



STATE OF
COLORADO

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

2021 - 2nd quarter water results, Gold Hill

Avrom Howard <aeh@nebuconsulting.com>

Wed, Jun 16, 2021 at 11:24 AM

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

Cc: michaela.cunningham@state.co.us

Hello Amy,

Please find, attached below, water monitoring reports for Colorado Milling Company's two permits in the Gold Hill area, along with the raw data from the lab in both pdf and xls formats. I trust you'll find this information to your satisfaction but if there's anything incorrect or missing please don't hesitate to contact me and I'll deal with it right away.

Also, please know that Ensero has been looking at a number of water-related and other issues at Gold Hill for us and is nearing completion of their work, upon which we'll receive their conclusions and recommendations. I look forward to being in touch with you at this time in regard to a number of issues of concern to your department and that we believe will offer us the opportunity of moving forward in a more efficient and unobtrusive manner, environmentally and otherwise.

Kind regards,

Avrom

COLORADO MILLING COMPANY

4 attachments



21-06-16 Q2 report M1983-141.pdf
3792K



21-06-16 Q2-2021 report M1994-117.pdf
3924K



210607051_Gold Hill_Results.pdf
826K



Excel 210607051.xls
34K



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

June 16, 2021

Mr. Michael Cunningham & Ms. Amy Eschberger
COLORADO DIVISION OF RECLAMATION, MINING & SAFETY
Department of Natural Resources
1313 Sherman Street, Room 215
Denver, CO 80203

Subject: Second Quarter 2021 Water Sampling Results
Gold Hill Project (Cash Mine Property), Gold Hill, Colorado
Mine Land Reclamation Permit No. M-1994-117

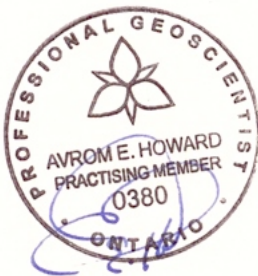
Dear Mr. Cunningham & Ms. Eschberger,

The second quarter, 2021 ("Q2/21") water sampling was conducted by Lewis Perkins, Colorado Milling Company, on June 7, 2021.

- **Trace Element & Related Data:** Five monitoring stations were sampled for arsenic, cadmium, manganese, zinc, total dissolved solids ("residue") and sulfate. Analyses were performed by Colorado Analytical Laboratories Inc., based in Denver. Copies of their original laboratory analytical reports are included in this submittal.
- **Other Data:** Water depth, temperature and pH data were gathered by Perkins and Howard, and recorded along with the aforementioned trace element and related data in an Excel spreadsheet, a copy of which is included in this submittal.

I trust you will find these data to your satisfaction. Please do not hesitate to contact me directly should you have any questions or concerns.

Sincerely,



Avrom E. Howard, MSc, PGeo
COLORADO MILLING COMPANY



Map showing locations of water monitoring stations for permits M-1994-117 & M-1983-141

LOCATION ID	DATE	TIME	DEPTH (ft)	pH	TEMP (°C)	CONDUCTIVITY (uS/cm)	SAMPLE ID	DATE	As	Cd	Mn	Zn	Residue	Sulfate
W1	06/07/21	9:35	25.50	7.54	8.9	391	210607051-03	06/09/21	<0.0006	0.0002	0.0014	0.030	275	112.25
W2	06/07/21	9:50	32.00	7.39	9.0	n/a	210607051-04	06/09/21	<0.0006	0.0004	0.0012	0.064	300	135.87
W3	06/07/21	10:10	17.75	7.4	8.2	44	210607051-05	06/09/21	<0.0006	<0.0001	0.024	0.004	264	79.81
W4	06/07/21	10:35	22.70	6.80	8.4	329	210607051-06	06/09/21	<0.0006	<0.0001	0.0146	0.004	217	49.50
TP	06/07/21	8:30	0.00	7.85	18.4	1,052	210607051-07	06/09/21	0.0019	<0.0001	0.2714	<0.001	682	256.96

Complete data set for monitoring stations associated with permit M-1994-117, Q2/2021

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID Tailing Pond
Sample Date/Time: 6/7/21 8:30 AM
Lab Number: 210607051-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	482.23 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	826 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	0.0017 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.1178 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	0.009 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



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10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID MW 1

Sample Date/Time: 6/7/21 9:15 AM

Lab Number: 210607051-02

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	888.31 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	1409 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.3525 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	0.002 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

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Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID W 1

Sample Date/Time: 6/7/21 9:35 AM

Lab Number: 210607051-03

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	112.25 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	275 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.0014 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	0.030 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

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Date Analyzed = Date Test Completed



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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID W2

Sample Date/Time: 6/7/21 9:50 AM

Lab Number: 210607051-04

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	135.87 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	300 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	0.0004 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.0012 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	0.064 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

Abbreviations/ References:

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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID W3

Sample Date/Time: 6/7/21 10:10 AM

Lab Number: 210607051-05

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	79.81 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	264 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.0240 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	0.004 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

Abbreviations/ References:

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Date Analyzed = Date Test Completed



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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID W4

Sample Date/Time: 6/7/21 10:35 AM

Lab Number: 210607051-06

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	49.50 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	217 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.0146 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	0.004 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID MW5

Sample Date/Time: 6/7/21 11:05 AM

Lab Number: 210607051-07

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	256.96 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	682 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	0.0019 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.2714 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	< 0.001 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID Cash Mine Pond

Sample Date/Time: 6/7/21 11:15 AM

Lab Number: 210607051-08

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	639.26 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	1022 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	0.0233 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	4.1738 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	6.364 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

Abbreviations/ References:

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Date Analyzed = Date Test Completed



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10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 210607051

Report To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Bill To: Avrom Howard

Company: Colorado Milling CO
72 Brandywine Dr
Williamsville NY 14221

Task No.: 210607051
Client PO:
Client Project: Gold Hill

Date Received: 6/7/21
Date Reported: 6/14/21
Matrix: Water - Ground

Customer Sample ID Cash Gulch Creek
Sample Date/Time: 6/7/21 11:35 AM
Lab Number: 210607051-09

Test	Result	Method	ML	Date Analyzed	Analyzed By
Sulfate	119.69 mg/L	EPA 300.0	0.01 mg/L	6/8/21	MAT
Total Dissolved Solids	272 mg/L	SM 2540-C	5 mg/L	6/10/21	ISG
<u>Dissolved</u>					
Arsenic	< 0.0006 mg/L	EPA 200.8	0.0006 mg/L	6/9/21	IPC
Cadmium	0.0004 mg/L	EPA 200.8	0.0001 mg/L	6/9/21	IPC
Manganese	0.0034 mg/L	EPA 200.8	0.0008 mg/L	6/9/21	IPC
Zinc	0.119 mg/L	EPA 200.8	0.001 mg/L	6/9/21	IPC

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



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Chain of Custody Form



Commerce City Lab
10411 Heinz Way
Commerce City CO 80640

Lakewood Service Center
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
www.coloradolab.com

Report To Information		Bill To Information (If different from report to)		Project Name / Number	
Company Name: <u>Colorado Milling CO</u>		Company Name: <u>SAME</u>		<u>Gold Hill</u>	
Contact Name: <u>Wren Howard</u>		Contact Name: _____		_____	
Address: <u>72 Brandywine Dr</u>		Address: _____		Task Number (Lab Use Only)	
City: <u>William Hill</u> State: <u>NY</u> Zip: <u>14221</u>		City _____ State _____ Zip _____		_____	
Phone: <u>970-234-9757</u>		Phone: _____		CAL Task	
Email: <u>AEH@WEBCONSULTING.COM</u>		Email: _____		210607051	
Sample Collector: <u>AEH & L.S.P.</u>		PO No.: _____		JML	
Sample Collector Phone: <u>970-234-9757</u>		_____		_____	

Lewis S. PERKINS 303-447-8705

Sample Matrix (Select One Only)			No. of Containers	Grab or (Check One Only) Composite	Tests Requested															
Waste Water ☐	Ground Water ☒	Surface Water ☐			Soil ☐	Sludge ☐	Drinking Water ☐	AS	CD	MW	2H Zinc	residue/TDS	SULFATE							
Date	Time	Sample ID																		
6/7/21	8:30 AM	tailings Pond	2																	
"	9:15 AM	MW-1	2																	
"	9:35 AM	W-1	2																	
"	9:50 AM	W-2	2																	
"	10:10 AM	W-3	2																	
"	10:35 AM	W-4	2																	
"	11:05 AM	MW-5	2																	
"	11:15 AM	CASH mine pond	2																	
"	11:35 AM	CASH GULCH Creek	2																	
			18																	

Instructions: * Per history, confirmed at Lewis - <u>ALL</u> Dissolved metals per history.				C/S Info: _____ Deliver Via: <u>hand</u>		C/S Charge ☐		Temp. <u>11</u> °C/Ice <u>y</u>		Sample Pres. Yes ☐ No ☒	
Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:
<u>Lewis Perkins</u>	<u>6/7/21</u>	<u>Adams</u>	<u>6/7/21</u>	<u>1418</u>							