DEPARTMENT OF ENVIRONMENTAL QUALITY
MINING BUREAU
HARD ROCK MINING SECTION
PO BOX 200901
HELENA MT 59620-0901
(406) 444-4953

Operating Permit Number: 00030

Project Name: Continental Mine

Report Due date: 06/13/2024

(Mail Required $100.00 Annual Filing Fee or Pay Online)

ANNUAL PROGRESS REPORT FOR OPERATING PERMITS

Issued Pursuant to Title 82, Chapter 4, Part 3, Montana Code Annotate (MCA)
And Administrative Rules of Montana (ARM) Adopted Thereunder
(See 82-4-339, MCA, and 17.24.118, ARM, for specific guidance)

Name and Address of Permittee		**Legal Description and Location of Permitted Area**
Montana Resources, LLC 600 Shields Avenue Butte, Montana 59701		Section(s): See T Attach. R 1 County: Silver Bow Directions, in miles, from the nearest town: 1-2 miles east of Butte, Montana See Attachment 1 for additional description
Primary Contact Name: Mark Thompson Title: VP of Env Affairs Phone Number: 406.496.3211 Email Address: MThompson@montanaresources.com	**Secondary Contact** Name: Jeremy Fleege Title: Env Engineer Phone Number: 406.496.3205 Email Address: JFleege@	
Include any other activity-specific contacts (bonding, compliance, etc.) on an attached sheet and specify contact title/responsibilities		

A. CORPORATE INFORMATION

1) If the permittee is a corporation or other business entity, ATTACH a list of names and addresses of current officers, directors, owners of 10% or more of any class of voting stock, partners and the like and its resident agent for service of process. N/A List attached x Attachment # See Attachment 1

2) Names of key personnel for maintenance and monitoring if the operation is shut down

See Attachment 1

3) Average number of payroll employees and on-site contracted employees who worked during the *previous* permit year:

January to March 409 April to June 409 July to September 409 October to December 409

4) Average number of anticipated payroll employees and on-site contracted employees who ***will work*** during the next permit year:

January to March 426 April to June 426 July to September 426 October to December 426

B. BOND

1) Total Bond Amount $ 116,905,203 Amount of Obligated Bond $ 116,905,203

2) Has incremental bonding been approved? No x Yes

If yes, has the additional bond be submitted with this report? No x Yes Amount submitted
Status of the incremental bond (number of increments paid, due, etc.)

C. OPERATION STATUS

1) The operation is currently:

x Active

Inactive *If the operation is currently inactive* (*not extracting ore for future use or processing*), *ATTACH the provision(s) of ARM 17.24.150(2) or (3) that apply to the operation and supporting documentation.*

Documentation attached *Attachment #*

Abandoned

Completed *Indicate date of completion*

D. ACREAGE

1) Acreage within operating permit area See Attachment 1 & 6, and Plate II

2) Acreage permitted for disturbance See Attached

3) Acreage currently bonded for disturbance See Attached

4) Acreage currently disturbed See Attached

5) Acreage of cumulative disturbance (including reclaimed acres) See Attached

6) Acreage disturbed by the operation in the previous 12-month period See Attached

7) Acreage of disturbance planned in the next 12-month period See Attached

E. RECLAMATION

Soil Salvage

1) Cubic yards salvaged in the preceding 12-month period See Attachment 5

2) Cubic yards salvaged cumulatively See Attached

3) Estimate of cubic yards to be salvaged in the next 12-month period See Attached

4) Cumulative volume of soils contained in stockpiles See Attached

5) Average replaced soil depths in the preceding 12-month period See Attached

6) Replaced soil volumes in the preceding 12-month period See Attached

7) Cumulative average replaced soil depths See Attached

8) Cumulative replaced soil volumes See Attached

Backfilling and Grading

9) Acres of backfilling and grading performed during the preceding 12-month period See Attached

10) Cumulative acres of backfilling and grading See Attached

Revegetation

11) Acreage of land planted in the preceding 12-month period See Attached

12) Type of planting or seeding in the preceding 12-month period
See Attached

13) Mixtures and amounts seeded in the preceding 12-month period
See Attached

Copy of seed tag(s) attached *Attachment #*

14) Species, location, and method of planting for site- or species-specific plantings in the preceding 12-month period
See Attached

15) Date(s) of seeding or planting in the preceding 12-month period
See Attached

16) Cumulative acres reseeded See Attached

17) Cumulative acres of completed reclamation See Attached

18) Date each increment of reclamation was completed See Attached

F. MAPS

1) **ATTACH** an updated map or maps. The map(s) should show:
   - ❖ the permit area
   - ❖ land disturbed during the preceding 12 months
   - ❖ cumulative disturbance acreage
   - ❖ land to be disturbed in the next 12 months
   - ❖ land that has been backfilled or graded during the preceding 12 months
   - ❖ reclamation performed during the preceding 12 months
   - ❖ cumulative reclamation
   - ❖ any changes to facilities that occurred in the preceding 12 months

Note: maps must depict all approved surface features, as required by the department, in or associated with the permit area. Maps must be reproduced at a scale applicable for field use.

Map(s) attached x Attachment name(s) Plates I, II, III, and IV

G. MONITORING AND PERMIT CONDITIONS

1) Is comprehensive water monitoring required by the permit? No Yes x

If yes, include an evaluation of water monitoring reports submitted during the preceding year. The evaluation must include trend analyses for those key site-specific parameters required by the department in the permit.
Evaluation attached Attachment # See Attachment 4b

2) Is geologic monitoring required by the permit? No x Yes

If yes, include monitoring results and materials balance report.
Results and report attached Attachment #

3) Is monitoring for cyanide neutralization, acid rock drainage development, or similar occurrences, required by the permit for closure? No x Yes

If yes, include an evaluation of monitoring results and testing data required in the permit for closure.
Evaluation attached Attachment #

4) Does the operation use cyanide or other metal leaching solvents or reagents, or have the potential to generate acid? No x Yes

If yes, include a narrative summary of water balance conditions during the preceding year and identify excess water holding capacity at the time of the annual report.
Summary attached Attachment #

5) Have ongoing cultural resource mitigations been identified in the permit? No x Yes

If yes, include an updated cultural resource management table, including a list of sites mitigated and disturbed in the preceding year and sites to be mitigated and disturbed in the coming year.
List attached Attachment #

6) Is any other information required by the permit or stipulations for submittal with this report? No x Yes

Yes, attached Attachment #(s)

I CERTIFY THAT THE ABOVE STATEMENTS AND ATTACHED INFORMATION ARE TRUE TO THE BEST OF MY KNOWLEDGE.

Preparer Signature: DocuSigned by: 2F5FA24C2E72439... _____

Date: 06/13/2024 Title: Environmental Engineer

Permittee (or Authorized Representative) Signature: DocuSigned by: Mark Thompson DC4980E515B341B... _____

Date: 06/13/2024 Title: Vice President of Environmental Affairs

Montana Resources, LLC
600 Shields Ave.
Butte, Montana
USA 59701

(406) 496-3200
(406) 723-9542 Fax
www.montanaresources.com

Continental Mine
Butte-Silver Bow County

Legal Description:

PERMIT # 00030; General Legal Description:

All or Portions of Sections 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 20, 21, and 22 T3N, R7W

All or Portions of Sections 28, 29, 30, 31, 32, and 33, T4N, R7W

All or Portions of Section 13, T3N, R8W

All or Portions of Section 36, T4N, R8W

Montana Resources, LLC
600 Shields Ave.
Butte, Montana
USA 59701

(406) 496-3200
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Montana Resources, LLC
600 Shields Avenue
Butte, Montana 59701
Federal Tax ID: 81 0458545

Officers:

Jack Standa, President
Daniel Janney, Vice President, Operations
Robert Sanderson, Vice President, Maintenance
Mike McGivern, Vice President, Human Resources
Mark Thompson, Vice President, Environmental Affairs
Kyle Carter, Vice President, Finance

Service of Process:

Montana Resources, Inc.
P.O. Box 16630
101 International Way
Missoula, Montana 59808

Montana Resources

Montana Resources, LLC
600 Shields Ave.
Butte, Montana
USA 59701

(406) 496-3200
(406) 723-9542 Fax
www.montanaresources.com

ANNUAL PROGRESS REPORT
MINE OPERATING PERMITS

Key Personnel for Maintenance and Monitoring in case of mine shutdown as required by 82-4-338 (5).

Mark Thompson, Vice President of Environmental Affairs

Jeremy Fleege, Environmental Engineer

Daniel Janney, Vice President of Operations

Montana Resources, LLC
600 Shields Ave.
Butte, Montana
USA 59701

(406) 496-3200
(406) 723-9542 Fax
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Acreage and Bond

For Operating Permit Number 00030:

- Total Permit Area 6132 Acres
- Total Acreage Currently Disturbed 5584 Acres
- Amount of Bond $116,905,203
- Amount of Obligated Bond $116,905,203

Montana Resources, LLC
600 Shields Ave.
Butte, Montana
USA 59701

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www.montanaresources.com

Bond Status for Permit No. 00030

Total Bond as of December 31, 2022	**$116,905,203**
Total Bond as of December 31, 2023	**$116,905,203**

A 5-year bond review was completed in January 2021.

2.0 Reclamation Summary

2.1 Reclamation Activities

Approximately 62,000 cubic yards of cover soil was salvaged and direct hauled from the bumtown area, and strategically placed (i.e., maintained soil horizons for better topsoil in the top horizon), for cover soil on approximately 21.7 acres of the downslope of the West Embankment. These locations will be seeded in 2024 (see Section 2.6), with final areas and locations reported in the 2024 Annual Report.

Table 2.1 contains the cumulative acres reseeded and completed reclamation to date. Plate IV is an illustration of the cumulative completed reclamation.

In addition, approximately 2.7 acres on the West Embankment was partitioned for reclamation trials with varying cover soil quantities and qualities. Figure 2.1 shows the six reclamation trial sub-areas and includes a description of the cover soil that was included for each area. These will also be seeded in 2024 during the same timeframe that the other West Embankment seeding is occurring. Follow-up information will be provided in subsequent annual reports and/or a vegetation monitoring report.

2.2 Reclamation Maintenance

2.2.1 Weed Control

In 2023, similar locations to prior years were treated with sterilant herbicide. These areas included electrical substations, fuel bays, concentrator facilities, main office, explosive bunkers and around the Horseshoe Bend water treatment plant and reservoir.

In August and October 2023, noxious weeds were treated on approximately 87.3 acres. The areas treated, herbicides used, and application rates are identified in this section. The spraying targeted Bull Thistle, Dalmatian Toadflax, Spotted Knapweed, Hoary Alyssum, Baby's Breath, Canada Thistle, and Musk Thistle.

2.2.2 Vegetation Monitoring

No vegetation monitoring studies were conducted during 2023.

2.2.3 Seed Mix

No seed mix was used in 2023.

2.3 Soil Salvage

Approximately 14,700 cubic yards of topsoil was salvaged in 2023 in association with Revision 22-002 and placed in a stockpile.

2.4 Recontouring Waste Dump Areas

Although the downstream slope of the West Embankment was constructed in 5-foot lifts at an overall slope of 3:1, the slope needed to be smoothed out prior to soil placement described in Section 2.1.

2.5 Fencing

Routine property boundary fence maintenance was conducted in 2023.

2.6 Planned Activities for 2024

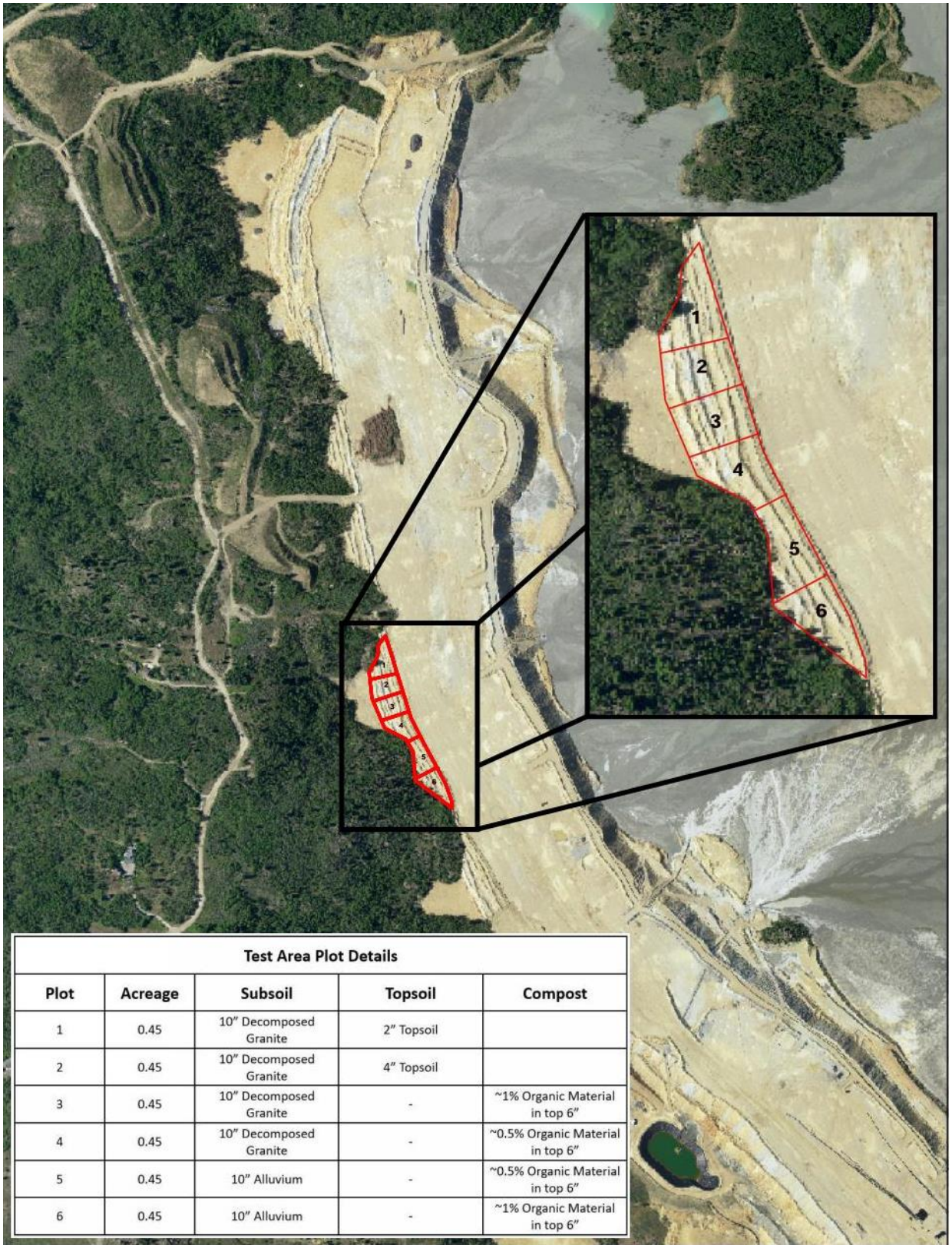
Topsoil will continue to be salvaged near the tailings pond waterline as needed.

During the 2024 season, reclamation maintenance will continue on previously reclaimed areas and seeding will take place on West Embankment slopes, described in Section 2.1. Spot spraying is necessary in many areas because of the presence of broad leaf plant species such as clover and alfalfa in the reclamation seed mix. Maintenance items may include fertilizing, vegetation monitoring, and continued spraying to control noxious weeds.

Table 2.1 Completed Reclamation

Years	**Area (acres)**
1991, 1993	6.6
1992, 1996, 2005	11.2
1993, 2006, 2012	4.7
1996, 1996, 2012	47.8
1992	18.6
1995	1.3
2002	90.4
2004	3.1
2007	10.3
2011	7.3
2012	1.8
2014	6.3
2015	1.1
2017	-37.2
2018	37.4
2019	28.1
2020	25.7
Total:	**264.5**

Figure 2.1 Reclamation Trial Overview



Test Area Plot Details

Plot	Acreage	Subsoil	Topsoil	Compost
1	0.45	10″ Decomposed Granite	2″ Topsoil	
2	0.45	10″ Decomposed Granite	4″ Topsoil	
3	0.45	10″ Decomposed Granite	-	~1% Organic Material in top 6″
4	0.45	10″ Decomposed Granite	-	~0.5% Organic Material in top 6″
5	0.45	10″ Alluvium	-	~0.5% Organic Material in top 6″
6	0.45	10″ Alluvium	-	~1% Organic Material in top 6″

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/1/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 6:30 AM

Location (TRS): Finish Time: 1:30 PM

Other Landmarks: Spot spray areas around Garage. Travel Time:

Area Treated: 4 Acres

Method: Spot Spray

Weeds Treated

- Bull Thistle
- Dalmation Toadflax
- Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	8 Ounces	352-439
Foam Marker Soap	Pints/Acre	2 Pints	N/A
Phase	1 Qt./100 Gal	2 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	4 Quarts	228-145
Tordon 22K*	2 Pints/Acre	8 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
6:30 AM	54	Calm	
1:30 PM	79	Southeast	2-3

Equipment/Labor

Resource	Qty
Truck #21	7 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/1/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 6:30 AM

Location (TRS): Finish Time: 1:30 PM

Other Landmarks: Spot spray areas around garage and water treatment plant. Travel Time:

Area Treated: 4 Acres

Method: Spot Spray

Weeds Treated

Dalmation Toadflax
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	8 Ounces	352-439
Foam Marker Soap	Pints/Acre	2 Pints	N/A
Phase	1 Qt./100 Gal	2 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	4 Quarts	228-145
Tordon 22K*	2 Pints/Acre	8 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
6:30 AM	54	Calm	
1:30 PM	79	Southeast	2-3

Equipment/Labor

Resource	Qty
Truck #23	7 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/2/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 7:15 AM

Location (TRS): Finish Time: 3:30 PM

Other Landmarks: Sprayed area between lower fuel bay and main road. Travel Time:

Area Treated: 3.5 Acres

Method: Spot Spray

Weeds Treated
Dalmation Toadflax
Hoary Alyssum
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	7 Ounces	352-439
Phase	1 Qt./100 Gal	1.75 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	3.5 Quarts	228-145
Tordon 22K*	2 Pints/Acre	7 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
7:15 AM	55	Calm	
3:30 PM	78	Southeast	0-1

Equipment/Labor

Resource	Qty
Truck #21	8.25 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/2/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 7:15 AM

Location (TRS): Finish Time: 3:30 PM

Other Landmarks: Sprayed between main road & old RR tracks at Buckley's shop. Travel Time:

Area Treated: 6.5 Acres

Method: Spot Spray

Weeds Treated

- Dalmation Toadflax
- Hoary Alyssum
- Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	13 Ounces	352-439
Phase	1 Qt./100 Gal	3.25 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	6.5 Quarts	228-145
Tordon 22K*	2 Pints/Acre	13 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
7:15 AM	55	Calm	
3:30 PM	78	Southeast	0-1

Equipment/Labor

Resource	Qty
Truck #23	8.25 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/3/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 6:15 AM

Location (TRS): Finish Time: 2:15 PM

Other Landmarks: Spot spray areas in mine. Travel Time:

Area Treated: 4 Acres

Method: Spot Spray

Weeds Treated

- Baby's Breathe
- Dalmation Toadflax
- Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	8 Ounces	352-439
Foam Marker Soap	Pints/Acre	4 Pints	N/A
Phase	1 Qt./100 Gal	2 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	4 Quarts	228-145
Tordon 22K*	2 Pints/Acre	8 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
6:15 AM	52	Calm	
2:15 PM	72	Northeast	1-2

Equipment/Labor

Resource	Qty
Truck #21	8 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/3/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 6:15 AM

Location (TRS): Finish Time: 2:15 PM

Travel Time:

Other Landmarks: Sprayed area directly East of employee parking area and areas adjacent to mine office. Area Treated: 5.5 Acres

Method: Spot Spray

Weeds Treated
Baby's Breathe
Dalmation Toadflax
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	11 Ounces	352-439
Foam Marker Soap	Pints/Acre	6 Pints	N/A
Phase	1 Qt./100 Gal	2.75 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	5.5 Quarts	228-145
Tordon 22K*	2 Pints/Acre	11 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
6:15 AM	52	Calm	
2:15 PM	72	Northeast	1-2

Equipment/Labor

Resource	Qty
Truck #23	8 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/11/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Range Land Start Time: 6:30 AM

Location (TRS): Finish Time: 12:00 PM

Other Landmarks: Spot spray gated areas off of Moulton Reservoir Rd. Travel Time:

Area Treated: 1 Acres

Method: Spot Spray

Weeds Treated
Canada Thistle
Dalmation Toadflax
Hoary Alyssum
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	2 Ounces	352-439
Milestone	7 Ounces/Acre	0.438 Pints	62719-519
Phase	1 Qt./100 Gal	0.7 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	1 Quarts	228-145

Weather Conditions

Time	Temp	Wind Dir	Speed
6:30 AM	43	Calm	
12:00 PM	71	East	0-1

Equipment/Labor

Resource	Qty
Truck #21	5.5 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/11/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Range Land Start Time: 6:30 AM

Location (TRS): Finish Time: 11:45 AM

Other Landmarks: Field/area directly North of mine office. Travel Time:

Area Treated: 4.5 Acres

Method: Spot Spray

Weeds Treated
Dalmation Toadflax
Hoary Alyssum
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	2 Ounces/Acre	9 Ounces	352-439
Foam Marker Soap	Pints/Acre	8 Pints	N/A
Phase	1 Qt./100 Gal	2.25 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	4.5 Quarts	228-145
Tordon 22K*	2 Pints/Acre	9 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
6:30 AM	43	Calm	
11:45 AM	70	Southeast	0-1

Equipment/Labor

Resource	Qty
Truck #23	5.25 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/18/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 6:30 AM

Location (TRS): Finish Time: 1:15 PM

Other Landmarks: Moulton Resevoir Rd. and lower access road West of I-15. Travel Time:

Area Treated: 3 Acres

Method: Spot Spray

Weeds Treated
Canada Thistle
Dalmation Toadflax
Hoary Alyssum
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	1 Ounces/Acre	3 Ounces	352-439
Milestone	7 Ounces/Acre	1.313 Pints	62719-519
Phase	1 Qt./100 Gal	1.5 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	3 Quarts	228-145

Weather Conditions

Time	Temp	Wind Dir	Speed
6:30 AM	64	Calm	
1:15 PM	81	Southwest	8-10

Equipment/Labor

Resource	Qty
Truck #12	6.75 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/18/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 6:30 AM

Location (TRS): Finish Time: 1:15 PM

Other Landmarks: Woodville Hill. Travel Time:

Area Treated: 7.5 Acres

Method: Spot Spray

Weeds Treated
Dalmation Toadflax
Hoary Alyssum
Musk Thistle
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	1 Ounces/Acre	7.5 Ounces	352-439
Foam Marker Soap	Pints/Acre	5 Pints	N/A
Phase	1 Qt./100 Gal	3.75 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	7.5 Quarts	228-145
Tordon 22K*	2 Pints/Acre	15 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
6:30 AM	64	Calm	
1:15 PM	81	Southwest	8-10

Equipment/Labor

Resource	Qty
Truck #22	6.75 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/28/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 7:00 AM

Location (TRS): Finish Time: 11:15 AM

Other Landmarks: Tree line East of Haul Rd. near I-15. Travel Time:

Area Treated: 4 Acres

Method: Spot Spray

Weeds Treated

- Dalmation Toadflax
- Hoary Alyssum
- Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	1 Ounces/Acre	4 Ounces	352-439
Foam Marker Soap	Pints/Acre	1 Pints	N/A
Milestone	7 Ounces/Acre	1.75 Pints	62719-519
Phase	1 Qt./100 Gal	2 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	4 Quarts	228-145

Weather Conditions

Time	Temp	Wind Dir	Speed
7:00 AM	51	Calm	
11:15 AM	70	East	0-1

Equipment/Labor

Resource	Qty
Truck #21	4.25 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 8/28/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Industrial Start Time: 7:00 AM

Location (TRS): Finish Time: 12:00 PM

Other Landmarks: Helsinki Travel Time:

Area Treated: 4 Acres

Method: Spot Spray

Weeds Treated
Dalmation Toadflax
Hoary Alyssum
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Escort	1 Ounces/Acre	4 Ounces	352-439
Foam Marker Soap	Pints/Acre	4 Pints	N/A
Phase	1 Qt./100 Gal	2 Quarts	N/A
Platoon (2,4-D)	1 Quarts/Acre	4 Quarts	228-145
Tordon 22K*	2 Pints/Acre	8 Pints	62719-6

Weather Conditions

Time	Temp	Wind Dir	Speed
7:00 AM	51	Calm	
12:00 PM	70	South	0-1

Equipment/Labor

Resource	Qty
Truck #23	5 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 10/9/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Range Land Start Time: 9:00 AM

Location (TRS): Finish Time: 4:30 PM

Other Landmarks: Mine area off of Berkley Trail Rd. Travel Time: 1:00

Area Treated: 9.5 Acres

Method: Spot Spray

Weeds Treated
Canada Thistle
Musk Thistle
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Foam Marker Soap	Pints/Acre	1 Pints	N/A
Transline	1 Pints/Acre	9.5 Pints	62719-73

Weather Conditions

Time	Temp	Wind Dir	Speed
9:00 AM	37	Calm	
4:30 PM	70	East	1-2

Equipment/Labor

Resource	Qty
ATV #20	7.5 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 10/9/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Range Land Start Time: 9:00 AM

Location (TRS): Finish Time: 4:30 PM

Other Landmarks: Mine area off of Berkley Trail Rd. Travel Time: 1:00

Area Treated: 7.5 Acres

Method: Spot Spray

Weeds Treated
Canada Thistle
Musk Thistle
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Foam Marker Soap	Pints/Acre	1 Pints	N/A
Transline	1 Pints/Acre	7.5 Pints	62719-73

Weather Conditions

Time	Temp	Wind Dir	Speed
9:00 AM	37	Calm	
4:30 PM	70	East	1-2

Equipment/Labor

Resource	Qty
ATV # 25	7.5

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 10/10/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Range Land Start Time: 8:00 AM

Location (TRS): Finish Time: 3:15 PM

Other Landmarks: Area off of Berkley Trail Rd. Travel Time: 1:00

Area Treated: 12.75 Acres

Method: Spot Spray

Weeds Treated
Canada Thistle
Musk Thistle
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Foam Marker Soap	Pints/Acre	2 Pints	N/A
Transline	1 Pints/Acre	12.75 Pints	62719-73

Weather Conditions

Time	Temp	Wind Dir	Speed
8:00 AM	46	Calm	
3:15 PM	62	Calm	

Equipment/Labor

Resource	Qty
ATV #20	7.25 Hours

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 10/10/2023 Applicator: Nathan Taylor License: 105807-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Range Land Start Time: 8:00 AM

Location (TRS): Finish Time: 3:15 PM

Other Landmarks: Area off of Berkley Trail Rd. Travel Time: 1:00

Area Treated: 4.5 Acres

Method: Spot Spray

Weeds Treated
Canada Thistle
Musk Thistle
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Foam Marker Soap	Pints/Acre	1 Pints	N/A
Transline	1 Pints/Acre	4.5 Pints	62719-73

Weather Conditions

Time	Temp	Wind Dir	Speed
8:00 AM	46	Calm	
3:15 PM	62	Calm	

Equipment/Labor

Resource	Qty
ATV # 25	7.25

Comments:

Pioneer Weed Control, Inc. RR2 Box 220 Butte, MT 59701

Date: 10/11/2023 Applicator: Steve Bell License: 105137-12 Job #: 2338

County: Silver Bow Landowner: Montana Resources Reference:

Site: Range Land Start Time: 10:45 AM

Location (TRS): Finish Time: 12:00 PM

Travel Time: 2:30

Other Landmarks: Sprayed slope South of cabin & road and open area's South of pond dam. Area Treated: 1.5 Acres

Method: Spot Spray

Weeds Treated
Canada Thistle
Musk Thistle
Spotted Knapweed

Chemicals Applied

Trade Name	App. Rate	Total	EPA Reg. No.
Transline	1 Pints/Acre	1.5 Pints	62719-73

Weather Conditions

Time	Temp	Wind Dir	Speed
10:45 AM	39	Calm	
12:00 PM	46	Calm	

Equipment/Labor

Resource	Qty
Truck #23	1.25 Hours

Comments:

3.0 Material Characterization

3.1 Alluvium

No alluvium was stockpiled in 2023.

3.2 Leached Capping

No leached capping material was stockpiled in 2023.

3.3 Material Characterization Program

During construction of the 6450-lift to the Yankee Doodle Tailings Impoundment (YDTI), an ABA sample is collected every 40,000 cubic yards of zone D1 material, every 400,000 cubic yards of zone U material and every 10,000 cubic yards of zone UA material. Results from these samples analyzed in 2023 are contained in the construction reports prepared per the Construction Management Plan.

None of the leached capping from the D East and E East pushbacks will be used as reclamation material. All leached capping material was used for tailings embankment construction. The purpose of sampling this material used for construction is to segregate the material relatively so that when the material balance allows, the higher quality leached capping can be placed in the downstream side of the embankment and the material of lesser quality can be placed to the center or to the upstream side of the embankment.

Three humidity cell tests of tailings samples were conducted through all of 2023 and will be terminated in 2024. The results and interpretation of the tests will be presented in a report prepared to support a permit amendment application to increase the tailings embankment elevation.

Results from sampling of topsoil used in reclamation in 2023 (see Section 2.1) are contained in Table 3.1. The topsoil was salvaged from just north of the northwest corner of the YDTI.

Table 3.1 West Embankment Topsoil Sampling

Sample Parameter	Average	Min	Max	n
Organic Matter (%)	2.3	1.3	3.9	13

Quarterly tailing composite samples were collected in 2023. The results from the 2023 quarterly tailings samples are included in Table 3.2.

Table 3.2 Tailings Geochemistry

Sample Site/No. → / Constituent ↓	2023			
	1st Qtr M.T.P.H. 23Q1	2nd Qtr M.T.P.H. 23Q2	3rd Qtr M.T.P.H. 23Q3	4th Qtr M.T.P.H. 23Q4
ppm Cu	571	551	545	406
ppm Mo	75	82	77	83
% Fe	1.61	1.67	1.63	1.62
% Al	1.38	1.46	1.32	1.29
ppm Sb	<1	<1	<1	<1
ppm As	4	2	3	3
ppm Ba	75	82	74	78
ppm Bi	1	<1	<1	2
ppm Cd	<1	<1	<1	<1
% Ca	0.597	0.681	0.521	0.786
ppm Cr	12	13	11	12
ppm Co	10	11	12	9
ppm Pb	79	42	45	41
% Mg	0.560	0.610	0.533	0.670
ppm Mn	256	302	244	350
ppm Ni	6	6	6	7
ppm P	392	410	364	416
% K	0.611	0.677	0.589	0.729
% Si	0.0599	0.0554	0.0599	0.0543
% Na	0.0180	0.0193	0.0184	0.0187
ppm Sr	37	42	39	37
ppm Sn	2	2	2	2
ppm Ti	761	850	727	925
ppm V	45	52	44	54
ppm Zn	98	103	103	157
ppm Se	1	<1	1	<1
pH	8.9	8.8	9.7	9.2
ABP T/THO	-36	-25	-37	-25
% S-N-EX	0.05	0.05	0.06	0.05
% S-PYR	1.3	1.1	1.3	1.2
% S-SO_4	0.07	0.01	0.05	0.09
% S-Tot.	1.6	1.3	1.5	1.4
AGP T/THO	49	41	46	43
ANP T/THO	14	16	10	18

4.0 Water Quality

During 2023, MR continued the water quality sampling program. Attached is a report which includes a summary and trend analysis of the water monitoring conducted in 2023.

Water Quantity:

The average freshwater make-up flow from the Silver Lake Water System (SLWS) in 2023 was 1.2 million gallons per day (MGD). Tailings are pumped as a slurry to the YDTI at an average rate of approximately 18,000 gpm. The tailings slurry is approximately 35% solids by mass. Water returned from the YDTI to the mill was not measured in 2023 but is estimated to be an average rate of approximately 21 MGD[1]. The average flow in the Clear Water Ditch as measured by MBMG at a flume near the guard shack was 286 gpm in 2023. Flow from the Continental Pit is not monitored but is estimated to average approximately 0.5 MGD. Approximately 1.4 billion gallons were treated at the Horseshoe Bend Water Treatment Plant; 1.2 billion gallons of Berkeley Pit water was extracted and treated; and 1.5 billion gallons were discharged to Silver Bow Creek by the BMFOU Pilot Project in 2023.

[1] This includes water delivered to the Polishing Plant for discharge to Silver Bow Creek.

MONTANA RESOURCES

2023 BASELINE AND OPERATIONAL

WATER RESOURCES MONITORING REPORT

Prepared for:

Montana Resources, LLP
600 Shields Avenue
Butte, MT 59701

Prepared by:

Hydrometrics, Inc.
3020 Bozeman Avenue
Helena, MT 59601

May 2024

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LIST OF ACRONYMS

DI	Deionized water
DO	Dissolved Oxygen
FSAP	Field Sampling and Analysis Plan
HsB	Horseshoe Bend
MR	Montana Resources, LLP
N+N	Nitrate plus Nitrite as Nitrogen
PRDL	Project Required Detection Limit
QC	Quality Control
RPD	Relative Percent Difference
SC	Specific Conductance
SOP	Standard Operating Procedure
SWL	Static Water Level
VWP	Vibrating Wire Piezometer
WED	West Embankment Drain
YDTI	Yankee Doodle Tailings Impoundment

MONTANA RESOURCES

2023 BASELINE AND OPERATIONAL

WATER RESOURCES MONITORING REPORT

1.0 INTRODUCTION

At the request of Montana Resources, LLP (MR), Hydrometrics conducted hydrologic monitoring in the vicinity of the Continental Mine in 2023. The 2023 monitoring program included semi-annual (spring and fall) groundwater and surface water sampling. Monitoring activities were focused on the Yankee Doodle Tailings Impoundment (YDTI) and Moulton Reservoir Road area, with additional monitoring sites located throughout the active mine site (Figure 1-1). The 2023 monitoring program is a continuation of the water resources monitoring implemented the past several years and contributes to establishment of an extensive water quality database for the YDTI and Continental Mine area, and satisfies certain Continental Mine operating permit requirements. Objectives of the monitoring program include:

1. Continue baseline surface water and groundwater quality monitoring as initiated under MR's prior mine permitting programs; and
2. Provide operational water quality data as required by the Continental Mine operating permit(s).

This report documents the scope and results of 2023 water resources monitoring activities conducted by Hydrometrics at the Continental Mine. Also included is an analysis of water quality trends for the monitoring period of record. Besides documenting current water quality conditions and trends, information provided in this report will be used in design and planning of future water resources monitoring programs and mine permitting activities.

MONTANA RESOURCES WATER RESOURCES MONITORING REPORT	MONTANA RESOURCES PROJECT AREA AND SURFACE WATER & GROUNDWATER MONITORING LOCATIONS	FIGURE 1-1

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Hydrometrics, Inc.

2.0 MONITORING PROGRAM SCOPE

This section describes the scope and details of the 2023 monitoring program including monitoring locations, schedules, and analytical parameters. The sampling methodology is also summarized below with additional detail provided in the 2023 Field Sampling and Analysis Plan (FSAP; Hydrometrics, 2023).

2.1 SURFACE WATER MONITORING

The 2023 surface water monitoring program included 20 sites (Table 2-1). Eleven of these sites are included in MR's operational monitoring program designated for seasonal sampling in the current mine operating permit (MR, 2021). Six sites are considered baseline monitoring sites established during 2012 to 2016 to document surface water quality west of the YDTI as part of previous YDTI permitting activities. Water quality data from these sites documents current hydrologic conditions around the YDTI for comparison to future water quality data. Three sites are neither operational nor baseline and were sampled at MR's request for general information. Table 2-1 provides a description of each site by program with site locations shown in Figure 2-1.

Two sampling events were conducted in 2023, one in June during high flow conditions, and the second in October during the low flow season. The two sampling events are meant to document surface water quality conditions under varying flow regimes.

Monitoring at each surface water site included field measurements of streamflow (where conditions allowed), pH, specific conductance (SC), dissolved oxygen (DO), and water temperature. Water samples were also collected at each site for laboratory analyses of a suite of major constituent, nutrient, and trace metal concentrations at Energy Laboratories in Helena (Table 2-2). With the exception of aluminum, all metals were analyzed for the total recoverable fraction. Aluminum samples were filtered through a 0.45 µm disposable filter in the field prior to preservation for dissolved fraction analysis. Details of surface water sampling procedures, sample handling and preservation, and analytical methods are included in the 2023 FSAP (Hydrometrics, 2023).

2.2 GROUNDWATER MONITORING

The 2023 groundwater monitoring program included water quality sampling at 24 monitoring wells (Table 2-3). The majority of sites (22) are part of the operational monitoring program (MR, 2021) with the remaining two sites monitored to further document baseline water quality conditions. All wells were monitored during spring (June) and fall (October) to document groundwater characteristics under variable hydrologic conditions. Monitoring well locations are shown on Figure 2-2.

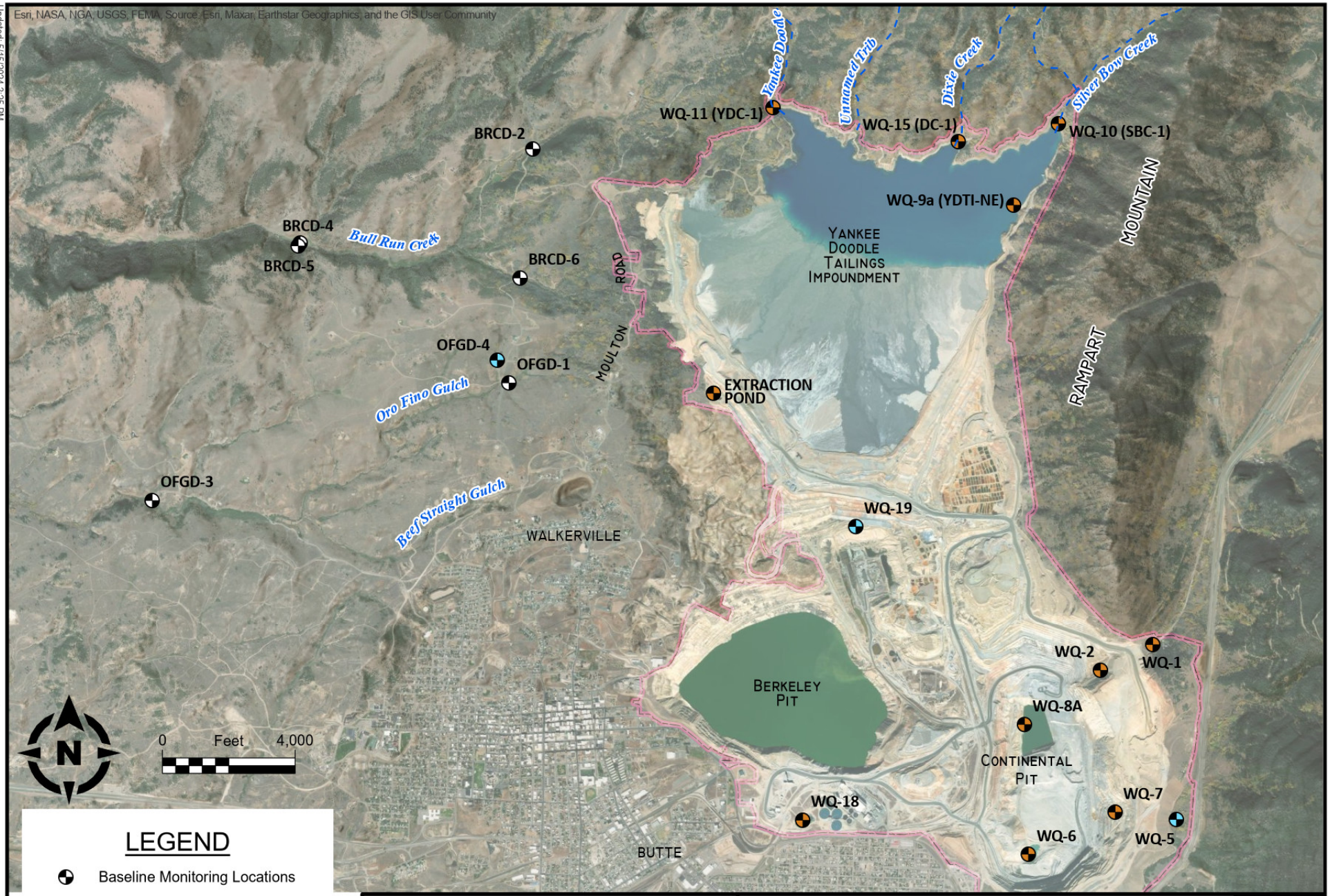
TABLE 2-1. 2023 MONTANA RESOURCES SURFACE WATER MONITORING SITES

Site ID	Latitude (°N)	Longitude (°W)	Description
BRCD-2[(1)]	46.0608	-112.5433	Upper Bull Run Creek drainage downstream of BRCD-1 at Poorman Rd crossing.
BRCD-4[(1)]	46.0523	-112.5705	Bull Run Creek at end of Frog Pond Rd, downstream of BRCD-3.
BRCD-5[(1)]	46.0520	-112.5707	Tributary to Bull Run Creek entering from the south immediately downstream of BRCD-4.
BRCD-6[(1)]	46.0501	-112.5442	South Fork of BRC upstream of Bull Run Road crossing. Very little flow.
OFGD-1[(1)]	46.0414	-112.5451	Head of Frog Pond at junction of Bull Run Creek Rd and Frog Pond Rd (east of Bull Run Creek road).
OFGD-3[(1)]	46.0306	-112.5869	Downstream Oro Fino Gulch in Section 10.
OFGD-4[(3)]	46.0433	-112.5467	Spring/seep in Oro Fino Gulch drainage downstream of OFGD-1. Sampled upgradient of house.
DC-1 (WQ-15)[(2)]	46.0627	-112.4929	Lower Dixie Creek at impoundment immediately upstream of metal culvert.
SBC-1 (WQ-10)[(2)]	46.0645	-112.4811	Silver Bow Creek immediately upstream of tailings pond.
YDC-1 (WQ-11)[(2)]	46.0650	-112.5150	Yankee Doodle Creek immediately upstream of tailings pond.
YDTI-NE (WQ-9a)[(2)]	46.0617	-112.4869	Tailings pond near decant barge.
Extraction Pond[(2)]	46.0414	-112.5207	West Embankment Drain extraction pond.
WQ-1[(2)]	Woodville East: upstream of the previously reclaimed Woodville waste rock dump.		
WQ-2[(2)]	Woodville West: southwest side of the Woodville waste rock dump.		
WQ-6[(2)]	Continental Pit South: southern end of the active Continental Pit.		
WQ-7[(2)]	Pavilion Seep: on the 5840 bench of the Continental Pit below the old Columbia Gardens Pavilion.		
WQ-8A[(2)]	Continental Pit North: northern end of the Continental Pit.		
WQ-18[(2)]	Emergency/Ecology Pond: Southwest corner of the property north of Texas Avenue.		
WQ-5[(3)]	Clear Water Ditch near southeastern property boundary, upstream of waste rock facilities.		
WQ-19[(3)]	No. 10 Seep on East-West Embankment at weir.		

(1) Baseline Monitoring Sites

(2) Operational Monitoring Site

(3) Other monitoring site.



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Hydrometrics, Inc.

MONTANA RESOURCES
WATER RESOURCES MONITORING REPORT

SURFACE WATER MONITORING LOCATIONS

FIGURE
2-1

TABLE 2-2. 2023 SURFACE WATER AND GROUNDWATER ANALYTICAL PARAMETER LIST

Parameter	Analytical Method [1]	Project Required Detection Limit (mg/L)
Physical Parameters		
pH	150.2/SM 4500H-B	0.1 s.u.
Specific Conductance	120.1/SM 2510B	1 µmhos/cm
TDS	SM 2540C	10
TSS	SM 2540D	10
Common Ions		
Alkalinity	SM 2320B	1
Acidity as CaCO3 (if pH<5)	A2310B	1
Bicarbonate	SM 2320B	1
Carbonate	SM 2320B	1
Sulfate	300	1
Chloride	300.0/SM 4500CL-B	1
Fluoride	A 4500 F-C	0.1
Nutrients - Operational Surface Water Samples Only		
Nitrate + Nitrite as N	E353.2	0.03
Total Phosphorous as P	E365.1	0.05
Metals: Surface Water-Total Recoverable (except dissolved for aluminum); Groundwater - Dissolved		
Aluminum (Al) (dissolved)	200.7/200.8	0.005
Antimony (Sb)	200.8/200.9	0.0005
Arsenic (As)	200.8/SM 3114B	0.001
Boron (B)	200.7/200.8	0.1
Cadmium (Cd)	200.7/200.8	0.00003
Calcium	215.1/200.7	5
Chromium (Cr)	200.7/200.8	0.001
Copper (Cu)	200.7/200.8	0.001
Iron (Fe)	200.7/200.8	0.02
Lead (Pb)	200.7/200.8	0.0003
Lithium (Li)	200.8/200.9	0.1
Magnesium	242.1/200.7	5
Manganese (Mn)	200.7/200.8	0.01
Mercury (Hg)	245.1/245.7/200.8/SW7470	0.00001
Molybdenum (Mo)	E246.2/200.7/200.8	0.0001
Nickel (Ni)	200.7/200.8/200.9	0.002
Potassium	258.1/200.7	5
Rubidium (Rb)	200.8/200.9	0.0001
Selenium (Se)	200.7/200.8/SM 3114B	0.001
Silicon (Si)	200.7/200.8	0.1
Silver (Ag)	200.7/200.8	0.0002
Sodium	273.1/200.7	5
Strontium (Sr)	200.7/200.8	0.02
Tungsten (W)	200.7/200.8	0.0001
Thallium (Tl)	200.8/200.9	0.0002
Uranium	200.8	0.0002
Vanadium (V)	E286.2200.7/200.8	0.1
Zinc (Zn)	200.7/200.8	0.008
Field Parameters		
Water Temperature	HF-SOP-20	0.1 °C
Dissolved Oxygen (DO)	HF-SOP-22	0.01 mg/L
pH	HF-SOP-20	0.01 pH standard unit
Specific Conductance (SC)	HF-SOP-79	1 µmhos/cm

(1) Analytical methods are from *Standard Methods for the Examination of Water and Wastewater* (SM) or EPA's *Methods for Chemical Analysis of Water and Waste* (1983). Equivalent methods may be substituted.

TABLE 2-3. 2023 GROUNDWATER MONITORING SITES

Monitor Well	Location	Top of Casing Elevation	Screen Interval feet bgs
MW 12-11	South ridge near ridge crest	6521.41	145-195
MW 12-12	North ridge near ridge crest	6475.87	165-200
MW 12-13	North ridge near ridge crest	6490.28	150-200
MW 12-14	North ridge near ridge crest	6476.47	100-150
MW 12-15	South ridge near ridge crest	6518.90	150-200
MW 12-16	Central ridge, groundwater potentiometric low	6487.58	141-191
MW 12-17	North ridge near ridge crest	6472.97	155-195
MW 12-18	North ridge near ridge crest	6472.65	80-115
MW 15-01	Central ridge near ridge crest	6504.13	182-222
MW 15-02	Central ridge near ridge crest	6483.34	147-197
MW 15-03	Central ridge, groundwater potentiometric low	6487.41	345-385
MW 15-04	Central ridge on east ridge flank	6435.98	170-220
MW 15-05	North ridge near ridge crest	6468.72	240-290
MW 15-06	North ridge near ridge crest	6468.97	350-400
MW 15-07	Central ridge near ridge crest	6464.65	162.5-202.5
MW 15-08	Central ridge near ridge crest	6464.57	81.5-101.5
MW 15-09	North of tailings impoundment	6455.25	92-142
MW 15-10*	North of tailings impoundment	6369.00	84-99
MW 15-11*	North of tailings impoundment	6536.30	161-201
MW 15-12	East of tailings impoundment	6436.18	68.5-98.5
MW 15-13	East of tailings impoundment	6420.83	81-101
MW 16-01	Central ridge, deep fracture system	6502.09	485-517
MW 16-02D	Central ridge, deep fracture system	6499.41	489-549
MW 16-02S	Central ridge near ridge crest	6499.33	244-264

* Denotes baseline monitoring sites; all other sites are operational monitoring sites.
bgs - below ground surface
Elevations relative to Anaconda mine grid datum.

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Hydrometrics, Inc.

MONTANA RESOURCES
WATER RESOURCES MONITORING REPORT

GROUNDWATER SAMPLING LOCATIONS

FIGURE
2-2

Groundwater monitoring included field measurements of static water level (SWL), pH, SC, DO, and water temperature. Groundwater samples were collected at each well for laboratory analyses of major constituent, nutrient, and trace metal concentrations at Energy Laboratories in Helena (Table 2-2). Samples for metals analyses were filtered through a disposable 0.45 µm filter prior to preservation for analysis of the dissolved metals fraction. Details on groundwater sampling procedures, sample handling and preservation, and analytical methods are included in the 2023 FSAP (Hydrometrics, 2023).

In addition to seasonal water quality monitoring, SWLs were recorded monthly at most YDTI wells throughout 2023. Groundwater level monitoring, particularly along the ridge west of the impoundment (the West Ridge) is an important component of the YDTI monitoring program since the groundwater levels along the ridge are of interest in maintaining hydraulic containment along the west side of the YDTI (MR, 2021). The monitoring wells are also instrumented with vibrating wire piezometers (VWPs) for continuous water level monitoring. All manual water level data is maintained in a spreadsheet database by Hydrometrics with the VWP data maintained by MR.

2.3 FIELD QUALITY CONTROL SAMPLES

In accordance with the 2023 FSAP, field quality control (QC) samples were collected during all sampling events to assess data quality and representativeness. QC samples were collected at a minimum frequency of one set (one duplicate, one deionized water (DI) blank, one equipment rinsate blank for groundwater; one duplicate, one DI blank for surface water) per 20 field samples during each monitoring event. A total of 20 QC samples were collected in 2023 with the QC sample results utilized for data validation as described in Section 4.0.

2.4 DEVIATIONS FROM FIELD SAMPLING AND ANALYSIS PLAN

The 2023 water sampling was conducted in accordance with the 2023 FSAP (Hydrometrics, 2023) with the following exceptions. Surface water monitoring site WQ-19 (Seep 10) could not be sampled in the fall due to restricted access related to the Horseshoe Bend (HsB) rock disposal site construction, and site WQ-8A (Continental Pit North) could not be accessed in spring due to construction. In Bull Run Creek drainage, spring/seep sites BRCD-5 and BRCD-6 were both dry during the fall sampling event. In Oro Fino Gulch drainage, streamflow could not be measured at site OFGD-3 in June since the creek was out of its banks due to heavy rains the week of sampling. For the groundwater monitoring program, monitoring wells MW15-12 and MW15-13 could not be sampled in June or October due to construction activities impeding access. All other sites were sampled during the spring and fall sampling events in accordance with the project FSAP (Hydrometrics, 2023).

3.0 MONITORING RESULTS

Results of the 2023 surface water and groundwater monitoring programs are discussed below. Water quality results from each program are evaluated with a focus on key parameters of interest based on their frequency of occurrence (arsenic, uranium), their relevance to the Continental Mine orebody or metal mines in general (i.e., copper, iron, manganese), and for their potential to serve as indicators of YDTI process water (molybdenum, tungsten, rubidium, fluoride, sulfate). Although concentrations of these five "indicator parameters" are not exceptionally high in the tailings pond (with the possible exception of molybdenum and sulfate), they are one to three orders of magnitude greater than in the surrounding surface water and groundwater, leading to their use as indicators of potential mixing of surrounding groundwater and surface water with tailings impoundment water. It should be noted that the presence of these indicator parameters in surface water and groundwater is not in itself an indication of mixing with tailings water. These parameters are elevated in the tailings pond due to their enrichment in the local bedrock, and therefore are expected to occur naturally in local surface water and groundwater as well. However, abnormally high concentrations or consistent trends of increasing concentrations can be used to identify areas that may warrant further evaluation.

3.1 SURFACE WATER MONITORING RESULTS

The 2023 surface water monitoring database is included in Appendix A with select 2023 results summarized in Table 3-1. Concentration trend plots for the five indicator parameters molybdenum, tungsten, rubidium, fluoride, and sulfate for Bull Run Creek, Oro Fino Gulch, and the Yankee Doodle Tailings Pond monitoring sites are included in Appendix B[1]. The Table 3-1 summary includes average 2023 concentrations (average of the June and October results) for the select parameters noted above. Key points of interest in the 2023 surface water dataset are outlined below.

Upgradient Drainages

As described in previous reports (Hydrometrics, 2018), surface water in upstream drainages Silver Bow, Dixie and Yankee Doodle Creeks is a calcium-bicarbonate type water with 2023 field-measured pH values ranging from 7.80 to 8.07 and averaging 7.93 (Table 3-1, Appendix A). Trace metal concentrations are generally low with antimony, boron, chromium, lithium, nickel, selenium, silver, thallium, vanadium, and zinc less than the project required detection limits (PRDLs) in all 2023 samples. Average 2023 concentrations of the YDTI indicator parameters fluoride, sulfate, molybdenum, rubidium, and tungsten are all one to two orders of magnitude lower than the tailings pond concentrations (Table 3-1). The 2023 sample results for the upstream drainages are consistent with past sampling results dating back several years.

[1] When viewing the trend plots, note that a number of anomalous analytical results recorded in 2019 are believed to be due to the use of a different analytical laboratory; all other analyses were performed by Energy Laboratories.

TABLE 3-1. 2023 SURFACE WATER AVERAGE PARAMETER CONCENTRATIONS

Drainage/Area	Flow	pH	Sulfate	Fluoride	Molybdenum	Tungsten	Rubidium	Arsenic	Uranium	Copper	Iron	Manganese
	gpm	*S.U.*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
West Ridge and Upstream Drainages												
Bull Run Ck	80	7.65	68	0.16	0.0023	0.00080	0.0044	0.0020	0.0010	0.003	0.014	0.089
Oro Fino Gulch	24	7.34	78	0.32	0.0027	0.00013	0.0015	0.0130	0.0018	0.004	0.280	0.202
Upstream Drainages	464	7.93	15	0.09	0.0017	0.00013	0.0009	0.0060	0.0035	0.004	0.390	0.021
Active Mine Site												
WQ-1-Woodville East	323	7.72	143	0.30	0.0011	0.00033	0.0020	0.0013	0.0013	0.105	0.280	0.109
WQ-2-Woodville West *	175E	6.42	195	0.50	0.3390	0.00005	0.0037	0.0005	0.0030	0.111	0.020	0.029
WQ-5-Clearwater Ditch	481	6.66	51	0.15	0.0010	0.00008	0.0019	0.0013	0.0002	0.061	0.180	0.041
WQ-6-Cont Pit South	Ponded	7.51	1170	2.60	1.100	0.00090	0.0213	0.0017	0.1347	0.135	0.183	2.84
WQ-7-Pavillion Seep	42.2	3.50	1800	2.85	0.0055	0.00013	0.0424	0.0013	0.1385	84.8	33.9	26.9
WQ-8A-Cont Pit North (2)	Ponded	3.94	1760	2.70	0.0473	0.00040	0.0257	0.0005	0.1360	25.3	1.4	9.5
WQ-18-Ecology Pond	Ponded	11.46	1076	1.20	0.6090	0.00620	0.0378	0.0020	0.0022	0.136	0.315	0.067
WQ-19-No. 10 Seep (1)	127	2.76	4050	0.20	0.0225	0.00005	0.0200	0.076	0.3530	67.0	107	62.4
WQ-9A Tailings Pond	Ponded	10.55	1705	1.50	0.8855	0.01055	0.0541	0.0015	0.0008	0.015	0.015	0.011
Extraction Pond Inflow	Ponded	3.44	2150	0.60	0.0002	0.00005	0.0420	0.0005	0.1240	35.8	16.3	20.4

Upstream Drainages include Silver Bow, Dixie, and Yankee Doodle Creeks; Individual sites described in Table 2-1 and shown on Figure 2-1.

Concentrations are average of June and October results.

All metals concentrations are total recoverable fraction.

Indicates one or more 2023 results less than detect limit; value(s) replaced with 1/2 detection limit.

E - Estimated

* Woodville West sampled at McQueen Booster

(1) Sampled in spring only, no access in fall.

(2) Sampled in fall only, no access in spring.

West Ridge Drainages

The 2023 monitoring program included two mainstem sites (BRCD-2 and BRCD-4) and two spring/seep sites (BRCD-5 and BRCD-6) in Bull Run Creek drainage, and two mainstem sites (OFGD-1 and OFGD-3) and one spring site (OFGD-4) in Oro Fino Gulch along the west flank of the West Ridge (Figure 2-1). Similar to the upstream sites, surface water in these drainages is a calcium-bicarbonate type water with alkaline pH. Trace metal concentrations are generally low at these sites although some concentrations are higher than in the upstream drainages due to increased bedrock mineralization, and possibly historic mining disturbances, particularly in the southern portion of the West Ridge. Boron, chromium, lithium, nickel, selenium, silver, thallium, and vanadium concentrations were near or less than the PRDL in all samples from these drainages in 2023. Similar to the upgradient drainages, concentrations of YDTI indicator parameters fluoride, sulfate, molybdenum, rubidium, and tungsten in the West Ridge drainage samples are all one to two orders of magnitude lower than the tailings pond concentrations (Table 3-1). As shown in Appendix B, concentrations of the YDTI indicator parameters show no consistent increasing trends for the period of record at all West Ridge surface water sites. While molybdenum, rubidium and tungsten concentrations increased at downstream Oro Fino Gulch site OFGD-3 in October 2022, these concentrations returned to historic levels in the June and October 2023 samples (Appendix B). The October 2022 increases are attributed to mineralized bedrock in the vicinity of OFGD-3 coupled with the lower than average 2022 flows.

Yankee Doodle Tailings Pond

The tailings pond water (site WQ-9A) is a calcium-sulfate type water with a 2023 average field-measured pH of 10.55 as measured from the active decant barge. Compared to the upgradient and West Ridge drainages, the tailings pond water is enriched in sulfate, fluoride, molybdenum, tungsten, and rubidium (Table 3-1), making these potential indicators of tailings pond-influenced waters. The 2023 tailings pond concentrations are similar to past sampling results for the indicator and other parameters with a few minor deviations. Pond pH values have increased slightly over the past two years with the June and October 2023 values (10.22 and 10.88) higher than the 2015 through 2021 average of 9.86. Sulfate has shown a moderate increase since 2019 with a 2015 through 2019 average concentration of 1,280 mg/L and a 2021 through 2023 average of 1,825 mg/L. Fluoride has shown a steady decrease in concentration over the past few years from a high of 3.2 mg/L in June 2021 to 1.3 mg/L in October 2023, near the lower end of the historic range, after exhibiting a moderate increase from 2019 to 2021. Likewise, tungsten has decreased from a 2015 through 2019 average of 0.03 mg/L to a 2023 average of 0.01 mg/L. All other parameter concentrations have remained relatively constant dating back to 2015 (Appendices A and B). Seasonal sampling of the tailings pond will continue in 2024 to see if these apparent trends persist.

Extraction Pond

The Extraction Pond receives drainage from the west embankment drain (WED) and was added to the operational monitoring program in 2020. The Extraction Pond is a lined facility with the captured water contained and pumped to the YDTI. Extraction Pond water samples are collected from the WED discharge flow before entering the pond and as such represent the WED discharge water quality.

Water quality trends for the Extraction Pond inflow since initiation of sampling are shown in Table 3-2.

Field-measured pH of the Extraction Pond inflow water (WED discharge) ranged from 3.33 to 3.55 and averaged 3.44 in 2023, slightly higher than 2022 (average 3.34). Concentrations of some metals, including aluminum, cadmium, copper, iron, lead, manganese, uranium, and zinc, are enriched in the Extraction Pond inflow as compared to the tailings pond. The Extraction Pond water also differs significantly from the tailings pond in general chemistry, with average 2023 magnesium concentrations in the Extraction Pond and tailings pond 88 and 4.5 mg/L, respectively. As shown in Table 3-2, the WED flow into the extraction pond for the two seasonal sampling dates decreased in 2023 compared to 2022, with average 2023 flows of 668 gpm compared to 835 gpm in 2022. The variability in WED flow is attributable to the timing of tailings slurry discharge along the West Embankment, and/or the tailings beach elevation relative to potential higher permeability interval along the West Embankment upstream face. Overall, metals concentrations have decreased since 2020 while pH has remained relatively stable (Appendix B), with no correlation observed between the Extraction Pond and tailings pond chemistry trends.

TABLE 3-2. EXTRACTION POND INFLOW WATER QUALITY TRENDS

Date	Field pH S.U.	Flow gpm	Fluoride mg/L	Sulfate mg/L	Aluminum mg/L	Copper mg/L	Iron mg/L	Zinc mg/L
6/24/2020	3.97	424	0.1	1,970	49.6	52.7	15.8	48.1
10/21/2020	3.06	280	0.2	2,030	38.2	47.9	8.77	38.8
6/24/2021	3.24	296	0.2	1,930	35.6	31.0	19.8	36.3
10/19/2021	3.38	302	0.3	1,820	31.0	28.5	14.1	35.9
6/16/2022	3.24	831	0.8	1,870	25.6	24.8	3.89	28
10/25/2022	3.44	838	0.7	2,070	26.0	29.1	12.3	32.7
6/16/2023	3.33	620	0.7	2,210	38.4	40.0	13.9	35.3
10/19/2023	3.55	715	0.5	2,090	37.0	31.5	18.7	32.8

Flows calculated from daily pumping volumes.
Metals concentrations are total recoverable.

Active Mine Site

Surface water monitoring in and around the active mine site includes natural drainages (Clearwater and Woodville drainages) as well as several mining related water features. Water quality at these sites is highly variable with several sites exhibiting elevated metals concentrations (Table 3-1, Appendix A). For example, the Woodville and Clearwater drainage site waters (WQ-1, WQ-2 and WQ-5) are all near neutral in pH with relatively low total dissolved solids and sulfate concentrations (average 264 and 130 mg/L, respectively). Metals concentrations are also relatively low with average concentrations, substituting one-half the detection limit for less than detect values, including: arsenic (0.001 mg/L), copper (0.09 mg/L), iron (0.16 mg/L) and zinc (0.383 mg/L). Metals concentrations at

site WQ-1 (Woodville East), located upgradient of all Continental Mine disturbances, are similar to concentrations at the other two mine area monitoring sites.

Mine area monitoring sites with the highest metals concentrations include WQ-19 (Seep 10) and WQ-8A (Pavilion Seep). Average pH at these sites ranged from 2.76 to 3.50, with combined average parameter concentrations of: sulfate (2,550 mg/L), aluminum (78 mg/L), copper (79 mg/L), iron (58 mg/L) and zinc (82 mg/L). The 2023 mine site sampling results are consistent with results from prior years. All water from all mine site monitored stations is captured for use in the Continental Mine mill process water circuit.

3.2 GROUNDWATER MONITORING RESULTS

The 2023 groundwater monitoring results are summarized in Table 3-3 with the complete 2023 water quality database included in Appendix A. Concentration trend plots for the indicator parameters molybdenum, tungsten, rubidium, fluoride, and sulfate, as well as pH and groundwater elevations, are included in Appendix B.

Table 3-3 includes average concentrations of select parameters from the June and October 2023 groundwater sampling events. Parameters presented in Table 3-3 are the same indicator and general interest parameters as presented in Section 3.1 for surface water, plus groundwater elevations and nitrate plus nitrite as nitrogen (N+N) concentrations. Also shown in Table 3-3 are the average 2023 concentrations for the tailings pond (site WQ-9A) for comparison to the groundwater concentrations. Key points of interest in the 2023 dataset include:

- As described in previous reports (Hydrometrics, 2018), groundwater in most of the West Ridge area is a calcium-bicarbonate type water with some calcium-sulfate type waters in the south portion of the ridge, corresponding to an increase in bedrock mineralization.
- Concentrations of several trace metals were near or less than the analytical detection limits in most 2023 samples. Parameters with concentrations less than the laboratory reporting limits in all 2023 groundwater samples include boron, chromium, lead, lithium, mercury, nickel, silver, thallium, and vanadium, with cadmium, selenium and zinc detected in less than 10% of the samples (Appendix A). Trace metals detected on the most frequent basis (>90% of samples) include molybdenum, rubidium, strontium, and uranium, as well as N+N.
- Concentrations of potential indicator parameters fluoride, sulfate, tungsten, rubidium, and molybdenum are all one to three orders of magnitude lower in the groundwater samples than in the tailings pond water (Table 3-3). As shown in the Appendix B trend graphs, none of the monitoring wells exhibit consistent increasing concentration trends for these parameters. A number of wells show a modest increase in molybdenum concentrations in October 2022 (i.e., MW12-11, MW12-16, MW12-18), but those trends were reversed in 2023 as concentrations returned to pre-2022 levels. The 2023 indictor parameter concentrations are all within or less than the historic range of values dating back to 2015. Rubidium, molybdenum and/or tungsten exhibit decreasing concentrations at several wells including MW16-02D and

TABLE 3-3. 2023 MONITORING WELL AVERAGE PARAMETER CONCENTRATIONS

Monitoring Well	GWE	Field pH	N+N	Sulfate	Fluoride	Molybdenum	Tungsten	Rubidium	Arsenic	Uranium	Copper	Iron	Manganese
	feet	*S.U.*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
MW12-11	6466.52	7.265	0.355	31.5	0.05	0.0025	0.00005	0.00125	0.007	0.0189	0.0005	0.010	0.00075
MW12-12	6435.65	8.25	0.025	43.5	0.20	0.0081	0.00015	0.00040	0.008	0.0875	0.0005	0.010	0.0120
MW12-13	6478.92	6.96	0.520	45	0.05	0.0019	0.00005	0.00110	0.004	0.0057	0.0005	0.020	0.0045
MW12-14	6446.75	7.32	0.780	4.0	0.05	0.0001	0.00005	0.00055	0.002	0.0011	0.0005	0.010	0.0005
MW12-15	6488.40	7.58	5.31	166	0.05	0.0036	0.00005	0.00167	0.005	0.0219	0.0033	0.043	0.005
MW12-16	6398.28	7.38	1.16	61	0.05	0.0023	0.00005	0.00070	0.003	0.0028	0.0008	0.010	0.0008
MW12-17	6440.27	8.18	0.15	54	0.10	0.0061	0.00010	0.00100	0.010	0.0241	0.0005	0.010	0.007
MW12-18	6442.92	6.68	0.945	20	0.05	0.0004	0.00005	0.00055	0.002	0.0018	0.0008	0.030	0.0015
MW15-01	6451.62	7.59	1.140	34	0.05	0.0005	0.00005	0.00045	0.004	0.0015	0.0008	0.010	0.0005
MW15-02	6429.41	7.18	0.543	11	0.05	0.0005	0.00005	0.00050	0.004	0.0053	0.0008	0.010	0.0008
MW15-03	6392.75	7.59	1.34	68	0.05	0.0061	0.00005	0.00070	0.006	0.0158	0.0005	0.055	0.0085
MW-15-04	6392.89	8.01	0.520	44	0.05	0.0009	0.00008	0.00115	0.0005	0.0020	0.0013	0.040	0.0015
MW-15-05	6439.27	7.96	0.425	53	0.10	0.0105	0.00005	0.00085	0.006	0.0258	0.0010	0.030	0.0115
MW-15-06	6433.56	8.32	0.005	9	0.15	0.0102	0.00005	0.00095	0.013	0.0244	0.0005	0.045	0.0350
MW-15-07	6409.05	7.06	0.370	9	0.05	0.0003	0.00005	0.00030	0.0005	0.0010	0.0005	0.010	0.0005
MW-15-08	6414.51	6.27	0.320	8	0.05	0.0003	0.00005	0.00085	0.0005	0.0001	0.0008	0.010	0.0065
MW-15-09	6424.89	6.70	0.250	37	0.10	0.0015	0.00005	0.00085	0.003	0.0010	0.0005	0.010	0.0080
MW-15-10	6361.16	6.07	0.360	21	0.05	0.0002	0.00005	0.00040	0.0005	0.0013	0.0005	0.010	0.0070
MW-15-11	6380.07	7.63	0.170	49	0.05	0.0025	0.00005	0.00085	0.0005	0.0183	0.0005	0.010	0.0005
MW-15-12	No Access												
MW-15-13	No Access												
MW-16-01	6407.75	7.89	0.005	67	0.40	0.0169	0.00480	0.00155	0.076	0.0094	0.0005	0.010	0.0310
MW-16-02D	6411.25	7.51	0.060	38	0.10	0.0025	0.00060	0.00170	0.010	0.0014	0.0025	0.010	0.0270
MW-16-02S	6450.80	7.97	5.18	134	0.05	0.0049	0.00113	0.00110	0.077	0.0132	0.0020	0.010	0.0005
WQ-9A-Tailings Pond	6360	10.55	0.17	1705	1.50	0.8855	0.01055	0.05410	0.002	0.0080	0.0150	0.015	0.0110

Concentrations shown are average of June and October 2022 sample results.

Indicates one or more 2023 results less than detect; value(s) replaced with 1/2 detection limit.

All metals concentrations are dissolved fraction.

N+N - Nitrate plus Nitrite as N

GWE - Groundwater Elevation

Sites described in Table 2-3 and shown on Figure 2-2.

MW16-01 completed in a deep fracture system, MW12-16 and MW15-03 completed in the groundwater potentiometric low (Hydrometrics, 2018), and wells extending from the southern to northern portions of the West Ridge. Conversely, sulfate concentrations show a modest increasing trend at wells MW12-12, MW15-05 and MW15-06 (Appendix B). These varying concentration trends in the West Ridge monitoring wells are indicative of various geochemical processes within the bedrock groundwater system and temporal precipitation and groundwater recharge patterns. The lack of consistent increasing indicator parameter concentration trends in the YDTI-area groundwater is consistent with the positive hydraulic gradient being maintained between the West Ridge crest and WED (Hydrometrics, 2024).

With few exceptions, the 2023 groundwater samples represent high quality groundwater with low to non-detect concentrations of most trace metals and potential indicator parameters along the West Ridge. The 2023 groundwater monitoring results are consistent with previous groundwater monitoring results dating back as far as 2012 for some of the West Ridge monitoring wells.

3.3 GROUNDWATER ELEVATION DATA

Groundwater level monitoring is an important component of the tailings impoundment monitoring program since long-term hydrodynamic containment, particularly along the West Ridge, is dependent, in part, on maintaining the existing hydrologic divide along the ridge crest, as well as engineered controls and components of the YDTI operations and management program (MR, 2021). The 2023 monitoring program included periodic manual water level measurements and continuous monitoring with VWPs in the 19 West Ridge monitoring wells. Table 3-4 includes the monthly manual data for each well and the corresponding tailings pond (site WQ-9A) elevations for comparison; corresponding hydrographs are included in the Appendix B trend graphs. Appendix C[2] includes hydrographs for each well based on the continuous water level data. Note that all elevations presented below are relative to the local Anaconda Mine Grid datum.

Water levels at all West Ridge monitoring wells increased from December 2022 to December 2023 (Table 3-5). Water level increases were greatest in the northern and central ridge area with the largest increase (16.58 feet) at northernmost well MW12-13. MW12-13 is located north of a major east-west trending structure which impedes lateral groundwater inflow from the higher elevation uplands to the north, resulting in the shallowest West Ridge water levels and largest seasonal fluctuations at MW12-13. The smallest increases were recorded at southernmost well MW12-15 (5.76 feet) and well MW15-04 (5.27 feet), located midway down the West Ridge east slope. All other wells increased between approximately seven and 13 feet. Monitoring well MW12-16, located in an area referred to as the groundwater potentiometric low where West Ridge groundwater elevations are the lowest, increased 7.32 feet. Groundwater levels at monitoring wells MW16-01 and MW16-02D, both completed in a deep fracture system, exhibited water level increases of 7.10 and 7.95 feet, respectively.

[2] Where continuous water level data is offset from manual measurements, manual measurements are most accurate. Offsets have been corrected.

TABLE 3-4. 2023 MONITORING WELL MANUAL WATER LEVEL DATA

Well	Measuring Point Elev.	Depth to Water												
		12/9/22	1/19/23	2/20/23	3/31/23	4/26/23	5/25/23	6/28/23	7/25/23	8/24/23	9/20/23	10/23*	11/15/23	12/28/23
MW 12-11	6521.41	60.13	60.68	61.06	61.57	61.90	58.92	54.26	52.70	52.33	51.87	51.90	51.94	52.38
MW 12-12	6475.87	49.72	50.20	50.57	50.91	50.68	42.26	38.03	38.22	38.58	38.95	39.80	40.15	40.87
MW 12-13	6490.28	30.12	30.94	31.53	32.31	32.60	13.29	10.32	10.32	11.08	9.54	11.04	11.42	13.54
MW 12-14	6476.47	44.16	45.85	45.38	45.99	45.71	27.97	24.66	27.76	29.12	30.31	31.74	32.51	33.74
MW 12-15	6518.91	34.00	34.61	35.05	35.63	35.85	32.41	29.51	26.34	27.95	27.82	28.98	28.01	28.24
MW 12-16	6487.58	93.43	94.21	94.65	95.22	95.66	93.81	90.68	88.46	87.15	86.11	85.85	85.70	86.11
MW 12-17	6472.97	39.48	40.22	40.59	40.97	41.06	36.86	33.99	30.97	29.97	29.91	29.91	30.02	30.51
MW 12-18	6472.65	40.07	40.62	40.98	41.38	40.63	32.91	29.22	28.24	26.83	25.59	27.51	28.20	28.93
MW 15-01	6504.13	61.51	62.06	62.50	63.03	63.21	56.46	51.15	50.05	49.77	49.57	49.82	50.26	50.63
MW 15-02	6483.34	68.60	69.63	69.83	70.49	68.94	55.59	49.39	50.35	51.62	52.60	53.49	54.22	55.27
MW 15-03	6487.41	98.20	98.63	98.93	99.30	99.64	98.15	95.70	94.10	93.07	92.26	91.95	91.50	91.57
MW 15-04	6435.98	49.80	50.30	50.62	51.15	51.41	43.35	41.59	42.50	41.73	41.20	42.89	43.62	44.53
MW 15-05	6468.72	36.03	36.52	36.63	37.08	36.88	31.88	28.39	27.48	27.63	27.70	28.11	28.50	29.03
MW 15-06	6468.97	41.45	41.86	42.07	42.35	42.44	38.06	34.58	33.57	33.52	33.42	33.66	33.99	34.15
MW 15-07	6464.65	64.33	64.76	65.10	65.49	65.30	56.82	51.60	53.24	54.15	54.60	55.09	55.14	55.50
MW 15-08	6464.57	60.67	61.09	61.42	61.86	61.58	50.12	44.25	47.25	48.94	49.92	50.65	51.02	51.55
MW 16-01	6501.53	98.02	97.74	97.55	97.54	97.67	96.00	93.98	92.44	91.80	91.25	91.05	90.81	90.92
MW 16-02S	6499.33	57.30	57.88	58.27	58.74	58.78	51.75	46.80	46.08	45.91	45.78	45.93	46.14	46.77
MW 16-02D	6499.41	93.87	93.88	93.03	92.90	93.05	91.05	88.87	87.41	86.75	86.22	85.71	85.89	85.92

Well	Screened Interval Depth	Groundwater Elevation												
		12/9/22	1/19/23	2/20/23	3/31/23	4/26/23	5/25/23	6/28/23	7/25/23	8/24/23	9/20/23	10/23*	11/15/23	12/28/23
MW 12-11	145-195	6461.28	6460.73	6460.35	6459.84	6459.51	6462.49	6467.15	6468.71	6469.08	6469.54	6469.51	6469.47	6469.03
MW 12-12	160-195	6426.15	6425.67	6425.30	6424.96	6425.19	6433.61	6437.84	6437.65	6437.29	6436.92	6436.07	6435.72	6435.00
MW 12-13	145-195	6460.16	6459.34	6458.75	6457.97	6457.68	6476.99	6479.96	6479.96	6479.20	6480.74	6479.24	6478.86	6476.74
MW 12-14	100-150	6432.31	6430.62	6431.09	6430.48	6430.76	6448.50	6451.81	6448.71	6447.35	6446.16	6444.73	6443.96	6442.73
MW 12-15	150-200	6485.34	6484.73	6484.29	6483.71	6483.49	6486.93	6489.83	6493.00	6491.39	6491.52	6490.36	6491.33	6491.10
MW 12-16	140-190	6394.15	6393.37	6392.93	6392.36	6391.92	6393.77	6396.90	6399.12	6400.43	6401.47	6401.73	6401.88	6401.47
MW 12-17	155-195	6433.49	6432.75	6432.38	6432.00	6431.91	6436.11	6438.98	6442.00	6443.00	6443.06	6443.06	6442.95	6442.46
MW 12-18	80-115	6432.58	6432.03	6431.67	6431.27	6432.02	6439.74	6443.43	6444.41	6445.82	6447.06	6445.14	6444.45	6443.72
MW 15-01	182-222	6442.62	6442.07	6441.63	6441.10	6440.92	6447.67	6452.98	6454.08	6454.36	6454.56	6454.31	6453.87	6453.50
MW 15-02	147-197	6414.74	6413.71	6413.51	6412.85	6414.40	6427.75	6433.95	6432.99	6431.72	6430.74	6429.85	6429.12	6428.07
MW 15-03	345-385	6389.21	6388.78	6388.48	6388.11	6387.77	6389.26	6391.71	6393.31	6394.34	6395.15	6395.46	6395.91	6395.84
MW 15-04	170-220	6386.18	6385.68	6385.36	6384.83	6384.57	6392.63	6394.39	6393.48	6394.25	6394.78	6393.09	6392.36	6391.45
MW 15-05	240-290	6432.69	6432.20	6432.09	6431.64	6431.84	6436.84	6440.33	6441.24	6441.09	6441.02	6440.61	6440.22	6439.69
MW 15-06	350-400	6427.52	6427.11	6426.90	6426.62	6426.53	6430.91	6434.39	6435.40	6435.45	6435.55	6435.31	6434.98	6434.82
MW 15-07	162.5-202.5	6400.32	6399.89	6399.55	6399.16	6399.35	6407.83	6413.05	6411.41	6410.50	6410.05	6409.56	6409.51	6409.15
MW 15-08	81.5-101.5	6403.90	6403.48	6403.15	6402.71	6402.99	6414.45	6420.32	6417.32	6415.63	6414.65	6413.92	6413.55	6413.02
MW 16-01	485-517	6403.51	6403.79	6403.98	6403.99	6403.86	6405.53	6407.55	6409.09	6409.73	6410.28	6410.48	6410.72	6410.61
MW 16-02S	489-549	6442.03	6441.45	6441.06	6440.59	6440.55	6447.58	6452.53	6453.25	6453.42	6453.55	6453.40	6453.19	6452.56
MW 16-02D	244-264	6405.54	6405.53	6406.38	6406.51	6406.36	6408.36	6410.54	6412.00	6412.66	6413.19	6413.70	6413.52	6413.49
WQ-9A	Tailings Pond	6357	6359	6260	6361	6362	6363	6363	6360	6360	6360	6359	6360	6359

NM - Not Measured
All measurements in feet from top of well casing
All elevations ACM Datum (USGS=ACM-52.6 ft)
Period of Record groundwater hydrographs in Appendix B
*October measurements taken between 10/16/24 and 10/18/24 during fall sampling event

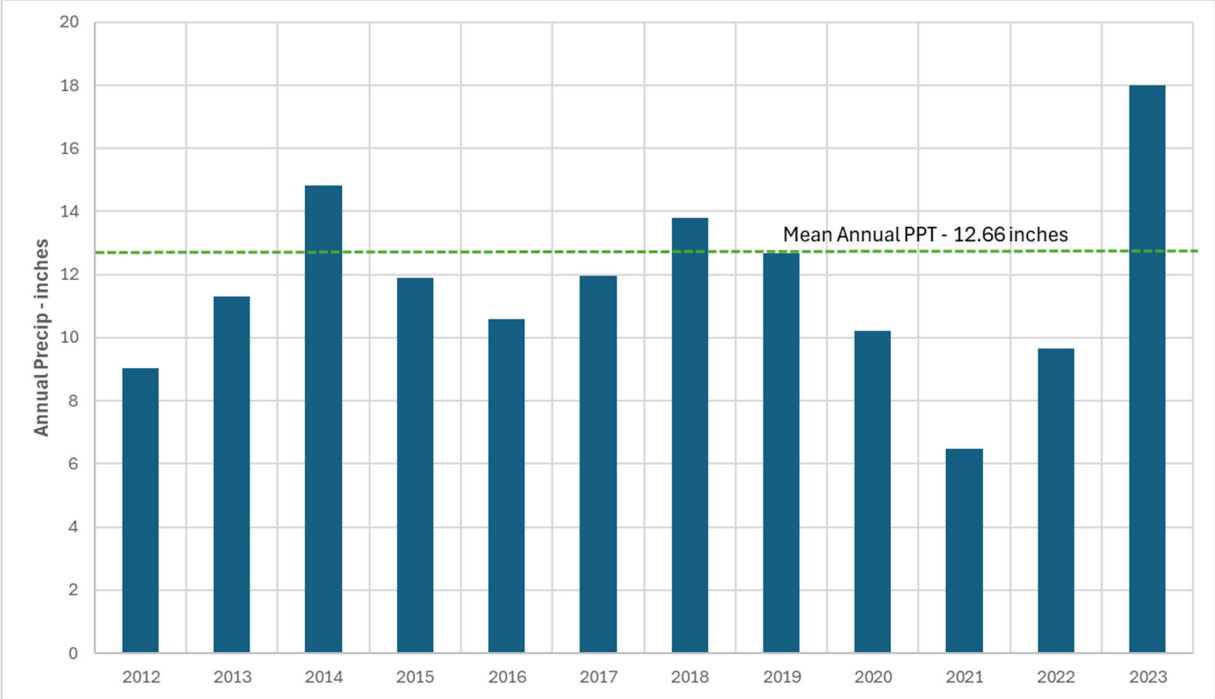
TABLE 3-5. 2023 GROUNDWATER LEVEL CHANGES

Monitoring Well	Well Location	Total Well Depth (feet)	Water Level Increase (feet)
MW 12-13	Northern West Ridge near ridge crest	200	16.58
MW 15-02	Central West Ridge near ridge crest	200	13.33
MW 12-18	Northern West Ridge near ridge crest	230	11.14
MW 15-01	Central West Ridge near ridge crest	264	10.88
MW 16-02S	Central West Ridge near ridge crest	197	10.53
MW 12-14	Northern West Ridge near ridge crest	102	10.42
MW 15-08	Central West Ridge near ridge crest	191	9.12
MW 12-17	Northern West Ridge near ridge crest	203	8.97
MW 12-12	Northern West Ridge near ridge crest	200	8.85
MW 15-07	Central West Ridge near ridge crest	150	8.83
MW 16-02D	Central ridge, deep fracture system	200	7.95
MW 12-11	Southern West Ridge near ridge crest	115	7.75
MW 12-16	Central ridge, groundwater potentiometric low	386	7.32
MW 15-06	Northern West Ridge near ridge crest	195	7.30
MW 16-01	Central ridge, deep fracture system	240	7.10
MW 15-05	Northern West Ridge near ridge crest	400	7.00
MW 15-03	Central ridge, groundwater potentiometric low	220	6.63
MW 12-15	Southern West Ridge near ridge crest	552	5.76
MW 15-04	Central ridge on east ridge flank	517	5.27

Increases based on manual measurements between recorded 12/22 and 12/23.

The increase in 2023 groundwater levels corresponds to an increase in annual precipitation recorded at the Bert Mooney Airport in 2023 as compared to previous years (Figure 3-1). Previous studies (Hydrometrics, 2018) have noted the close correlation, and importance of incident precipitation recharge on West Ridge groundwater levels. At the end of 2023, groundwater elevations near the West Ridge crest ranged from approximately 35 feet (at groundwater potentiometric low well MW15-03) to 131 feet (at south ridge well MW12-15) higher than the tailings pond water level.

FIGURE 3-1. ANNUAL PRECIPITATION TRENDS FROM BERT MOONEY AIRPORT



Data Source: Western Regional Climate Center; https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?mt1318

4.0 DATA VALIDATION RESULTS

All 2023 groundwater and surface water samples were validated in accordance with the EPA's data validation guidelines (EPA, 2017) and the 2023 project FSAP (Hydrometrics, 2023). The data validation process includes a review of sampling procedures to ensure consistency with the project FSAP and Standard Operating Procedures (SOPs), and detailed review of all field measurement and laboratory analytical results. All field QC sample analytical results were reviewed for compliance with appropriate criteria (DI and rinsate blank results less than PRDLs; field duplicate results within +/-20% relative percent difference or RPD) and qualified with appropriate flagging if noncompliant. Laboratory QC samples (laboratory blanks, duplicates, spikes) were also reviewed with exceedances noted in the validation reports although no data flagging occurs for laboratory QC exceedances at the "Standard" level of validation. Following validation and flagging, the data were uploaded to the Montana Resources Project EnviroData database.

The number of field samples, QC samples, and validation results are summarized in Table 4-1. As shown, dissolved aluminum was detected (at the detection limit) in one of the June surface water blank samples, resulting in 6 results from that event being flagged "B" in the database. Total phosphorous and copper exceeded the 20% RPD QC criteria in one of the June surface water duplicate samples resulting in 11 values being flagged with a "J". During the October surface water monitoring event, TSS exceeded the RPD in one of the duplicate samples resulting in 19 results being flagged "J". In the June groundwater sampling event, total phosphorous and aluminum exceeded the 20% RPD in one duplicate sample resulting in 24 results being flagged with a "J". All samples from the October groundwater event were within the associated QC criteria. In all, 95 results out of more than 3,200 laboratory analytes (<3%) were flagged for QC criteria exceedances. These relatively few minor QC exceedances do not adversely affect the usability of the data for the intended purposes of further documenting current water quality conditions and concentration trends in the YDTI West Ridge area groundwater and surface water.

TABLE 4-1. 2023 QC SAMPLE COLLECTION AND DATA VALIDATION SUMMARY

Monitoring Event	No. Field Samples	Field QC Samples			QC Exceedances
		DI Blanks	*Rinsate Blanks*	*Duplicates*	
June Surface Water	19	2	0	2	DI Blank: Dissolved Al detected at the PRDL (0.005); 6 samples flagged "B". Duplicate: Total Phos and Cu exceeded 20% RPD; 11 results flagged "J".
October Surface Water	17	2	0	2	DI Blanks: None Duplicates: TSS exceeded 20% RPD; 19 results flagged "J".
June Groundwater	22	2	2	2	DI Blanks: None Rinsate Blanks: None Duplicates: Total Phos and Al exceeded 20% RPD; 24 results flagged "J".
October Groundwater	22	2	2	2	DI Blanks: None Rinsate Blanks: None Duplicates: None

5.0 2023 MONITORING SUMMARY

The 2023 MR groundwater and surface water monitoring results are consistent with the 2022 and prior years monitoring results. Groundwater chemistry in the West Ridge and upgradient groundwater and surface water is primarily a calcium-bicarbonate type water of good quality with very low or nondetectable trace metal concentrations. Groundwater and surface water in the southern portion of the ridge transitions to a calcium-sulfate type water due to the increased bedrock mineralization in that area. Concentrations of potential tailings pond water indicator parameters, including fluoride, sulfate, molybdenum, rubidium, and tungsten, show no increasing trends in area groundwater or surface water, indicating no mixing with tailings pond water. Groundwater elevations at all West Ridge monitoring wells increased between 5.27 and 16.58 feet during 2023 in response to above average precipitation in 2023. Groundwater level and water quality monitoring will continue in 2024 in accordance with the Continental Mine operating permit (MR, 2021).

6.0 REFERENCES

EPA, 2017. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hydrometrics, Inc. 2018. Baseline Hydrology Report for the Yankee Doodle Tailings Impoundment Amendment to Operating Permits 00030 and 00030A. Prepared for Montana Resources, LLP. January 2018.

Hydrometrics, Inc., 2023. Montana Resources 2023 Field Sampling and Analysis Plan. Prepared for Montana Resources, LLP. May 2023.

Hydrometrics, Inc., 2024. Yankee Doodle Tailings Impoundment 6560 Amendment Groundwater Model - Draft. Prepared for Montana Resources, LLP. March 2024.

Montana Resources, LLP (MR), 2021. Montana Resources Continental Mine Operations Plan. December 2021.

APPENDIX A

2023 BASELINE AND OPERATIONAL

WATER RESOURCES MONITORING DATABASE

MONTANA RESOURCES JUNE 2023 GROUNDWATER MONITORING RESULTS

Station Name	Reporting Units	MW-16-02D	MW-15-06	MW-16-01	MW-15-09	MW-12-15	MW-12-15	MW-15-02	MW-15-03	MW-12-12	MW-15-01	MW-15-05	MW-12-18
Sample Date		2023/06/05 13:25	2023/06/05 16:20	2023/06/06 08:30	2023/06/05 16:10	2023/06/06 11:45	2023/06/06 12:15	2023/06/06 13:05	2023/06/06 16:10	2023/06/06 17:55	2023/06/07 10:30	2023/06/07 11:45	2023/06/07 12:55
FieldSampleId		MR-2306-200	MR-2306-201	MR-2306-202	MR-2306-203	MR-2306-204	MR-2306-205	MR-2306-206	MR-2306-207	MR-2306-208	MR-2306-209	MR-2306-210	MR-2306-211
Lab		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
labComments							Duplicate						
LabSampleId		H23060412-001	H23060412-002	H23060412-003	H23060412-013	H23060412-004	H23060412-005	H23060412-006	H23060412-007	H23060412-014	H23060412-008	H23060412-009	H23060412-010
Field Parameters													
Depth to Water	Feet	90.6	37.15	96.5	31.73	32.05		54.37	97.38	40.64	55.2	30.79	31.95
Dissolved Oxygen	mg/L	0.94	0.6	0.23	1.28	3.47		6.03	1.12	0.36	6.9	2.48	5.22
Field pH	s.u.	7.65	8.45	8.05	6.8	7.79		7.32	7.79	8.34	7.84	8.14	6.84
Field Specific Conductivity	umhos/cm	194	311	250.1	191.4	704		590	345	292	225	379	401
Oxidation Reduction Potential	Millivolts	176.9	-195.6	199.9	141.5	0.3		116.1	-107.9	182.6	80.3	-94.5	61.3
Water Temperature	Deg C	7.9	7.6	7.7	7.8	8.3		8.5	10.3	8.3	8.5	8.5	8
Physical Parameters													
pH	s.u.	7.5 H	8.2 H	7.8 H	7 H	7.5 H	7.5 H	7.3 H	7.7 H	8.2 H	7.7 H	8 H	6.9 H
pH Measurement Temp	Deg C	15.3	14.2	14.2	14.8	14.3	14.5	14.8	14.9	15.3	15.1	15.3	15.6
Specific Conductivity	umhos/cm	199	320	264	200	726	724	599	366	293	235	394	428
Total Dissolved Solids	mg/L	126	189	168	134	506	501	435	244	179	168	243	323
Total Suspended Solids	mg/L	<10	12	<10	<10	29	38	<10	33	<10	<10	22	<10
Major Constituents - Commons Ions													
Alkalinity as CaCO3	mg/L	55	150	46	57	150	150	160	110	94	69	140	89
Bicarbonate as HCO3	mg/L	66	180	55	69	190	180	190	130	110	84	170	110
Carbonate as CO3	mg/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Chloride	mg/L	4	5	6	1	24	24	84	4	6	4	5	62
Fluoride	mg/L	0.1	0.2	0.4	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.1	<0.1
Sulfate	mg/L	36	9	67	37	167	170	10	67	44	37	51	20
Nutrients													
Nitrate + Nitrite as N	mg/L	0.07	<0.01	<0.01	0.25	5.56	5.5	0.48	1.35	0.02	1.1	0.38	0.99
Phosphorus (TOT)	mg/L	0.16 J	0.03 J	0.04 J	0.04 J	0.11 J	0.08 J	0.04 J	0.11 J	<0.01 J	0.1 J	0.09 J	0.08 J
Metals - Trace Constituents													
Aluminum (DIS)	mg/L	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	0.015 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
Antimony (DIS)	mg/L	<0.0005	<0.0005	0.0006	<0.0005	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	0.013	0.071	0.002	0.005	0.005	0.003	0.006	0.008	0.004	0.006	0.002
Boron (DIS)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium (DIS)	mg/L	<0.00003	<0.00003	<0.00003	0.00013	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Calcium (DIS)	mg/L	21	47	30	17	105	103	73	43	38	24	49	46
Chromium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (DIS)	mg/L	0.003	<0.001	<0.001	<0.001	0.003	0.003	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Iron (DIS)	mg/L	<0.02	0.04	<0.02	<0.02	0.06	0.06	<0.02	0.05	<0.02	<0.02	0.03	0.02
Lead (DIS)	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Lithium (DIS)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (DIS)	mg/L	4	4	3	8	21	21	16	12	4	8	11	12
Manganese (DIS)	mg/L	<0.001	0.034	0.01	0.009	0.005	0.005	<0.001	0.011	0.012	<0.001	0.011	0.001
Mercury (DIS)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum (DIS)	mg/L	0.0023	0.01	0.0166	0.0015	0.0036	0.0035	0.0005	0.0059	0.008	0.0004	0.0101	0.0004
Nickel (DIS)	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Potassium (DIS)	mg/L	2	3	3	3	5	5	5	4	3	4	5	5
Rubidium (DIS)	mg/L	0.0017	0.001	0.0016	0.0009	0.0017	0.0017	0.0005	0.0008	0.0004	0.0005	0.0009	0.0006
Selenium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.008	<0.001	0.003	<0.001
Silicon (DIS)	mg/L	7.2	5.4	3.4	10.8	7.4	7.3	10.9	9.9	4.7	12.2	6.2	13
Silver (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sodium (DIS)	mg/L	10	11	11	7	11	11	9	8	11	7	13	10
Strontium (DIS)	mg/L	0.21	0.51	0.58	0.1	0.49	0.48	0.29	0.33	0.37	0.13	0.47	0.2
Thallium (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tungsten (DIS)	mg/L	0.0005	<0.0001	0.0044	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001
Uranium (DIS)	mg/L	0.0014	0.0264	0.0098	0.001	0.0225	0.0224	0.0046	0.0159	0.092	0.0017	0.0242	0.0019
Vanadium (DIS)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc (DIS)	mg/L	0.131	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

MONTANA RESOURCES JUNE 2023 GROUNDWATER MONITORING RESULTS

Station Name	Reporting Units	MW-12-16	RINSATE BLANK	MW-16-02S	MW-16-02S	DI BLANK	MW-12-13	MW-12-17	MW-15-04	MW-12-14	MW-15-08	MW-15-07	MW-12-11
Sample Date		2023/06/07 10:25	2023/06/07 11:00	2023/06/07 12:25	2023/06/07 13:00	2023/06/07 14:10	2023/06/07 13:35	2023/06/07 14:25	2023/06/07 14:55	2023/06/07 15:05	2023/06/07 15:40	2023/06/07 16:35	2023/06/07 17:10
FieldSampleId		MR-2306-212	MR-2306-213	MR-2306-214	MR-2306-215	MR-2306-216	MR-2306-217	MR-2306-218	MR-2306-219	MR-2306-220	MR-2306-221	MR-2306-222	MR-2306-223
Lab		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
labComments			Blank		Duplicate	Blank							
LabSampleId		H23060412-015	H23060412-016	H23060412-017	H23060412-018	H23060412-011	H23060412-019	H23060412-020	H23060412-012	H23060412-021	H23060412-022	H23060412-023	H23060412-024
Field Parameters													
Depth to Water	Feet	92.75		51.13			11.67	35.49	43.3	27.7	49.47	56.12	57.88
Dissolved Oxygen	mg/L	7.41		0.93			1.24	1.8	5.23	7.86	8.48	8.65	4.84
Field pH	s.u.	7.43		8.11			7.01	8.29	7.37	7.43	6.42	7.14	7.39
Field Specific Conductivity	umhos/cm	330		567			382	334	240	222	234	250	369
Oxidation Reduction Potential	Millivolts	260.8		267.9			303	296.4	48	310.1	258.7	302.4	289.8
Water Temperature	Deg C	9		9.3			8.3	8.5	8.8	8.1	8.2	8.7	8.4
Physical Parameters													
pH	s.u.	7.6 H	6.2 H	8 H	8.1 H	6 H	7.1 H	8.1 H	7.2 H	7.5 H	6.5 H	7.2 H	7.5 H
pH Measurement Temp	Deg C	15.4	15.6	15.6	15.9	16.1	16.4	16.7	14.7	17.5	16.4	15.8	15.8
Specific Conductivity	umhos/cm	331	6	572	574	5	386	337	246	232	236	255	375
Total Dissolved Solids	mg/L	228	<20	393	392	<20	249	210	177	149	191	179	248
Total Suspended Solids	mg/L	<10	<10	<10	<10	<10	11	<10	<10	<10	<10	34	<10
Major Constituents - Commons Ions													
Alkalinity as CaCO3	mg/L	63	3	120	120	3	110	110	71	84	51	74	86
Bicarbonate as HCO3	mg/L	76	3	140	150	3	140	130	86	100	61	90	100
Carbonate as CO3	mg/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Chloride	mg/L	21	<1	6	6	<1	22	6	2	14	33	26	43
Fluoride	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	61	<1	136	137	<1	42	53	45	4	8	9	30
Nutrients													
Nitrate + Nitrite as N	mg/L	1.14	<0.01	5.27	5.42	<0.01	0.54	0.17	0.54	0.85	0.35	0.36	0.4
Phosphorus (TOT)	mg/L	0.08 J	<0.01	0.69 J	0.83 J	<0.01	0.03 J	0.07 J	0.03 J	0.05 J	0.32 J	0.09 J	0.12 J
Metals - Trace Constituents													
Aluminum (DIS)	mg/L	<0.005 J	<0.005	0.02 J	0.014 J	<0.005	0.054 J	<0.005 J	0.008 J	<0.005 J	<0.005 J	0.016 J	0.005 J
Antimony (DIS)	mg/L	<0.0005	<0.0005	0.0006	0.0006	<0.0005	0.001	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.003	<0.001	0.081	0.081	<0.001	0.003	0.009	<0.001	0.002	<0.001	<0.001	0.007
Boron (DIS)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium (DIS)	mg/L	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Calcium (DIS)	mg/L	33	<1	53	53	<1	46	42	23	27	22	28	46
Chromium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (DIS)	mg/L	0.001	<0.001	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Iron (DIS)	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	0.04	<0.02	<0.02	<0.02	<0.02
Lead (DIS)	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Lithium (DIS)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (DIS)	mg/L	10	<1	14	14	<1	9	10	7	6	7	8	11
Manganese (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	0.008	0.001	<0.001	0.009	<0.001	<0.001
Mercury (DIS)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum (DIS)	mg/L	0.0022	<0.0001	0.0054	0.0053	<0.0001	0.0018	0.0057	0.0009	0.0001	0.0003	0.0002	0.0026
Nickel (DIS)	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Potassium (DIS)	mg/L	3	<1	6	6	<1	4	5	3	3	4	3	3
Rubidium (DIS)	mg/L	0.0007	<0.0001	0.0011	0.0011	<0.0001	0.0012	0.0011	0.0015	0.0006	0.001	0.0003	0.0014
Selenium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silicon (DIS)	mg/L	11.4	<0.1	11.8	11.6	<0.1	12.2	5.9	14.9	11.7	17.1	13	10
Silver (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sodium (DIS)	mg/L	8	<1	41	41	<1	15	8	10	6	7	8	10
Strontium (DIS)	mg/L	0.2	<0.01	0.32	0.33	<0.01	0.29	0.2	0.16	0.13	0.16	0.18	0.16
Thallium (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tungsten (DIS)	mg/L	<0.0001	<0.0001	0.0012	0.0012	<0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Uranium (DIS)	mg/L	0.0028	<0.0002	0.0141	0.014	<0.0002	0.0056	0.0253	0.0021	0.0011	<0.0002	0.0009	0.0196
Vanadium (DIS)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc (DIS)	mg/L	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

MONTANA RESOURCES JUNE 2023 GROUNDWATER MONITORING RESULTS

Station Name	Reporting Units	DI BLANK	RINSATE BLANK	MW-15-10	MW-15-11	MW-15-12	MW-15-13
Sample Date		2023/06/08 07:50	2023/06/08 08:25	2023/06/08 09:55	2023/06/08 11:20	2023/06/08 00:00	2023/06/08 00:00
FieldSampleId		MR-2306-224	MR-2306-225	MR-2306-226	MR-2306-227	MR-2306-228	MR-2306-229
Lab		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
labComments		Blank	Blank			No Sample	No Sample
LabSampleId		H23060412-025	H23060412-026	H23060412-027	H23060412-028		
Field Parameters							
Depth to Water	Feet			6.06	156.45	No Access	No Access
Dissolved Oxygen	mg/L			8.05	3.48		
Field pH	s.u.			6.25	7.71		
Field Specific Conductivity	umhos/cm			131	319		
Oxidation Reduction Potential	Millivolts			256.7	207.7		
Water Temperature	Deg C			8.7	9.3		
Physical Parameters							
pH	s.u.	6.7 H	6 H	6.5 H	7.7 H		
pH Measurement Temp	Deg C	15.9	16.1	16.3	16.6		
Specific Conductivity	umhos/cm	6	5	134	319		
Total Dissolved Solids	mg/L	<20	<20	120	204		
Total Suspended Solids	mg/L	<10	<10	<10	<10		
Major Constituents - Commons Ions							
Alkalinity as CaCO3	mg/L	<3	3	40	110		
Bicarbonate as HCO3	mg/L	<3	3	48	130		
Carbonate as CO3	mg/L	<4	<4	<4	<4		
Chloride	mg/L	<1	<1	<1	1		
Fluoride	mg/L	<0.1	<0.1	<0.1	<0.1		
Sulfate	mg/L	<1	<1	21	49		
Nutrients							
Nitrate + Nitrite as N	mg/L	<0.01	<0.01	0.34	0.16		
Phosphorus (TOT)	mg/L	<0.01	<0.01	<0.01 J	<0.01 J		
Metals - Trace Constituents							
Aluminum (DIS)	mg/L	<0.005 J	<0.005 J	<0.005 J	<0.005 J		
Antimony (DIS)	mg/L	<0.0005	<0.0005	<0.0005	<0.0005		
Arsenic (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001		
Boron (DIS)	mg/L	<0.05	<0.05	<0.05	<0.05		
Cadmium (DIS)	mg/L	<0.00003	<0.00003	<0.00003	<0.00003		
Calcium (DIS)	mg/L	<1	<1	11	44		
Chromium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001		
Copper (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001		
Iron (DIS)	mg/L	<0.02	<0.02	<0.02	<0.02		
Lead (DIS)	mg/L	<0.0003	<0.0003	<0.0003	<0.0003		
Lithium (DIS)	mg/L	<0.1	<0.1	<0.1	<0.1		
Magnesium (DIS)	mg/L	<1	<1	3	8		
Manganese (DIS)	mg/L	<0.001	<0.001	0.007	<0.001		
Mercury (DIS)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Molybdenum (DIS)	mg/L	<0.0001	<0.0001	0.0002	0.0024		
Nickel (DIS)	mg/L	<0.002	<0.002	<0.002	<0.002		
Potassium (DIS)	mg/L	<1	<1	2	2		
Rubidium (DIS)	mg/L	<0.0001	<0.0001	0.0005	0.0009		
Selenium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001		
Silicon (DIS)	mg/L	<0.1	<0.1	18.9	8.3		
Silver (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002		
Sodium (DIS)	mg/L	<1	<1	11	10		
Strontium (DIS)	mg/L	<0.01	<0.01	0.08	0.16		
Thallium (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002		
Tungsten (DIS)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Uranium (DIS)	mg/L	<0.0002	<0.0002	0.0014	0.019		
Vanadium (DIS)	mg/L	<0.01	<0.01	<0.01	<0.01		
Zinc (DIS)	mg/L	<0.008	<0.008	<0.008	<0.008		

MONTANA RESOURCES JUNE 2023 SURFACE WATER MONITORING RESULTS

Station Name	Reporting Units	WQ-11 (YDC-1)	DI BLANK	BRCD-2	BRCD-6	OFGD-1	BRCD-4	BRCD-4	BRCD-5	OFGD-4	OFGD-3	WQ-1(Woodville East)	WQ-15 (DC-1)	WQ-10 (SBC-1)
Sample Date		2023/06/07 13:45	2023/06/07 15:00	2023/06/08 09:00	2023/06/08 09:20	2023/06/08 09:55	2023/06/08 13:00	2023/06/08 13:15	2023/06/08 13:30	2023/06/08 14:00	2023/06/08 14:30	2023/06/08 15:30	2023/06/16 09:35	2023/06/16 10:30
FieldSampleId		MR-2306-100	MR-2306-101	MR-2306-102	MR-2306-103	MR-2306-104	MR-2306-105	MR-2306-106	MR-2306-107	MR-2306-108	MR-2306-109	MR-2306-110	MR-2306-300	MR-2306-301
Lab		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
labComments			Blank					Duplicates						
LabSampleId		H23060444-001	H23060444-002	H23060444-003	H23060444-004	H23060444-005	H23060444-006	H23060444-007	H23060444-008	H23060444-009	H23060444-010	H23060444-011	H23060760-001	H23060760-002
Field Parameters														
Dissolved Oxygen	mg/L	8.35		6.89	3.08	5.99	8.49		7.48	5.9	7.64	8.15	9.54	8.98
Field pH	s.u.	8.07		7.72	7.12	7.28	7.99		7.85	7.03	7.95	7.51	8.02	7.8
Field Specific Conductivity	umhos/cm	118		211	624	705	276		154	393	582	350	212.3	212.5
Flow	CFS	4.9			0.018	0.025	1.0			0.122		1.1		
Flow	GPM			75					1.11		No Meas		55	165
Oxidation Reduction Potential	Millivolts	86.5		195.8	170.9	83.5	45.5		60.3	104.6	83.6	101.9		
Water Temperature	Deg C	11.2		8.5	10.6	11.5	11.6		14.8	14.1	11.6	11.5	6.9	8.1
Physical Parameters														
pH	s.u.	7.8 H	5.8 H	7.5 H	7.1 H	7.3 H	7.7 H	7.7 H	7.7 H	7 H	7.8 H	7.5 H	8 H	8 H
pH Measurement Temp	Deg C	16.5	13.4	12.4	12.2	12.3	12.6	12.9	13.3	13.4	13.8	19	16.8	16.5
Specific Conductivity	umhos/cm	119	8	206	605	614	280	258	155	388	314	388	227	221
Total Dissolved Solids	mg/L	105	<20	167	466	565	204	207	136	289	427	256	157	147
Total Suspended Solids	mg/L	<10	<10	<10	<10	<10	85	86	<10	<10	<10	<10	<10	<10
Major Constituents - Commons Ions														
Alkalinity as CaCO3	mg/L	40 H	<3	43	65	70	61	58	47	42	130 H	39	99	96
Bicarbonate as HCO3	mg/L	49 H	<3	52	79	85	73	70	57	50	160 H	47	120	120
Carbonate as CO3	mg/L	<3 H	<3	<3	<3	<3	<3	<3	<3	<3	<3 H	<3	<3	<3
Chloride	mg/L	4	<1	10	27	10	11	11	5	23	25	15	<1	<1
Fluoride	mg/L	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.1	0.1
Sulfate	mg/L	11	<1	35	212	323	57	56	17	113	165	114	16	16
Total Acidity as CaCO3	mg/L													
Nutrients														
Nitrate + Nitrite as N	mg/L	<0.01	<0.01	0.87	<0.01	<0.01	0.08	0.08	0.59	0.04	<0.01	0.01	0.01	<0.01
Phosphorus (TOT)	mg/L	0.06	<0.01	0.27	0.27	0.02	0.25	0.26	0.12	0.05	0.12	0.02	0.02 J	0.02 J
Metals - Trace Constituents														
Aluminum (DIS)	mg/L	0.107	<0.005	0.036	0.015	<0.005	0.026	0.023	0.047	<0.005	0.006	0.119	0.022 B	<0.005 B
Antimony (TRC)	mg/L	<0.0005	<0.0005	0.0005	0.0016	0.0007	0.0008	0.0008	<0.0005	0.0011	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (TRC)	mg/L	0.007	<0.001	0.023	0.057	0.002	0.042	0.043	0.01	0.007	0.012	0.002	0.007	0.003
Boron (TRC)	mg/L	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium (TRC)	mg/L	<0.00003	<0.00003	0.00004	0.00035	<0.00003	0.00019	0.00018	0.00004	0.0001	<0.00003	0.00174	<0.00003	<0.00003
Calcium (TRC)	mg/L	14	<1	22	79	104	31	31	15	44	84	43	27	27
Chromium (TRC)	mg/L	<0.001	<0.001	<0.001	0.001	<0.001	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (TRC)	mg/L	0.008	<0.001	0.007	0.023	0.004	0.02	0.02	0.003	0.008	0.003	0.084	0.006 J	0.003 J
Iron (TRC)	mg/L	0.66	<0.02	0.52	2.26	0.04	2.96	3.04	0.36	0.14	0.13	0.46	0.16	0.16
Lead (TRC)	mg/L	0.0004	<0.0003	0.001	0.0057	<0.0003	0.0055	0.0056	0.001	<0.0003	<0.0003	0.0017	<0.0003	0.0003
Lithium (TRC)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (TRC)	mg/L	3	<1	7	19	24	9	9	4	10	18	11	7	6
Manganese (TRC)	mg/L	0.027	<0.001	0.049	1.24	0.026	0.25	0.259	0.014	0.073	0.067	0.128	0.019	0.02
Mercury (TRC)	mg/L	0.000016	<0.000005	0.000015	0.000032	0.000012	0.000028	0.000027	0.000007	0.000015	0.000011	0.00001	<0.000005	<0.000005
Molybdenum (TRC)	mg/L	0.0008	<0.0001	0.001	0.0028	0.0011	0.0036	0.0036	0.0012	0.0029	0.0037	0.0012	0.0021	0.0024
Nickel (TRC)	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Potassium (TRC)	mg/L	2	<1	4	10	9	5	5	4	4	7	3	3	3
Rubidium (TRC)	mg/L	0.001	<0.0001	0.0021	0.0058	0.0015	0.0091	0.0084	0.0026	0.0021	0.0014	0.0021	0.0008	0.0013
Selenium (TRC)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silicon (TRC)	mg/L	14.1	<0.1	21.6	21.9	14.3	20.9	21.4	24.9	13.4	14.1	15.6	12.8	
Silver (TRC)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Sodium (TRC)	mg/L	5	<1	8	21	20	10	10	8	16	19	12	7	6
Strontium (TRC)	mg/L	0.07	<0.01	0.14	0.54	0.62	0.19	0.19	0.14	0.32	0.67	0.29	0.18	0.2
Thallium (TRC)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tungsten (TRC)	mg/L	0.0003	<0.0002	0.0004	0.0028	<0.0001	0.001	0.0012	0.0002	0.0002	0.0003	0.0006	<0.0001	<0.0001
Uranium (TRC)	mg/L	0.0006	<0.0002	0.001	0.0007	0.001	0.0014	0.0015	0.0003	<0.0002	0.0019	0.0009	0.0052	0.0026
Vanadium (TRC)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc (TRC)	mg/L	<0.008	<0.008	<0.008	0.03	<0.008	0.02	0.021	<0.008	0.017	<0.008	0.396	<0.008	<0.008

MONTANA RESOURCES JUNE 2023 SURFACE WATER MONITORING RESULTS

Station Name	Reporting Units	WQ-9A (YDTI-NE)	WQ-2 (Woodville West)	WQ-5 (Clearwater)	WQ-7 (Pavilon Seep)	WQ-6 (Cont. Pit South)	WQ-6 (Cont. Pit South)	WQ-18 (Eco Pond)	EXTRACTION POND	WQ-19 (SEEP-10)	DI BLANK	WQ-8A (Cont Pit North)
Sample Date		2023/06/16 10:45	2023/06/16 12:10	2023/06/16 12:50	2023/06/16 13:35	2023/06/16 13:40	2023/06/16 13:55	2023/06/16 14:10	2023/06/16 14:45	2023/06/16 15:10	2023/06/16 15:30	2023/06/16 00:00
FieldSampleId		MR-2306-302	MR-2306-303	MR-2306-304	MR-2306-305	MR-2306-306	MR-2306-307	MR-2306-308	MR-2306-309	MR-2306-310	MR-2306-311	MR-2306-312
Lab		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
labComments							Duplicate				Blank	No Sample
LabSampleId		H23060760-003	H23060760-004	H23060760-005	H23060760-006	H23060760-007	H23060760-008	H23060760-009	H23060760-010	H23060760-011	H23060760-012	z
Field Parameters												
Dissolved Oxygen	mg/L	4.16	8.95	9.03	8.06	6.68		5.64	2.59	6.19		
Field pH	s.u.	10.22	6.51	6.84	3.97	7.66		11.48	3.33	2.76		
Field Specific Conductivity	umhos/cm	2,688	456	95.4	2,516	2,169		2,754	3,225	4,920		
Flow	CFS			2.1								
Flow	GPM	PONDED	175 Estimated		16.7	300 E		PONDED	620	127		NO ACCESS
Oxidation Reduction Potential	Millivolts											
Water Temperature	Deg C	13.6	9.2	8.6	12.3	15.2		22.3	9	22.2		
Physical Parameters												
pH	s.u.	9.8 H	6.8 H	7.2 H	3.2 H	7.6 H	7.7 H	11.4 H	3.6 H	2.9 H	6 H	
pH Measurement Temp	Deg C	16.6	16.8	16.9	16.8	17	17.7	18.2	18.2	17.3	17.2	
Specific Conductivity	umhos/cm	2,740	472	99	2,540	2,210	2,200	2,710	3,180	4,990	<5	
Total Dissolved Solids	mg/L	2,540	342	89	2,430	1,990	1,980	2,300	3,260	5,890	<20	
Total Suspended Solids	mg/L	<10	<10	<10	<10	<10	<10	23	<10	<10	<10	
Major Constituents - Commons Ions												
Alkalinity as CaCO3	mg/L	30	23	19	<3	110	110	100	<3	<3	<3	
Bicarbonate as HCO3	mg/L	16	28	22	<3	140	140	<3	<3	<3	<3	
Carbonate as CO3	mg/L	10	<3	<3	<3	<3	<3	50	<3	<3	<3	
Chloride	mg/L	21	15	2	7	19	18	18	39	21	<1	
Fluoride	mg/L	1.6	0.5	0.1	4.7	2.5	2.7	1.7	0.7	0.2	<0.1	
Sulfate	mg/L	1,670	182	23	1,610	1,320	1,280	1,430	2,210	4,050	<1	
Total Acidity as CaCO3	mg/L				440				390	1,600	7	
Nutrients												
Nitrate + Nitrite as N	mg/L	0.22	0.31	0.01	0.02	0.58	0.62	0.51	0.33	0.26	<0.01	
Phosphorus (TOT)	mg/L	<0.01 J	0.05 J	0.02 J	0.02 J	<0.01 J	0.03 J	0.04 J	0.01 J	1.34 J	<0.01	
Metals - Trace Constituents												
Aluminum (DIS)	mg/L	0.076	0.019 B	0.06	33.9	<0.005 B	<0.005 B	0.018 B	38.4	146	0.005	
Antimony (TRC)	mg/L	<0.0005	<0.0005	0.0007	<0.0005	0.0016	0.0016	<0.0005	<0.0005	<0.0005	<0.0005	
Arsenic (TRC)	mg/L	0.001	<0.001	0.002	<0.001	0.002	0.002	0.002	<0.001	0.076	<0.001	
Boron (TRC)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Cadmium (TRC)	mg/L	0.00021	0.00194	0.00037	0.22	0.00225	0.00209	0.00032	0.28	0.526	<0.00003	
Calcium (TRC)	mg/L	550	47	8	266	489	442	538	478	424	<1	
Chromium (TRC)	mg/L	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	0.002	0.038	<0.001	
Copper (TRC)	mg/L	0.021 J	0.126 J	0.027 J	63.5 J	0.071 J	0.044 J	0.054 J	40 J	67 J	<0.001	
Iron (TRC)	mg/L	0.02	0.03	0.25	22.7	0.17	0.15	0.22	13.9	107	<0.02	
Lead (TRC)	mg/L	<0.0003	<0.0003	0.0008	0.0497	0.0016	0.0012	0.0031	0.0055	0.0003	<0.0003	
Lithium (TRC)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Magnesium (TRC)	mg/L	7	16	3	100	34	34	2	89	158	<1	
Manganese (TRC)	mg/L	0.02	0.048	0.01	26.8	2.55	2.56	0.077	21.2	62.4	<0.001	
Mercury (TRC)	mg/L	<0.000005	<0.000005	0.000005	<0.000005	<0.000005	<0.000005	0.00001	0.000005	<0.000005	<0.000005	
Molybdenum (TRC)	mg/L	0.81	0.459	0.001	0.0102	1.04	1.04	0.804	0.0003	0.0225	<0.0001	
Nickel (TRC)	mg/L	<0.002	0.003	<0.002	0.149	0.008	0.008	<0.002	0.119	0.327	<0.002	
Potassium (TRC)	mg/L	36	3	1	6	15	15	29	19	9	<1	
Rubidium (TRC)	mg/L	0.0487	0.0034	0.0012	0.0435	0.0235	0.0232	0.0377	0.0426	0.02	<0.0001	
Selenium (TRC)	mg/L	0.003	0.001	<0.001	0.002	0.001	0.001	0.003	0.002	0.003	<0.001	
Silicon (TRC)	mg/L	4.1	15.1	11.4	29.7	6.9	6.9	6.5	16.5	21.6	<0.1	
Silver (TRC)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Sodium (TRC)	mg/L	100	14	4	26	39	39	72	79	89	<1	
Strontium (TRC)	mg/L	2.18	0.3	0.06	0.94	2.49	2.46	2	1.88	1.14	<0.01	
Thallium (TRC)	mg/L	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	
Tungsten (TRC)	mg/L	0.0099	<0.0001	0.0001	<0.0001	0.0008	0.0008	0.0088	<0.0001	<0.0001	<0.0001	
Uranium (TRC)	mg/L	0.0011	0.0003	0.0002	0.128	0.169	0.167	0.0032	0.138	0.353	<0.0002	
Vanadium (TRC)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	
Zinc (TRC)	mg/L	<0.008	0.528	0.098	29.7	0.272	0.258	0.028	35.3	176	<0.008	

MONTANA RESOURCES OCTOBER 2023 GROUNDWATER MONITORING RESULTS

Station Name	Reporting Units	MW-16-02D	MW-15-06	MW-16-01	MW-15-02	MW-15-02	MW-15-03	MW-15-04	MW-12-15	MW-15-01	MW-15-05	MW-15-09	MW-12-13	MW-12-17
Sample Date		2023/10/16 13:30	2023/10/16 14:45	2023/10/16 15:45	2023/10/17 09:55	2023/10/17 10:30	2023/10/17 13:05	2023/10/18 11:00	2023/10/17 17:20	2023/10/18 10:15	2023/10/18 12:15	2023/10/17 09:45	2023/10/17 11:05	2023/10/17 12:10
FieldSampleId		MR-2310-200	MR-2310-201	MR-2310-202	MR-2310-203	MR-2310-204	MR-2310-205	MR-2310-206	MR-2310-207	MR-2310-208	MR-2310-209	MR-2310-211	MR-2310-212	MR-2310-213
Lab		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
labComments						Duplicate								
LabSampleId		H23100717-001	H23100717-002	H23100717-003	H23100717-004	H23100717-005	H23100717-006	H23100717-007	H23100717-008	H23100717-009	H23100717-010	H23100717-011	H23100717-012	H23100717-013
Field Parameters														
Depth to Water	Feet	85.71	33.66	91.05	53.49		91.95	42.89	28.98	49.82	28.11	28.98	11.04	29.91
Dissolved Oxygen	mg/L	0.29	0.19	0.37	7.99		1.62	4.94	4.98	9.52	3.56	1.14	0.78	1.45
Field pH	s.u.	7.36	8.19	7.73	7.04		7.39	8.64	7.37	7.34	7.78	6.59	6.91	8.07
Field Specific Conductivity	umhos/cm	184	291	236	457		362	234.1	694	208.1	396.2	198	405	331
Oxidation Reduction Potential	Millivolts	55.4	-214.4	-31.5	38.1		-179.5	100.1	-93.3	75.9	-154.3	70.9	131.1	141.3
Water Temperature	Deg C	7.7	7.8	8.2	8.2		10.2	8.6	7.9	8.5	8.3	7.9	8.5	8.4
Physical Parameters														
pH	s.u.	7.4 H	8.2 H	7.8 H	7.4 H	7.3 H	7.7 H	7.2 H	7.6 H	7.7 H	8.0 H	7.0 H	7.1 H	8.1 H
pH Measurement Temp	Deg C	10.1	10.2	10.3	10.5	10.6	11.1	11	11.2	11.5	11.3	11.4	11.2	12.5
Specific Conductivity	umhos/cm	211	325	269	616	627	377	246	715	224	443	202	426	346
Total Dissolved Solids	mg/L	134	191	166	379	373	237	169	474	149	262	131	268	207
Total Suspended Solids	mg/L	<10	<10	<10	<10	<10	49	<10	17	<10	14	<10	11	<10
Major Constituents - Commons Ions														
Alkalinity as CaCO3	mg/L	57	150	49	200	190	110	75	160	70	170	60	120	110
Bicarbonate as HCO3	mg/L	69	190	59	240	240	140	91	190	85	210	73	150	140
Carbonate as CO3	mg/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Chloride	mg/L	4	5	6	71	71	4	2	23	4	5	1	29	6
Fluoride	mg/L	0.1	0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	0.1
Sulfate	mg/L	39	9	67	11	11	68	42	162	31	55	36	48	55
Nutrients														
Nitrate + Nitrite as N	mg/L	0.05	<0.01	<0.01	0.57	0.58	1.32	0.5	4.86	1.18	0.47	0.25	0.5	0.12
Phosphorus (TOT)	mg/L	0.15	0.03	0.05	0.04	0.04	0.11	0.04	0.05	0.11	0.07	0.03	0.03	0.06
Metals - Trace Constituents														
Aluminum (DIS)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Antimony (DIS)	mg/L	0.0005	<0.0005	0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0013	0.0008
Arsenic (DIS)	mg/L	0.01	0.013	0.08	0.004	0.004	0.006	<0.001	0.005	0.004	0.005	0.003	0.004	0.011
Boron (DIS)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium (DIS)	mg/L	0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.00011	<0.00003	<0.00003
Calcium (DIS)	mg/L	24	49	32	86	88	46	26	105	25	61	18	52	40
Chromium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (DIS)	mg/L	0.002	<0.001	<0.001	0.001	0.001	<0.001	0.002	0.004	0.001	0.001	<0.001	<0.001	<0.001
Iron (DIS)	mg/L	<0.02	0.05	<0.02	<0.02	<0.02	0.06	0.04	<0.02	<0.02	0.03	<0.02	<0.02	<0.02
Lead (DIS)	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Lithium (DIS)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (DIS)	mg/L	4	4	3	15	15	12	8	19	7	12	8	10	10
Manganese (DIS)	mg/L	0.054	0.036	0.051	0.001	0.001	0.006	0.002	0.005	<0.001	0.012	0.007	0.004	0.006
Mercury (DIS)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum (DIS)	mg/L	0.0026	0.0103	0.0171	0.0006	0.0005	0.0062	0.0009	0.0038	0.0005	0.0109	0.0015	0.002	0.0065
Nickel (DIS)	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Potassium (DIS)	mg/L	2	3	3	4	4	4	4	5	3	5	3	5	5
Rubidium (DIS)	mg/L	0.0017	0.0009	0.0015	0.0005	0.0005	0.0006	0.0008	0.0016	0.0004	0.0008	0.0008	0.001	0.0009
Selenium (DIS)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
Silicon (DIS)	mg/L	6.5	5.1	3.3	10.4	10.5	9.3	14.9	7	11.8	6	10.4	11.7	5.6
Silver (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sodium (DIS)	mg/L	11	13	13	9	9	9	11	12	6	13	8	11	8
Strontium (DIS)	mg/L	0.23	0.51	0.56	0.28	0.28	0.32	0.15	0.46	0.12	0.54	0.09	0.29	0.19
Thallium (DIS)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tungsten (DIS)	mg/L	0.0007	<0.0001	0.0052	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001
Uranium (DIS)	mg/L	0.0014	0.0224	0.009	0.0057	0.0056	0.0156	0.0018	0.0207	0.0013	0.0273	0.0009	0.0058	0.0228
Vanadium (DIS)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc (DIS)	mg/L	0.178	<0.008	<0.008	0.01	0.01	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

MONTANA RESOURCES OCTOBER 2023 GROUNDWATER MONITORING RESULTS

MW-12-14	MW-15-08	MW-15-07	MW-12-11	RINSATE BLANK	MW-16-02S	MW-12-12	MW-15-11	MW-15-10	MW-15-10	DI BLANK	RINSATE BLANK	MW-12-18	DI BLANK	MW-12-16
2023/10/17 13:05	2023/10/17 13:50	2023/10/17 14:55	2023/10/17 16:25	2023/10/17 17:00	2023/10/17 18:05	2023/10/18 11:00	2023/10/18 16:35	2023/10/18 18:15	2023/10/18 18:55	2023/10/19 08:50	2023/10/19 08:25	2023/10/18 13:25	2023/10/18 13:50	2023/10/19 10:20
MR-2310-214	MR-2310-215	MR-2310-216	MR-2310-217	MR-2310-218	MR-2310-219	MR-2310-220	MR-2310-221	MR-2310-222	MR-2310-223	MR-2310-224	MR-2310-225	MR-2310-226	MR-2310-227	MR-2310-228
Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
				Blank					Duplicate	Blank	Blank		Blank	
H23100717-014	H23100717-015	H23100717-016	H23100717-017	H23100717-018	H23100717-019	H23100717-020	H23100717-021	H23100717-022	H23100717-023	H23100717-024	H23100717-025	H23100717-026	H23100717-027	H23100717-028
31.74	50.65	55.09	51.90		45.93	39.80	156.01	9.61				27.51		85.85
6.17	6.67	7.03	4.20		1.50	0.31	2.75	6.21				5.95		6.59
7.21	6.11	6.97	7.14		7.83	8.15	7.55	5.89				6.52		7.32
212	205	261	509		522	272	293	131				404		307
142.8	124.3	130.4	127.3		101.0	119.9	113.7	180.3				-69.4		117.2
8.4	8.3	9.1	8.3		8.1	8.4	9.5	9.0				7.8		8.8
8.1 H	6.5 H	7.2 H	7.3 H	6.4 H	7.9 H	8.2 H	7.7 H	6.5 H	6.4 H	5.8 H	6.2 H	6.8 H	6.1 H	7.4 H
11.4	11.3	11.8	11.8	12.1	12.3	12.3	14	13.8	13	12.9	13.1	13.2	13.4	13.7
212	207	268	538	<5	554	297	324	136	134	<5	6	417	<5	331
157	148	177	367	<20	350	164	200	116	115	<20	<20	267	<20	207
<10	<10	33	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
89	58	79	95	<3	120	99	120	41	42	<3	<3	92	3	68
110	70	95	120	<3	150	120	140	50	50	<3	<3	110	3	82
<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
9	22	28	89	<1	6	6	1	<1	<1	<1	<1	58	<1	19
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4	7	9	33	<1	128	43	49	21	21	<1	<1	20	<1	60
0.71	0.29	0.38	0.31	<0.01	4.86	0.03	0.17	0.37	0.37	<0.01	<0.01	0.9	<0.01	1.18
0.05	0.36	0.1	0.25	<0.01	0.61	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	0.08
<0.005	<0.005	0.024	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
0.002	<0.001	<0.001	0.007	<0.001	0.07	0.008	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.003
<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
24	19	26	59	<1	54	38	42	11	11	<1	<1	45	<1	33
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.02
<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6	6	8	13	<1	14	4	7	2	2	<1	<1	11	<1	11
<0.001	0.004	<0.001	0.001	<0.001	<0.001	0.012	<0.001	0.007	0.007	<0.001	<0.001	0.002	<0.001	0.001
<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0.0001	0.0002	0.0003	0.0023	<0.0001	0.004	0.0082	0.0025	0.0002	0.0002	<0.0001	<0.0001	0.0004	<0.0001	0.0023
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3	4	3	4	<1	6	4	2	2	2	<1	<1	5	<1	4
0.0005	0.0007	0.0003	0.0016	<0.0001	0.001	0.0004	0.0008	0.0004	0.0004	<0.0001	<0.0001	0.0005	<0.0001	0.0007
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11.6	16.9	12.4	11.3	<0.1	11.7	4.8	8.2	18.9	18.5	<0.1	<0.1	12.7	<0.1	11.1
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
6	7	8	12	<1	34	12	9	10	10	<1	<1	9	<1	9
0.12	0.14	0.18	0.25	<0.01	0.29	0.35	0.15	0.08	0.08	<0.01	<0.01	0.18	<0.01	0.19
<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
0.001	<0.0002	0.001	0.0182	<0.0002	0.0116	0.0829	0.0175	0.0013	0.0012	<0.0002	<0.0002	0.0017	<0.0002	0.0028
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

MONTANA RESOURCES OCTOBER 2023 SURFACE WATER MONITORING RESULTS

Station Name	Reporting Units	BRCD-2	BRCD-2	BRCD-4	BRCD-5	BRCD-6	DI BLANK	DI BLANK	EXTRACTION POND	OFGD-1	OFGD-3	OFGD-4	WQ-1 (Woodville East)	WQ-10 (SBC-1)
Sample Date		2023/10/19 11:15	2023/10/19 11:30	2023/10/19 09:40	2023/10/19 09:35	2023/10/19 11:55	2023/10/19 13:30	2023/10/20 07:35	2023/10/19 14:40	2023/10/19 12:00	2023/10/19 13:00	2023/10/19 12:20	2023/10/20 12:45	2023/10/20 10:35
FieldSampleId		MR-2310-103	MR-2310-104	MR-2310-101	MR-2310-102	MR-2310-105	MR-2310-109	MR-2310-114	MR-2310-110	MR-2310-106	MR-2310-108	MR-2310-107	MR-2310-123	MR-2310-116
Lab		Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
labComments			Duplicate		No Sample	No Sample	Blank	Blank						
LabSampleId		H23100777-003	H23100777-004	H23100777-002	z	z	H23100777-008	H23100777-012	H23100777-009	H23100777-005	H23100777-007	H23100777-006	H23100777-021	H23100777-014
Field Parameters														
Dissolved Oxygen	mg/L	9.5		10.38					2.54	6.2	8.6	4.58	8.51	10.52
Field pH	s.u.	7.48		7.71					3.55	7.03	7.77	6.99	7.92	7.88
Field Specific Conductivity	umhos/cm	244		333					2,143	681	624	622	545	257.2
Flow	GPM	19.6		87	Dry	Dry			715	4.0	49	3.1	153	88.0
Oxidation Reduction Potential	Millivolts	137.0		34.5					397	130.3	121.7	145.1	162.9	227.1
Water Temperature	Deg C	3.7		3.2					8.4	7.4	5.8	7.0	7.4	4.6
Physical Parameters														
pH	s.u.	7.5 H	7.5 H	7.8 H			6.8 H	7.7 H	3.6 H	7.1 H	7.8	6.9 H	7.3 H	8 H
pH Measurement Temp	Deg C	15.9	17	13.6			15.2	14.6	15.5	14.2	14.9	14.7	17.1	14.4
Specific Conductivity	umhos/cm	245	244	332			<5	<5	3,070	679	615	636	490	252
Total Dissolved Solids	mg/L	178	180	229			<20	<20	2,960	465	417	403	353	155
Total Suspended Solids	mg/L	111 J	23 J	<10 J			<10	<10	<10 J	<10 J	16 J	<10 J	<10 J	70 J
Major Constituents - Commons Ions														
Alkalinity as CaCO3	mg/L	62	61	90			3	3	<3	99	150	140	57	120
Bicarbonate as HCO3	mg/L	75	74	110			3	3	<3	120	180	170	69	140
Carbonate as CO3	mg/L	<3	<3	<3			<3	<3	<3	<3	<3	<3	<3	<3
Chloride	mg/L	14	14	12			<1	<1	36	9	27	65	16	<1
Fluoride	mg/L	<0.1	<0.1	0.2			<0.1	<0.1	0.5	0.2	0.5	0.3	0.3	0.1
Sulfate	mg/L	35	35	61			<1	<1	2,090	247	135	83	172	17
Total Acidity as CaCO3	mg/L								320					
Nutrients														
Nitrate + Nitrite as N	mg/L	0.63	0.63	0.03			<0.01	<0.01	<0.01	<0.01	<0.01	0.13	0.01	<0.01
Phosphorus (TOT)	mg/L	0.27	0.28	0.22			<0.01	<0.01	0.01	0.02	0.13	0.03	<0.01	0.08
Metals - Trace Constituents														
Aluminum (DIS)	mg/L	0.021	0.023	<0.005			<0.005	<0.005	37	<0.005	<0.005	<0.005	0.102	<0.005
Antimony (TRC)	mg/L	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0005
Arsenic (TRC)	mg/L	0.02	0.02	0.021			<0.001	<0.001	<0.001	0.002	0.014	0.008	<0.001	0.002
Boron (TRC)	mg/L	<0.05	<0.05	<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium (TRC)	mg/L	0.00003	0.00003	<0.00003			<0.00003	<0.00003	0.293	<0.00003	<0.00003	0.00006	0.00185	<0.00003
Calcium (TRC)	mg/L	24	25	39			<1	<1	466	90	78	75	59	34
Chromium (TRC)	mg/L	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (TRC)	mg/L	0.004	0.004	0.002			<0.001	<0.001	31.5	0.001	0.001	0.004	0.126	0.002
Iron (TRC)	mg/L	0.42	0.37	0.07			<0.02	<0.02	18.7	0.23	0.11	1.03	0.1	0.11
Lead (TRC)	mg/L	0.0006	0.0006	<0.0003			<0.0003	<0.0003	0.0039	<0.0003	<0.0003	0.0015	<0.0003	<0.0003
Lithium (TRC)	mg/L	<0.1	<0.1	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (TRC)	mg/L	8	8	10			<1	<1	87	21	18	15	15	8
Manganese (TRC)	mg/L	0.067	0.066	0.074			<0.001	<0.001	19.5	0.151	0.2	0.693	0.09	0.022
Mercury (TRC)	mg/L	0.000007	0.000008	<0.000005			<0.000005	<0.000005	0.000006	<0.000005	<0.000005	0.000011	<0.000005	<0.000005
Molybdenum (TRC)	mg/L	0.0008	0.0008	0.003			<0.0001	<0.0001	0.0001	0.0009	0.0031	0.0042	0.0009	0.0021
Nickel (TRC)	mg/L	<0.002	<0.002	<0.002			<0.002	<0.002	0.098	<0.002	<0.002	<0.002	<0.002	<0.002
Potassium (TRC)	mg/L	5	5	5			<1	<1	23	6	6	6	3	4
Rubidium (TRC)	mg/L	0.0017	0.0016	0.0013			<0.0001	<0.0001	0.0413	0.0006	0.0014	0.0019	0.0019	0.0014
Selenium (TRC)	mg/L	<0.001	<0.001	<0.001			<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silicon (TRC)	mg/L	19.1	19.3	16.2			<0.1	<0.1	15.3	12.3	16	13.4	14.7	10
Silver (TRC)	mg/L	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sodium (TRC)	mg/L	9	9	11			<1	<1	93	19	24	22	13	7
Strontium (TRC)	mg/L	0.16	0.16	0.23			<0.01	<0.01	1.9	0.55	0.77	0.74	0.42	0.24
Thallium (TRC)	mg/L	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tungsten (TRC)	mg/L	<0.0001	<0.0001	<0.0001			<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001
Uranium (TRC)	mg/L	0.0011	0.0012	0.0018			<0.0002	<0.0002	0.11	0.001	0.0016	0.003	0.0016	0.0034
Vanadium (TRC)	mg/L	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc (TRC)	mg/L	<0.008	<0.008	<0.008			<0.008	<0.008	32.8	<0.008	<0.008	0.008	0.424	<0.008

MONTANA RESOURCES OCTOBER 2023 SURFACE WATER MONITORING RESULTS

Station Name	Reporting Units	WQ-11 (YDC-1)	WQ-15 (DC-1)	WQ-18 (Eco Pond)	WQ-19 (SEEP-10)	WQ-2 (Woodville West)	WQ-5 (Clearwater)	WQ-6 (Cont. Pit South)	WQ-7 (Pavilon Seep)	WQ-7 (Pavilon Seep)	WQ-8A (Cont Pit North)	WQ-9A (YDTI-NE)
Sample Date		2023/10/18 16:00	2023/10/20 10:15	2023/10/19 15:40	2023/10/19 15:00	2023/10/19 15:15	2023/10/20 09:15	2023/10/20 08:25	2023/10/20 08:50	2023/10/20 09:00	2023/10/20 08:05	2023/10/20 10:45
FieldSampleId		MR-2310-100	MR-2310-115	MR-2310-113	MR-2310-105	MR-2310-112	MR-2310-122	MR-2310-119	MR-2310-120	MR-2310-121	MR-2310-118	MR-2310-117
Lab		Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
labComments					No Sample					Duplicate		
LabSampleId		H23100777-001	H23100777-013	H23100777-011	z	H23100777-010	H23100777-020	H23100777-017	H23100777-018	H23100777-019	H23100777-016	H23100777-015
Field Parameters												
Dissolved Oxygen	mg/L	9.99	10.49	6.74		7.86	9.24	7.52	7.53	7.53	6.37	5.34
Field pH	s.u.	7.87	7.93	11.44		6.34	6.47	7.36	3.03	3.03	3.94	10.88
Field Specific Conductivity	umhos/cm	160.7	249	2,122		288.9	269	2,079	2,985	2,985	2,620	2,810
Flow	GPM	238	38	Ponded	No Access	175 Estimated	19.7	Ponded	13.5	68.0	Ponded	Ponded
Oxidation Reduction Potential	Millivolts	49.5	239.5	18.6		229.9	243.7	251.5	564.9	564.9	419.2	137.4
Water Temperature	Deg C	8.0	5.5	16.3		12.3	6.4	9.0	8.8	8.8	11.9	10.7
Physical Parameters												
pH	s.u.	7.8 H	8 H	11.3 H		6.8	6.6 H	7.6 H	3.1 H	3 H	4 H	10.5 H
pH Measurement Temp	Deg C	15.5	14.4	14.9		15.4	15.7	14.7	15.2	15.8	14.6	14.5
Specific Conductivity	umhos/cm	164	245	1,660		512	264	2,000	2,900	2,900	2,560	2,460
Total Dissolved Solids	mg/L	123	155	1,220		360	185	1,800	2,910	2,910	2,530	2,390
Total Suspended Solids	mg/L	<10 J	<10 J	28 J		<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J
Major Constituents - Commons Ions												
Alkalinity as CaCO3	mg/L	66	110	110		28	24	160	<3	<3	<3	61
Bicarbonate as HCO3	mg/L	80	130	<3		34	28	190	<3	<3	<3	<3
Carbonate as CO3	mg/L	<3	<3	27		<3	<3	<3	<3	<3	<3	33
Chloride	mg/L	6	1	15		15	15	11	8	8	9	23
Fluoride	mg/L	0.1	0.1	0.7		0.5	0.2	2.6	1	1.1	2.7	1.3
Sulfate	mg/L	8	20	722		208	79	1,170	1,990	2,010	1,760	1,740
Total Acidity as CaCO3	mg/L								630	650	140	
Nutrients												
Nitrate + Nitrite as N	mg/L	<0.01	<0.01	0.28		0.2	0.04	0.47	<0.01	<0.01	0.51	0.11
Phosphorus (TOT)	mg/L	0.13	<0.01	0.17		0.04	0.01	<0.01	0.04	0.04	0.02	0.02
Metals - Trace Constituents												
Aluminum (DIS)	mg/L	0.01	<0.005	0.071		0.062	0.064	0.009	54.2	54.8	13.5	0.156
Antimony (TRC)	mg/L	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	0.0009	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (TRC)	mg/L	0.011	0.005	0.002		<0.001	<0.001	0.001	0.002	0.004	<0.001	0.002
Boron (TRC)	mg/L	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium (TRC)	mg/L	<0.00003	<0.00003	0.00056		0.00209	0.00096	0.00539	0.332	0.339	0.214	0.0002
Calcium (TRC)	mg/L	19	32	308		58	26	432	285	286	500	614
Chromium (TRC)	mg/L	<0.001	<0.001	0.001		<0.001	<0.001	<0.001	0.006	0.006	<0.001	<0.001
Copper (TRC)	mg/L	0.003	0.002	0.218		0.096	0.094	0.289	106	105	25.3	0.008
Iron (TRC)	mg/L	1.18	0.07	0.41		<0.02	0.11	0.23	45	45	1.4	<0.02
Lead (TRC)	mg/L	<0.0003	<0.0003	0.005		<0.0003	<0.0003	0.0007	0.0517	0.051	0.0027	<0.0003
Lithium (TRC)	mg/L	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (TRC)	mg/L	4	7	2		17	8	31	119	118	64	2
Manganese (TRC)	mg/L	0.017	0.019	0.056		0.01	0.072	3.4	26.9	26.9	9.45	0.002
Mercury (TRC)	mg/L	0.000008	<0.000005	0.000009		<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Molybdenum (TRC)	mg/L	0.0009	0.002	0.414		0.219	0.001	1.22	0.0008	0.0008	0.0473	0.961
Nickel (TRC)	mg/L	<0.002	<0.002	<0.002		0.003	0.003	0.012	0.171	0.17	0.067	<0.002
Potassium (TRC)	mg/L	2	3	21		4	2	8	6	6	8	42
Rubidium (TRC)	mg/L	0.0005	0.0006	0.0378		0.0039	0.0025	0.0171	0.0413	0.0409	0.0257	0.0594
Selenium (TRC)	mg/L	<0.001	<0.001	0.002		<0.001	<0.001	<0.001	0.003	0.003	<0.001	0.003
Silicon (TRC)	mg/L	12.7	11.2	7.9		14.6	14.9	9.8	32	31.7	11.9	5.5
Silver (TRC)	mg/L	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sodium (TRC)	mg/L	6	9	55		15	8	41	32	30	42	116
Strontium (TRC)	mg/L	0.11	0.2	1.15		0.39	0.15	2.41	1.03	0.95	3.36	2.37
Thallium (TRC)	mg/L	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	0.0003	0.0003	<0.0002	<0.0002
Tungsten (TRC)	mg/L	0.0003	<0.0001	0.0036		<0.0001	<0.0001	0.0011	0.0002	0.0003	0.0004	0.0112
Uranium (TRC)	mg/L	0.0012	0.008	0.0011		0.0003	<0.0002	0.0681	0.149	0.144	0.136	0.0004
Vanadium (TRC)	mg/L	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc (TRC)	mg/L	<0.008	<0.008	0.074		0.561	0.292	0.85	38.8	38.8	12.5	<0.008

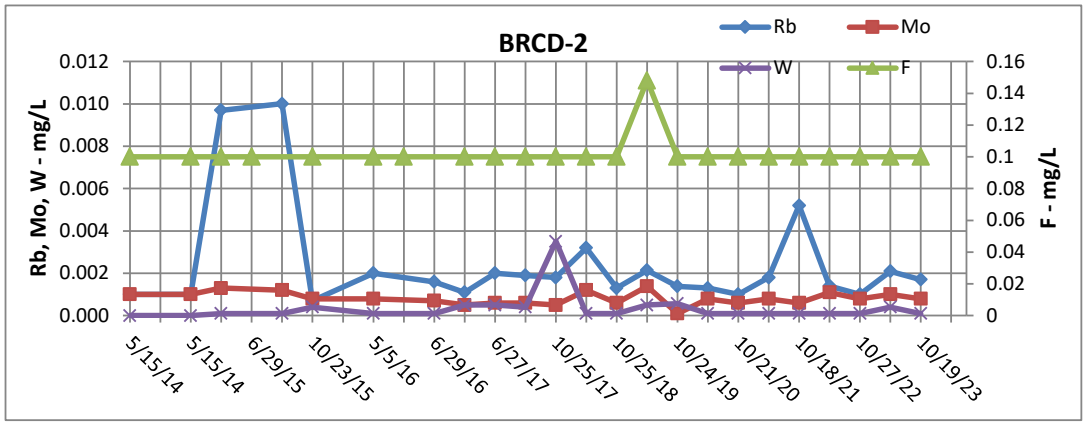
APPENDIX B

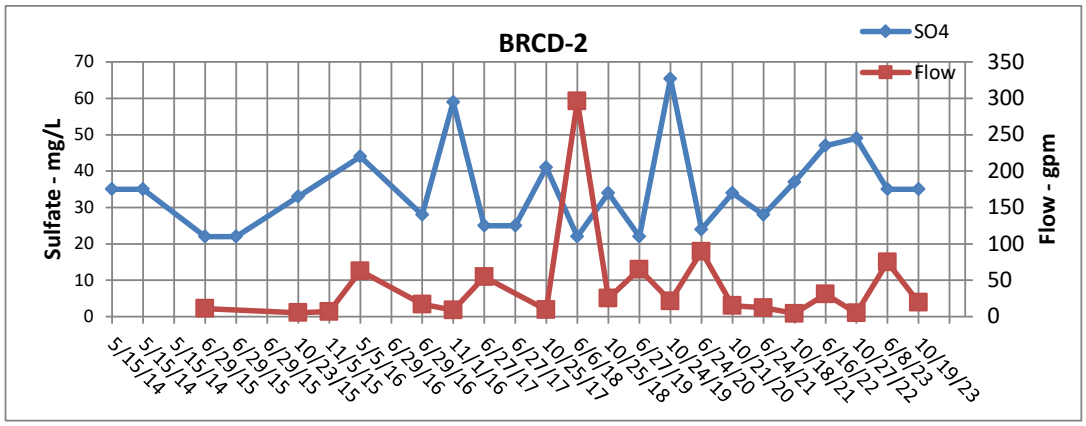
GROUNDWATER AND SURFACE WATER

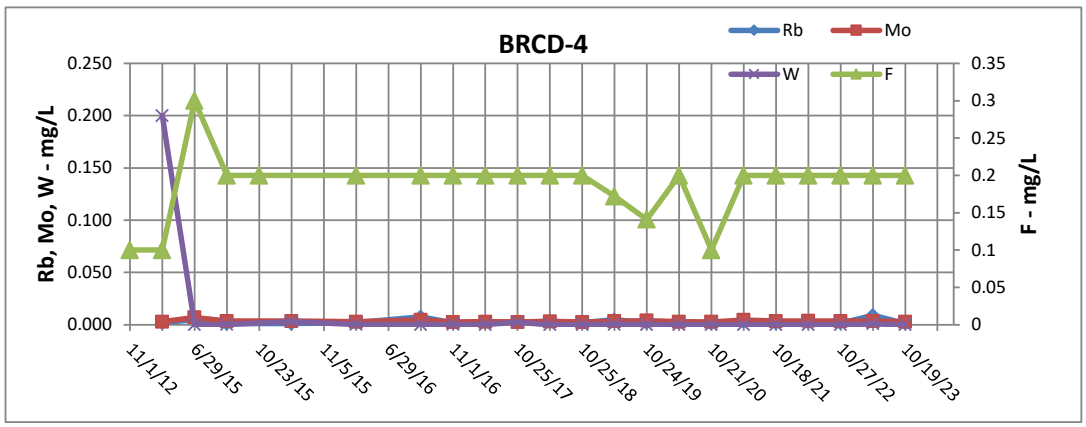
CONCENTRATION TREND PLOTS FOR SELECT PARAMETERS

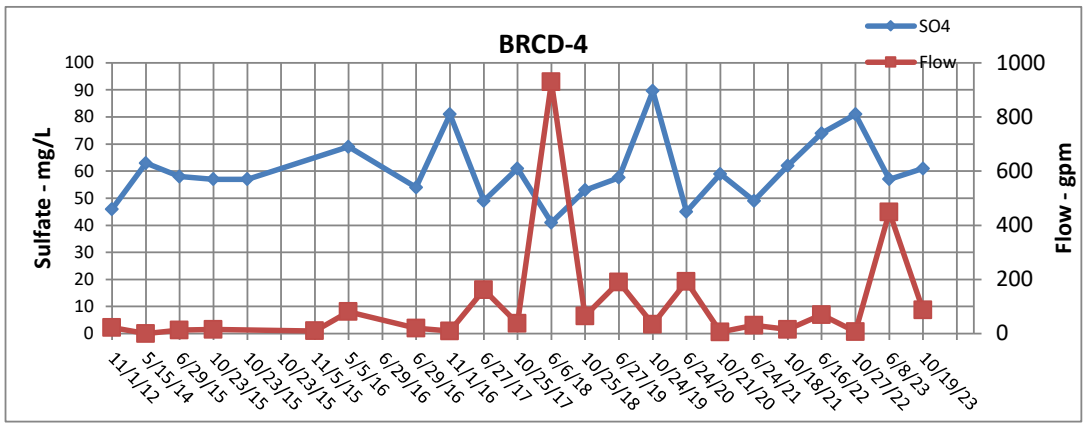
B-1 SURFACE WATER TREND PLOTS

Appendix B. Surface Water Trend Plots

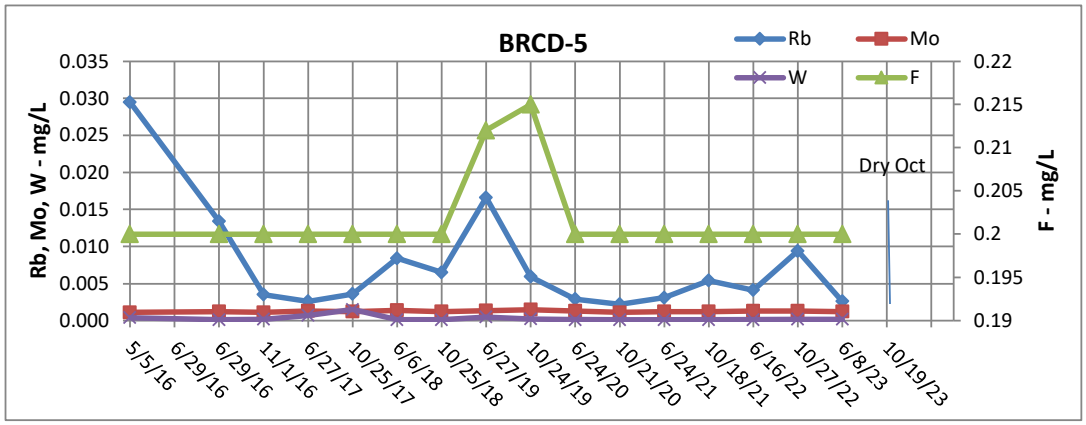


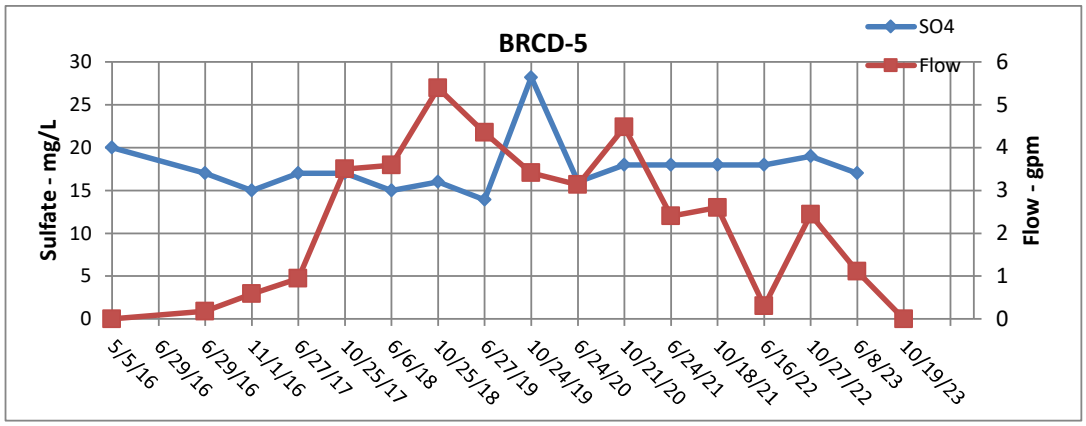


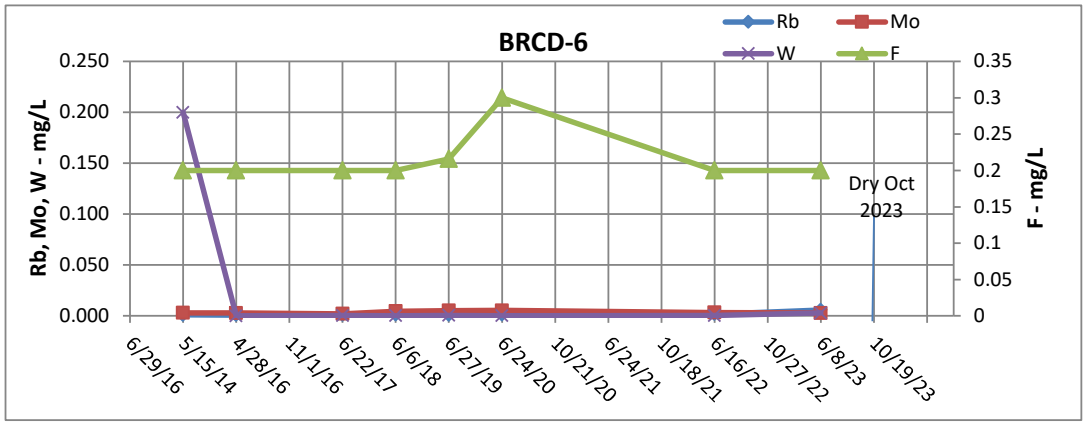


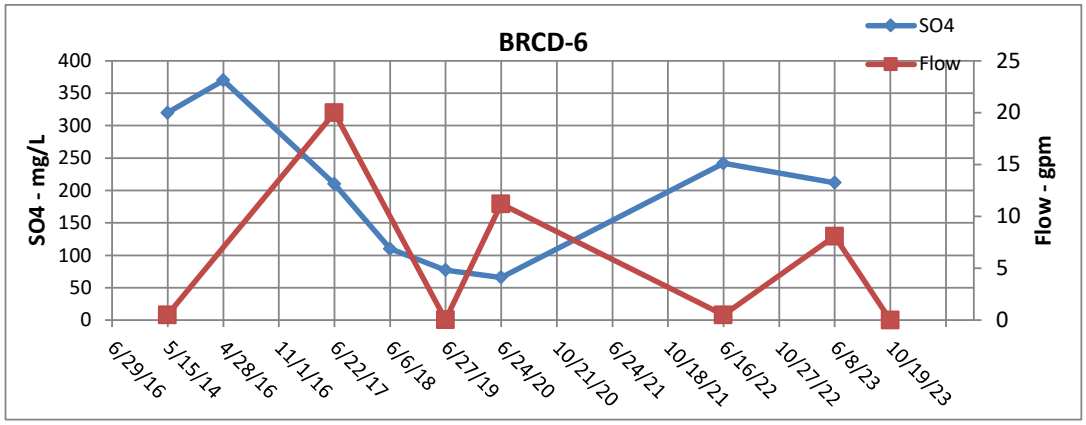


Appendix B. Surface Water Trend Plots

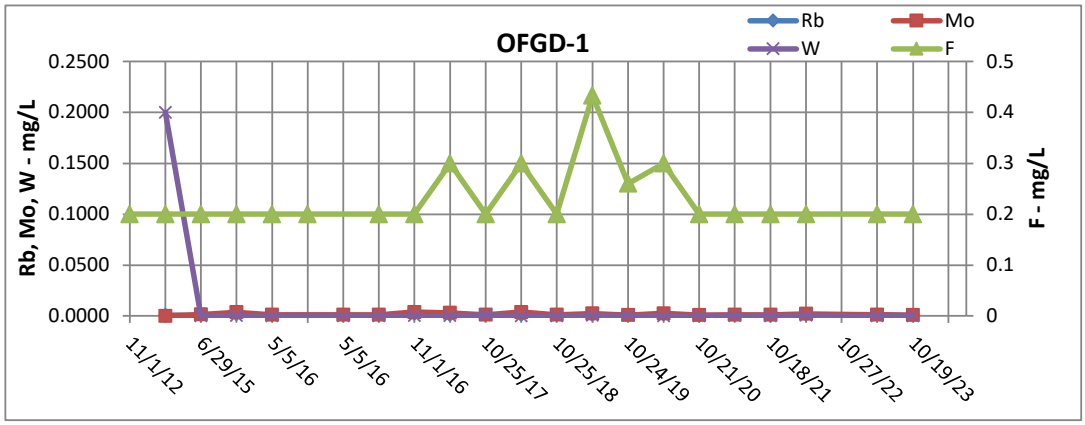


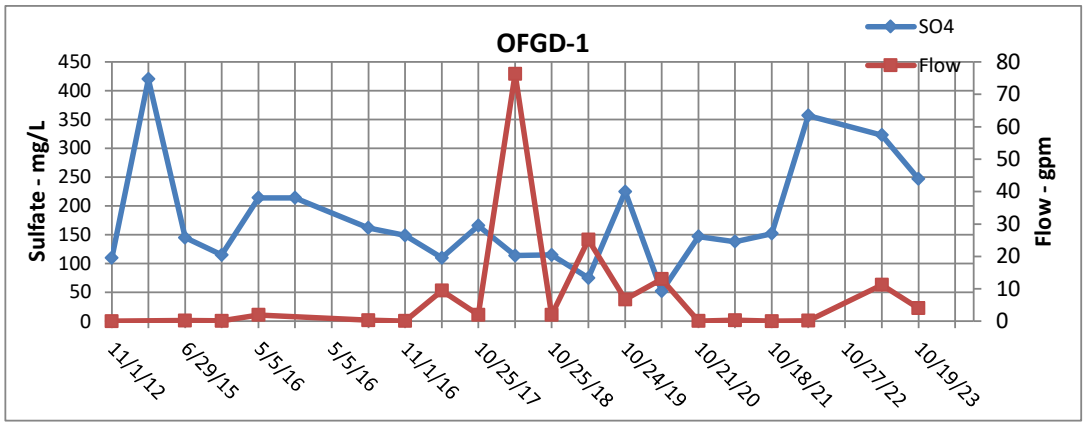


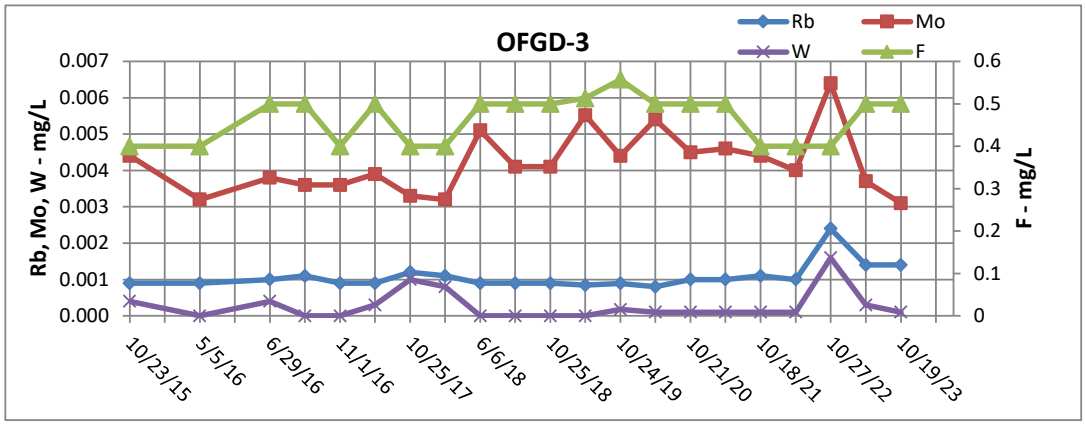


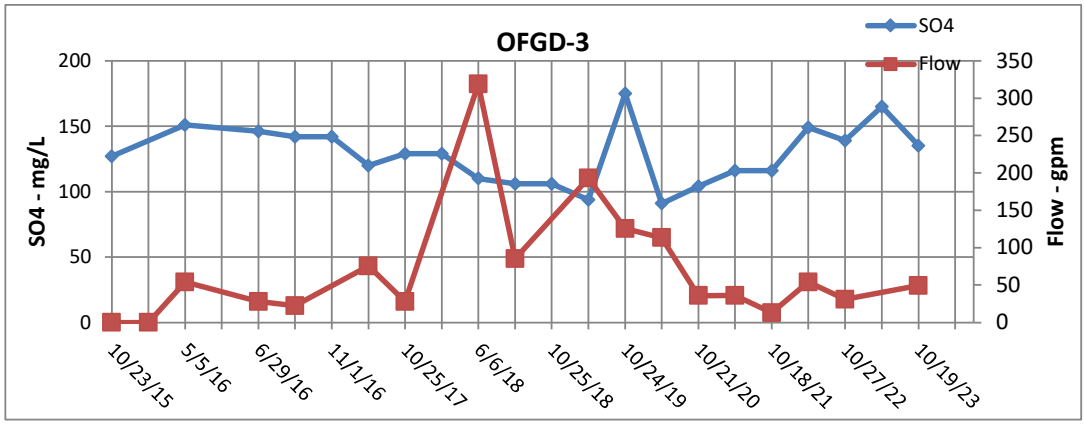


Appendix B. Surface Water Trend Plots

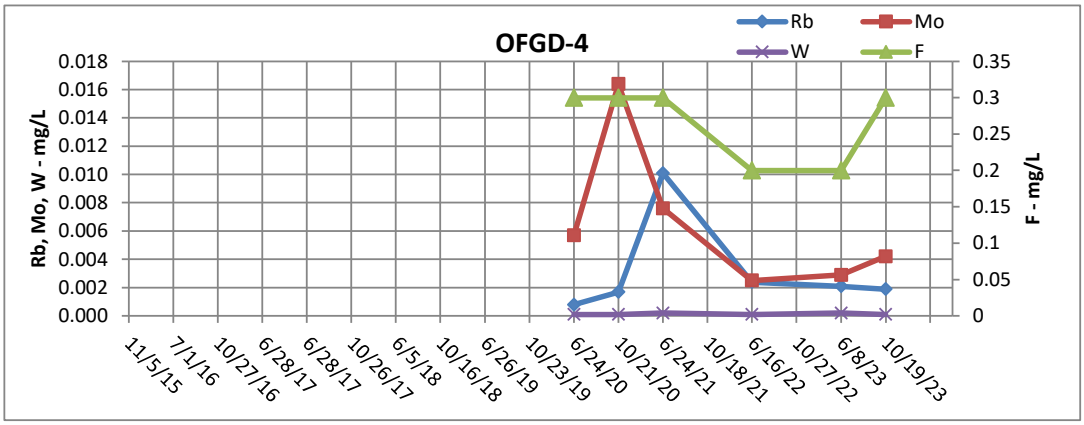


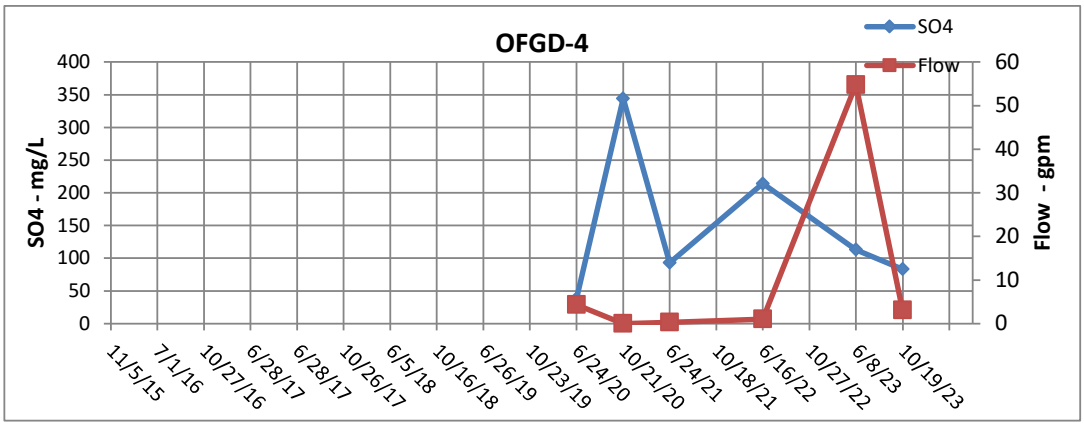




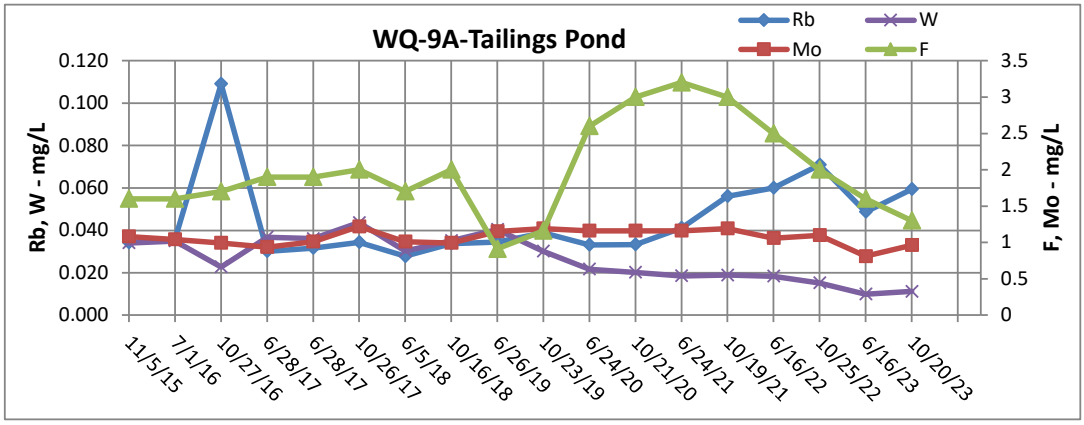


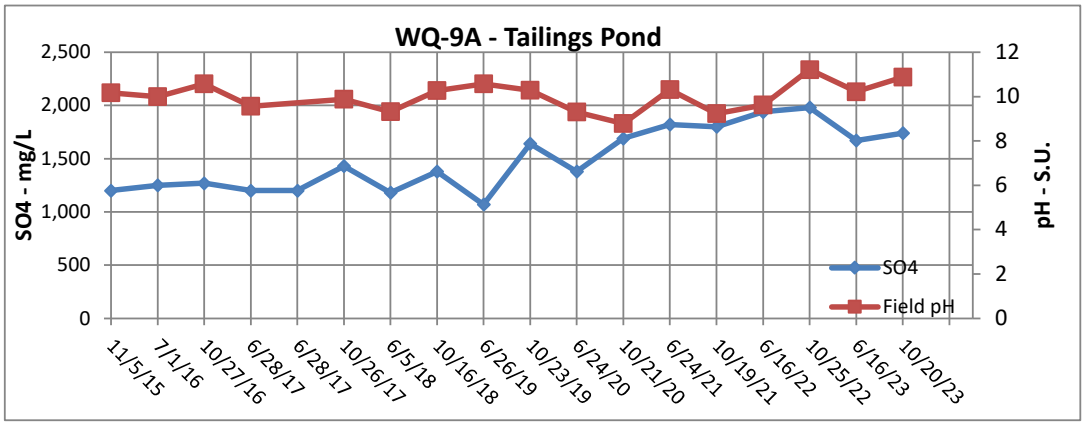
Appendix B. Surface Water Trend Plots

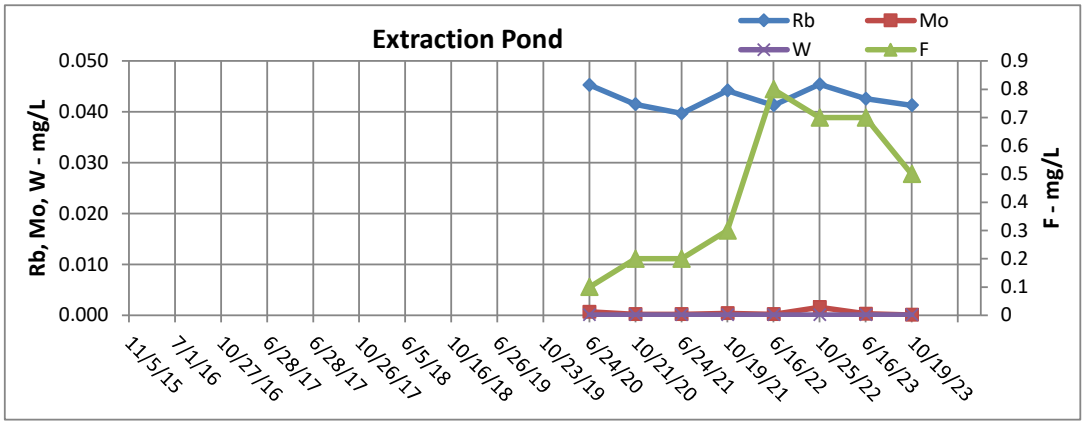


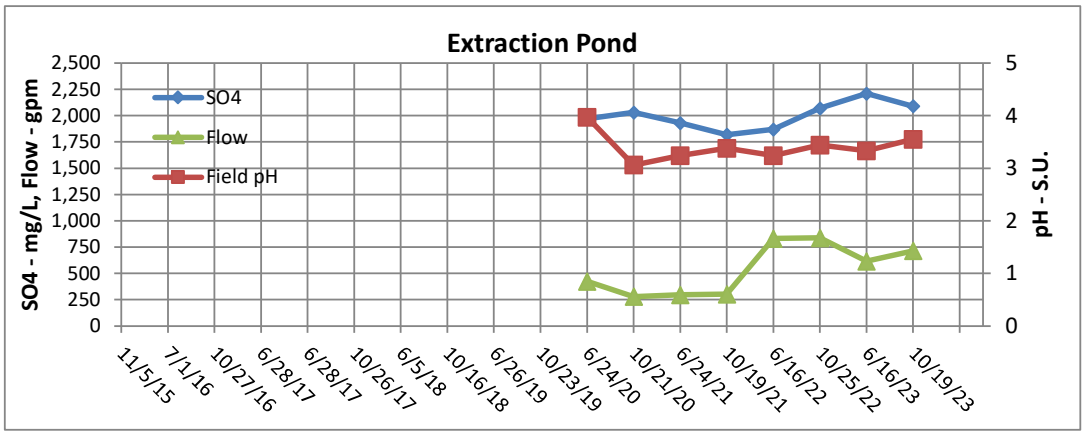


Appendix B. Surface Water Trend Plots

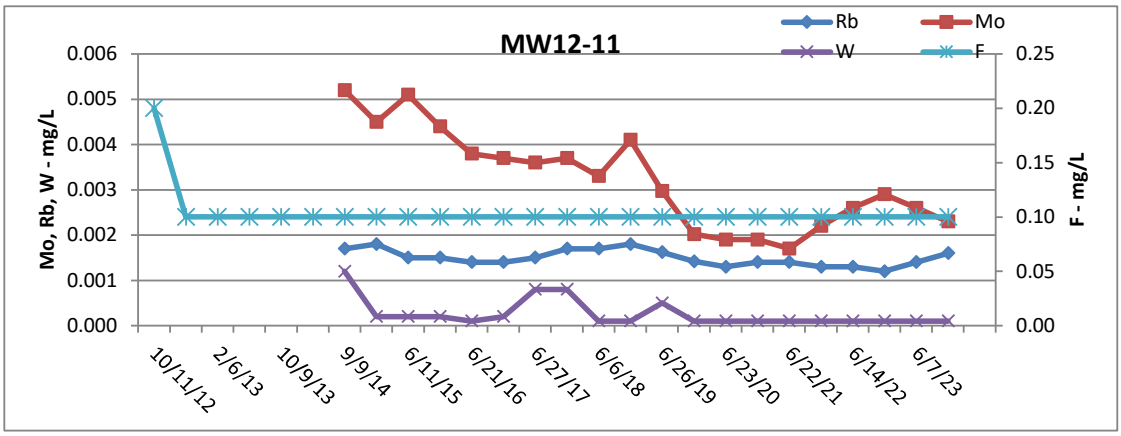


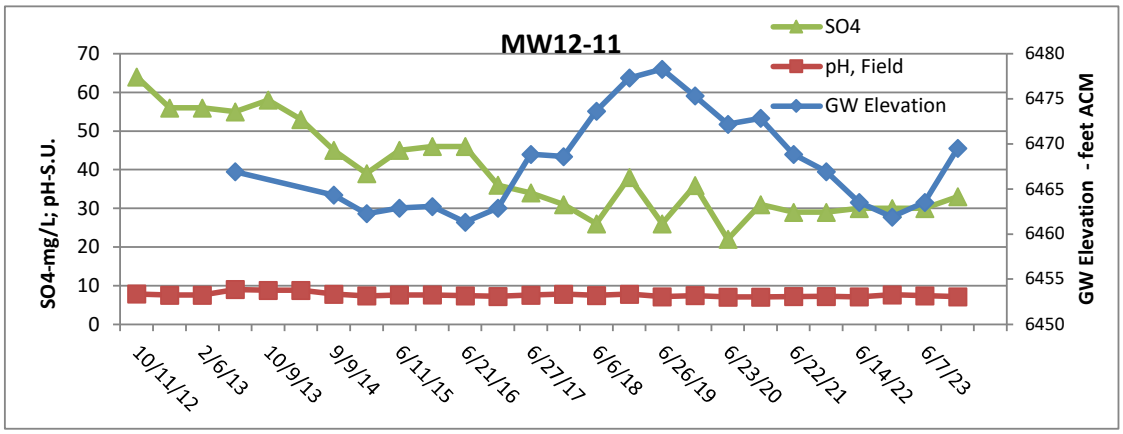


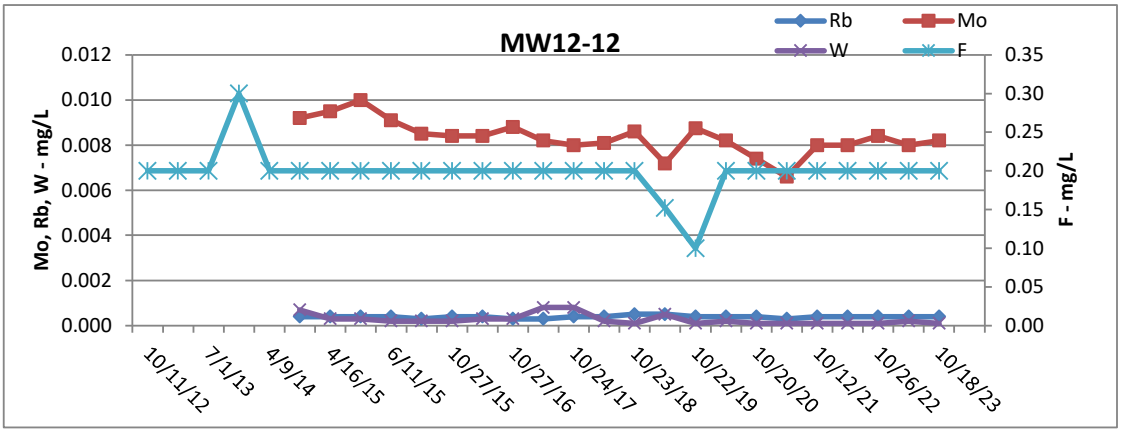


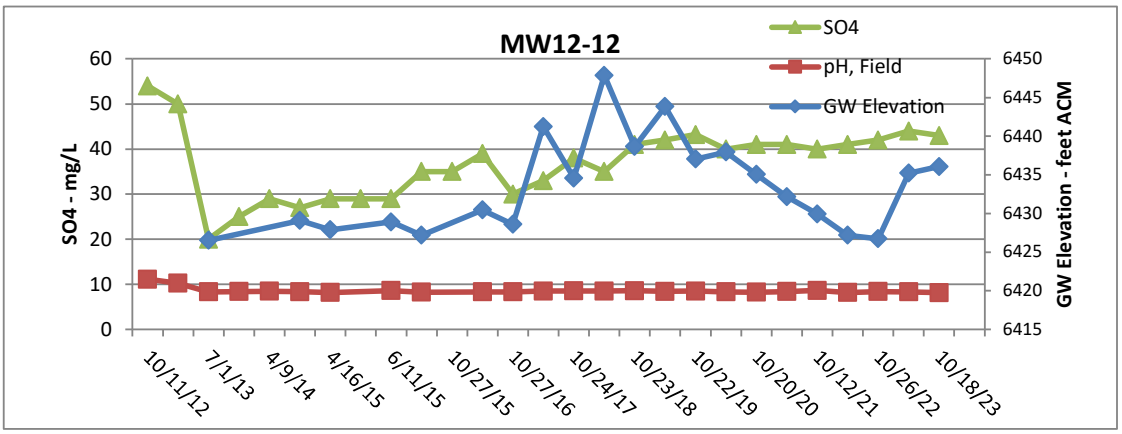


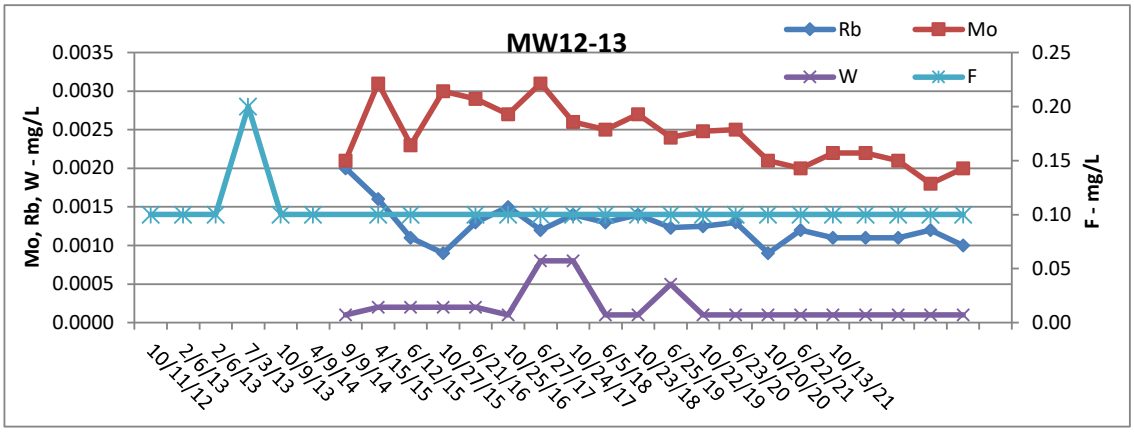
B-2 GROUNDWATER TREND PLOTS

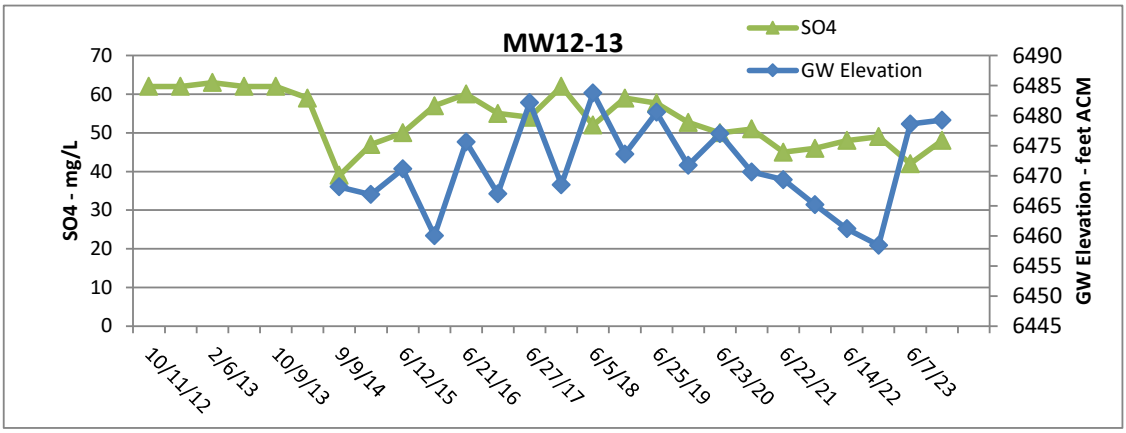

MW12-11
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.006
0.005
0.004
0.003
0.002
0.001
0.000
0.25
0.20
0.15
0.10
0.05
0.00
10/11/12
2/6/13
10/9/13
9/9/14
6/11/15
6/21/16
6/27/17
6/6/18
6/26/19
6/23/20
6/22/21
6/14/22
6/7/23

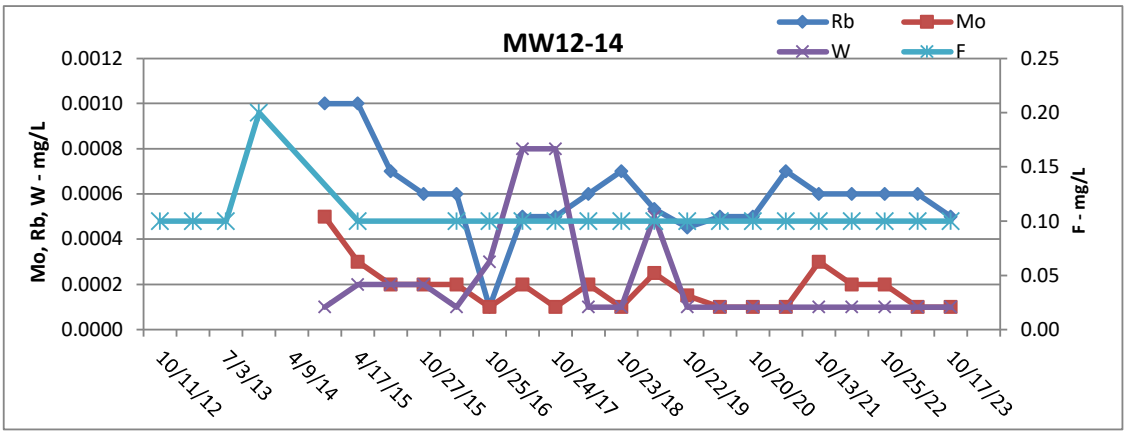

MW12-11
SO4
pH, Field
GW Elevation
SO4-mg/L; pH-S.U.
GW Elevation - feet ACM
70
60
50
40
30
20
10
0
6480
6475
6470
6465
6460
6455
6450
10/11/12
2/6/13
10/9/13
9/9/14
6/11/15
6/21/16
6/27/17
6/6/18
6/26/19
6/23/20
6/22/21
6/14/22
6/7/23

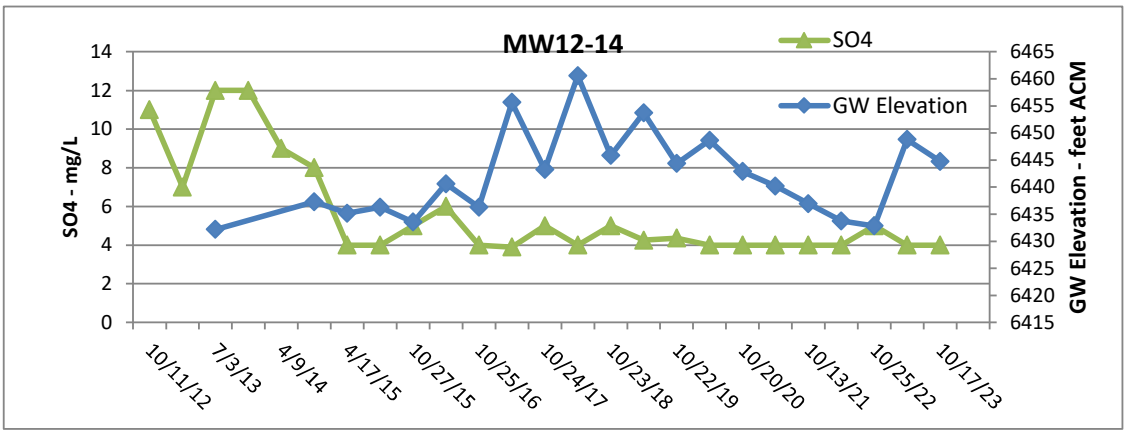

MW12-12
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
10/11/12
7/1/13
4/9/14
4/16/15
6/11/15
10/27/15
10/27/16
10/24/17
10/23/18
10/22/19
10/20/20
10/12/21
10/26/22
10/18/23

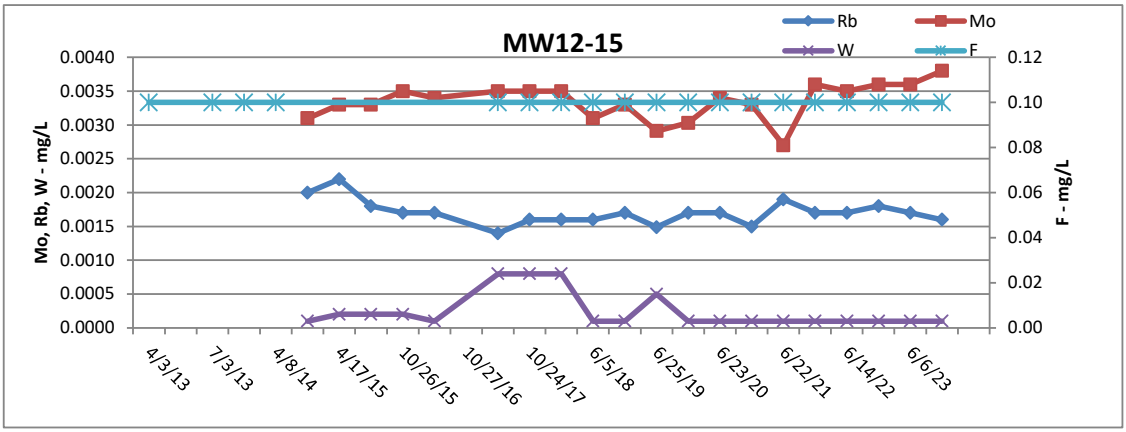

MW12-12
SO4
pH, Field
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
60
50
40
30
20
10
0
6450
6445
6440
6435
6430
6425
6420
6415
10/11/12
7/1/13
4/9/14
4/16/15
6/11/15
10/27/15
10/27/16
10/24/17
10/23/18
10/22/19
10/20/20
10/12/21
10/26/22
10/18/23

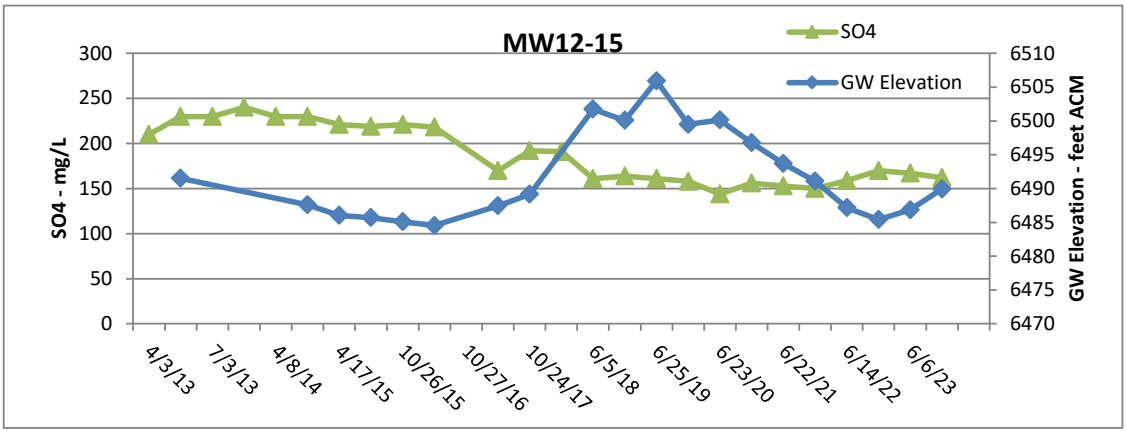

MW12-13
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.25
0.20
0.15
0.10
0.05
0.00
10/11/12
2/6/13
2/6/13
7/3/13
10/9/13
4/9/14
9/9/14
4/15/15
6/12/15
10/27/15
6/21/16
10/25/16
6/27/17
10/24/17
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/22/21
10/13/21

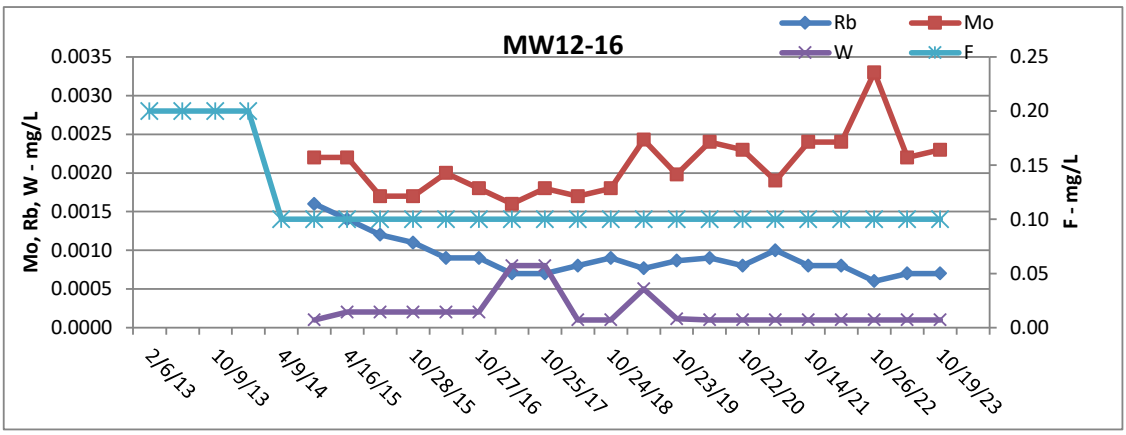

MW12-13
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
70
60
50
40
30
20
10
0
6490
6485
6480
6475
6470
6465
6460
6455
6450
6445
10/11/12
2/6/13
10/9/13
9/9/14
6/12/15
6/21/16
6/27/17
6/5/18
6/25/19
6/23/20
6/22/21
6/14/22
6/7/23

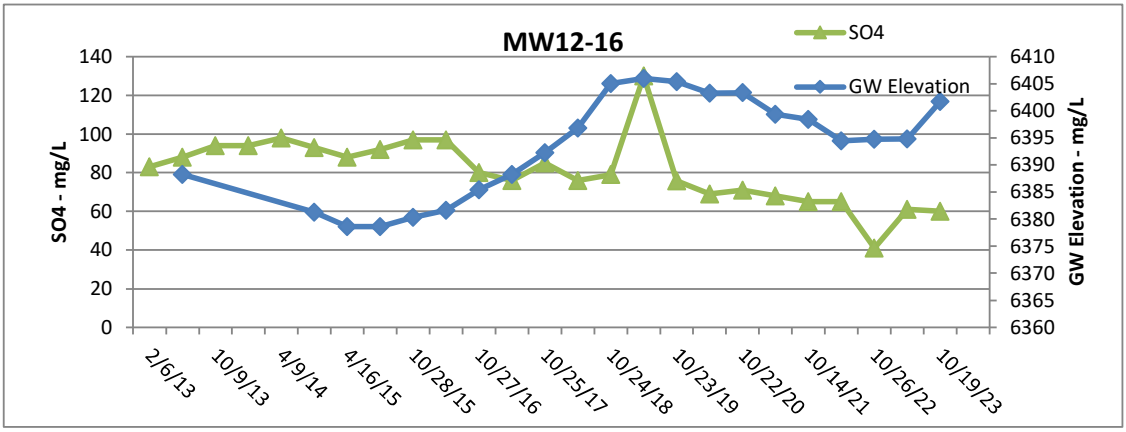

MW12-14
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
0.25
0.20
0.15
0.10
0.05
0.00
10/11/12
7/3/13
4/9/14
4/17/15
10/27/15
10/25/16
10/24/17
10/23/18
10/22/19
10/20/20
10/13/21
10/25/22
10/17/23

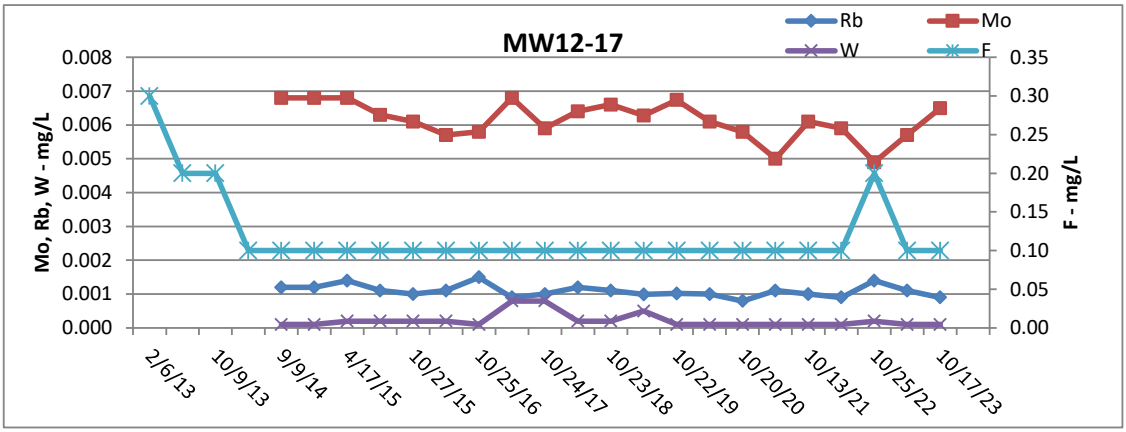

MW12-14
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
14
12
10
8
6
4
2
0
6465
6460
6455
6450
6445
6440
6435
6430
6425
6420
6415
10/11/12
7/3/13
4/9/14
4/17/15
10/27/15
10/25/16
10/24/17
10/23/18
10/22/19
10/20/20
10/13/21
10/25/22
10/17/23

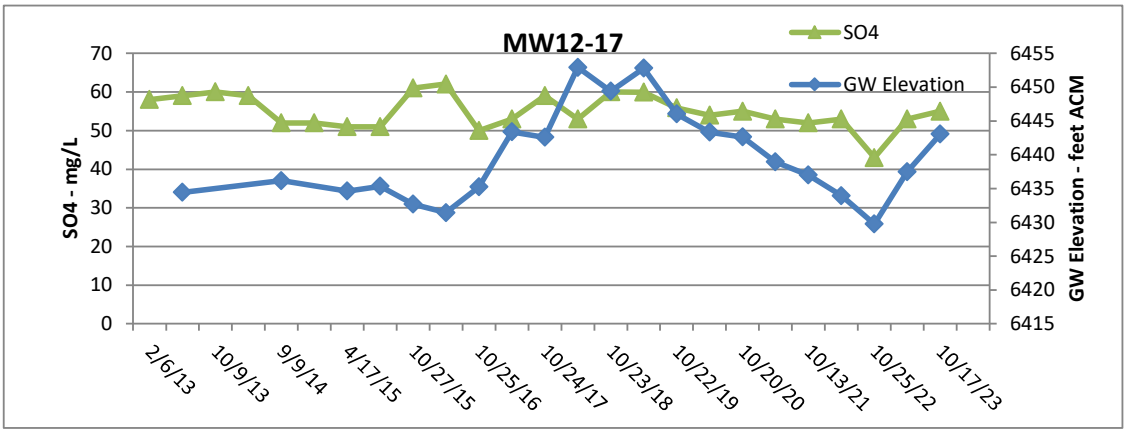

MW12-15
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0040
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.12
0.10
0.08
0.06
0.04
0.02
0.00
4/3/13
7/3/13
4/8/14
4/17/15
10/26/15
10/27/16
10/24/17
6/5/18
6/25/19
6/23/20
6/22/21
6/14/22
6/6/23

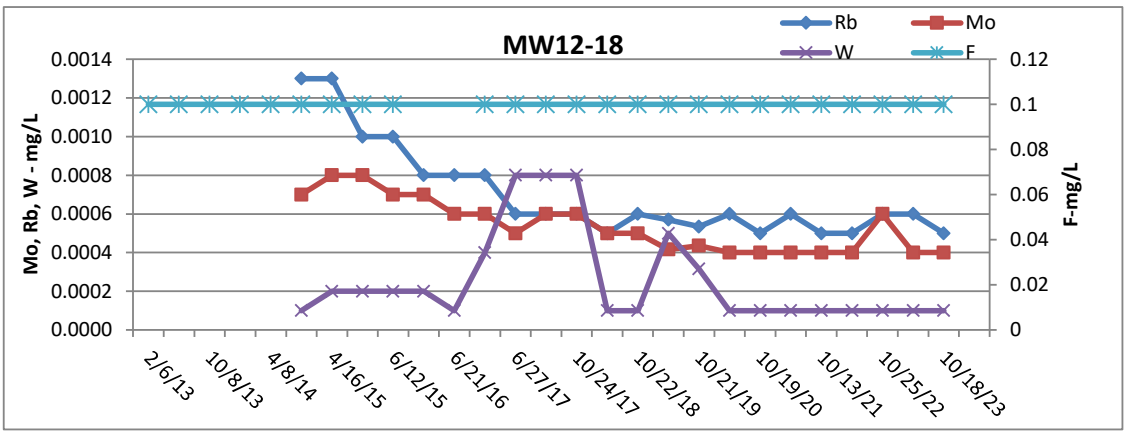

MW12-15
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
300
250
200
150
100
50
0
6510
6505
6500
6495
6490
6485
6480
6475
6470
4/3/13
7/3/13
4/8/14
4/17/15
10/26/15
10/27/16
10/24/17
6/5/18
6/25/19
6/23/20
6/22/21
6/14/22
6/6/23

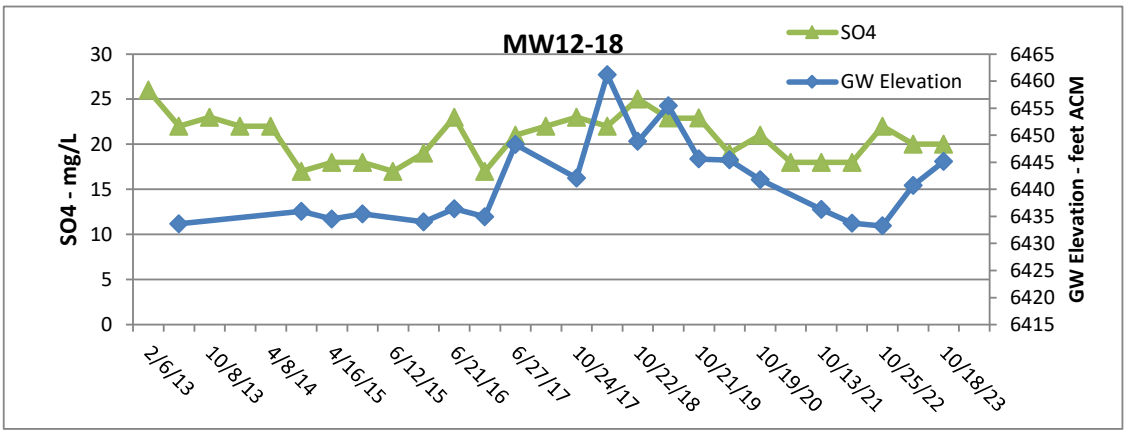

MW12-16
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.25
0.20
0.15
0.10
0.05
0.00
2/6/13
10/9/13
4/9/14
4/16/15
10/28/15
10/27/16
10/25/17
10/24/18
10/23/19
10/22/20
10/14/21
10/26/22
10/19/23

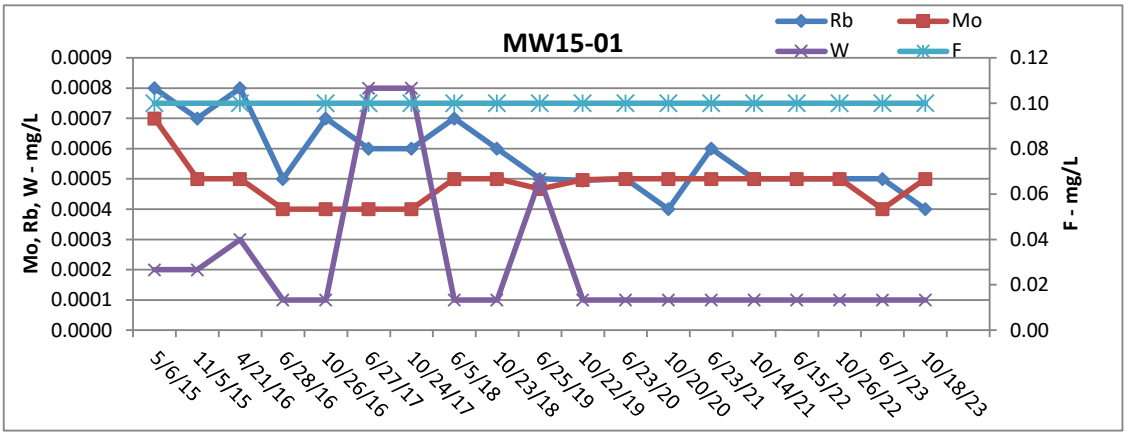

MW12-16
SO4
GW Elevation
SO4 - mg/L
GW Elevation - mg/L
140
120
100
80
60
40
20
0
6410
6405
6400
6395
6390
6385
6380
6375
6370
6365
6360
2/6/13
10/9/13
4/9/14
4/16/15
10/28/15
10/27/16
10/25/17
10/24/18
10/23/19
10/22/20
10/14/21
10/26/22
10/19/23

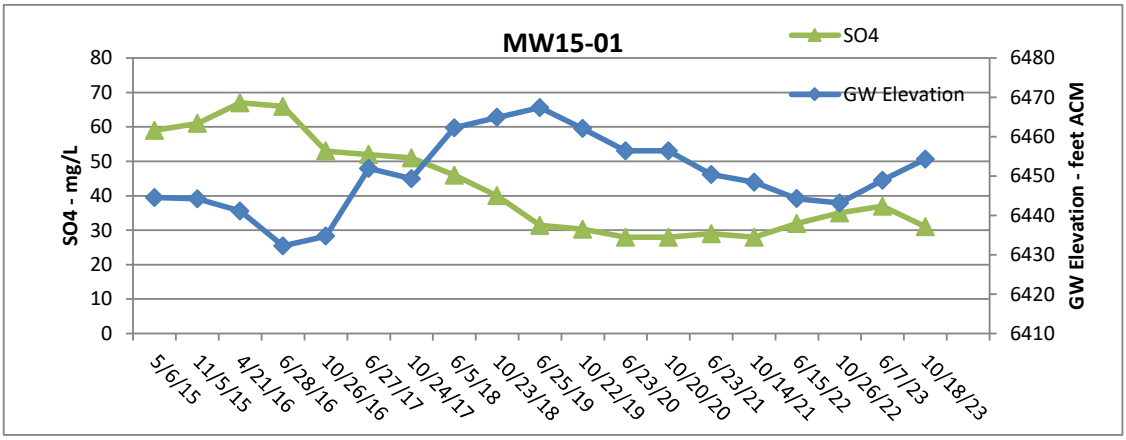

MW12-17
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
2/6/13
10/9/13
9/9/14
4/17/15
10/27/15
10/25/16
10/24/17
10/23/18
10/22/19
10/20/20
10/13/21
10/25/22
10/17/23

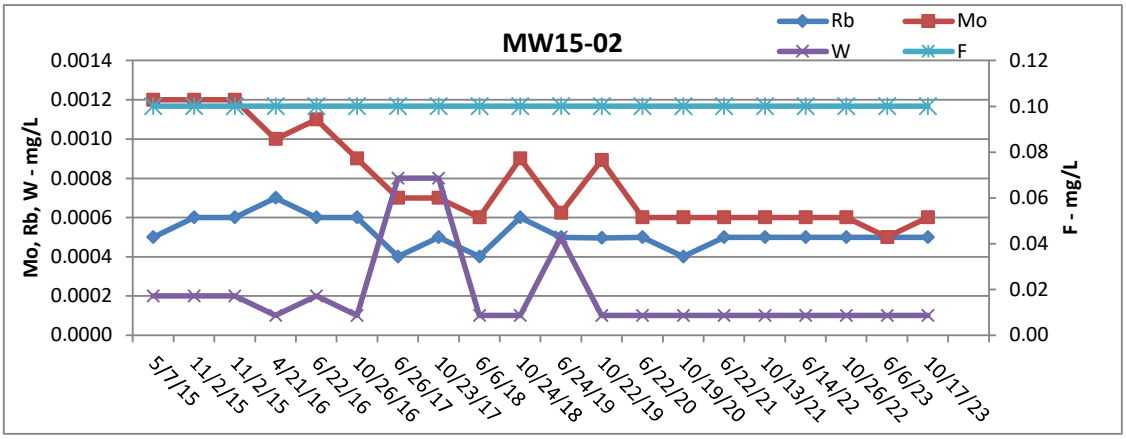

MW12-17
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
70
60
50
40
30
20
10
0
6455
6450
6445
6440
6435
6430
6425
6420
6415
2/6/13
10/9/13
9/9/14
4/17/15
10/27/15
10/25/16
10/24/17
10/23/18
10/22/19
10/20/20
10/13/21
10/25/22
10/17/23

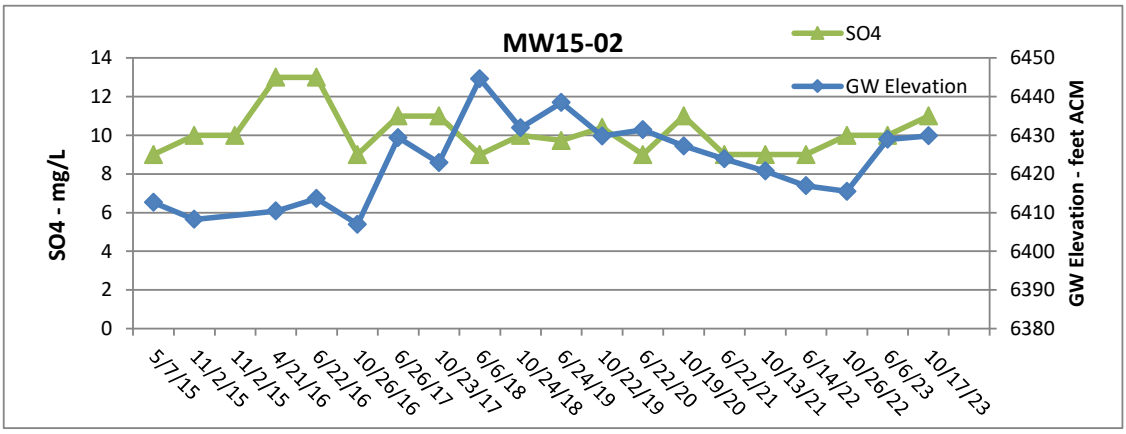

MW12-18
Rb
Mo
W
F
Mo, Rb, W - mg/L
F-mg/L
0.0014
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
0.12
0.1
0.08
0.06
0.04
0.02
0
2/6/13
10/8/13
4/8/14
4/16/15
6/12/15
6/21/16
6/27/17
10/24/17
10/22/18
10/21/19
10/19/20
10/13/21
10/25/22
10/18/23

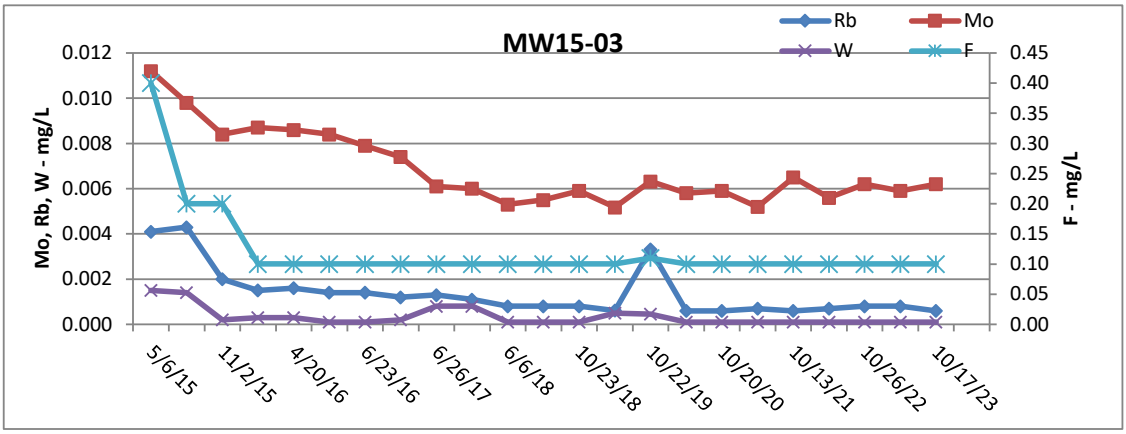

MW12-18
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
30
25
20
15
10
5
0
6465
6460
6455
6450
6445
6440
6435
6430
6425
6420
6415
2/6/13
10/8/13
4/8/14
4/16/15
6/12/15
6/21/16
6/27/17
10/24/17
10/22/18
10/21/19
10/19/20
10/13/21
10/25/22
10/18/23

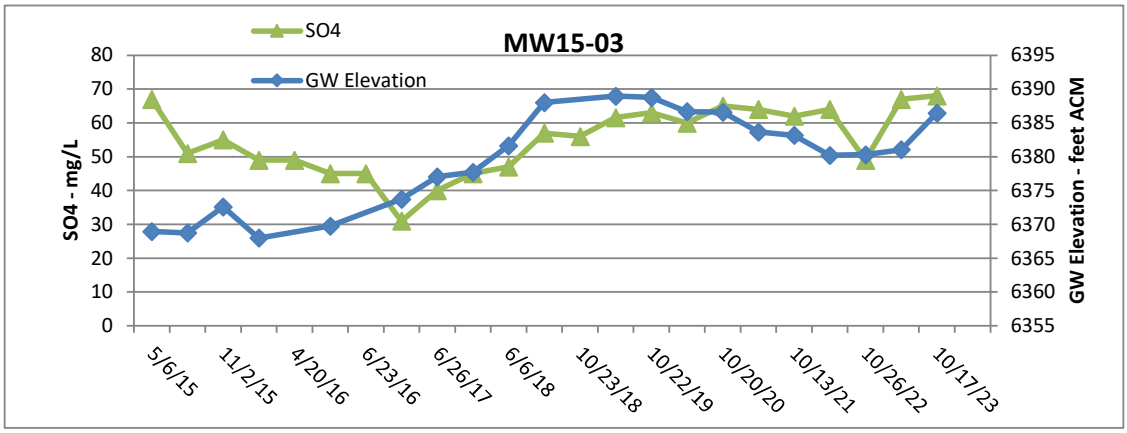

MW15-01
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0.0000
0.12
0.10
0.08
0.06
0.04
0.02
0.00
5/6/15
11/5/15
4/21/16
6/28/16
10/26/16
6/27/17
10/24/17
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/23/21
10/14/21
6/15/22
10/26/22
6/7/23
10/18/23

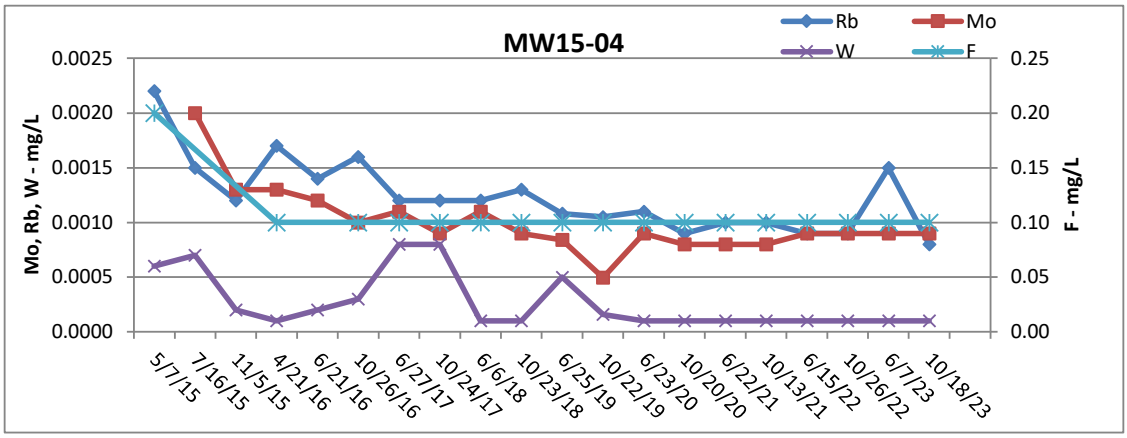

MW15-01
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
80
70
60
50
40
30
20
10
0
6480
6470
6460
6450
6440
6430
6420
6410
5/6/15
11/5/15
4/21/16
6/28/16
10/26/16
6/27/17
10/24/17
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/23/21
10/14/21
6/15/22
10/26/22
6/7/23
10/18/23

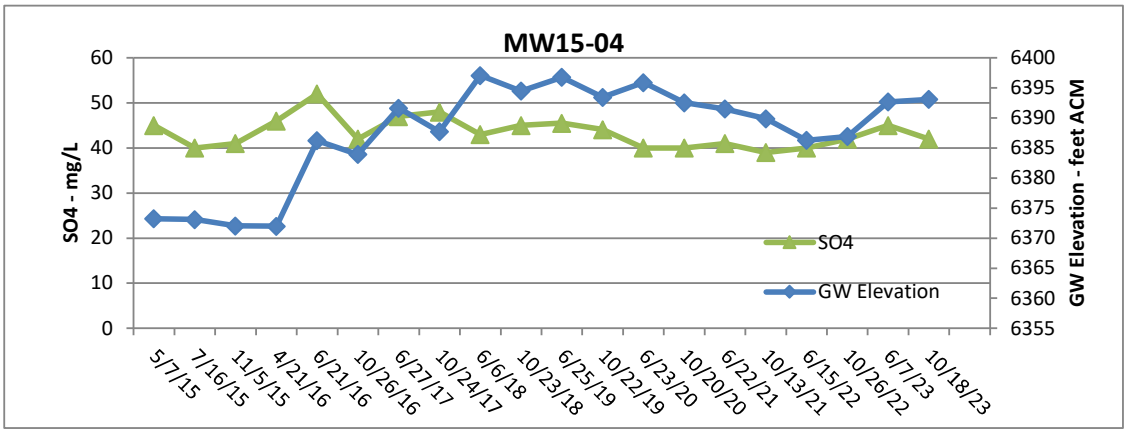

MW15-02
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0014
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
0.12
0.10
0.08
0.06
0.04
0.02
0.00
5/7/15
11/2/15
11/2/15
4/21/16
6/22/16
10/26/16
6/26/17
10/23/17
6/6/18
10/24/18
6/24/19
10/22/19
6/22/20
10/19/20
6/22/21
10/13/21
6/14/22
10/26/22
6/6/23
10/17/23

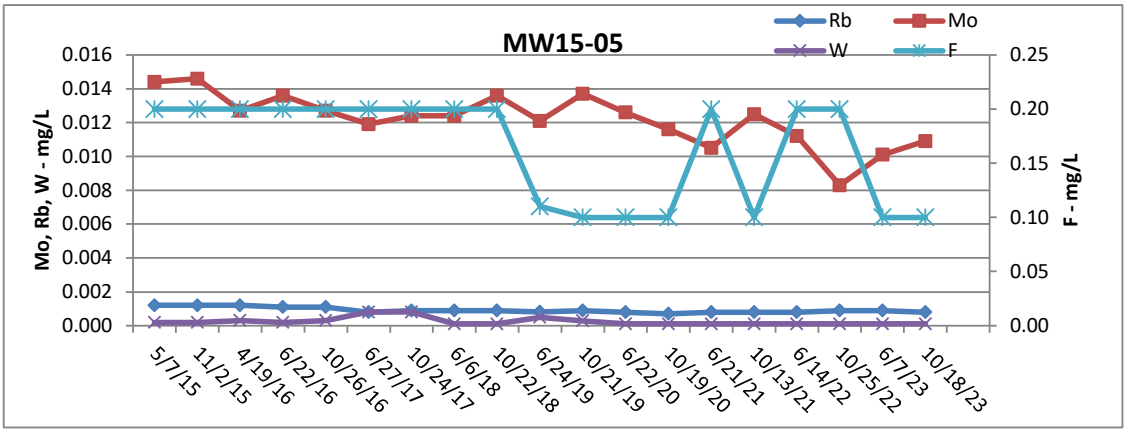

MW15-02
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
14
12
10
8
6
4
2
0
6450
6440
6430
6420
6410
6400
6390
6380
5/7/15
11/2/15
11/2/15
4/21/16
6/22/16
10/26/16
6/26/17
10/23/17
6/6/18
10/24/18
6/24/19
10/22/19
6/22/20
10/19/20
6/22/21
10/13/21
6/14/22
10/26/22
6/6/23
10/17/23

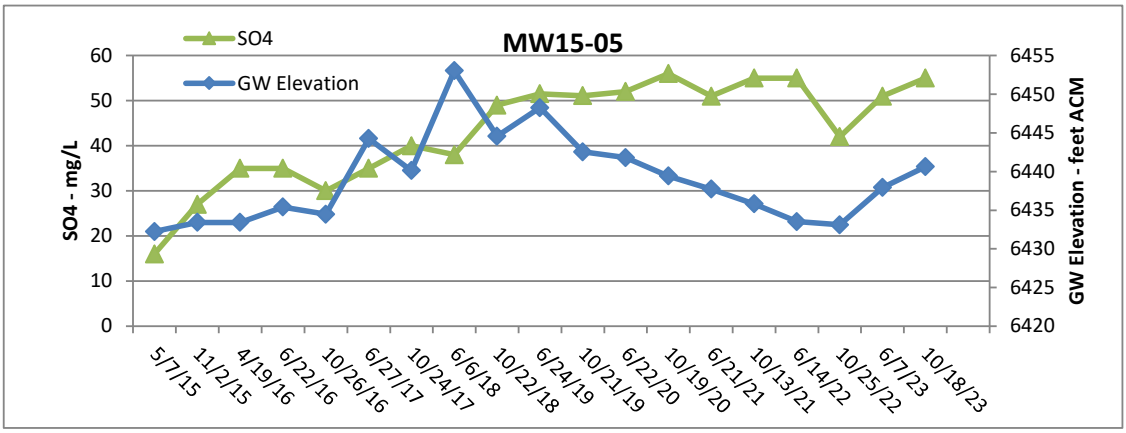

MW15-03
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
5/6/15
11/2/15
4/20/16
6/23/16
6/26/17
6/6/18
10/23/18
10/22/19
10/20/20
10/13/21
10/26/22
10/17/23

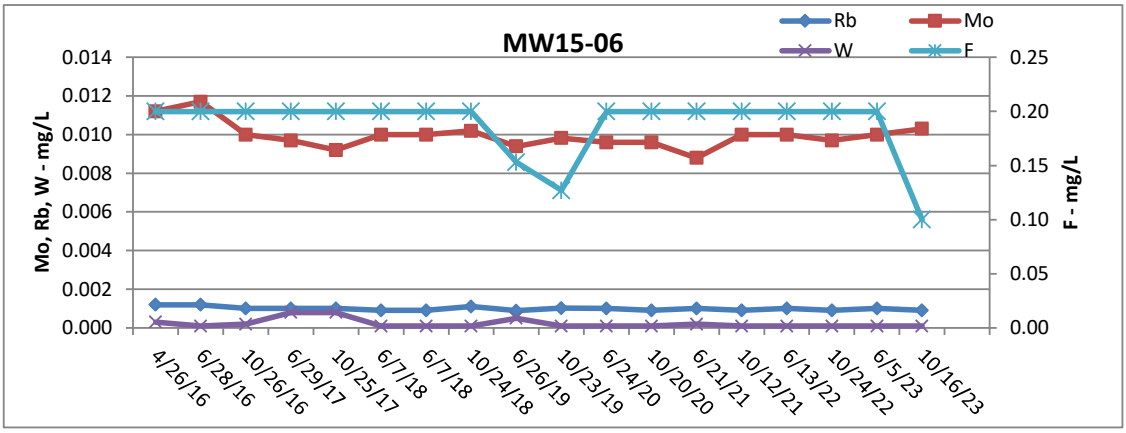

MW15-03
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
80
70
60
50
40
30
20
10
0
6395
6390
6385
6380
6375
6370
6365
6360
6355
5/6/15
11/2/15
4/20/16
6/23/16
6/26/17
6/6/18
10/23/18
10/22/19
10/20/20
10/13/21
10/26/22
10/17/23

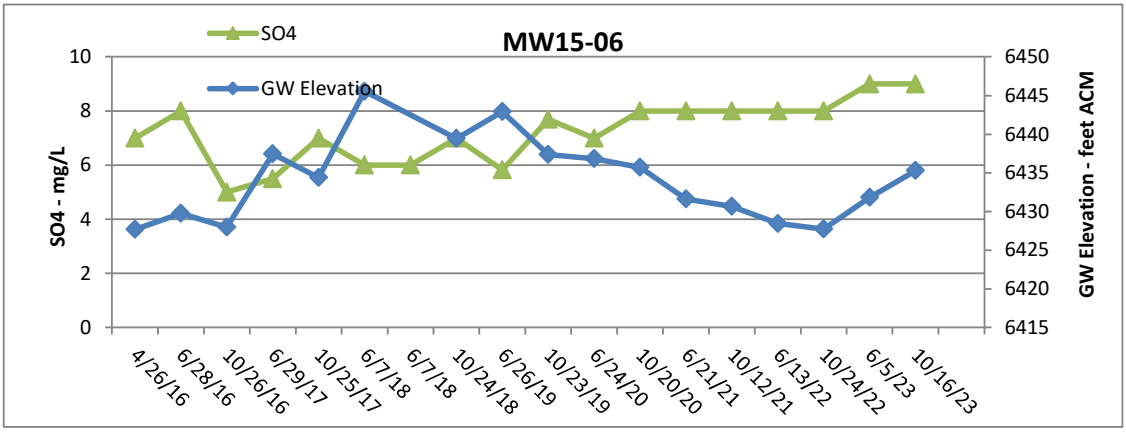

MW15-04
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.25
0.20
0.15
0.10
0.05
0.00
5/7/15
7/16/15
11/5/15
4/21/16
6/21/16
10/26/16
6/27/17
10/24/17
6/6/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/22/21
10/13/21
6/15/22
10/26/22
6/7/23
10/18/23

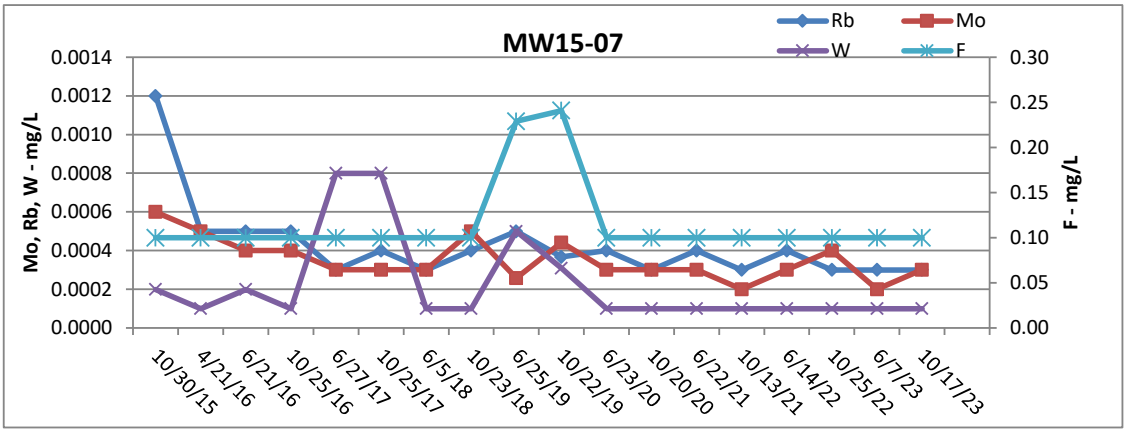

MW15-04
SO4 - mg/L
GW Elevation - feet ACM
60
50
40
30
20
10
0
6400
6395
6390
6385
6380
6375
6370
6365
6360
6355
SO4
GW Elevation
5/7/15
7/16/15
11/5/15
4/21/16
6/21/16
10/26/16
6/27/17
10/24/17
6/6/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/22/21
10/13/21
6/15/22
10/26/22
6/7/23
10/18/23

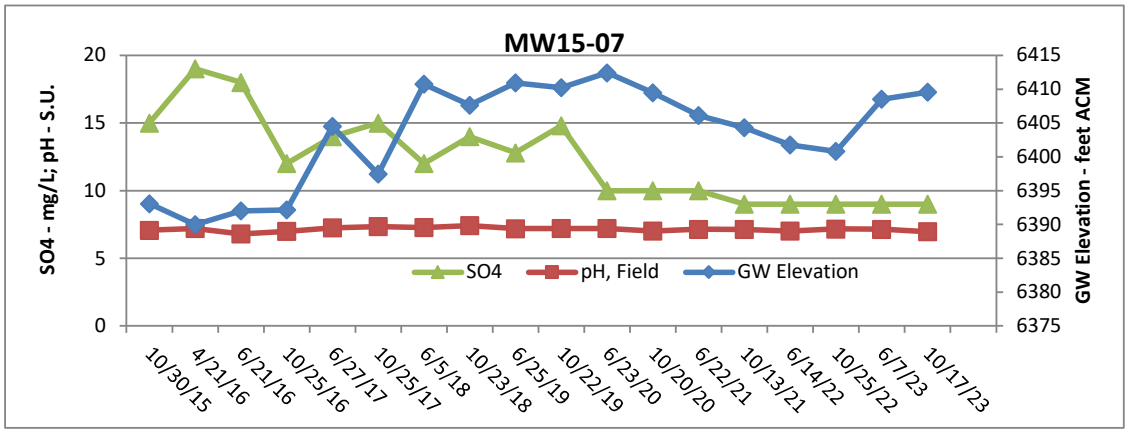

MW15-05
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0.25
0.20
0.15
0.10
0.05
0.00
5/7/15
11/2/15
4/19/16
6/22/16
10/26/16
6/27/17
10/24/17
6/6/18
10/22/18
6/24/19
10/21/19
6/22/20
10/19/20
6/21/21
10/13/21
6/14/22
10/25/22
6/7/23
10/18/23

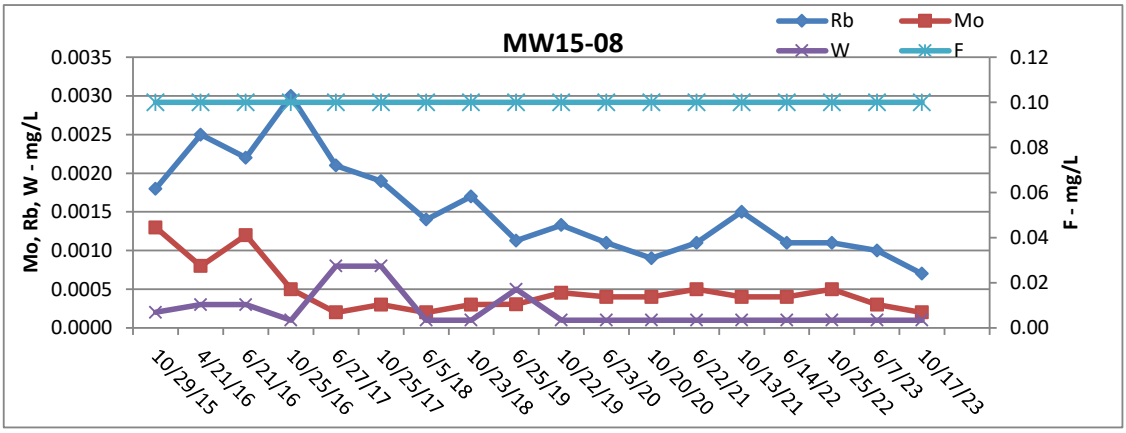

MW15-05
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
60
50
40
30
20
10
0
6455
6450
6445
6440
6435
6430
6425
6420
5/7/15
11/2/15
4/19/16
6/22/16
10/26/16
6/27/17
10/24/17
6/6/18
10/22/18
6/24/19
10/21/19
6/22/20
10/19/20
6/21/21
10/13/21
6/14/22
10/25/22
6/7/23
10/18/23

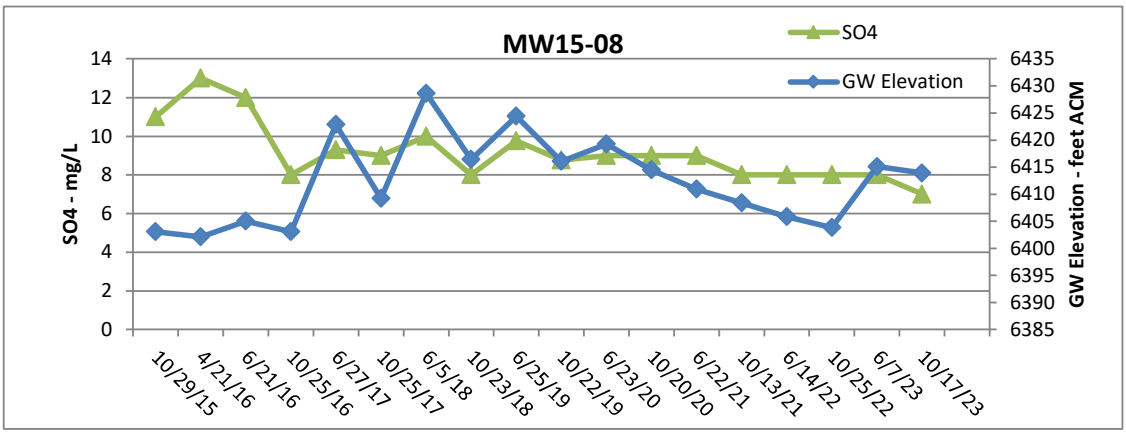

MW15-06
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0.25
0.20
0.15
0.10
0.05
0.00
4/26/16
6/28/16
10/26/16
6/29/17
10/25/17
6/7/18
6/7/18
10/24/18
6/26/19
10/23/19
6/24/20
10/20/20
6/21/21
10/12/21
6/13/22
10/24/22
6/5/23
10/16/23

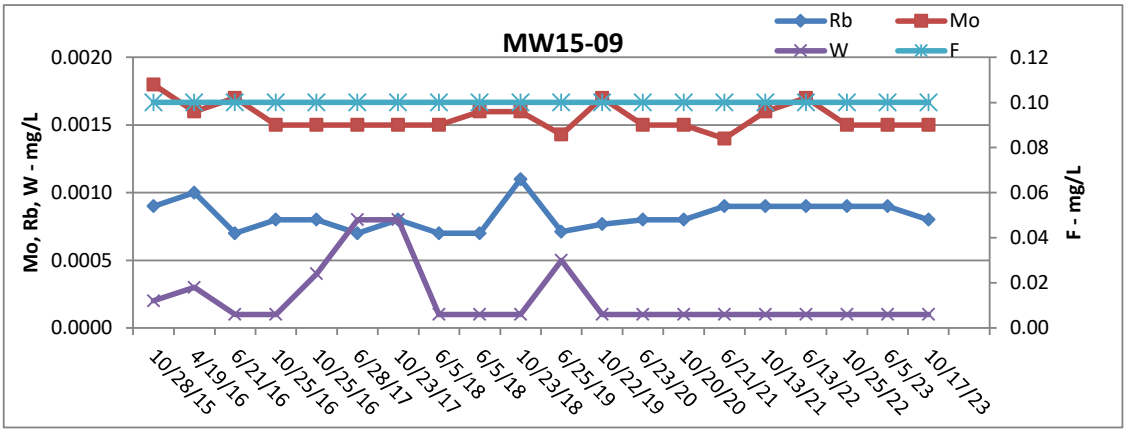

MW15-06
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
10
8
6
4
2
0
6450
6445
6440
6435
6430
6425
6420
6415
4/26/16
6/28/16
10/26/16
6/29/17
10/25/17
6/7/18
6/7/18
10/24/18
6/26/19
10/23/19
6/24/20
10/20/20
6/21/21
10/12/21
6/13/22
10/24/22
6/5/23
10/16/23

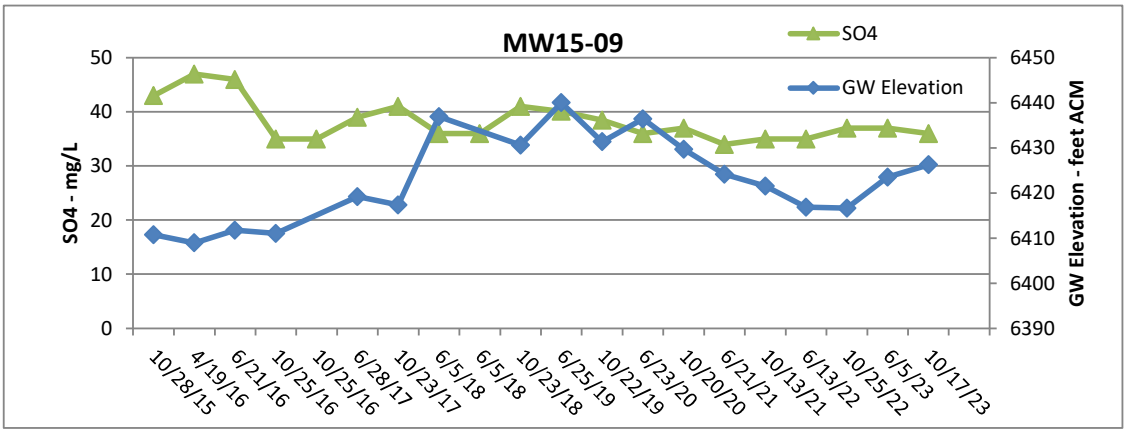

MW15-07
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0014
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
0.30
0.25
0.20
0.15
0.10
0.05
0.00
10/30/15
4/21/16
6/21/16
10/25/16
6/27/17
10/25/17
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/22/21
10/13/21
6/14/22
10/25/22
6/7/23
10/17/23

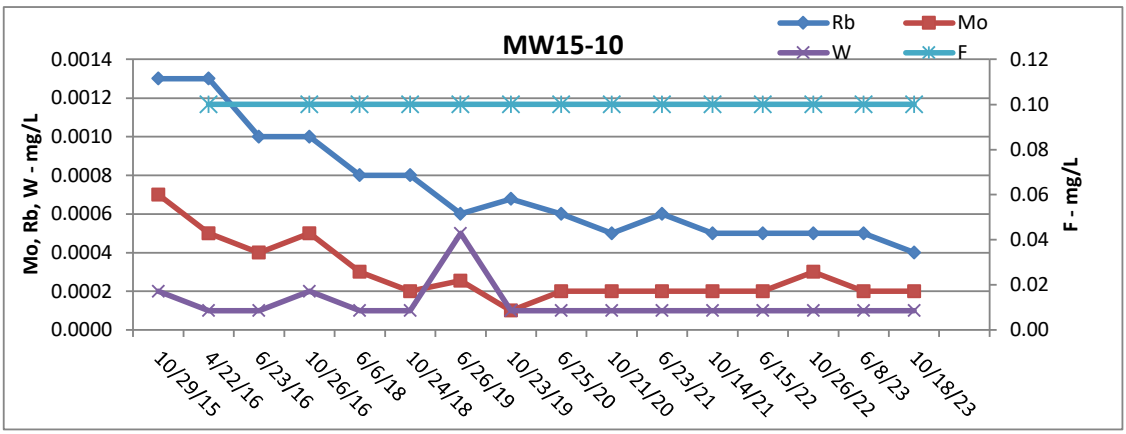

MW15-07
SO4 - mg/L; pH - S.U.
GW Elevation - feet ACM
20
15
10
5
0
6415
6410
6405
6400
6395
6390
6385
6380
6375
SO4
pH, Field
GW Elevation
10/30/15
4/21/16
6/21/16
10/25/16
6/27/17
10/25/17
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/22/21
10/13/21
6/14/22
10/25/22
6/7/23
10/17/23

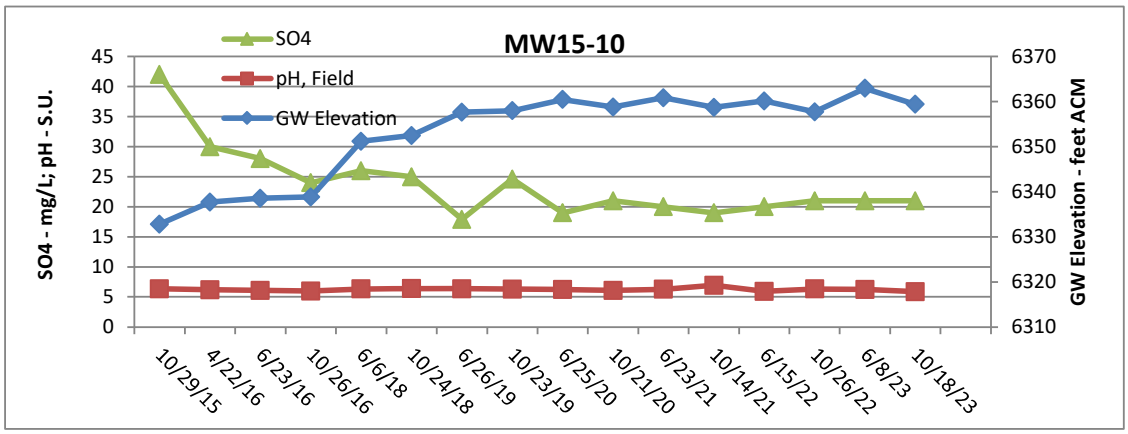

MW15-08
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.12
0.10
0.08
0.06
0.04
0.02
0.00
10/29/15
4/21/16
6/21/16
10/25/16
6/27/17
10/25/17
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/22/21
10/13/21
6/14/22
10/25/22
6/7/23
10/17/23

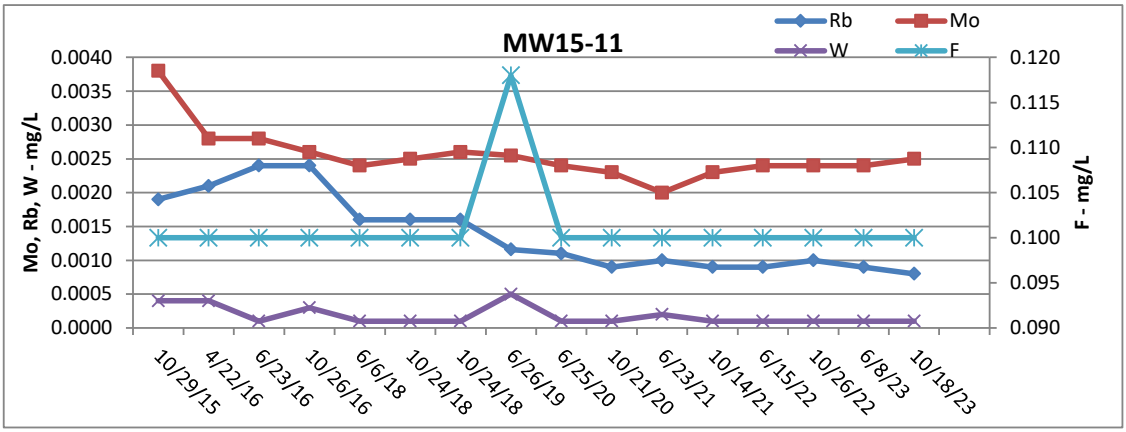

MW15-08
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
14
12
10
8
6
4
2
0
6435
6430
6425
6420
6415
6410
6405
6400
6395
6390
6385
10/29/15
4/21/16
6/21/16
10/25/16
6/27/17
10/25/17
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/22/21
10/13/21
6/14/22
10/25/22
6/7/23
10/17/23

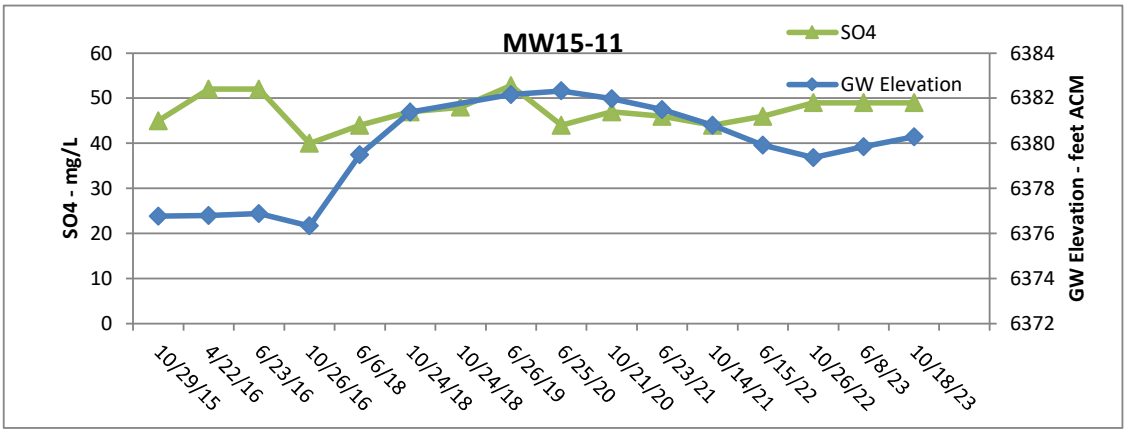

MW15-09
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0020
0.0015
0.0010
0.0005
0.0000
0.12
0.10
0.08
0.06
0.04
0.02
0.00
10/28/15
4/19/16
6/21/16
10/25/16
10/25/16
6/28/17
10/23/17
6/5/18
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/21/21
10/13/21
6/13/22
10/25/22
6/5/23
10/17/23

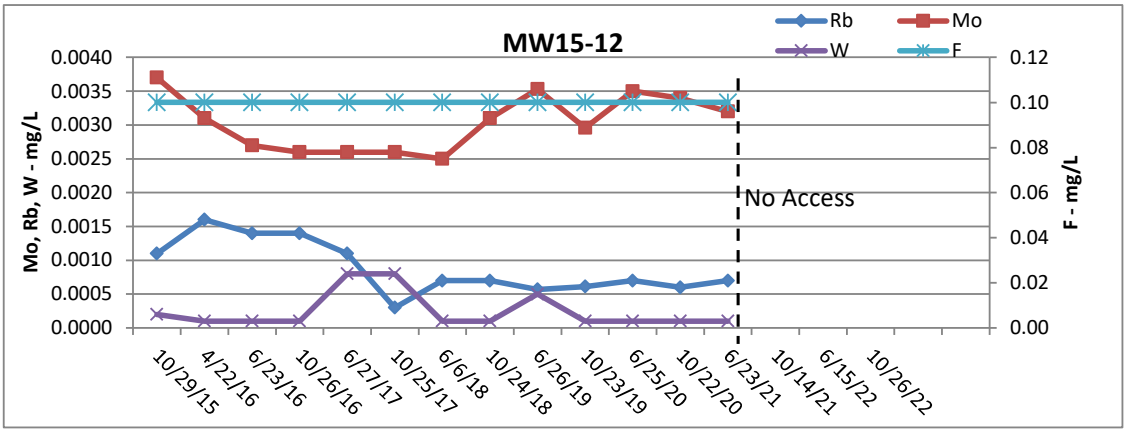

MW15-09
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
50
40
30
20
10
0
6450
6440
6430
6420
6410
6400
6390
10/28/15
4/19/16
6/21/16
10/25/16
10/25/16
6/28/17
10/23/17
6/5/18
6/5/18
10/23/18
6/25/19
10/22/19
6/23/20
10/20/20
6/21/21
10/13/21
6/13/22
10/25/22
6/5/23
10/17/23

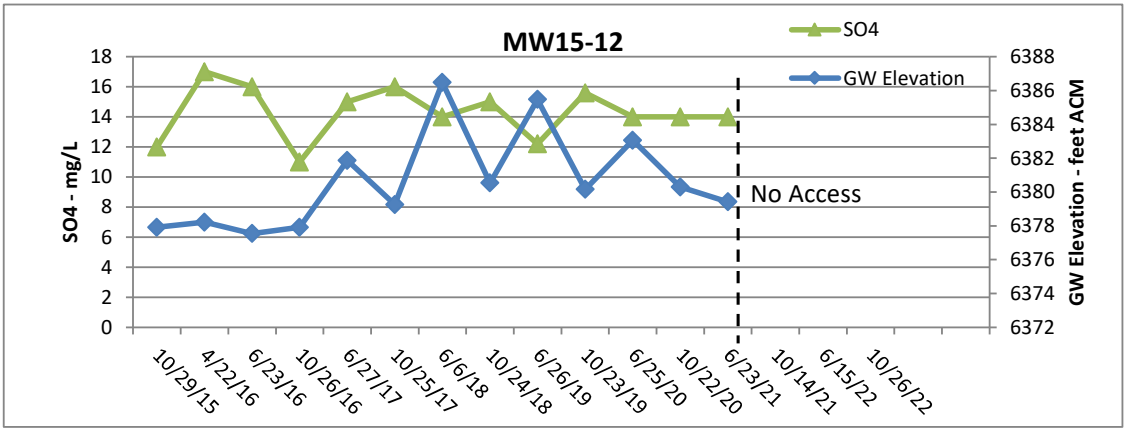

MW15-10
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0014
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
0.12
0.10
0.08
0.06
0.04
0.02
0.00
10/29/15
4/22/16
6/23/16
10/26/16
6/6/18
10/24/18
6/26/19
10/23/19
6/25/20
10/21/20
6/23/21
10/14/21
6/15/22
10/26/22
6/8/23
10/18/23

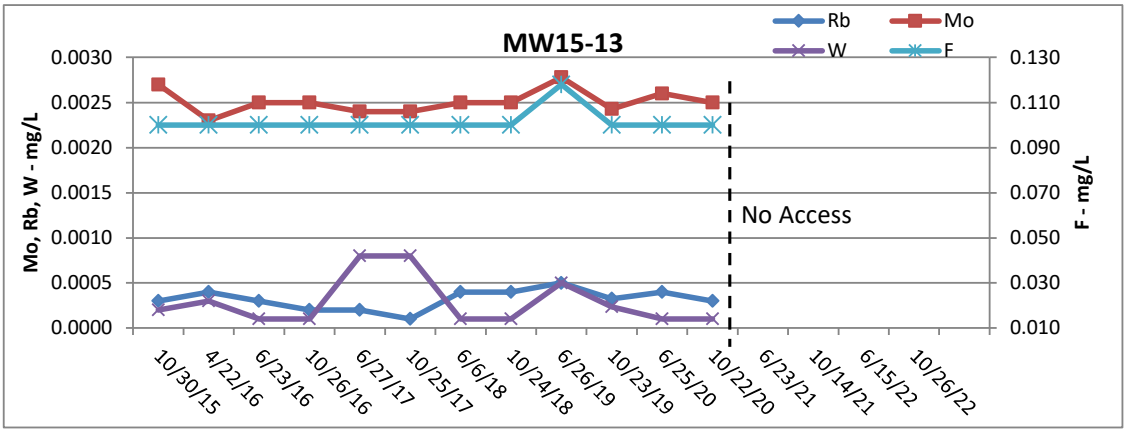

MW15-10
SO4
pH, Field
GW Elevation
SO4 - mg/L; pH - S.U.
GW Elevation - feet ACM
45
40
35
30
25
20
15
10
5
0
6370
6360
6350
6340
6330
6320
6310
10/29/15
4/22/16
6/23/16
10/26/16
6/6/18
10/24/18
6/26/19
10/23/19
6/25/20
10/21/20
6/23/21
10/14/21
6/15/22
10/26/22
6/8/23
10/18/23

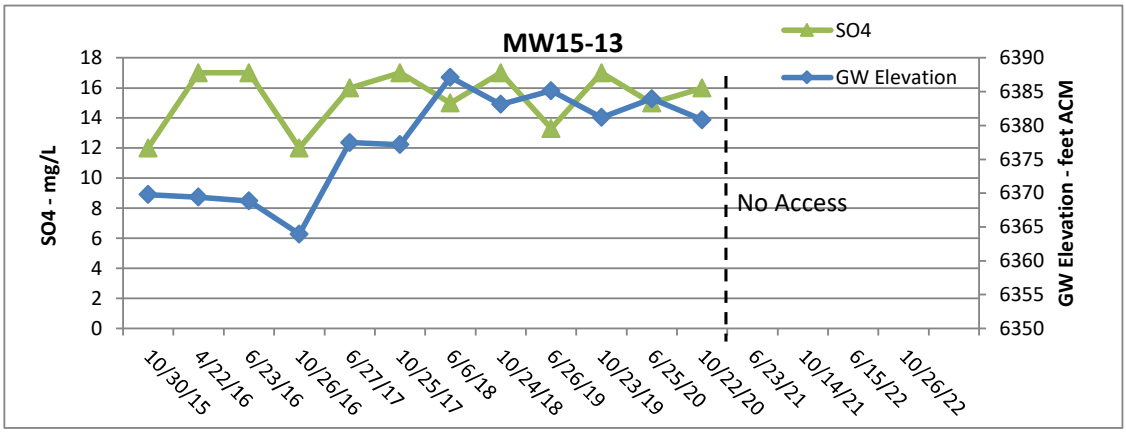

MW15-11
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0040
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.120
0.115
0.110
0.105
0.100
0.095
0.090
10/29/15
4/22/16
6/23/16
10/26/16
6/6/18
10/24/18
10/24/18
6/26/19
6/25/20
10/21/20
6/23/21
10/14/21
6/15/22
10/26/22
6/8/23
10/18/23

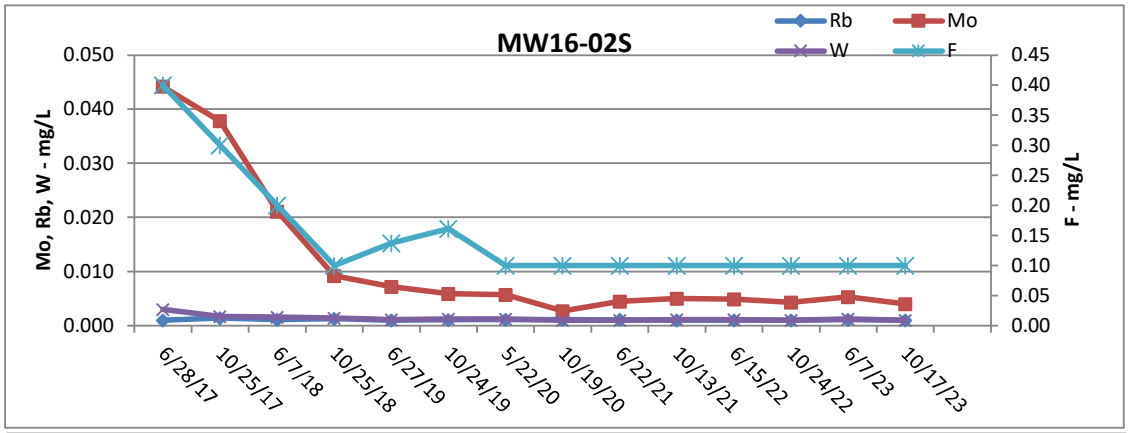

MW15-11
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
60
50
40
30
20
10
0
6384
6382
6380
6378
6376
6374
6372
10/29/15
4/22/16
6/23/16
10/26/16
6/6/18
10/24/18
10/24/18
6/26/19
6/25/20
10/21/20
6/23/21
10/14/21
6/15/22
10/26/22
6/8/23
10/18/23

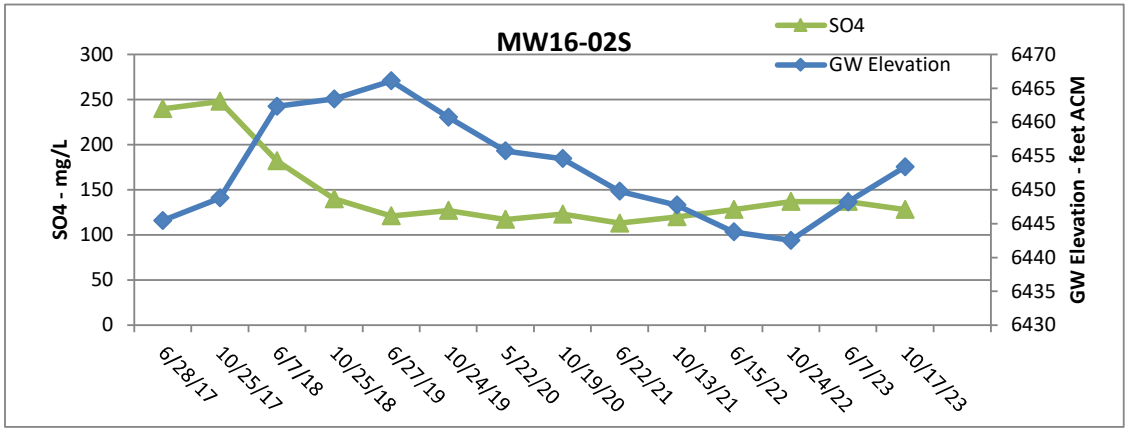

MW15-12
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0040
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.12
0.10
0.08
0.06
0.04
0.02
0.00
No Access
10/29/15
4/22/16
6/23/16
10/26/16
6/27/17
10/25/17
6/6/18
10/24/18
6/26/19
10/23/19
6/25/20
10/22/20
6/23/21
10/14/21
6/15/22
10/26/22

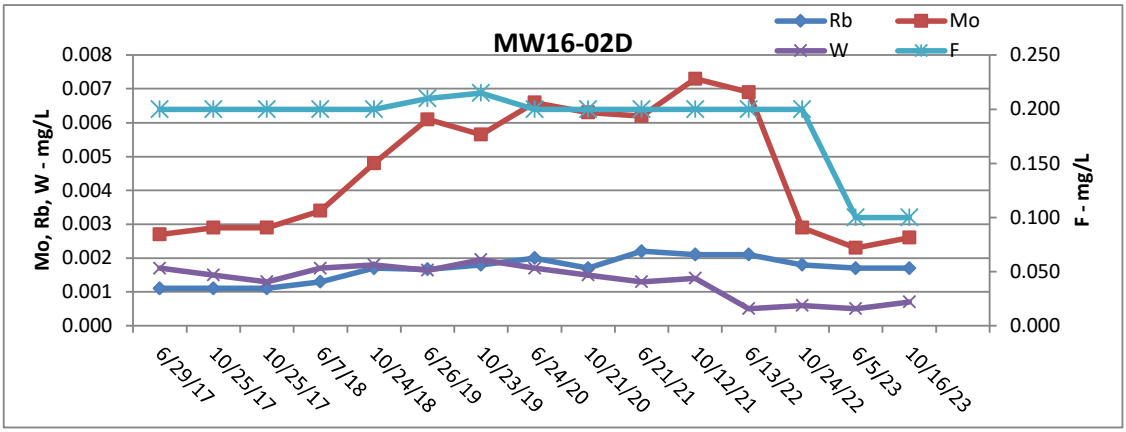

MW15-12
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
18
16
14
12
10
8
6
4
2
0
6388
6386
6384
6382
6380
6378
6376
6374
6372
No Access
10/29/15
4/22/16
6/23/16
10/26/16
6/27/17
10/25/17
6/6/18
10/24/18
6/26/19
10/23/19
6/25/20
10/22/20
6/23/21
10/14/21
6/15/22
10/26/22

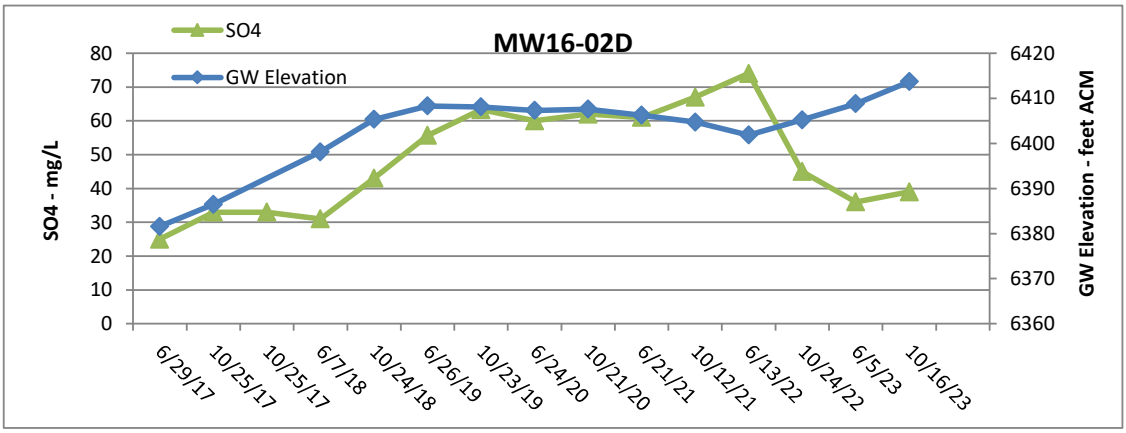

MW15-13
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0.130
0.110
0.090
0.070
0.050
0.030
0.010
No Access
10/30/15
4/22/16
6/23/16
10/26/16
6/27/17
10/25/17
6/6/18
10/24/18
6/26/19
10/23/19
6/25/20
10/22/20
6/23/21
10/14/21
6/15/22
10/26/22

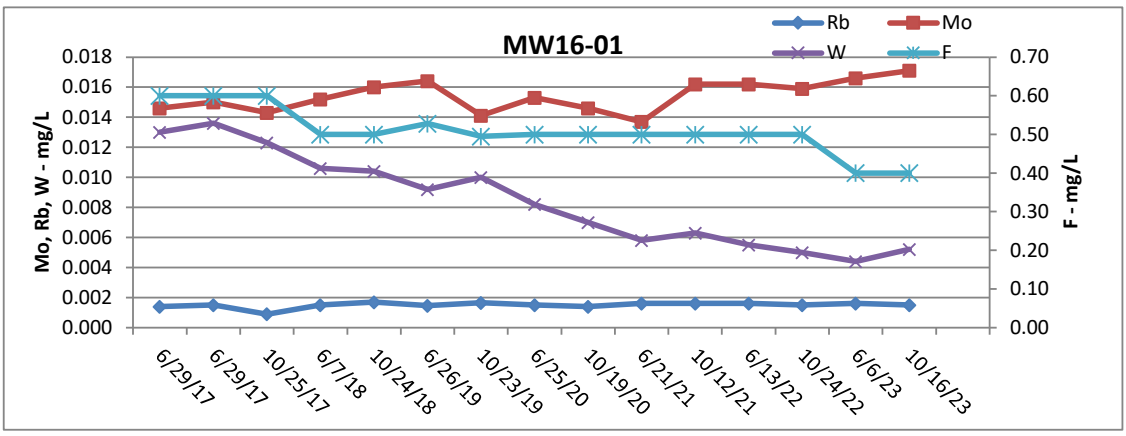

MW15-13
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
18
16
14
12
10
8
6
4
2
0
6390
6385
6380
6375
6370
6365
6360
6355
6350
No Access
10/30/15
4/22/16
6/23/16
10/26/16
6/27/17
10/25/17
6/6/18
10/24/18
6/26/19
10/23/19
6/25/20
10/22/20
6/23/21
10/14/21
6/15/22
10/26/22

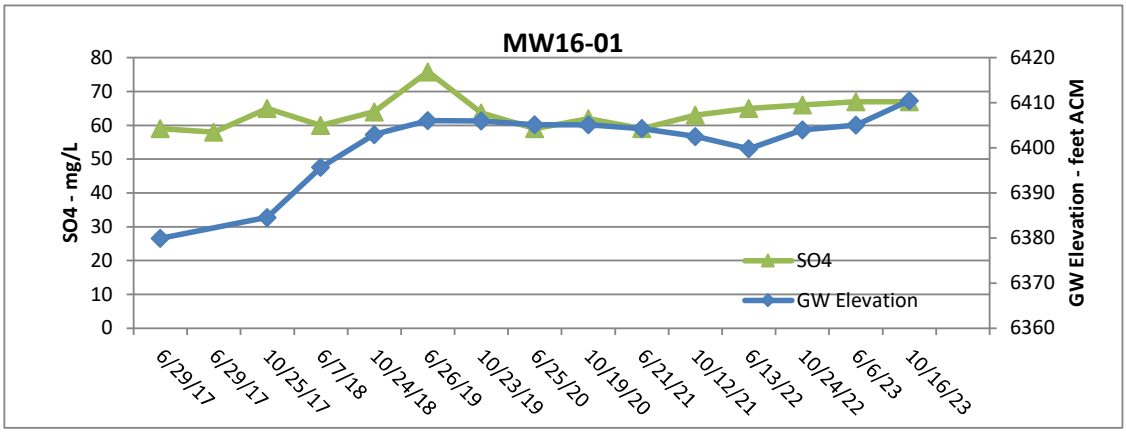

MW16-02S
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.050
0.040
0.030
0.020
0.010
0.000
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
6/28/17
10/25/17
6/7/18
10/25/18
6/27/19
10/24/19
5/22/20
10/19/20
6/22/21
10/13/21
6/15/22
10/24/22
6/7/23
10/17/23


MW16-02S
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
300
250
200
150
100
50
0
6470
6465
6460
6455
6450
6445
6440
6435
6430
6/28/17
10/25/17
6/7/18
10/25/18
6/27/19
10/24/19
5/22/20
10/19/20
6/22/21
10/13/21
6/15/22
10/24/22
6/7/23
10/17/23


MW16-02D
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
0.250
0.200
0.150
0.100
0.050
0.000
6/29/17
10/25/17
10/25/17
6/7/18
10/24/18
6/26/19
10/23/19
6/24/20
10/21/20
6/21/21
10/12/21
6/13/22
10/24/22
6/5/23
10/16/23

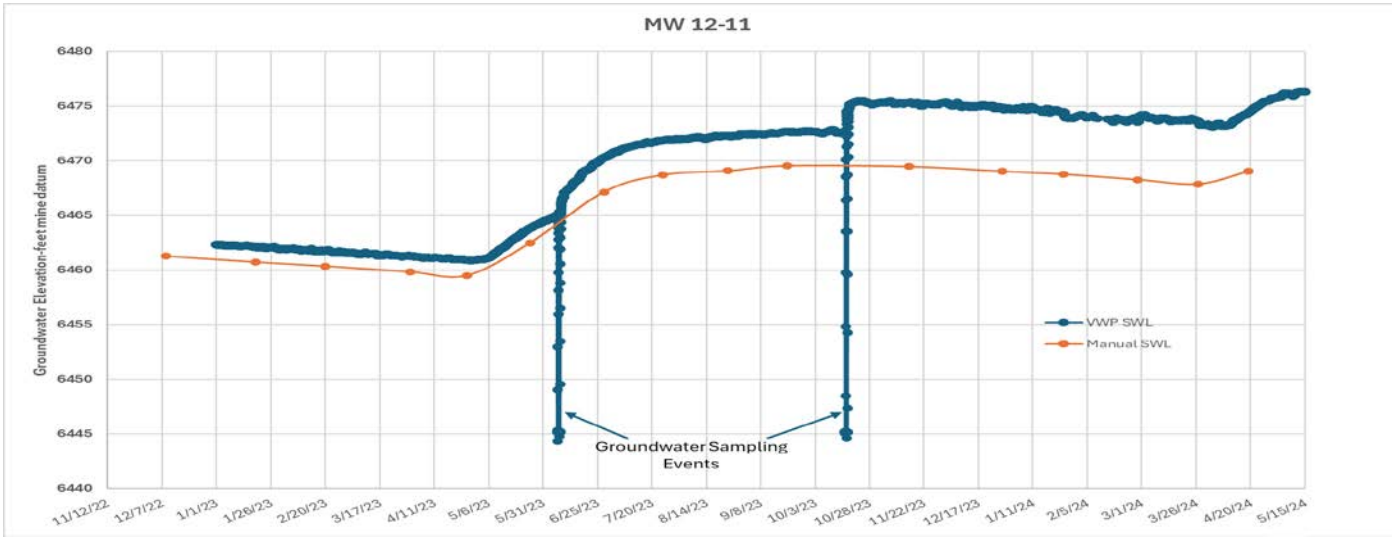

MW16-02D
SO4
GW Elevation
SO4 - mg/L
GW Elevation - feet ACM
80
70
60
50
40
30
20
10
0
6420
6410
6400
6390
6380
6370
6360
6/29/17
10/25/17
10/25/17
6/7/18
10/24/18
6/26/19
10/23/19
6/24/20
10/21/20
6/21/21
10/12/21
6/13/22
10/24/22
6/5/23
10/16/23

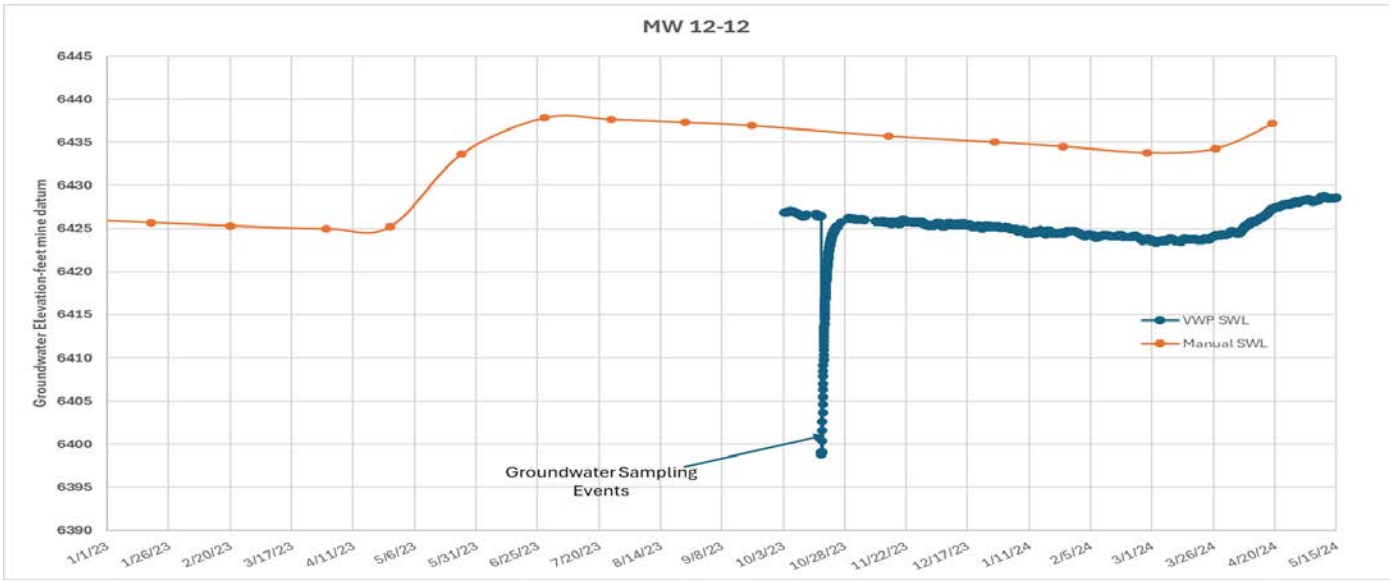

MW16-01
Rb
Mo
W
F
Mo, Rb, W - mg/L
F - mg/L
0.018
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
6/29/17
6/29/17
10/25/17
6/7/18
10/24/18
6/26/19
10/23/19
6/25/20
10/19/20
6/21/21
10/12/21
6/13/22
10/24/22
6/6/23
10/16/23

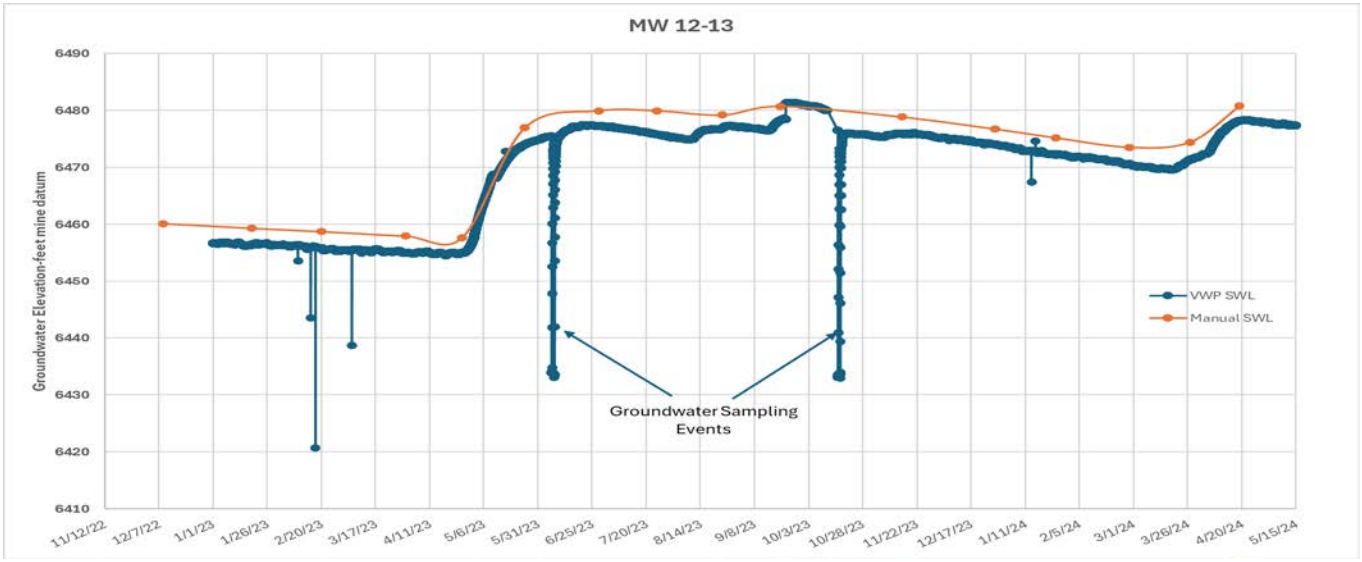

MW16-01
SO4 - mg/L
GW Elevation - feet ACM
80
70
60
50
40
30
20
10
0
6420
6410
6400
6390
6380
6370
6360
SO4
GW Elevation
6/29/17
6/29/17
10/25/17
6/7/18
10/24/18
6/26/19
10/23/19
6/25/20
10/19/20
6/21/21
10/12/21
6/13/22
10/24/22
6/6/23
10/16/23

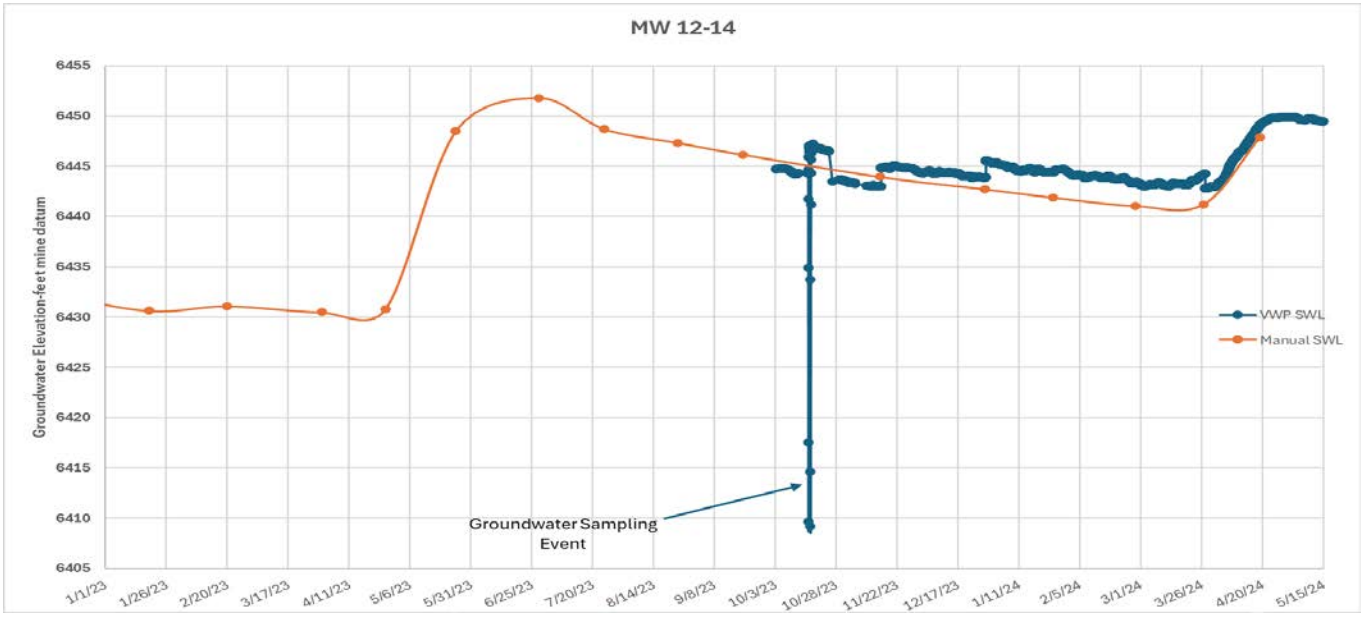
APPENDIX C

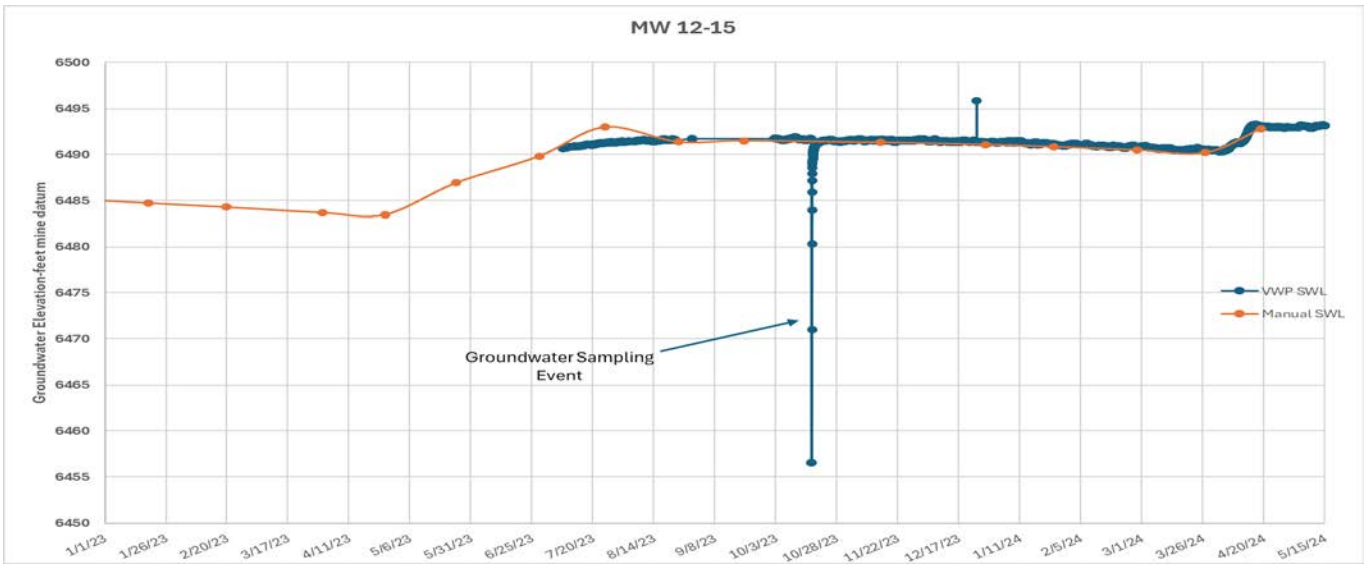
2023 WATER LEVEL HYDROGRAPHS FOR IMPOUNDMENT AREA MONITORING WELLS

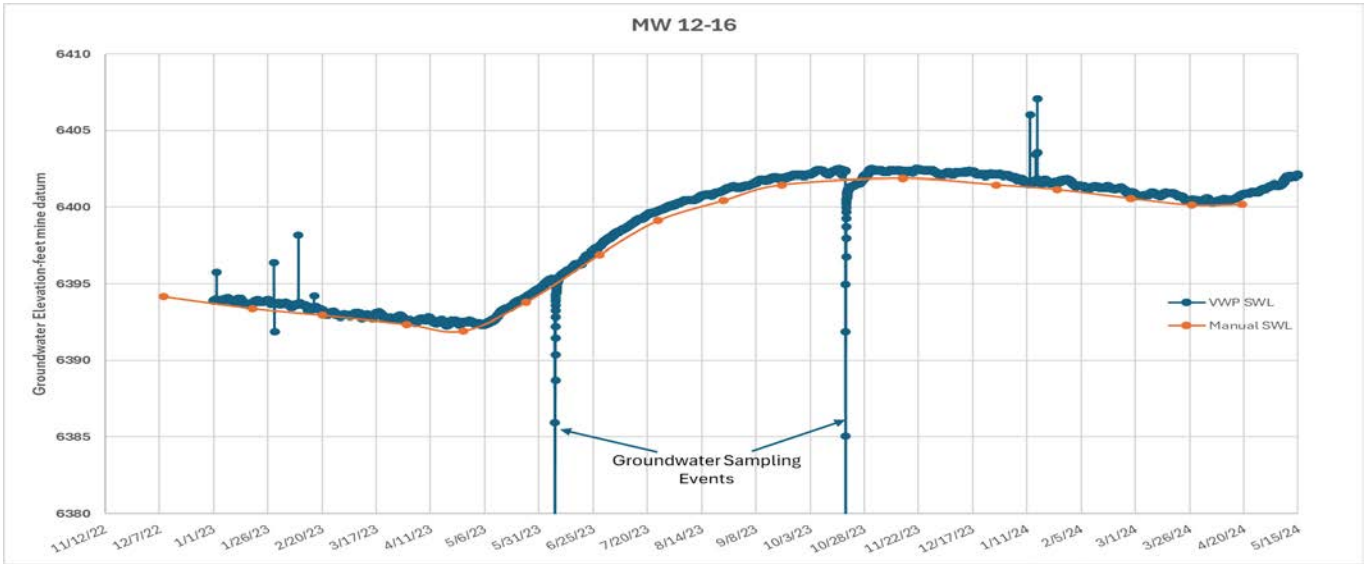

MW 12-11
Groundwater Elevation-feet mine datum
6480
6475
6470
6465
6460
6455
6450
6445
6440
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

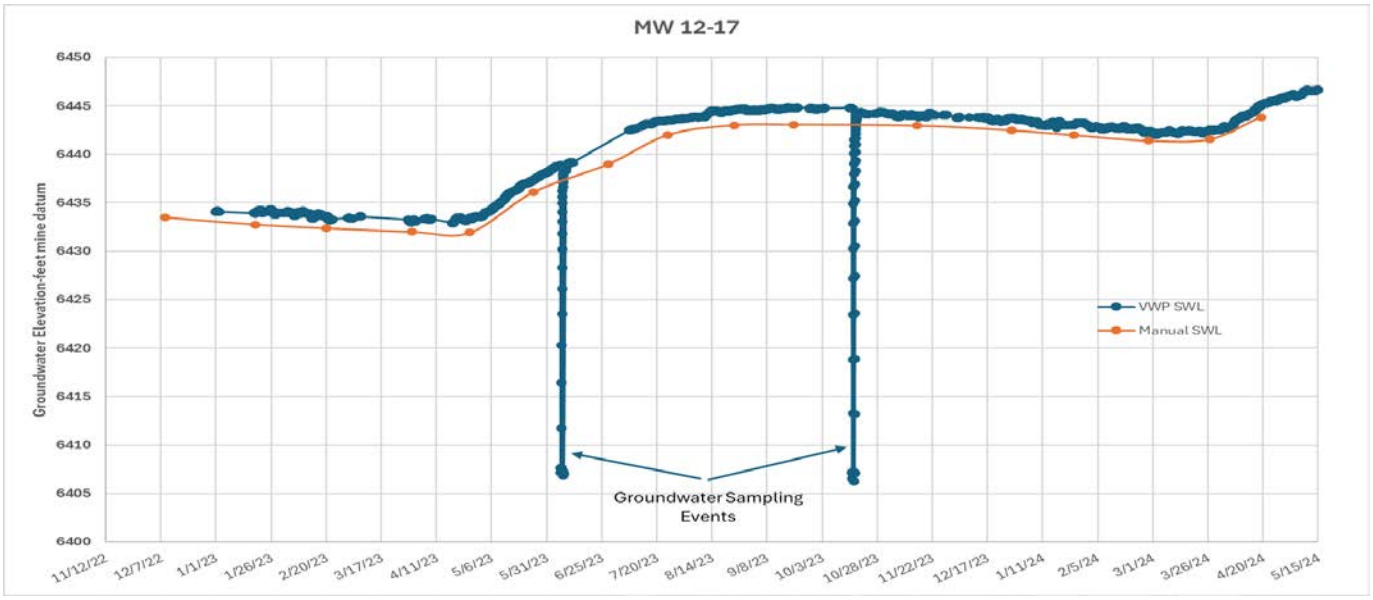

MW 12-12
Groundwater Elevation-feet mine datum
6445
6440
6435
6430
6425
6420
6415
6410
6405
6400
6395
6390
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

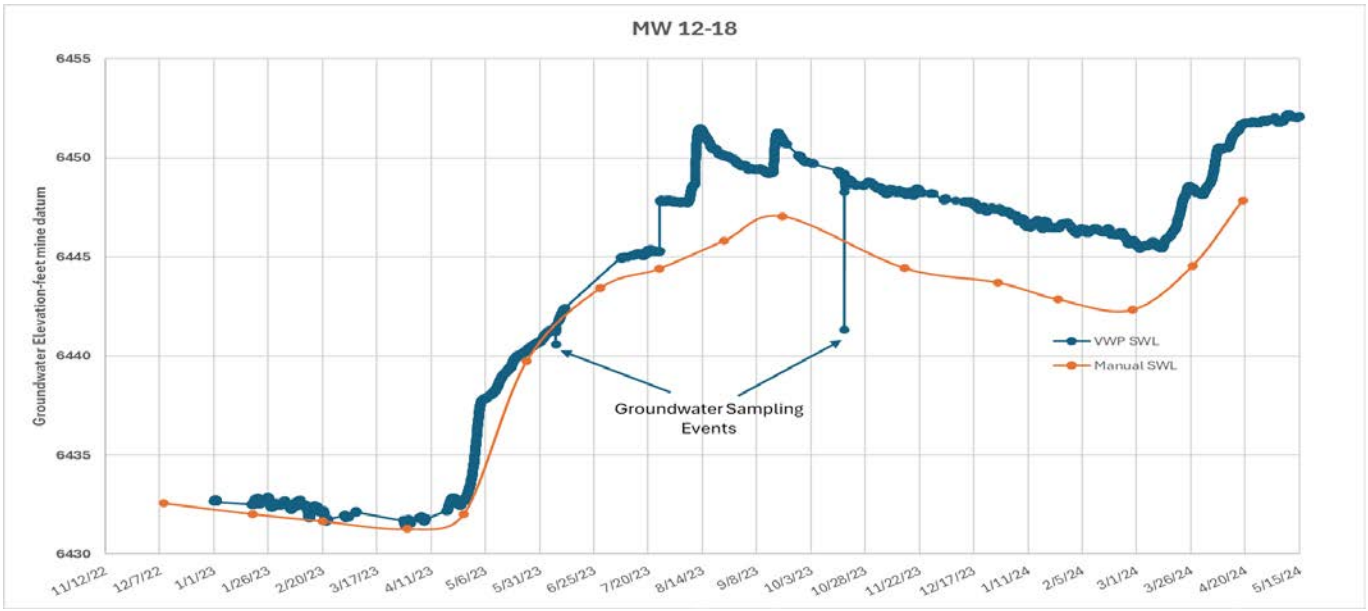

MW 12-13
Groundwater Elevation-feet mine datum
6490
6480
6470
6460
6450
6440
6430
6420
6410
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

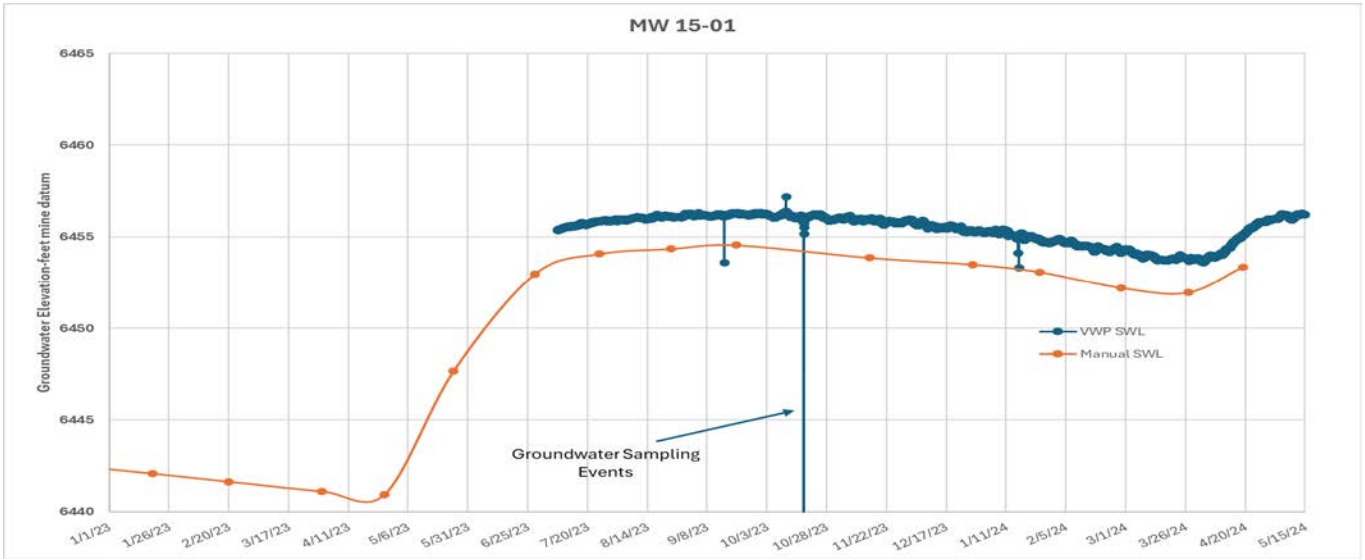

MW 12-14
Groundwater Elevation-feet mine datum
6455
6450
6445
6440
6435
6430
6425
6420
6415
6410
6405
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Event

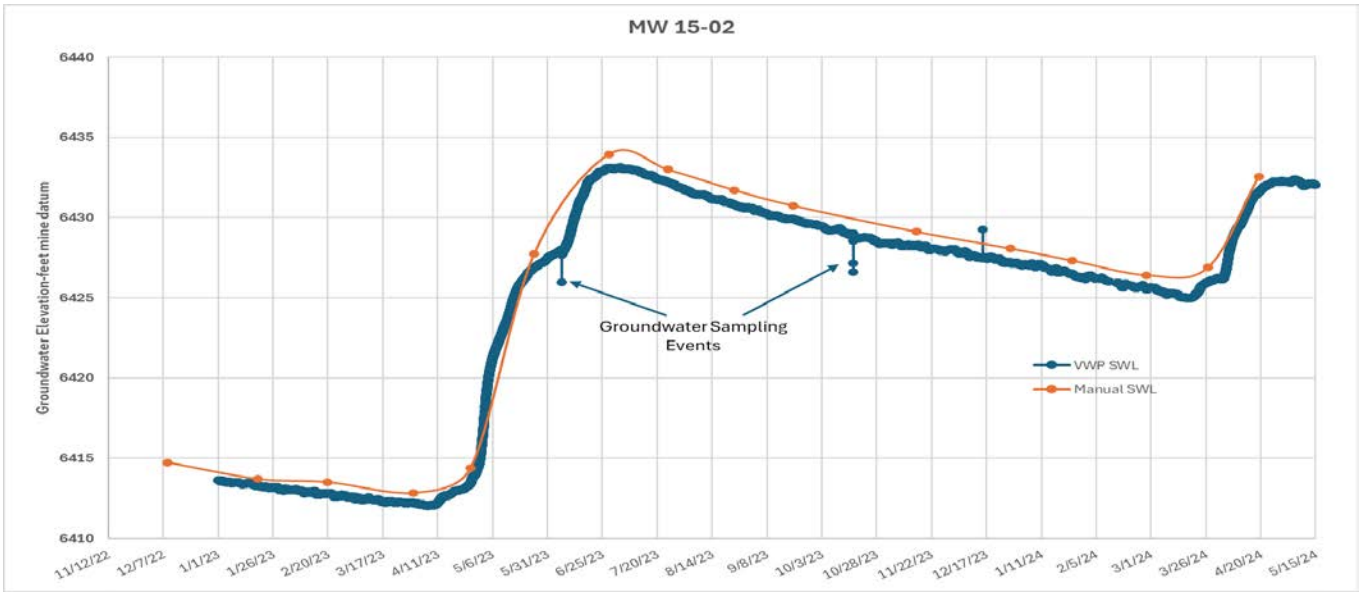

MW 12-15
Groundwater Elevation-feet mine datum
6500
6495
6490
6485
6480
6475
6470
6465
6460
6455
6450
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Event

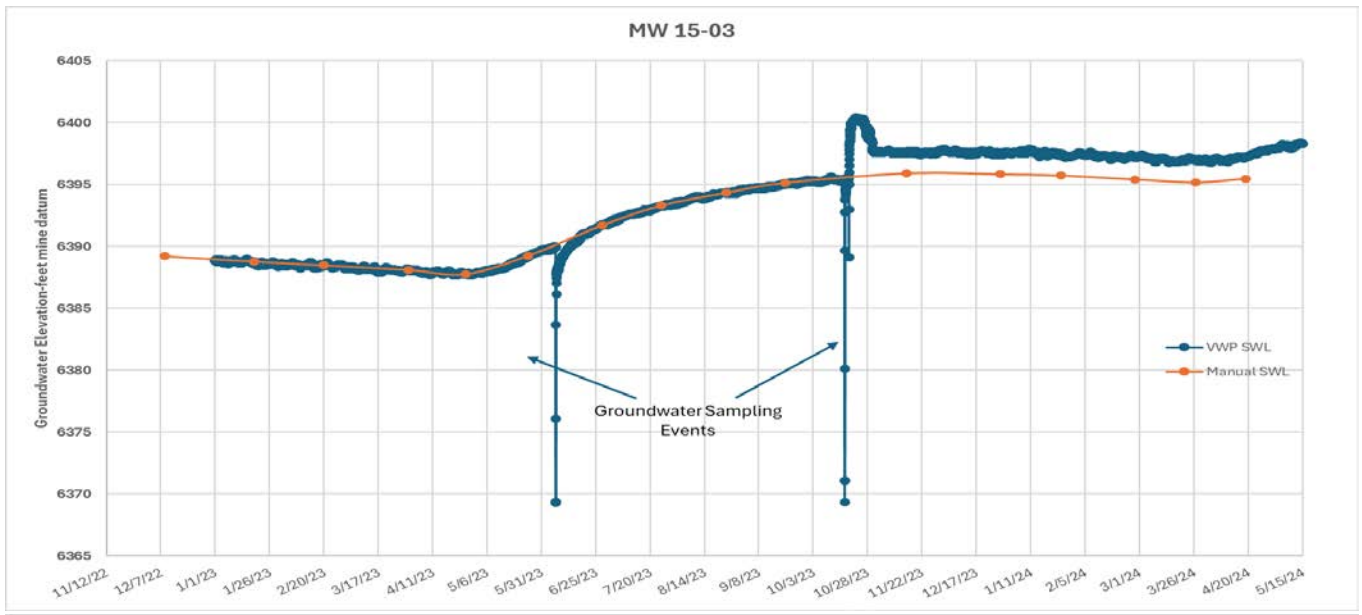

MW 12-16
Groundwater Elevation-feet mine datum
6410
6405
6400
6395
6390
6385
6380
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

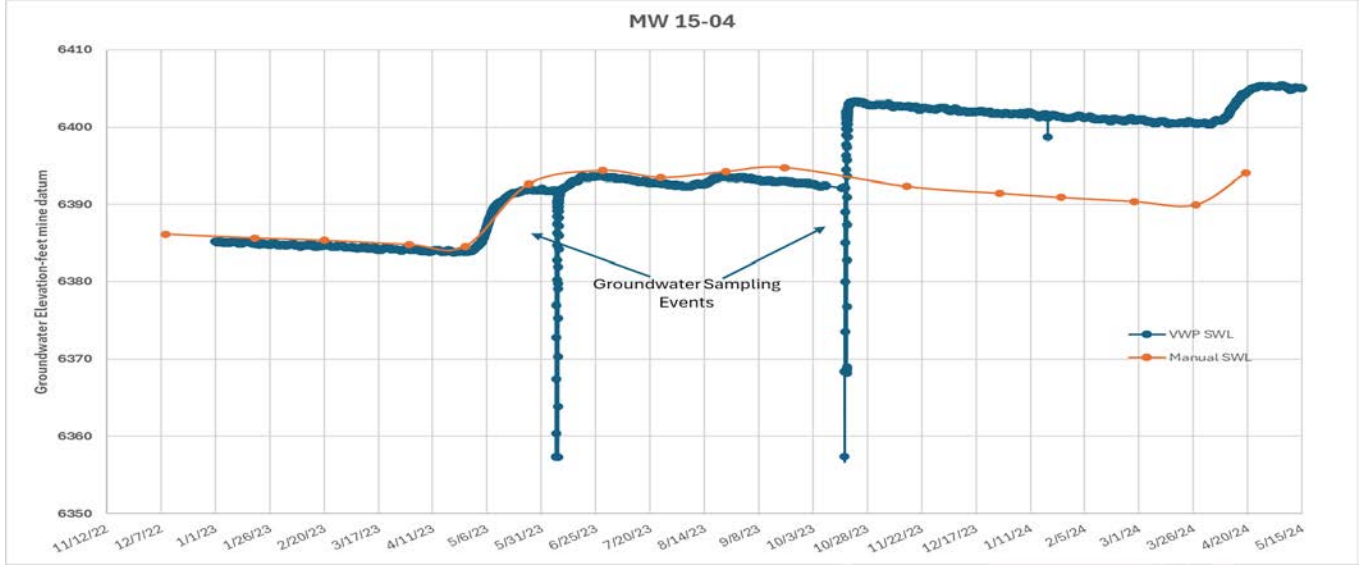

MW 12-17
Groundwater Elevation-feet mine datum
6450
6445
6440
6435
6430
6425
6420
6415
6410
6405
6400
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

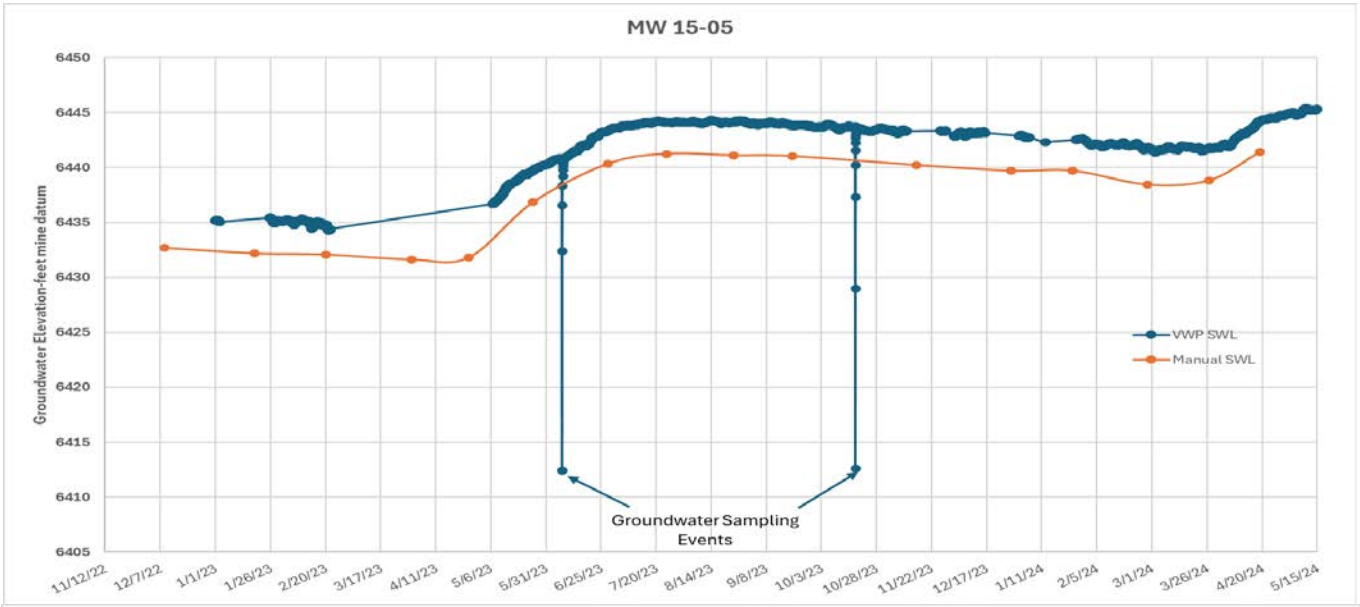

MW 12-18
Groundwater Elevation-feet mine datum
6455
6450
6445
6440
6435
6430
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

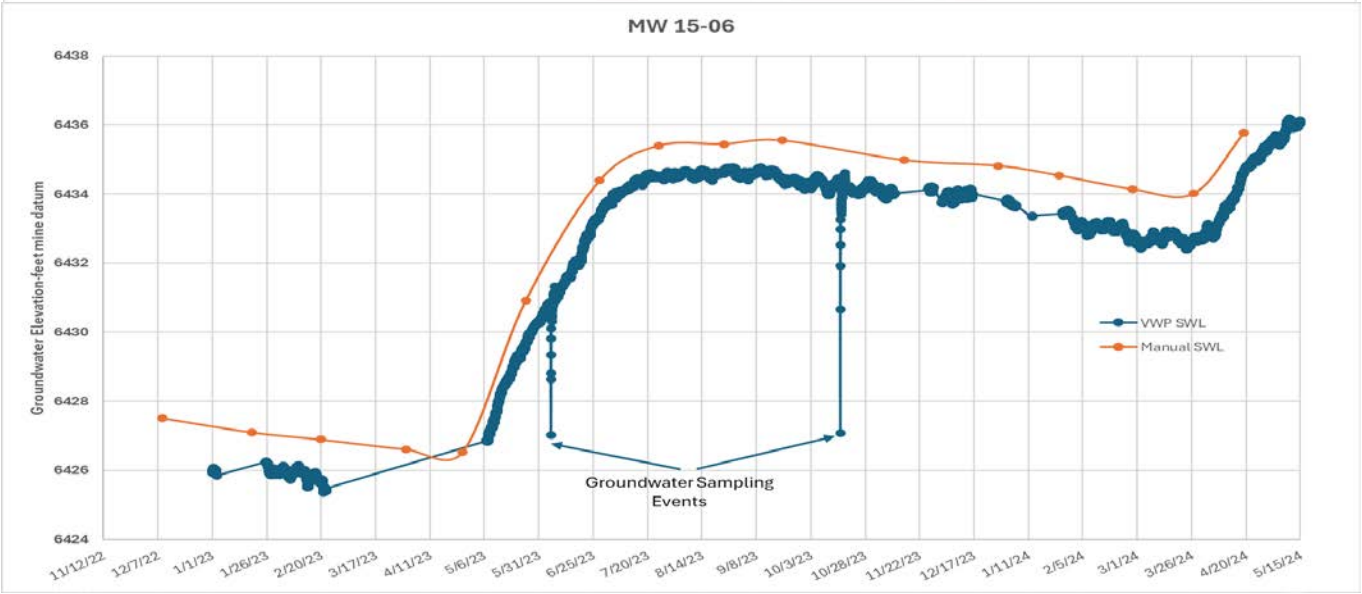

MW 15-01
Groundwater Elevation-feet mine datum
6465
6460
6455
6450
6445
6440
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events


MW 15-02
Groundwater Elevation-feet mine datum
6440
6435
6430
6425
6420
6415
6410
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
Groundwater Sampling Events
VWP SWL
Manual SWL

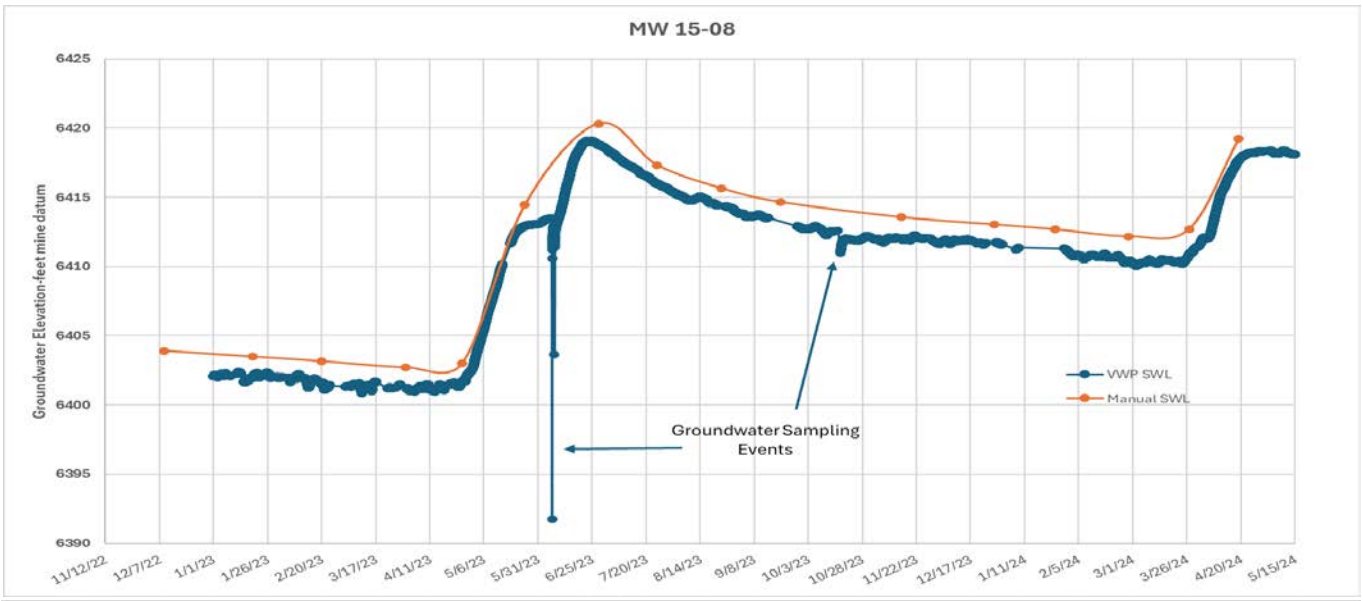

MW 15-03
Groundwater Elevation-feet mine datum
6405
6400
6395
6390
6385
6380
6375
6370
6365
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
Groundwater Sampling Events
VWP SWL
Manual SWL

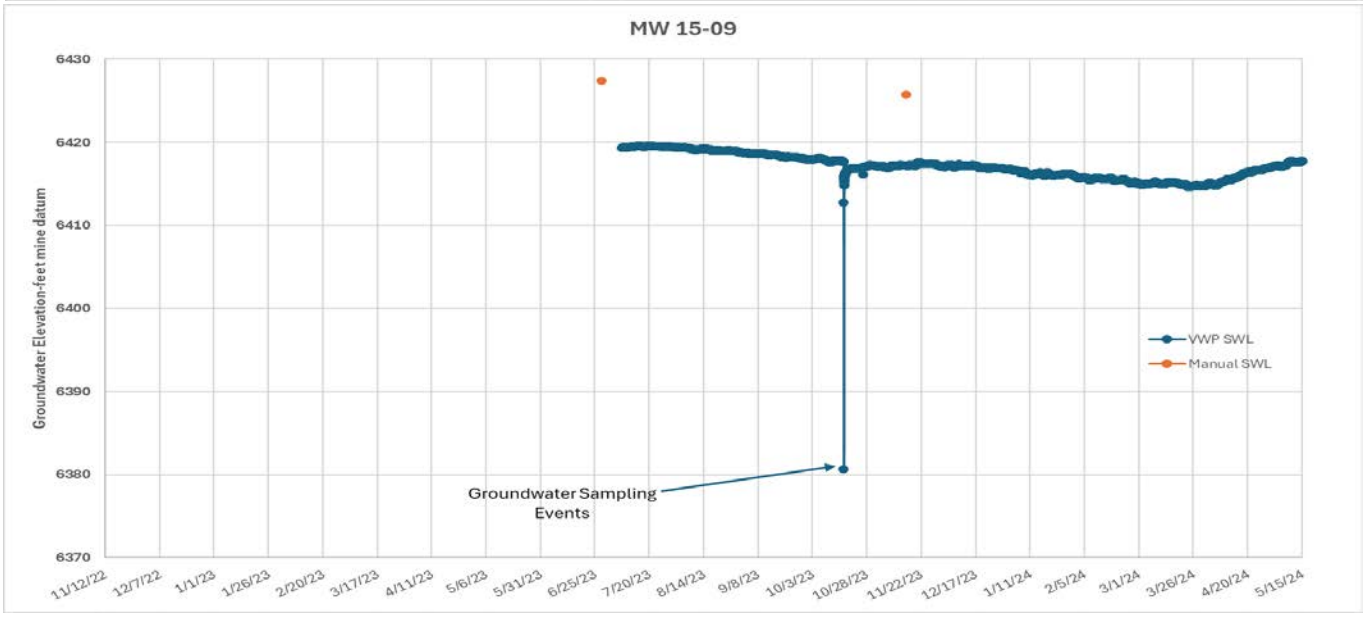

MW 15-04
Groundwater Elevation-feet mine datum
6410
6400
6390
6380
6370
6360
6350
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
Groundwater Sampling Events
VWP SWL
Manual SWL

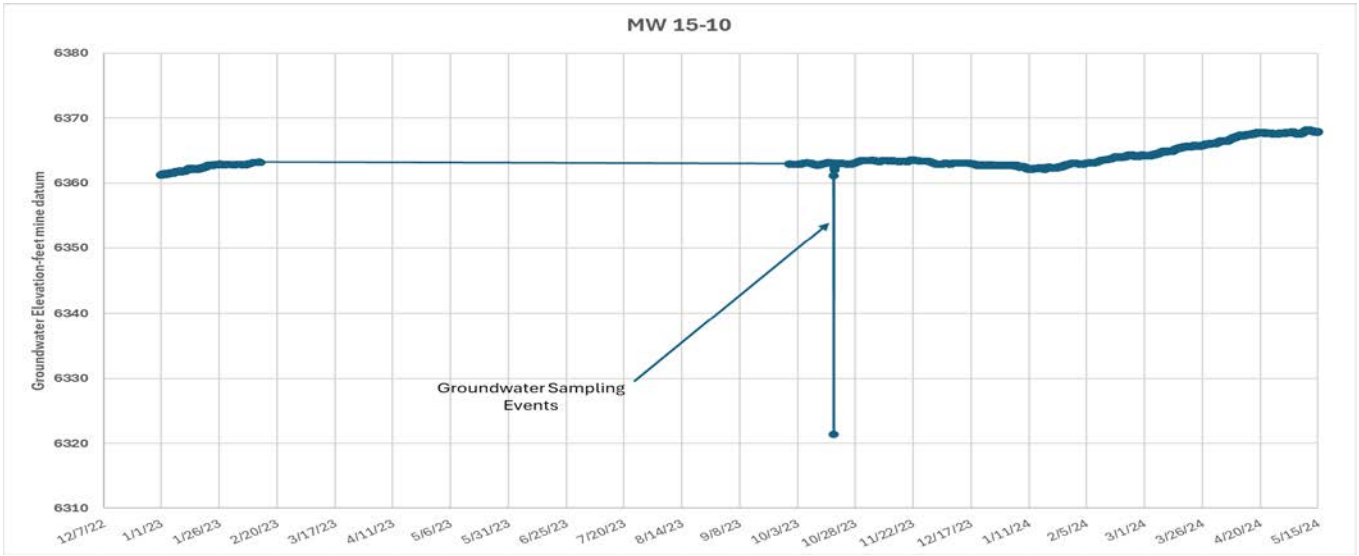

MW 15-05
Groundwater Elevation-feet mine datum
6450
6445
6440
6435
6430
6425
6420
6415
6410
6405
VWP SWL
Manual SWL
Groundwater Sampling Events
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24

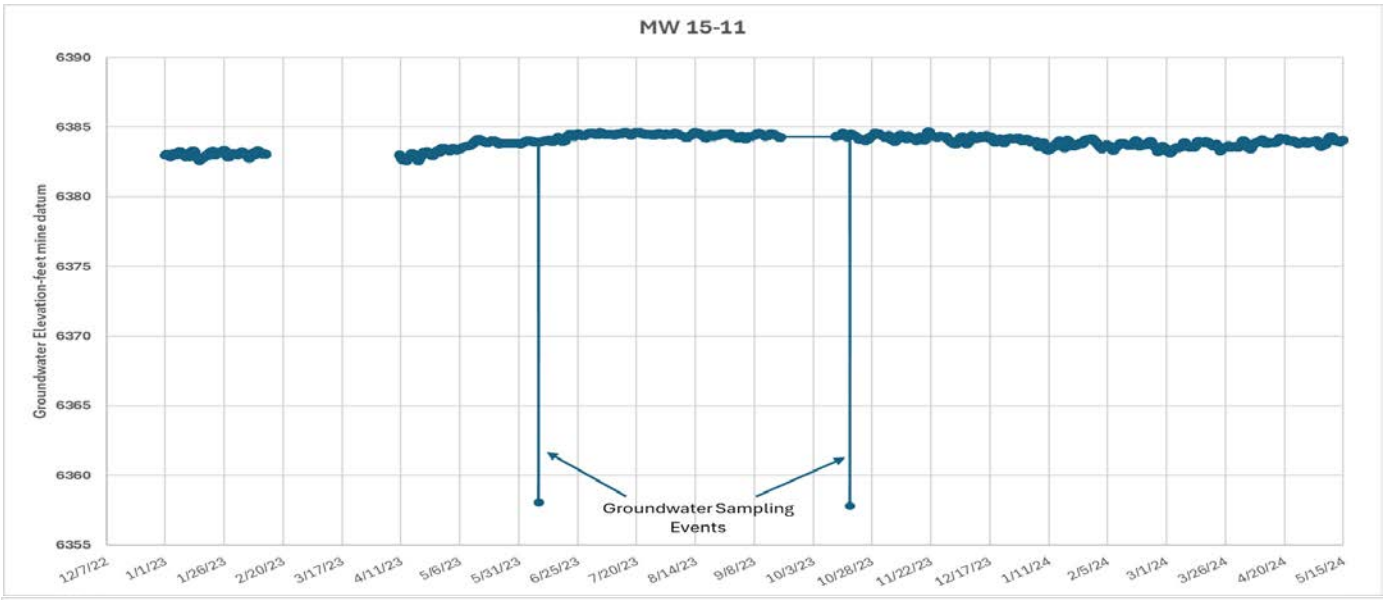

MW 15-06
Groundwater Elevation-feet mine datum
6438
6436
6434
6432
6430
6428
6426
6424
VWP SWL
Manual SWL
Groundwater Sampling Events
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24

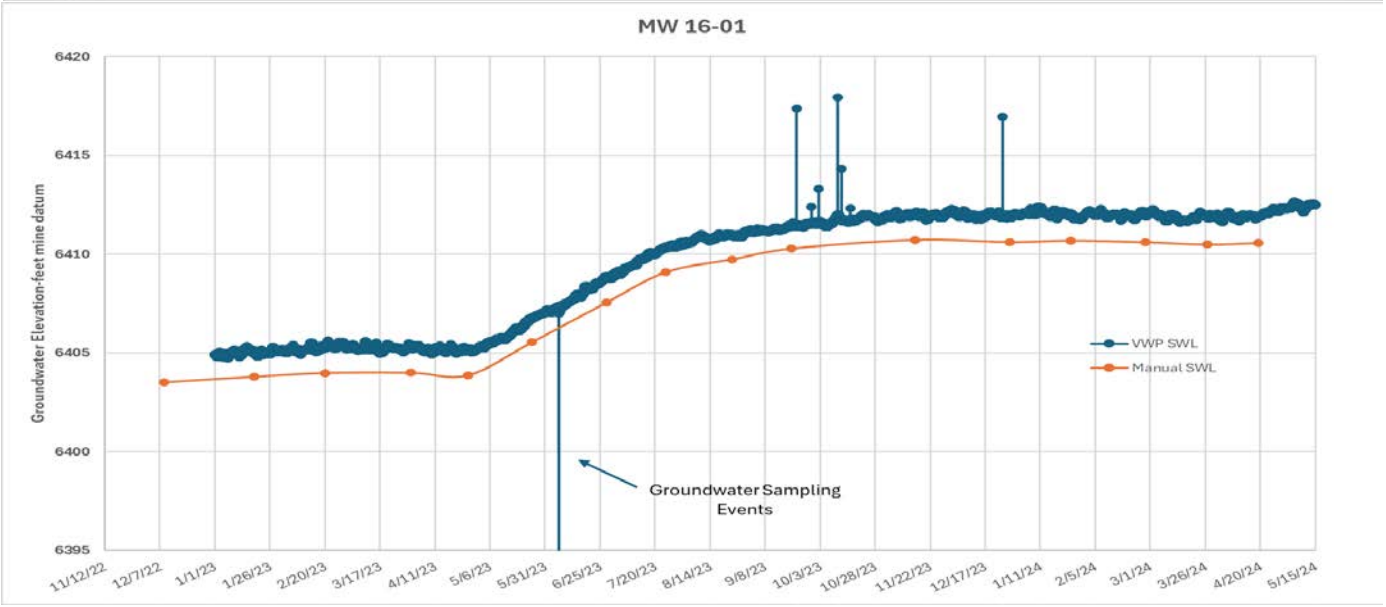

MW 15-07
Groundwater Elevation-feet mine datum
6420
6415
6410
6405
6400
6395
6390
6385
6380
6375
VWP SWL
Manual SWL
Groundwater Sampling Events
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24

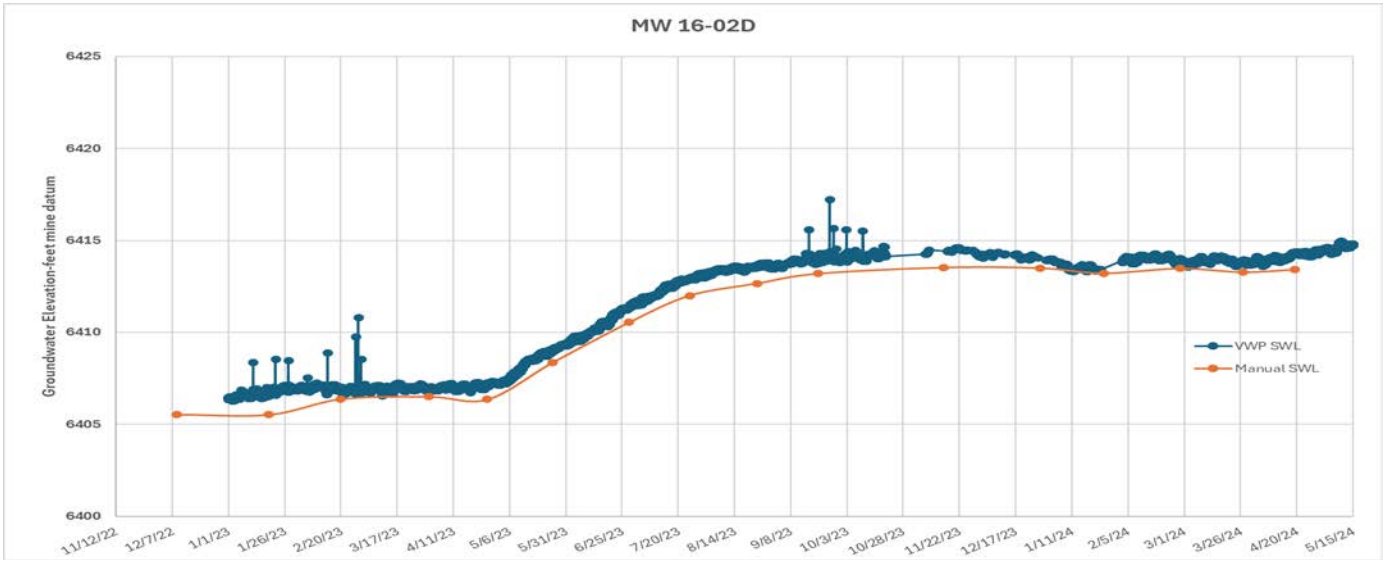

MW 15-08
Groundwater Elevation-feet mine datum
6425
6420
6415
6410
6405
6400
6395
6390
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

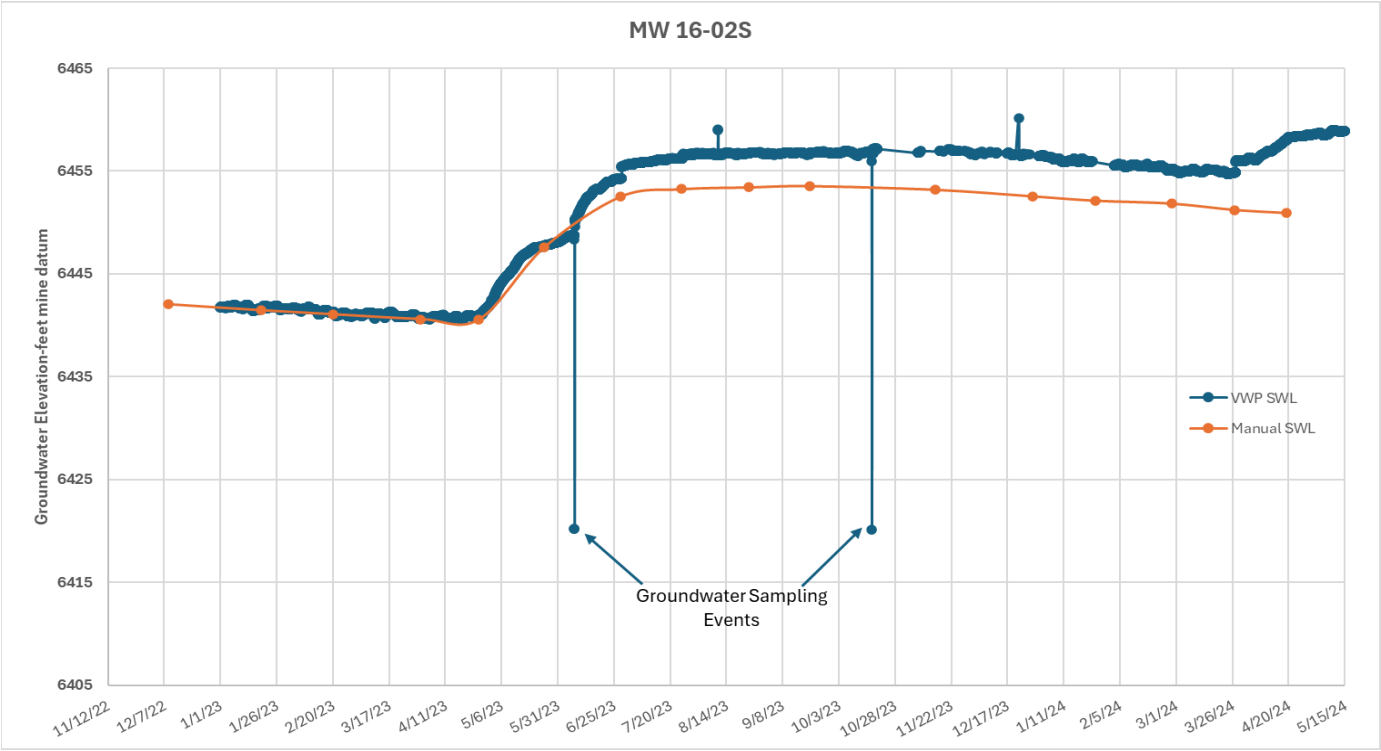

MW 15-09
Groundwater Elevation-feet mine datum
6430
6420
6410
6400
6390
6380
6370
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events


MW 15-10
Groundwater Elevation-feet mine datum
6380
6370
6360
6350
6340
6330
6320
6310
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
Groundwater Sampling Events


MW 15-11
Groundwater Elevation-feet mine datum
6390
6385
6380
6375
6370
6365
6360
6355
Groundwater Sampling Events
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24


MW 16-01
Groundwater Elevation-feet mine datum
6420
6415
6410
6405
6400
6395
VWP SWL
Manual SWL
Groundwater Sampling Events
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24


MW 16-02D
Groundwater Elevation-feet mine datum
6425
6420
6415
6410
6405
6400
VWP SWL
Manual SWL
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24


MW 16-02S
Groundwater Elevation-feet mine datum
6465
6455
6445
6435
6425
6415
6405
11/12/22
12/7/22
1/1/23
1/26/23
2/20/23
3/17/23
4/11/23
5/6/23
5/31/23
6/25/23
7/20/23
8/14/23
9/8/23
10/3/23
10/28/23
11/22/23
12/17/23
1/11/24
2/5/24
3/1/24
3/26/24
4/20/24
5/15/24
VWP SWL
Manual SWL
Groundwater Sampling Events

5.0 Materials Inventory

5.1 Topsoil

Soil was salvaged in 2023 in association with Revision 22-002 and placed in a stockpile. Total soil salvaged was approximately 14,700 cubic yards and its location is shown on Plate III as D-East Stockpile.

Table 5.1 contains the current topsoil inventory by stockpile. A history of topsoil stockpile activity can be found in the 2014 Annual Report and subsequent annual reports.

In 2024, topsoil will be salvaged near the tailings pond waterline as needed.

Table 5.1. Soil Stockpile Inventory

Stockpile	Cubic Yards – 2023
Bunker[1]	95,900
Mouton Road	474,700
Bumtown II	37,420
D East	14,700
Total	**622,720**

5.2 Alluvium

Approximately 20 million cubic yards of suitable reclamation material has been identified in the Central Zone/McQueen area.

MR provide the State NRDP program with approximately 182,000 cubic yards of alluvium from the Lunchroom Stockpile for backfill at the Parrot Tailings removal site. Approximately 1,363,000 cubic yards of alluvium remain in the Lunchroom Stockpile.

Approximately 1 million cubic yards of alluvium are currently contained in a temporary stockpile near four-corners. This material will be used for Zone F in future construction at the YDTI.

No new stockpiling of alluvium is anticipated in 2024.

5.3 Leached Capping

All leached capping mined in 2023 was used for tailing embankment construction.

All leached capping mined in 2024 will be used for tailings embankment construction. No stockpiling of leach capping is anticipated in 2024.

[1] Sometimes referred to as the Four Corners Stockpile.

5.4 Parrot Tailings

Approximately 2,266 cubic yards of mine wastes from the historic Parrot Smelter area were brought to MR by Montana Natural Resource Damage Program (NRDP) in 2023. Material haulage has been completed from the Parrot Smelter area to MR and there will be no material brought to or taken from MR in 2024.

No water from the Parrot Smelter project area was pumped to MR in 2023. No water is anticipated to be pumped to MR in 2024.

5.5 Compost

MR stockpiled approximately 5,240 cubic yards of compost on the YDTI West Embankment.

To: Mark Thompson, Montana Resources

From: Jim Ford, Montana Department of Justice, NRDP

CC: Josh Vincent, PE, Water & Environmental Technologies, Inc.
Stephen Frazee, PE, Water & Environmental Technologies, Inc.

Date: August 16th, 2023

RE: Montana Resources Access Agreement – July 2023 Construction Records

Per the agreement signed December 13, 2016, and subsequent modifications between the State and Montana Resources (MR) on the Parrot Tailings, the State is required to provide construction records (Agreement Section I) for the following items:

- (i) the volume of all Parrot Tailings transported across MR Property and placed at the Stockpile Location;
- (ii) the amount, date and location of all Construction Dewatering Water delivered to the Construction Dewatering Access Points;
- (iii) the vehicle miles traveled by the State, Contractor(s), and Subcontractor(s) on the Mine Permitted Area; and
- (iv) all documentation associated with storm water management and discharge, including requirements of a general permit for storm water discharge related to construction activity on the Mine Permitted Area.

The following sections provide the information per Section I.

Tailings Volume (i)

A quantity of two thousand two hundred sixty-six (2,266) cyds of waste were hauled from the Parrot site to MR during July 2023. The Stockpile location received zero (0) cyds of waste. The Placement Location received all 2,266 cyds of waste. Table 1 summarizes the waste volume hauled to MR through July 2023.

ICS reached the Phase IIC Volume Cap at the Stockpile location in December 2021. The December 2021, MR Construction Record Memo dated January 17, 2022, addressed the Stockpile capacity overage. In late June 2023, NRDP contacted MR requesting permission to exceed the overall volume cap of 550,000 cubic yards. MR then revised their Hard Rock permit through Montana DEQ to increase the cap from 550,000 cubic yards to 575,000 cubic yards. In an email dated July 13, 2023, from Mark Thompson to Jim Ford, MR advised that the revision had been approved by DEQ and NRDP could proceed with the additional waste haul to the placement

location. The 2,266 cubic yards of waste hauled in July 2023 brings the total Phase IIC waste volume to 380,574 cubic yards and 550,885 cubic yards for all phases. No additional waste haul is anticipated at this time.

Table 1. Parrot Waste Volume Summary

Month	Stockpile Location Volume (BCYD)	Placement Location Volume (BCYD)	Total
May-21	634	0	634
June-21	6,497	0	6,497
July-21	17,832	16,856	34,688
August-21	30,081	17,668	47,749
September-21	34,242	11,386	45,628
October-21	34,020	22,076	56,096
November-21	51,867	1,080	52,947
December-21	14,532	41,569	56,101
January-22	0	24,387	24,387
February-22	0	0	0
March-22	0	0	0
April-22	0	0	0
May-22	0	180	180
June-22	0	5,986	5,986
July-22	0	0	0
August-22	0	18,461	18,461
September-22	0	60	60
October-22	0	3,809	3,809
November-22	0	25,085	25,085
December-22	0	0	0
January-23	0	0	0
February-23	0	0	0
March-23	0	0	0
April-23	0	0	0
May-23	0	0	0
June-23	0	0	0
July-23	0	2,266	2,266
Total	189,705	190,869	380,574
Phase IIC Volume Cap	179,719	200,000	379,719
Remaining Volume	-9,986	9,131	-855

Dewatering Volume (ii)

ICS started discharging water from the construction dewatering system to MR on March 11, 2021. Table 2 summarizes the flow and total volume through March 31st, 2023. On November 13th, 2022, the dewatering pump and system froze, forcing ICS to shut down the system in its entirety for the winter months. Therefore, no water was discharged to MR in July 2023. A total of 19.69 MGal has been pumped to MR through July 31st, 2023. While the system was operating, the average flow rate was 27 gpm. No additional construction dewatering is anticipated at this time.

Water has not been hauled to the alternative water disposal location.

Table 2. Construction Dewatering Flow Summary

Month	Volume Discharged (MG)
March-21	1.23
April-21	1.41
May-21	1.17
Jun-21	1.37
Jul-21	1.08
Aug-21	1.19
Sep-21	1.08
Oct-21	0.86
Nov-21	1.28
Dec-21	1.07
Jan-22	1.09
Feb-22	0.93
Mar-22	1.01
Apr-22	0.92
May-22	0.44
Jun-22	0.75
Jul-22	0.61
Aug-22	0.89
Sep-22	0.56
Oct-22	0.4
Nov-22	0.34
Dec-22	0
Jan-23	0
Feb-23	0
Mar-23	0
Apr-23	0
May-23	0
Jun-23	0
Jul-23	0
Total	19.69
Average Flow	27

MR Mileage (iii)

ICS recorded one hundred forty-eight (148) miles driven on MR property from the Parrot Excavation to the waste Placement Location in July 2023, and 20,633 miles total for the project. Table 3 summarizes the MR mileage.

Table 3. ICS Mileage Summary

Month	MR Mileage
May-21	127
June-21	100
July-21	2,022
August-21	2,052
September-21	1,949
October-21	1,649
November-21	914
December-21	3,799
January-22	2,140
February-22	0
March-22	0
April-22	0
May-22	5
June-22	692
July-22	0
August-22	411
September-22	2
October-22	354
November-22	2,693
December-22	0
January-23	1,576
February-23	0
March-23	0
April-23	0
May-23	0
June-23	0
July-23	148
Total	20,633

Water & Environmental Technologies (WET) recorded zero miles driven on MR property in July 2023, and 76-miles total for the project. Table 4 summarizes WET's mileage.

Table 4. WET Mileage Summary

Month	MR Mileage
December-21	3
January-22	12
February-22	8
March-22	16
April-22	11
May-22	7
June-22	3
July-22	0
August-22	4
September-22	2
October-22	0
November-22	2
December-22	1
January-23	7
February-23	0
March-23	0
April-23	0
May-23	0
June-23	0
July-23	0
Total	76

Storm Water Management Documentation (iv)

The Storm Water Pollution Prevention Plan (SWPPP) was transferred to ICS in February 2021. ICS is currently managing the SWPPP according to MDEQ requirements. A copy of the transfer memo and transfer approval was provided with the March 2021 memo. In January 2023, ICS provided the State with their 2022 annual SWPPP documentation. This includes SWPPP inspection records and maps. The January 2023 Construction Records Memo dated February 24th, 2023, included this information.

6.0 Disturbance and Bonding Status

6.1 2023 Disturbance Summary

Approximately 18 acres of new disturbance was added within the permitted disturbance boundary at MR in 2023.

Montana Resources mined 13.3 million tons of non-ore rock in 2023. This rock was predominately used for constructing the YDTI.

The bottom of the Continental Pit is at the 5160’ elevation.

A total of 15.7 million tons of ore were mined in 2023.

It is anticipated that approximately 30 acres of new disturbance will occur in 2024, mostly associated with topsoil salvage and stockpiling, YDTI construction, and activities associated with Revision 22-002.

6.2 Bond and Permit Status

Present Bond Review

The last 5-year bond review was completed in 2021 and the bond was increased from $114,602,575 to $116,477,500.

Bond determination for Amendment 11 to Permit 30 was an increase of $36,500. This increment was posted in 2022 for a total bonded amount of $116,514,000.

Bond determination for Revision 22-001 to Permit 30 was an increase of $391,203. This increment was posted in 2022 for a total bonded amount of $116,905,203.

Bond determination for Revision 22-002 to Permit 30 resulted in no increase; however, it is anticipated that surplus bond may be available following Revision 22-022. This could be resolved during a subsequent bond determination or at the next 5-year bond review.

Operating Permit Amendments and Revisions

The mine operating permit (00030) is active.

Three minor Revisions to the Operating permit were approved during 2023:

- Revision 23-001 – Updated Operations and Reclamation Plans;
- Revision 23-002 – Parrot Tailings Project – Volume Modification; and
- Revision 23-003 – Blasting Near Interstate 15.

For Operating Permit Number: 00030:

- Total Permit Area 6132 Acres
- Total Acreage Currently Disturbed 5584 Acres
- Amount of Bond $116,905,203
- Amount of Obligated Bond $116,905,203

Table 6.1 is a more detailed table of facility acreages. Within the permit boundary there are areas subject to differing bonding requirements. Table 6.2 identifies these areas by designation. Plate II illustrates their locations.

MR, DEQ, and others have collaboratively developed mapping and planimetry to define the various areas and acreages and developed a methodology for annually updating these areas. Areas identified in this annual report generally agree with the areas utilized in the most recent 5-year bond review.

Table 6.1. Acreage Covered by Operating Permit

Description	Area (Acres)
Continental Pit	1000
Berkeley Pit	684
Primary Crusher	44
Concentrator Area	95
YDTI Embankments	707
YDTI Beach	1094
YDTI Pond	441
Associated Facilities	1327
Reclamation	192
Undisturbed	548
Total	**6132**

Table 6.2. Areas Subject to Various Bonding Requirements

Bond Status		Area (Acres)
Exempt from Bonding	BMFOU	1001
	GMMIA	17
	Pre-1971 Process Facilities	139
Bond Status	Pre-1974	1756
	Bond by Calculation	3219
	Total	**6132**

7.0 Yankee Doodle Tailings Impoundment (YDTI)

The YDTI is located entirely within Montana Resources' property. The embankment is currently being constructed to a permitted elevation of 6450 feet, ACM datum. The tailings pond had a 2023 year-end elevation of 6359 feet.

7.1 *Inspection*

The YDTI was visually inspected monthly, throughout 2023 in conjunction with routine monitoring of instrumentation.

The Engineer of Record (EOR) annual inspection of the YDTI was conducted on September 28 and 29, 2023. The Annual Inspection Report (AIR) was submitted to DEQ on January 26, 2024. The AIR provides detailed information regarding the operation, maintenance, monitoring, and construction of the YDTI.

Also submitted with the AIR was the Corrective Action Plan associated with the EOR recommendations. That plan is attached.

7.2 *Ongoing Disturbance*

The YDTI Pond typically increases its area of inundation by 18-25 acres annually with normal milling operations. As the elevation of the pond rises, undisturbed ground at the north end of the pond is inundated by the pond. However, in 2023, the pond elevation remained relatively static as a result of the BMFOU Pilot Project.

7.3 *Site Investigation*

In 2023, a multi-year site investigation of the YDTI continued with additional borings in the embankments. The reports and data will be made available to DEQ and the IRP.

600 Shields Ave.
Butte, Montana 59701

January 26, 2024

Montana Department of Environmental Quality
Hard Rock Mining Bureau
Attn: Garrett Smith
P.O. Box 200901
Helena, MT 59620

Re: 2023 Annual Inspection Report for Yankee Doodle Tailings Impoundment and Corrective Action Plan for Recommendations

Dear Mr. Smith:

The Engineer of Record (EOR) annual inspection of the Montana Resources, LLC (MR) Yankee Doodle Tailings Impoundment (YDTI) was conducted on September 28 and 29, 2023, by Mr. Daniel Fontaine, P.E., the Engineer of Record (EOR). Mr. Fontaine was accompanied during the site inspection by Mr. Mike Harvie (Manager of Engineering and Geology) of MR.

The EOR annual inspection is required under Section 82-4-381 of the Montana Code Annotated (MCA), which also requires the mine operator to prepare a Corrective Action Plan (CAP) summarizing the recommendations of the EOR and an implementation schedule for the corrective actions. KP prepared the 'Yankee Doodle Tailings Impoundment – 2023 Annual Inspection Report (AIR)' (KP, 2024), following the inspection.

This letter documents MR's CAP in response to the recommendations presented by the EOR:

1. Manage freshwater use from the Silver Lake Water System and operation of the Polishing Plant to maintain the water inventory in the YDTI supernatant pond around the target volume of approximately 15,000 acre-ft (+/- 3,000 acre-ft). Assess if this normal operating target range (12,000 acre-ft to 18,000 acre-ft) can be maintained without adverse impacts to ongoing mine operations.
2. Continue regrading the upstream slope of the North-South Embankment during construction of the tailings pipeline corridor for EL. 6,450 ft lift. Initial regrading activities were undertaken in 2023 as a result of the 2022 EOR AIR recommendations. Regrade the embankment upstream slope to cover and incorporate the tailings pipeline discharge corridor along the EL. 6,400 ft lift. Implement the alluvium facing layer between the crest of the tailings pipeline corridor along the EL. 6,450 ft lift and the upstream alluvial facing of the EL. 6,400 ft lift along the regraded upstream slope. The intent is to create a continuous layer of alluvium between the EL. 6,450 tailings pipeline corridor and the alluvium facing previously placed as part of the EL. 6,400 ft lift construction. This recommendation applies to the remaining portion of the North-South Embankment between Section 28+00N and the abutment at Rampart Mountain. (continuation of 2022 recommendation).
3. Regrade the upstream slope of East-West Embankment between approximately Sections 33+00NW (Discharge 2-1) and 23+00NW from the tailing discharge corridor to the tailings beach surface to mitigate the differential settlement cracking currently observed along the tailings discharge corridor in this area. Tie in the

regraded slope neatly with the upstream embankment slope east of Section 23+00NW. Reapply alluvium facing with a minimum nominal thickness of 3 ft to the regraded slope in this area to enhance continuity of the upstream alluvium facing layer along the center part of the dam.

MR has developed the following CAP that is expected to effectively address the recommendations contained in the AIR.

1. **Manage freshwater use from the Silver Lake Water System and operation of the Polishing Plant to maintain the water inventory in the YDTI supernatant pond around the target volume of approximately 15,000 acre-ft (+/- 3,000 acre-ft). Assess if this normal operating target range (12,000 acre-ft to 18,000 acre-ft) can be maintained without adverse impacts to ongoing mine operations.**

MR continued to operate with reduced freshwater use in 2023 (in comparison to pre-2017 years), with a calendar year daily average Silver Lake Water System (SLWS) flowrate for MR mine operations of approximately 1.2 MGPD (used in both the mill and HsB WTP). This is comparable with the average flowrate since mid-2017. MR believes that the reduced use of SLWS water is sustainable.

The Polishing Plant, which facilitates off-site water discharge, was commissioned in September 2019 and is operated by Atlantic Richfield Company (AR). AR has advised MR of its commitment to maintain the YDTI supernatant pond target inventory with due consideration for seasonal fluctuations and the possibility of temporary interruptions that could impact the ability to discharge water off-site. The net YDTI water deficit since 2019 is approximately 5,600 million gallons (17,300 ac-ft), through July 2023. The water inventory reductions at the YDTI during this period are attributed to several factors, with the operation of the Polishing Plant considered to be the most significant factor.

The supernatant pond volume as of the July 2023 bathymetric survey was estimated to be approximately 17,100 acre-ft (MR, 2023a). MR is optimistic that the YDTI supernatant pond target inventory of 15,000 acre-ft (+/- 3,000 acre-ft) can be maintained to support current operations. MR will continue to monitor freshwater use. MR will provide data on freshwater use as well as data on water treatment/discharge operations to the EOR daily. MR will also alert the EOR of any significant changes in operations that could substantially alter the water balance.

MR intends to assess the implications (both favorable and adverse) and sustainability of the reduction in the operating pond volume. The assessment will include evaluation of whether the current normal operating target range is operationally acceptable, including the potential need to increase or the potential to reduce the target, and MR and AR's ability to maintain the target during normal seasonal fluctuations as well as more extreme climatological events (e.g. wet years and drought years). MR will conduct the next bathymetric survey for pond volume in mid-summer 2024. MR will routinely update the EOR with information related to this on-going assessment.

2. **Continue regrading the upstream slope of the North-South Embankment during construction of the tailings pipeline corridor for EL. 6,450 ft lift. Initial regrading activities were undertaken in 2023 as a result of the 2022 EOR AIR recommendations. Regrade the embankment upstream slope to cover and incorporate the tailings pipeline discharge corridor along the EL. 6,400 ft lift. Implement the alluvium facing layer between the crest of the tailings pipeline corridor along the EL. 6,450 ft lift and the upstream alluvial facing of the EL. 6,400 ft lift along the regraded upstream slope. The intent is to**

Montana Resources

600 Shields Ave.
Butte, Montana 59701

create a continuous layer of alluvium between the EL. 6,450 tailings pipeline corridor and the alluvium facing previously placed as part of the EL. 6,400 ft lift construction. This recommendation applies to the remaining portion of the North-South Embankment between Section 28+00N and the abutment at Rampart Mountain. (continuation of 2022 recommendation).

MR proposes to continue the upstream slope regrading of the North-South Embankment with the same construction methodology implemented along the East-West and North-South embankments as outlined in the 2022 CAP (MR, 2023b) and illustrated in Figure 1. It is anticipated that the North-South regrading activities will occur in Q1 and Q2 of 2024. The timing and completion of this work will be dependent on tailings beach conditions as the tailings discharges are used to limit and control dusting from the tailings beach to the most practical extent. Regrading activities will require the temporary disconnection of Tailings Delivery Pipeline 3 at a location between the 3-3 discharge and the 3-4 discharge. The Tailings Delivery Pipeline will be reconnected as the facing and construction of the tailings pipeline corridor advanced to the north.

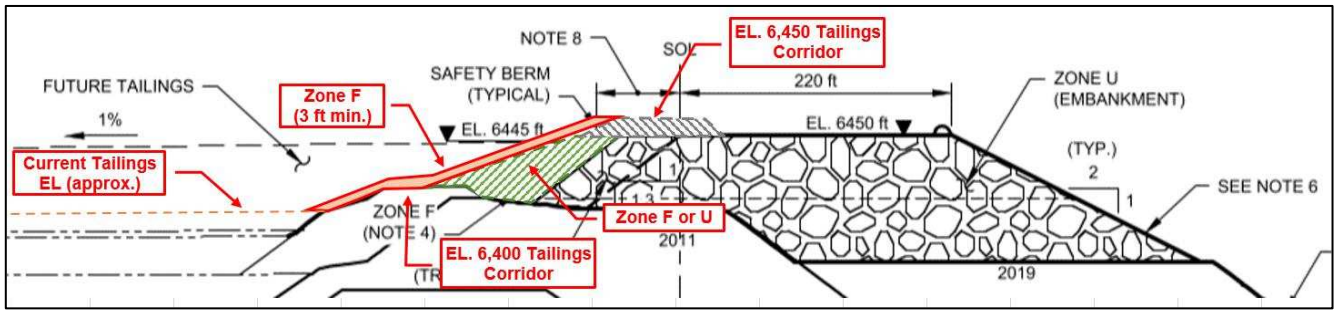


Figure 1 Alluvium Facing Placement (MR, 2023b)

3. **Regrade the upstream slope of East-West Embankment between approximately Sections 33+00NW (Discharge 2-1) and 23+00NW from the tailing discharge corridor to the tailings beach surface to mitigate the differential settlement cracking currently observed along the tailings discharge corridor in this area. Tie in the regraded slope neatly with the upstream embankment slope east of Section 23+00NW. Reapply alluvium facing with a minimum nominal thickness of 3 ft to the regraded slope in this area to enhance continuity of the upstream alluvium facing layer along the center part of the dam.**

MR will temporarily disconnect and remove a portion of Tailings Delivery Pipeline 3 at Discharge Location 3-1 (2-1) and will regrade the upstream slope of East-West Embankment east of Tailings Delivery Pipelines 1 and 2 (approximately Section 33+00NW) to approximately Section 23+00NW using a similar methodology to the construction practices outlined in Recommendation 2. Regrading and alluvium facing materials will be completed using dozers to create a flatter overall slope than currently in place. Alluvium materials will be placed with a minimum nominal thickness of 3 ft and placed to create a continuous layer with the previously placed alluvium.

It is anticipated that the East-West regrading activities will occur in Q1 and Q2 of 2024. The timing and completion of this work will be dependent on tailings beach conditions as the tailings discharges are used to limit and control dusting from the tailings beach to the most practical extent.

600 Shields Ave.
Butte, Montana 59701

If there are any questions or concerns regarding the CAP and schedule, please contact me at (406) 496-3211.

Sincerely,

Mark Thompson

Vice President of Environmental Affairs
Montana Resources, LLC

Attachments:

A. Engineer of Record – Verification

References:

Knight Piésold Ltd. (KP) 2024, Yankee Doodle Tailings Impoundment 2023 Annual Inspection Report, KP Ref. No. VA101-126/29-4 Rev. 0, January 26, 2024.

Montana Resources, LLP. (MR) 2023a. Bathymetric Survey - 2023, August 8, 2023

Montana Resources, LLP. (MR) 2023b, 2022 Annual Inspection Report for Yankee Doodle Tailings Impoundment and Corrective Action Plan for Recommendations. January 20, 2023

600 Shields Ave.
Butte, Montana 59701

ATTACHMENT A:

Engineer of Record (EOR) Verification

I have reviewed and verify that the corrective actions proposed by MR should reasonably be expected to effectively address the recommendations contained in the 2023 Annual Inspection Report.

Reviewed: _____

Daniel Fontaine, P.E.
Specialist Engineer | Associate
Knight Piésold Ltd.
YDTI Engineer of Record

130000
135000
140000
145000
150000
145000
140000
135000
130000
125000

Yankee Doodle Tailings Impoundment
WED
GMMIA
HsB WTP
Berkeley Pit
Continental Pit
Crusher
Concentrator Area

Legend

- Permit Boundary - 6132 Acres
- Post-July, 1 1974 - 3219 Acres
- Pre-July, 1 1974 - 1756 Acres
- Butte Mine Flooding Operable Unit (BMFOU) - 1001 Acres
  - 2023 Continental Pit below 5410' NGVD29 or 5466' ACM - 307 Ac.
  - Berkeley Pit - 684 Acres
  - Horseshoe Bend Water Treatment Plant - 9 Acres
  - West Embankment Drain - 1 Acre
- Pre-1971 Exempt Areas - 139 Acres
  - Concentrator Area - 95 Acres
  - Primary Crusher - 44 Acres
- Granite Mountain Memorial Interpretive Area (GMMIA) - 17 Acres

0 1,000 2,000 4,000
Feet

Aerial Photography: 7/12/2023

WESTECH ENVIRONMENTAL HELENA·MONTANA

Montana Resources

Continental Mine
Butte, Montana

Plate I
Consolidated Permit Area and Bonding Level Map

MR24_AR23_Bond_Levels.mxd | 1:24,000 | 6/4/2024

130000
135000
140000
145000
155000
150000
145000
140000
135000
130000
125000

Exploration License 00711

Yankee Doodle Tailings Impoundment

NRDS

Great Northern

Nalley Valley

New Precipitation Plant

HsB WTP

Berkeley Pit

Pittsmont

Continental Pit

Crusher

Concentrator Area

East Complex

Legend

Permit Boundary - 6132 Acres

Open Pit - 1684 Acres
Primary Crusher - 30 Acres
Primary Crusher Reclamation - 14 Acres
Concentrator Area - 76 Acres
Concentrator Area Reclamation - 19 Acres
YDTI Embankment - 707 Acres
YDTI Beach - 1094 Acres
YDTI Pond - 441 Acres
Associated Facilities - 1327 Acres
Reclamation (in bonded areas) - 192 Acres
Undisturbed - 548 Acres

Pre-1971 Exempt Areas
Butte Mine Flooding Operable Unit
Granite Mountain Memorial Interpretive Area

Aerial Photography: 2023

N

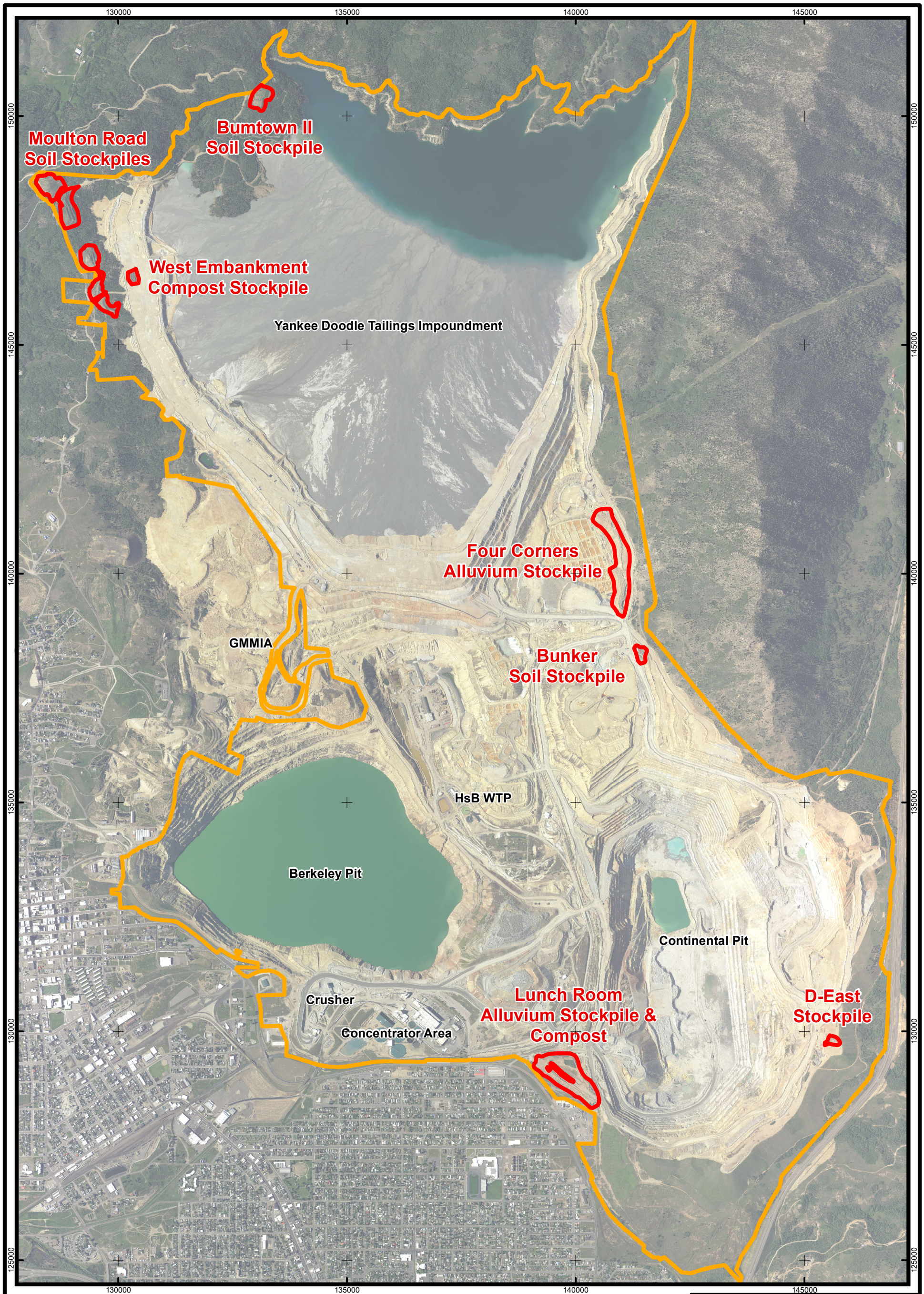
0 700 1,400 2,800
Feet

Montana Resources

Continental Mine
Butte, Montana

Plate II
2023 Disturbance Areas

V:\Projects\Montana_Resources\MR24_AR23_Disturbances.mxd | 1:18,000 | 6/5/2024



Legend

- Permit Boundary
- Reclamation Material Stockpile

0 1,000 2,000 4,000
Feet

Aerial Photography: 7/12/2023

WESTECH ENVIRONMENTAL HELENA-MONTANA

Montana Resources

Continental Mine
Butte, Montana

Plate III

2023 Reclamation Material Stockpile Areas

MR24_AR23_Stockpiles.mxd | 1:24,000 | 6/5/2024

130000
135000
140000
145000
135000
130000
125000

Berkeley Pit
HsB WTP
Continental Pit
Crusher
Concentrator Area
1995
2014
2014
2002
2002
1992, 1996, 2005
1992
1992
2011
2011
2011
2011
2011
2011
2011
2007
2007
2007
2007
2002
2007
1991, 1993
2015
2014
1993, 2004, 2006, 2012
1993, 2004, 2006, 2012
1993, 2004, 2006, 2012
2004
2002, 2012, 2014
2019
2020
2019
2020
1995, 1996
2017
1995, 1996, 2002, 2012

Legend

Permit Boundary
Reclamation - 228 Acres

Aerial Photography: 7/12/2023

0 400 800 1,600
Feet

Montana Resources

Continental Mine
Butte, Montana

Plate IV

Reclaimed Areas

WESTECH ENVIRONMENTAL HELENA-MONTANA

MR24_AR23_Reclamation.mxd | 1:9,600 | 6/5/2024