

January 19, 2024

Colorado Division of Reclamation, Mining, and Safety  
1313 Sherman St, Rm 215  
Denver, CO 80203

Delivered Via Email

**RE: Q4 2023 Water Sampling Results**  
**Gold Hill Mill, Permit No. M-1994-117**

To Whom It May Concern

The fourth quarter, 2023 ("Q4/23") water sampling was conducted by Lewis Perkins, Colorado Milling Company, on December 17, 2023.

- **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 in the field during sampling and are included in this submittal.

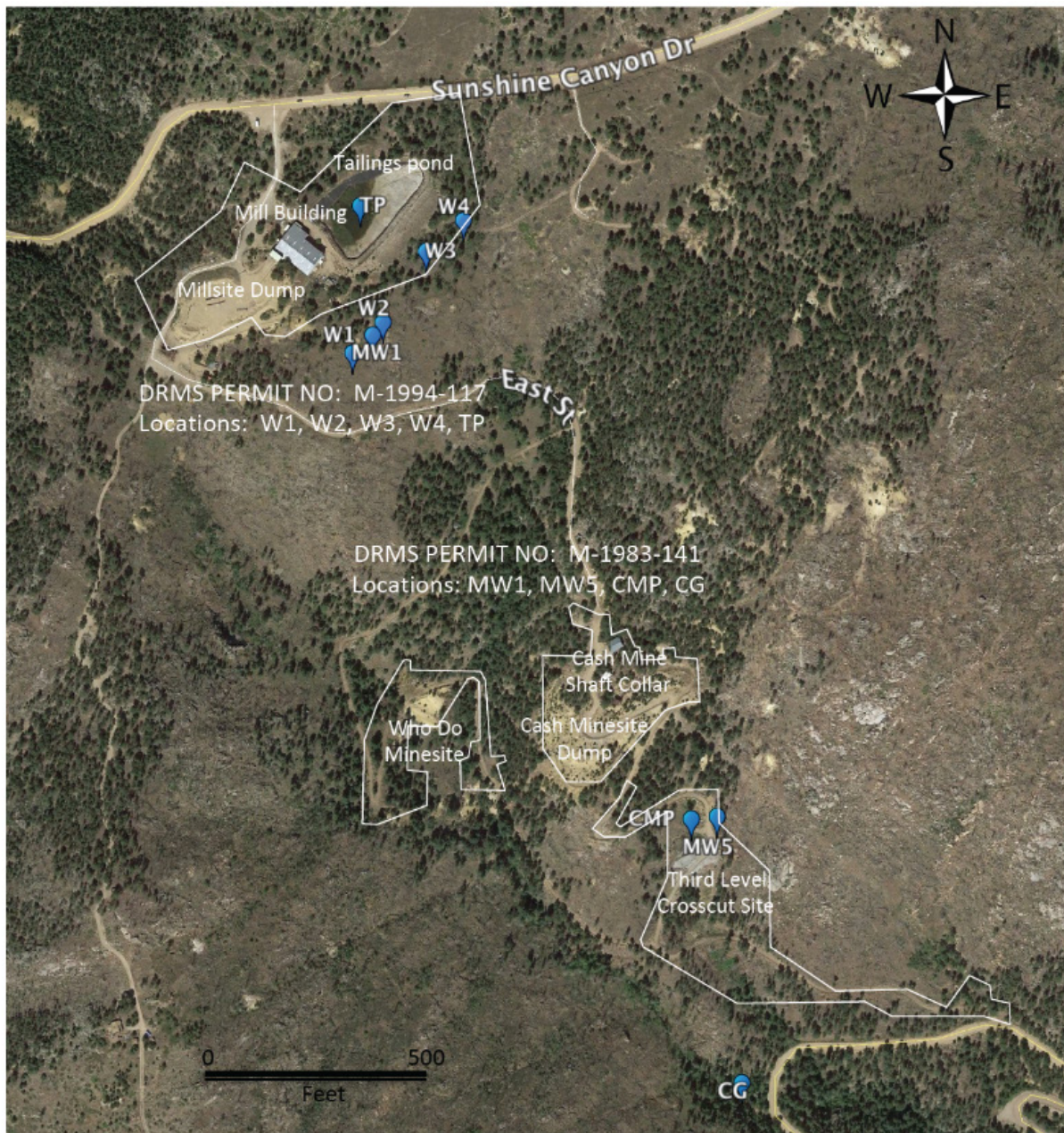
Note that zero values in the summary table represent "non-detect" results.

Please contact me with any questions.

Regards,



Ben Langenfeld, P.E.  
Lewicki & Associates, PLLC  
(720) 842-5321, ex. 1  
[benl@lewicki.biz](mailto:benl@lewicki.biz)

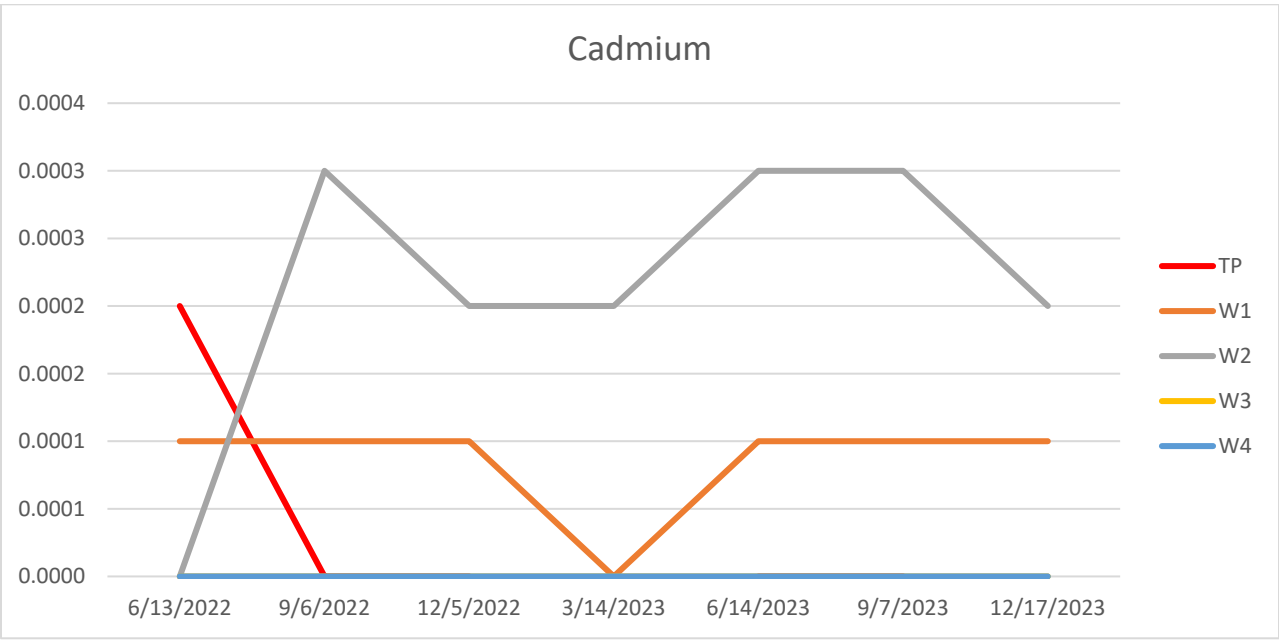
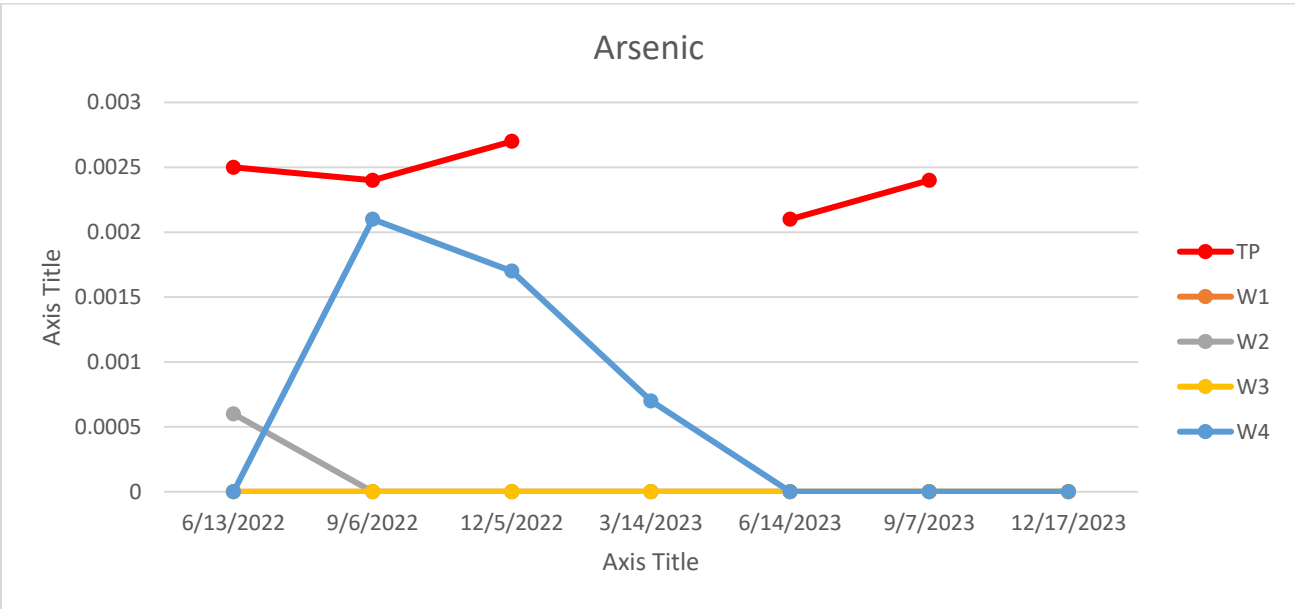


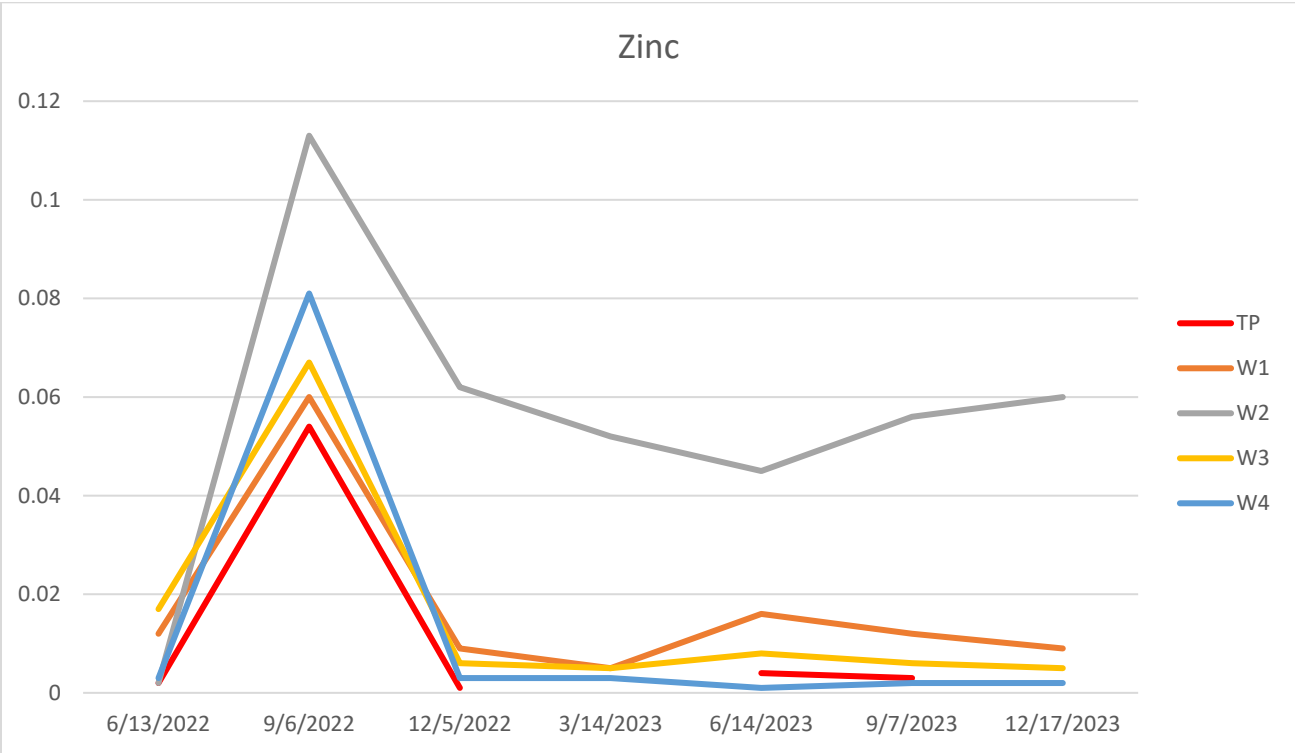
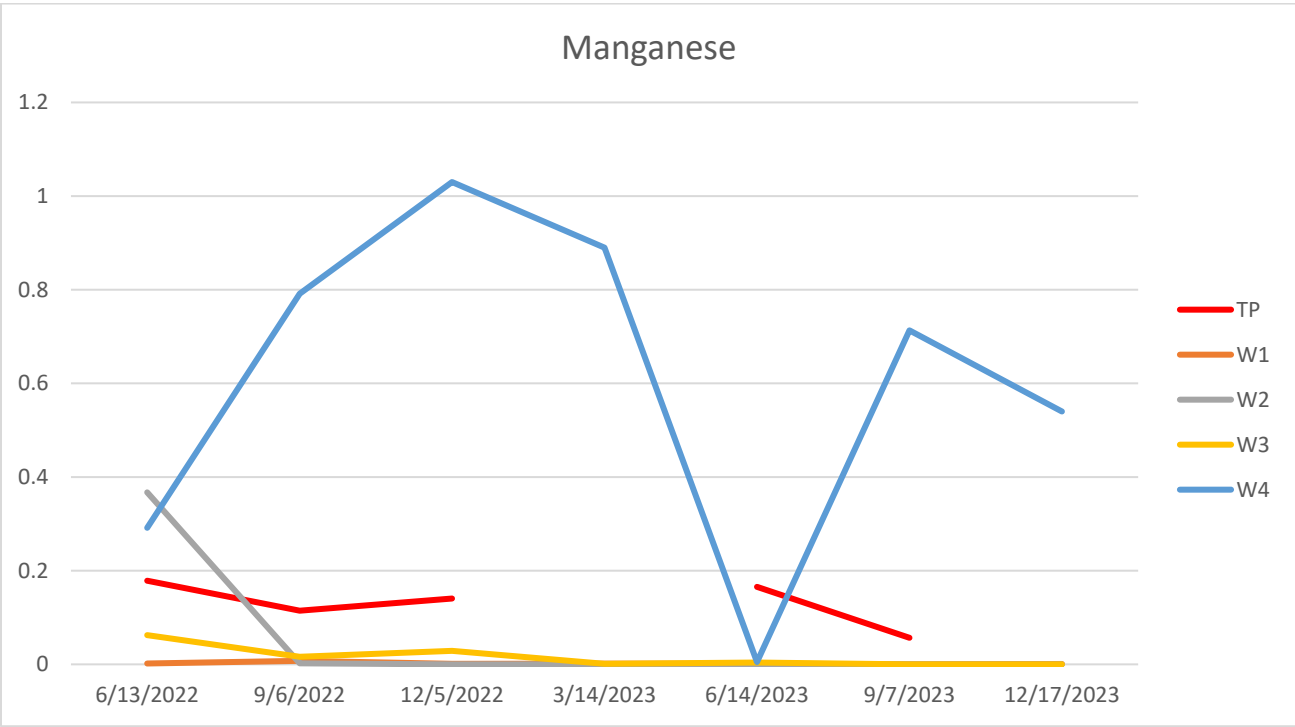
Map showing locations of water monitoring stations for permits M-1994-117 & M-1983-141

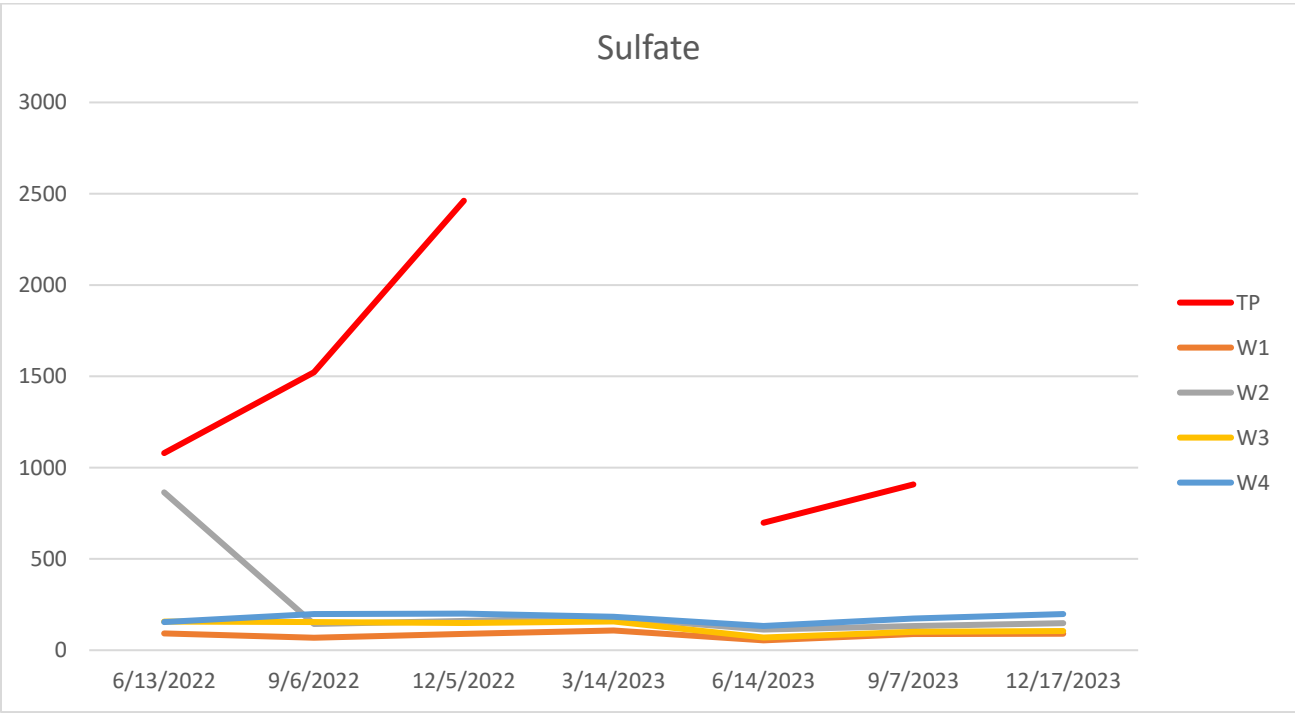
Locations		Well Measurements					Water Analyses (ppm/mg/L)							
Locations ID	Date	Time	Depth	pH	Temp (C)	Conductivity (uS/cm)	Sample ID	Date	As	Cd	Mn	Zn	Residue	Sulfate
Gold Hill Mill M-1994-117														
W-1	12/17/23	9:50	39.1	7.76	9.3	395	231218071	12/17/23	0	0.0001	0.0009	0.009	249	90.4
W-2	12/17/23	10:15	50	7.59	9.2	489	231218071	12/17/23	0	0.0002	0	0.06	324	148
W-3	12/17/23	10:40	28.74	7.53	7.9	489	231218071	12/17/23	0	0	0	0.005	317	105
W-4	12/17/23	10:55	33.5	7.29	7.7	806	231218071	12/17/23	0	0	0.5399	0.002	537	198
TP	FROZEN													
Cash Mine M-1983-141														
MW-1	12/17/23	8:50	53.75	8.09	9	1594	231218071	12/17/23	0	0	0.2504	0	1412	863
MW-5	12/17/23	11:50	11.8	7.52	10.7	911	231218071	12/17/23	0.0021	0.0004	0.1902	0.001	662	287
CG	FROZEN													
CMP	FROZEN													

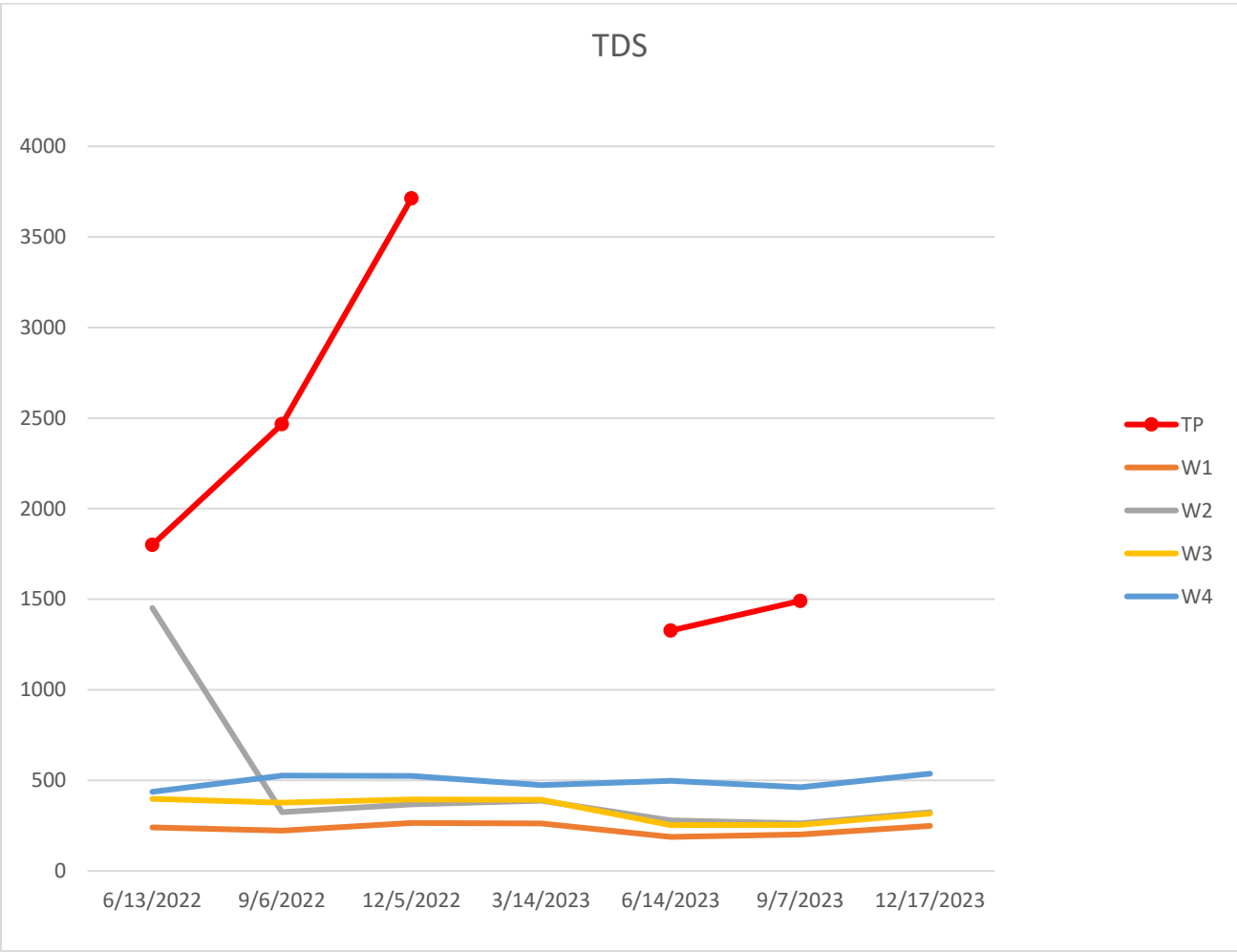
**Analytes from lab analysis are dissolved.**

# Gold Hill Mill Analyte Graphs for the Past Five Quarters

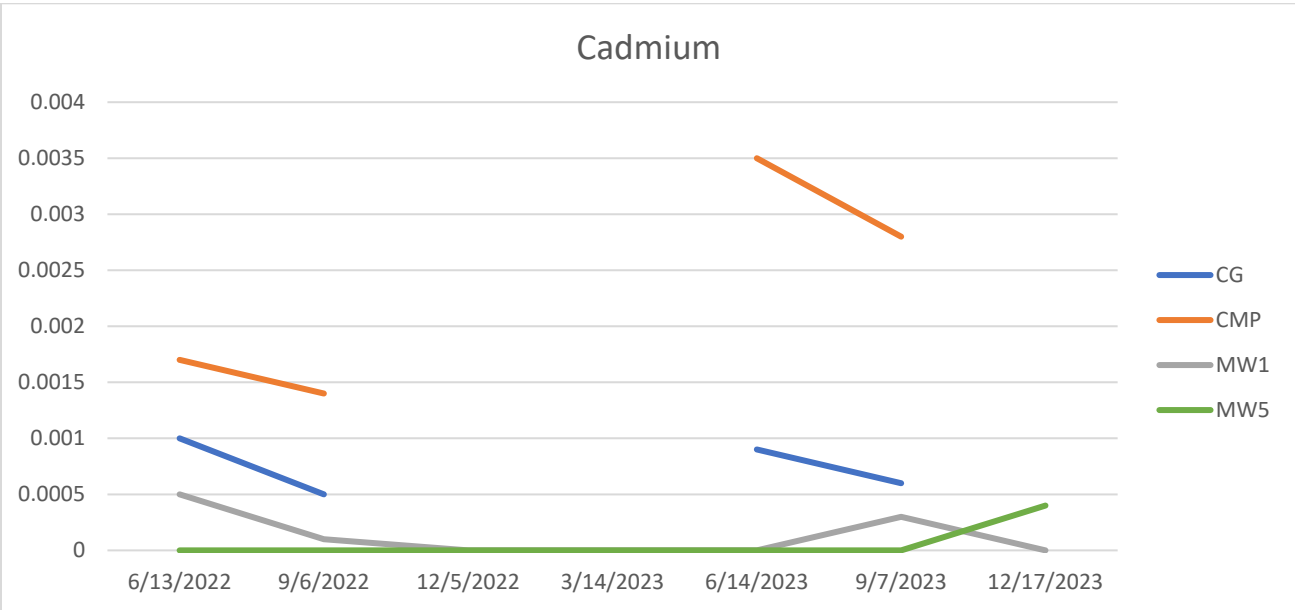
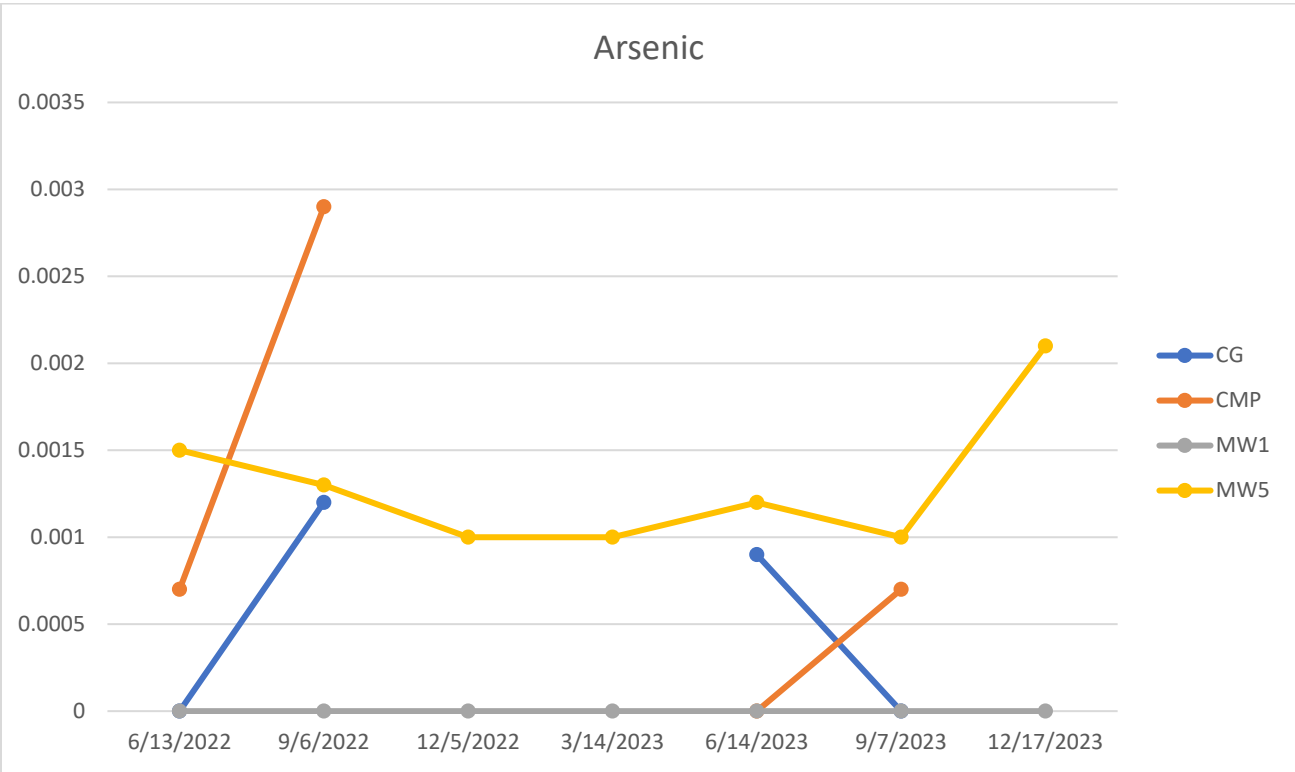


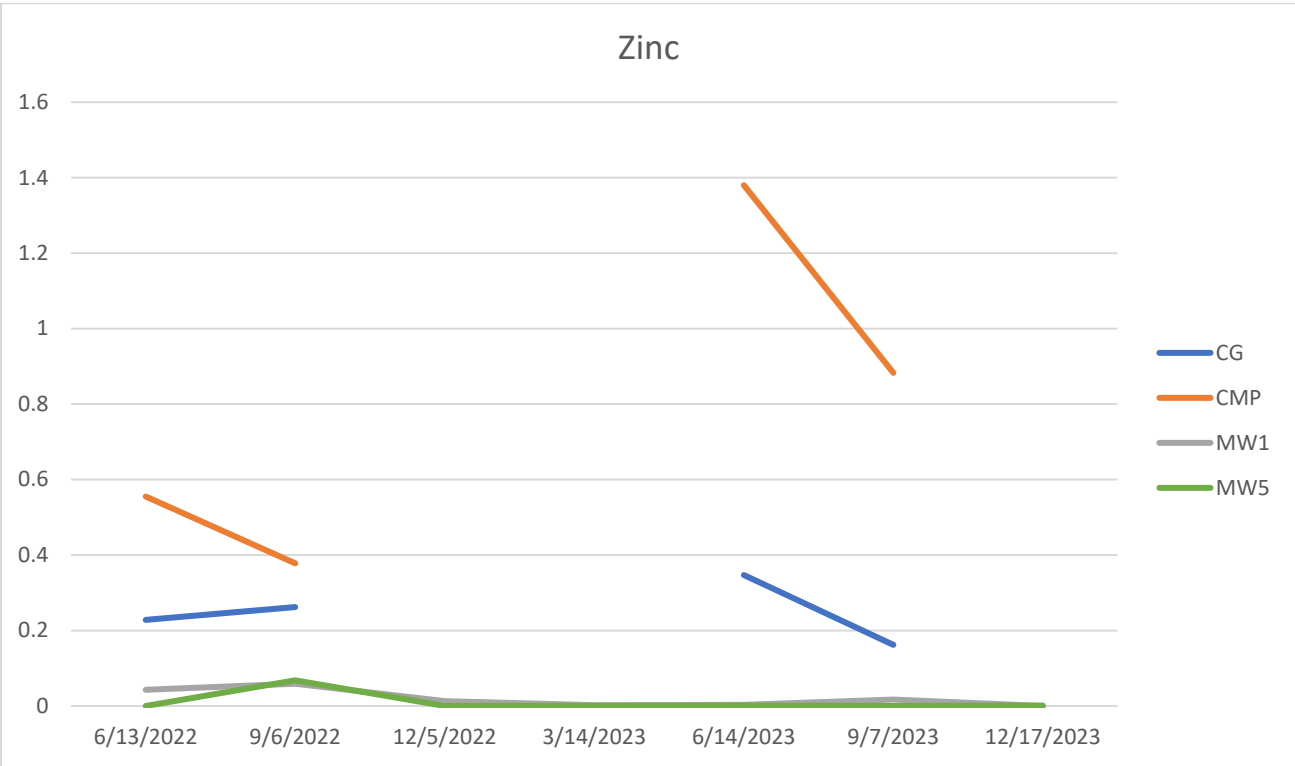
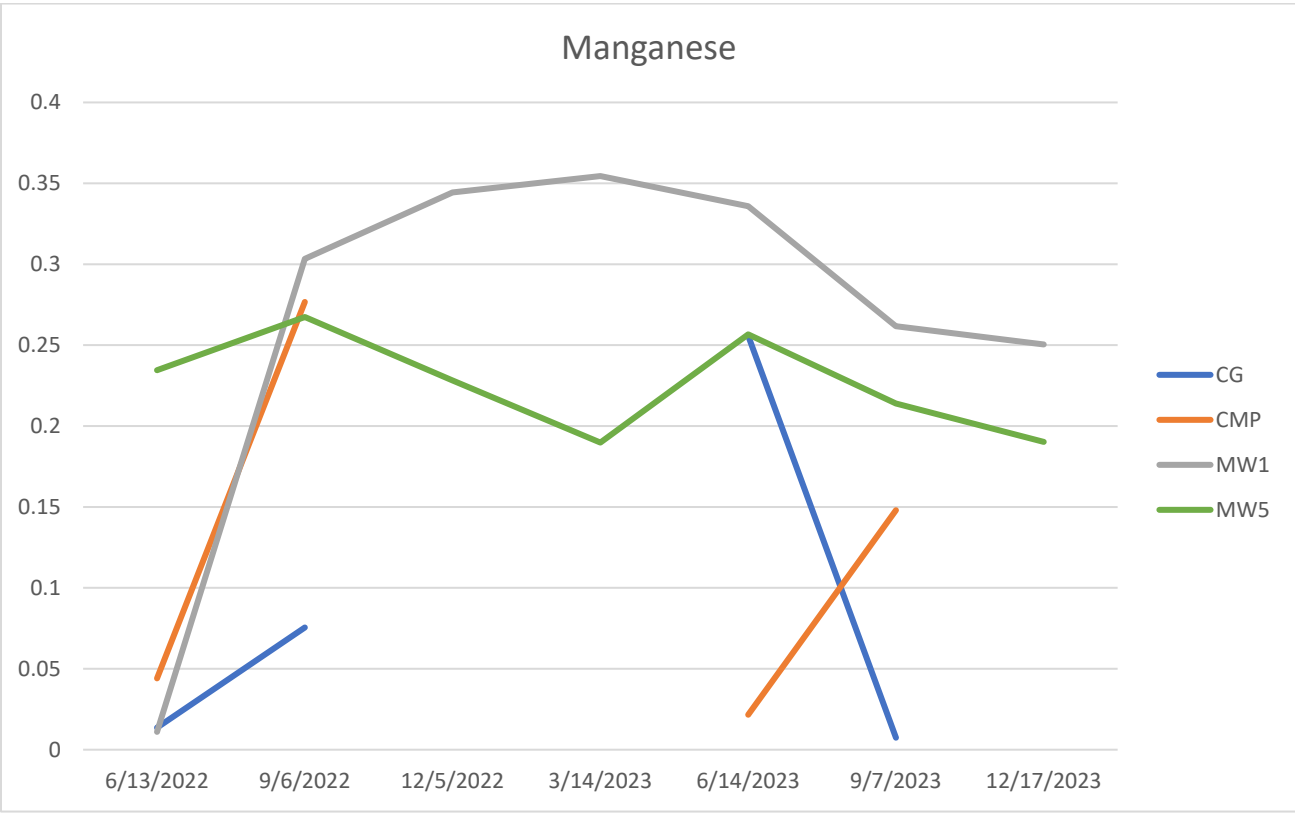


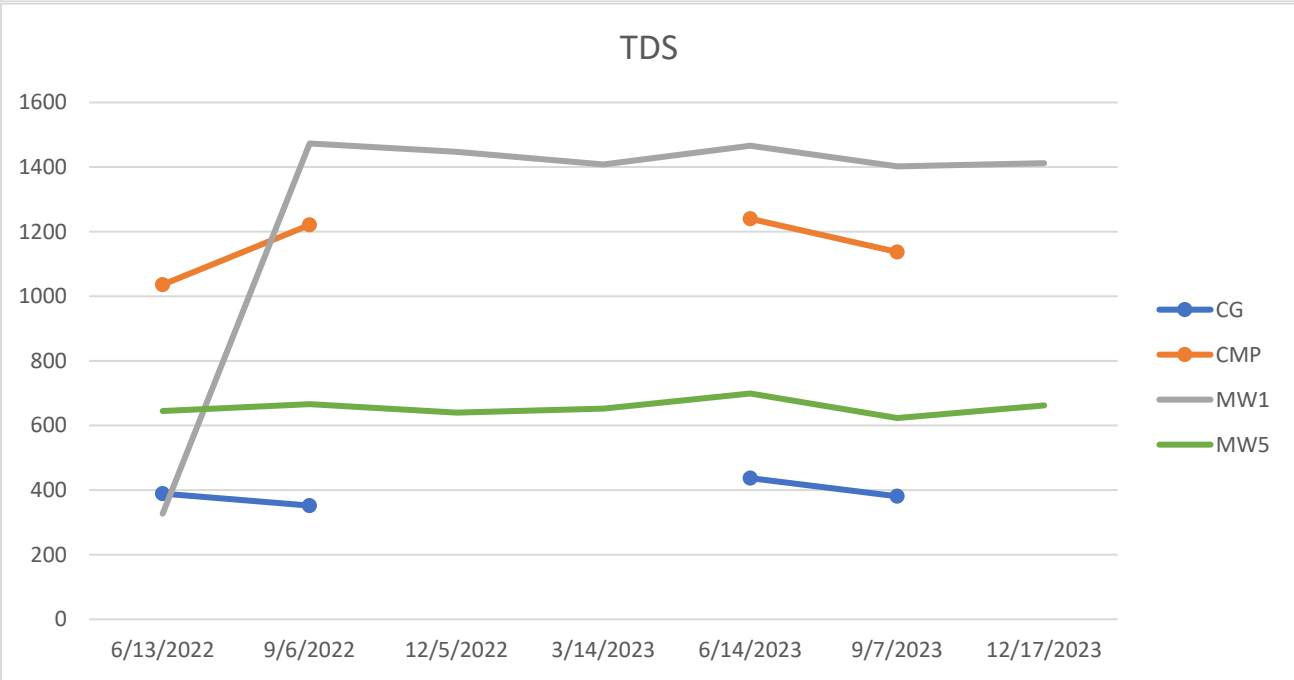
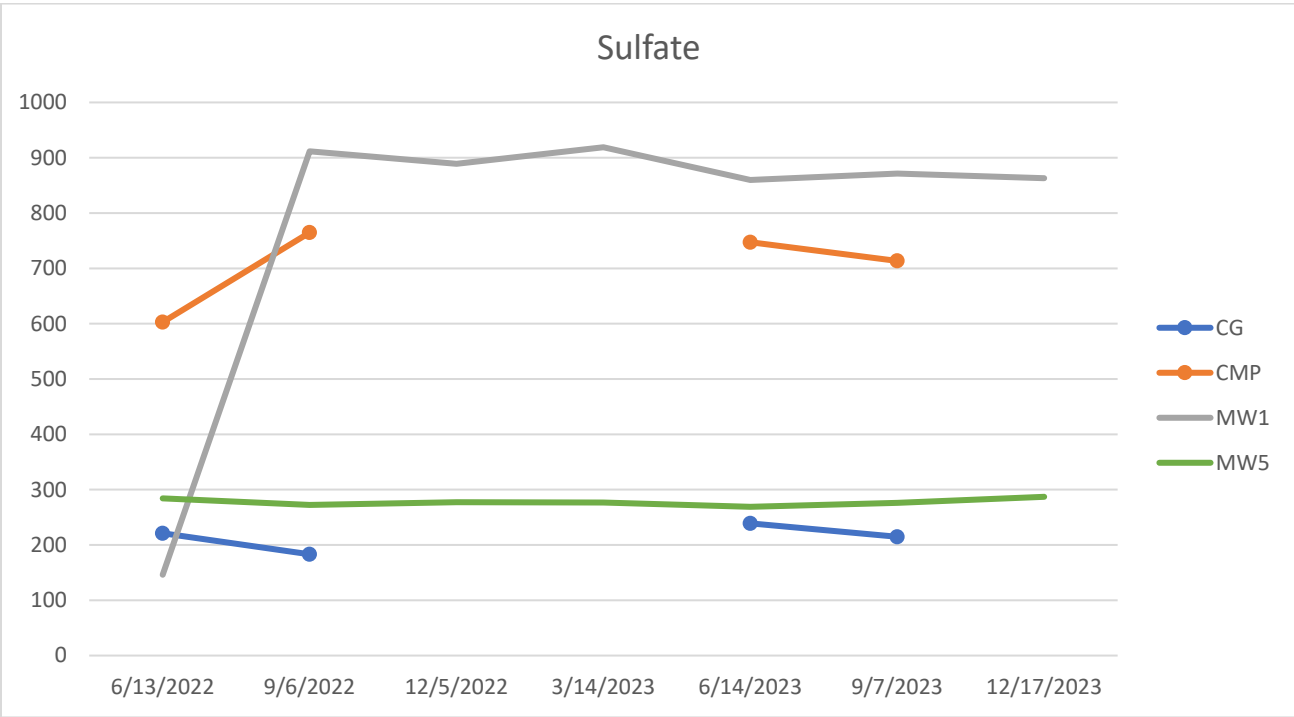




# Cash Mine Analyte Graphs for the Past Five Quarters







## Analytical Results

**TASK NO: 231218071**

**Report To:** Jerry Jergensen

**Company:** Colorado Milling CO  
P.O. Box 99  
Moab UT 84532

**Bill To:** Jerry Jergensen

**Company:** Colorado Milling CO  
P.O. Box 99  
Moab UT 84532

**Task No.:** 231218071  
**Client PO:**  
**Client Project:** Gold Hill

**Date Received:** 12/18/23  
**Date Reported:** 12/22/23  
**Matrix:** Water - Ground

**Customer Sample ID** MW-1

**Sample Date/Time:** 12/17/23 8:50 AM

**Lab Number:** 231218071-01

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	863 mg/L	EPA 300.0	1.00	0.012	12/19/23	QC70110	NRP
Total Dissolved Solids	1412 mg/L	SM 2540-C	5	2	12/21/23	QC70156	ISG
<i><u>Dissolved</u></i>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	12/20/23	QC70153	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	12/20/23	QC70153	MBN
Manganese	0.2504 mg/L	EPA 200.8	0.0008	0.00001	12/20/23	QC70153	MBN
Zinc	ND mg/L	EPA 200.8	0.001	0.00003	12/20/23	QC70153	MBN

### Abbreviations/ References:

RL = Reporting Limit = Minimum Level

MDL = Method Detection Limit

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

(d) RPD acceptable due to low duplicate and sample concentrations.

(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

**10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313**

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

## Analytical Results

**TASK NO: 231218071**

**Report To:** Jerry Jergensen

**Company:** Colorado Milling CO

P.O. Box 99

Moab UT 84532

**Bill To:** Jerry Jergensen

**Company:** Colorado Milling CO

P.O. Box 99

Moab UT 84532

**Task No.:** 231218071

**Client PO:**

**Client Project:** Gold Hill

**Date Received:** 12/18/23

**Date Reported:** 12/22/23

**Matrix:** Water - Ground

**Customer Sample ID** W-1

**Sample Date/Time:** 12/17/23 9:50 AM

**Lab Number:** 231218071-02

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	90.4 mg/L	EPA 300.0	1.00	0.012	12/19/23	QC70110	NRP
Total Dissolved Solids	249 mg/L	SM 2540-C	5	2	12/21/23	QC70156	ISG
<i><u>Dissolved</u></i>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	12/20/23	QC70153	MBN
Cadmium	0.0001 mg/L	EPA 200.8	0.0001	0.000006	12/20/23	QC70153	MBN
Manganese	0.0009 mg/L	EPA 200.8	0.0008	0.00001	12/20/23	QC70153	MBN
Zinc	0.009 mg/L	EPA 200.8	0.001	0.00003	12/20/23	QC70153	MBN

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.

(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

**10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313**

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

## Analytical Results

**TASK NO: 231218071**

**Report To:** Jerry Jergensen

**Company:** Colorado Milling CO  
P.O. Box 99  
Moab UT 84532

**Bill To:** Jerry Jergensen

**Company:** Colorado Milling CO  
P.O. Box 99  
Moab UT 84532

**Task No.:** 231218071  
**Client PO:**  
**Client Project:** Gold Hill

**Date Received:** 12/18/23  
**Date Reported:** 12/22/23  
**Matrix:** Water - Ground

**Customer Sample ID** W-2

**Sample Date/Time:** 12/17/23 10:15 AM

**Lab Number:** 231218071-03

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	148 mg/L	EPA 300.0	1.00	0.012	12/19/23	QC70110	NRP
Total Dissolved Solids	324 mg/L	SM 2540-C	5	2	12/21/23	QC70156	ISG
<u>Dissolved</u>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	12/20/23	QC70153	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001	0.000006	12/20/23	QC70153	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	12/20/23	QC70153	MBN
Zinc	0.060 mg/L	EPA 200.8	0.001	0.00003	12/20/23	QC70153	MBN

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mpn/100 mls = Most Probable Number Index/ 100 mls

Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.

(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 231218071**

**Report To:** Jerry Jergensen

**Company:** Colorado Milling CO

P.O. Box 99

Moab UT 84532

**Bill To:** Jerry Jergensen

**Company:** Colorado Milling CO

P.O. Box 99

Moab UT 84532

**Task No.:** 231218071

**Client PO:**

**Client Project:** Gold Hill

**Date Received:** 12/18/23

**Date Reported:** 12/22/23

**Matrix:** Water - Ground

**Customer Sample ID** W-3

**Sample Date/Time:** 12/17/23 10:40 AM

**Lab Number:** 231218071-04

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	105 mg/L	EPA 300.0	1.00	0.012	12/19/23	QC70110	NRP
Total Dissolved Solids	317 mg/L	SM 2540-C	5	2	12/21/23	QC70156	ISG
<u>Dissolved</u>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	12/20/23	QC70153	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	12/20/23	QC70153	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	12/20/23	QC70153	MBN
Zinc	0.005 mg/L	EPA 200.8	0.001	0.00003	12/20/23	QC70153	MBN

### Abbreviations/ References:

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.

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

## Analytical Results

**TASK NO: 231218071**

**Report To:** Jerry Jergensen

**Company:** Colorado Milling CO

P.O. Box 99

Moab UT 84532

**Bill To:** Jerry Jergensen

**Company:** Colorado Milling CO

P.O. Box 99

Moab UT 84532

**Task No.:** 231218071

**Client PO:**

**Client Project:** Gold Hill

**Date Received:** 12/18/23

**Date Reported:** 12/22/23

**Matrix:** Water - Ground

**Customer Sample ID** W-4

**Sample Date/Time:** 12/17/23 10:55 AM

**Lab Number:** 231218071-05

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	198 mg/L	EPA 300.0	1.00	0.012	12/19/23	QC70110	NRP
Total Dissolved Solids	537 mg/L	SM 2540-C	5	2	12/21/23	QC70156	ISG
<u>Dissolved</u>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	12/20/23	QC70153	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	12/20/23	QC70153	MBN
Manganese	0.5399 mg/L	EPA 200.8	0.0008	0.00001	12/20/23	QC70153	MBN
Zinc	0.002 mg/L	EPA 200.8	0.001	0.00003	12/20/23	QC70153	MBN

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.

(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

**10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313**

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

## Analytical Results

**TASK NO: 231218071**

**Report To:** Jerry Jergensen

**Company:** Colorado Milling CO  
P.O. Box 99  
Moab UT 84532

**Bill To:** Jerry Jergensen

**Company:** Colorado Milling CO  
P.O. Box 99  
Moab UT 84532

**Task No.:** 231218071  
**Client PO:**  
**Client Project:** Gold Hill

**Date Received:** 12/18/23  
**Date Reported:** 12/22/23  
**Matrix:** Water - Ground

**Customer Sample ID** MW-5

**Sample Date/Time:** 12/17/23 11:50 AM

**Lab Number:** 231218071-06

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	287 mg/L	EPA 300.0	1.00	0.012	12/19/23	QC70110	NRP
Total Dissolved Solids	662 mg/L	SM 2540-C	5	2	12/21/23	QC70156	ISG
<u>Dissolved</u>							
Arsenic	0.0021 mg/L	EPA 200.8	0.0006	0.00006	12/20/23	QC70153	MBN
Cadmium	0.0004 mg/L	EPA 200.8	0.0001	0.000006	12/20/23	QC70153	MBN
Manganese	0.1902 mg/L	EPA 200.8	0.0008	0.00001	12/20/23	QC70153	MBN
Zinc	0.001 mg/L	EPA 200.8	0.001	0.00003	12/20/23	QC70153	MBN

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.

(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

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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 QC Summary

**TASK NO: 231218071**

**Report To:** Jerry Jergensen  
**Company:** Colorado Milling CO

**Receive Date:** 12/18/23  
**Project Name:** Gold Hill

Test	QC Batch ID	QC Type	Result	Method	Prep Date
Arsenic	QC70153	Method Blank	ND	EPA 200.8	12/15/23
Cadmium	QC70153	Method Blank	ND	EPA 200.8	12/15/23
Manganese	QC70153	Method Blank	ND	EPA 200.8	12/15/23
Zinc	QC70153	Method Blank	ND	EPA 200.8	12/15/23
Sulfate	QC70110	Blank	ND	EPA 300.0	12/18/23
Total Dissolved Solids	QC70156	Blank	ND	SM 2540-C	12/20/23

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Arsenic	QC70153	LCS	90 - 110	99.8	-	EPA 200.8
		MS	70 - 130	111.5	-	
		MSD	0 - 10	-	1.7	
Cadmium	QC70153	LCS	90 - 110	98.4	-	EPA 200.8
		MS	70 - 130	105.1	-	
		MSD	0 - 10	-	0.3	
Manganese	QC70153	LCS	90 - 110	99.5	-	EPA 200.8
		MS	70 - 130	105.6	-	
		MSD	0 - 10	-	4.6	
Zinc	QC70153	LCS	90 - 110	92.3	-	EPA 200.8
		MS	70 - 130	111.4	-	
		MSD	0 - 10	-	3.4	
Sulfate	QC70110	Duplicate	0 - 20	-	0.1	EPA 300.0
		LCS	90 - 110	101.4	-	
		MS	75 - 125	102.0	-	
Total Dissolved Solids	QC70156	Duplicate	0 - 10	-	1.4	SM 2540-C
		LCS	85 - 115	101.5	-	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

### Abbreviations/ References:

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ND = Not Detected at Reporting Limit.



Colorado  
Analytical  
LABORATORIES, INC.

LABORATORIES, INC

*REV 4-18*

**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](http://www.coloradolab.com)**

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