) Is the Chain of Custody form or other directive shipping papers present?
- 3) Does this project require special handling procedures such as CLP protocol?
- 4) Are any samples NRC licensable material?
- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody form complete and accurate?
- 7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?

A change was made in the Sample ID: Date:Time Line 5 and Analyses Requested section prior to ACZ custody.

Samples/Containers

YES NO NA 8) Are all containers intact and with no leaks? Х Х 9) Are all labels on containers and are they intact and legible? Х 10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time? 11) For preserved bottle types, was the pH checked and within limits? ¹ Х 12) Is there sufficient sample volume to perform all requested work? Х 13) Is the custody seal intact on all containers? Х 14) Are samples that require zero headspace acceptable? Х 15) Are all sample containers appropriate for analytical requirements? Х 16) Is there an Hg-1631 trip blank present? Х 17) Is there a VOA trip blank present? Х 18) Were all samples received within hold time? Х

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6082	3.1	<=6.0	18	Yes

Was ice present in the shipment container(s)?

Yes - Gel ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



ACZ Project ID: L54800 Date Received: 09/24/2019 12:18 Received By: Date Printed: 9/25/2019

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ	Labo	ratorie	es, Inc.	L 5493	:480	ĨU	CHA	N of C	CUSTO	DY
Report to:	Steambour opn	ingo, ee ee								
Name: Manh	A Stood				Address	: P.O. 1	308 1	523		
Company: Coleve			لمددم				ment	, Colen	ade)	
	time @c		a		Telepho		8	,		
Copy of Report to										
	•				E-mail:			41.00		
Name:	rame o	to at	sve		Telepho	SOVI	meap	ava		
eempany.					leiepho			-		
Invoice to:	1							(27		
Name: Marin		~		Address: P.O. Berly 1523						
Company: Color		- V				Ener	ent, Co	<u>.</u>		
E-mail: Op-lc) Hos If sample(s) received				t UT ro	Telepho				YES	T
analysis before exp	iration, shall A	CZ proceed	with requeste	d short	HT analy	/ses?			NO	1
If "NO" then ACZ will contact cli	ent for further instruct	tion. If neither "YES	S" nor "NO" is indicate	d, ACZ will	proceed with t	he requested analy		pired, and data	will be qualified	-
Are samples for SD If yes, please includ				o POL f	Yes or Colora	l	No			
Sampler's Name:					State_(Zip code 🕅	0302	Time Zone <u>./γ</u>	າເວາ
*Sampler's Signatur	<u> </u>		*) others to	the authent	icity and valid	ity of this sample.	I understand that in aud and punishable	tentionally misla	abeling the time/date	/locatio
PROJECT INFORM							EQUESTED (atta		quote number)	
Quote #:					۶			0		
PO#:					ine			H		
Reporting state for co	ompliance testir	ng:			onta		l ĝ	U LU		
Check box if samples			erial?		of Containers		4			
SAMPLE IDENT			E:TIME	Matrix				•		
0190923	TP	9/h2/19	9:10 AM	3			X			\bot
0190923	mw1	9/23/19	9:25 AM	3			×	•		
	ωl	9/22/19	9:35 AM				X			
0190923	W2	9/23/19	9:45AM	3			X			
		Set and a								
0190923	W3	9/23/19	9:55 AM	3			X			
	w 4	9/23/19	10:00 AM	3			X			
	MWS	9/23/19	10:25AM				X		L	
	EMP	9/23/19	10:32 AM				X			
	CG	9/23/19	11:00AM	3						
Matrix SW (Surf	ace Water) · GW	(Ground Wate	r) · WW (Waste V	Vater) · D	W (Drinkin	g Water) · SL	(Sludge) · SO (Soil) · OL (Oi	il) · Other (Spec	ify)
REMARKS										
	Please ret	fer to ACZ's	terms & con	ditions	ocated o			nis COC.		-
RELING	QUISHED BY		DATE:T	ME		RECE	IVED BY:		DATE:1	TIME
Lewis Per	pins		9/23/19		17.K	5 cente	~ ·		09/23	44
			· ·		379	5 FRON			12.15	<u>ĉ</u> P
						Bours]			

EBMAD050.06.14.14 E54800-1910091019 White - Return with sample. Ye

Yellow - Retain for your records.