COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Henderson Mine	**MINE/PROSPECTING ID#:** M-1977-342	**MINERAL:** Molybdenum	**COUNTY:** Clear Creek, Grand
INSPECTION TYPE: Monitoring	**WEATHER:** Clear	**INSP. DATE:** June 25, 2024	**INSP. TIME:** 08:25
OPERATOR: Climax Molybdenum Company	**OPERATOR REPRESENTATIVE:** Geoff Niggeler and Ben Alcox	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $167,995,252.00	
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None	
INSPECTOR(S): Amber M. Gibson Nikie Gagnon	**INSPECTOR'S SIGNATURE:** 	**SIGNATURE DATE:** June 27, 2024	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS---------- N	(FN) FINANCIAL WARRANTY-------- N	(RD) ROADS---------- N
(HB) HYDROLOGIC BALANCE---------- Y	(BG) BACKFILL & GRADING---------- N	(EX) EXPLOSIVES--------- N
(PW) PROCESSING WASTE/TAILING---- Y	(SF) PROCESSING FACILITIES------- Y	(TS) TOPSOIL---------- N
(MP) GENL MINE PLAN COMPLIANCE- N	(FW) FISH & WILDLIFE---------- N	(RV) REVEGETATION---- N
(SM) SIGNS AND MARKERS---------- Y	(SP) STORM WATER MGT PLAN---- N	(RS) RECL PLAN/COMP-- N
(ES) OVERBURDEN/DEV. WASTE--------- N	(SC) EROSION/SEDIMENTATION--- Y	(ST) STIPULATIONS------- N
(AT) ACID OR TOXIC MATERIALS------- Y	(OD) OFF-SITE DAMAGE----------N	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

This inspection was conducted by Amber Gibson and Nikie Gagnon, representing the Division of Reclamation, Mining and Safety (Division). Geoff Niggeler and Ben Alcox were present during the inspection and represented the Operator (Climax Molybdenum- Henderson Operations (Henderson)). The Henderson Mine is located 15 miles south of Parshall in Grand County. This site is a 112d-3 Designated Mining Operation (DMO) permitted for 11,877.5 acres. At the time of the inspection, it was warm and sunny.

The focus of this inspection was the stormwater structures on the mine side of Henderson, and treatment facilities of the URAD water treatment plant.

Support Facilities On-site, Acid And Toxic Materials, and Processing Waste:
The Division observed the exterior and interior facilities at the URAD water treatment plant. At the time of the inspection, sludge was being pumped into Sludge Pond 2, and was drying in Sludge Pond 1. The ponds appeared to be functioning as intended and no structural deficiencies were observed at the time of the inspection (Photo 1).

The internal water, agitation, and settling tanks were operating at the time of the inspection. No issues were observed. The storage tanks for Lime, Flocculant, and Sulfuric Acid were also observed (Photos 2-4). All of the storage tanks had secondary containment measures in place, and no structural deficiencies were observed during the inspection. Some lime that had spilled when the tank was being deposited into by the tank truck was observed along the south side of the road to the plant. The lime was contained by an earthen berm that had a drainage path leading into the containment pond area, and thus was contained on-site.

*For reference of the layout of the URAD features and facilities, please see the copy of the Operator's Figure 2: URAD Water Treatment Plant Stormwater Management Map enclosed with this report.

Signs and Markers:
A mine sign was posted at the entrance of the site in compliance with Rule 3.1.12(1).

Storm Water MGT Plan, Hydrologic Balance, and Sediment Control:
The Division inspected each of the outfall locations at the Mine side of the site. See the Comments and Observations table included in the following pages of this report.

*For reference of the locations of the outfalls around the site, please see the copy of the Operator's Figure 1: Mine Stormwater Management Map enclosed with this report.

Conclusion:
This concludes the Division's Inspection Report; a subset of photographs that were taken during the time of the inspection are included below. If you need additional information or have any questions, please contact me by email at amber.gibson@state.co.us or by telephone at (720) 836-0967.

Inspection Contact Address

Geoff Niggler and Ben Alcox
Climax Molybdenum Company
19302 County Rd. #3
Parshall, CO 80468

Enclosures: *Figure 1: Mine Stormwater Management Map*
Figure 2: URAD Water Treatment Plant Stormwater Management Map

CC: Nikie Gagnon, DRMS
Jared Ebert, DRMS

PHOTOGRAPHS

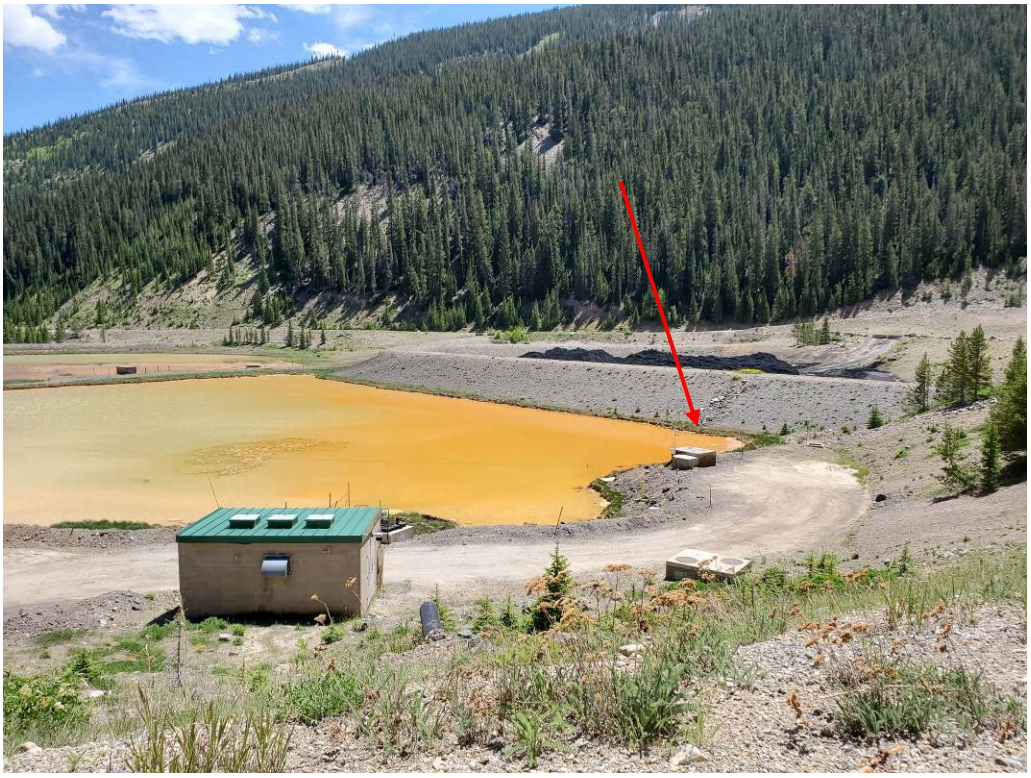

Photo 1: Looking east at external ponds at the URAD water treatment plant. The arrow points to Sludge Pond 1 where sludge was drying at the time of the inspection.

Photo 2: Lime silos located on the south side of the URAD water treatment plant.

Photo 3: Flocculant storage tank located within the URAD water treatment plant.

Photo 4: Insulated Sulfuric Acid tank located outside of the URAD water treatment plant.

Outfall #	Comments/Observations from the June 25, 2024 Inspection
OF-1	Consists of a few rock check-dams, located in the northeast corner of the West Lay-Down Area. Observations: • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • The check dams were dry at the time of the inspection. • No excess sediment accumulation was observed.  **Photo 5:** Looking east at OF-1.
OF-2	Consists of a rock check-dam, located northwest of the Warehouse Lay-Down yard. Observations: • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • The check dams were dry at the time of the inspection. • No excess sediment accumulation was observed.  **Photo 6:** Looking at the drainage basin to the south side of OF-2.

		 **Photo 7:** Looking at the drainage into OF-2 from the north side. Arrow points to the location of OF-2.
OF-3	Consists of a rock check-dam, located northwest of the Warehouse Lay-Down yard. Observations: • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • The check dams were dry at the time of the inspection. • No excess sediment accumulation was observed.	 **Photo 8:** Looking south at the basin preceding OF-3. OF-3 sign and location not pictured. OF-3 located within the western side of the West Fork Clear Creek, along the north side of the current disturbance boundary.

OF-5	Consists of a rock check-dam, located northwest of the Warehouse Lay-Down yard. Observations: • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • The check dams were dry at the time of the inspection. • Excess sediment was observed in the culvert on the south side of OF-5 at both the culvert's inlet and outlet (Photos 10 and 11). The Operator stated that this will be addressed during their upcoming internal storm water maintenance inspection.

Photo 9: Looking north at OF-5.

Photo 10: Outlet of the culvert south of OF-5.

Photo 11: Inlet of the culvert south of OF-5.

OF-6	Southernmost outfall at the former Southwest Energy Yard. Consists of a rock check-dam in the west portion of the old yard area. Observations: • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • The area upslope of the check dam was dry at the time of the inspection. • No excess sediment accumulation was observed.  **Photo 12:** Looking east at OF-6.
OF-7	Consists of a rock check-dam, located northwest of the Warehouse Lay-Down yard. Observations: • Appears to be functioning as intended. • Banks surrounding the check-dam appear to be stable. • Located in an area where snow plows have pushed sediment into the check dam. Due to this, the rip-rap is coated in sediment, but still has plenty of capacity. The Operator stated that during their upcoming internal BMP maintenance, they will clean the sediment out of the check-dam, likely replace the rip rap, and re-stabilize the area. • The OF-7 sign is bent. The Operator stated it will soon be replaced.  **Photo 13:** Looking northwest at OF-7.

OF-8a	Consists of a series of rock check-dams, receiving water from the southern perimeter of the upper yard Warehouse Dock Area and outlets to Butler Gulch. Observations: • Holding water at the time of the inspection. • Appears to be functioning as intended. • Banks surrounding the check-dams appear to be stable. • No excess sediment accumulation was observed.

Photo 14: Looking northwest along the check dams leading to OF-8a.

Photo 15: Looking southeast at OF-8a.

OF-8b	Consists of a series of rock check-dams, receiving water from the Potable Water Storage area. Outlets to Butler Gulch. Observations: • Holding water at the time of the inspection. • Appears to be functioning as intended. • Banks surrounding the check-dams are also rip-rapped in areas and appear to be stable. • No excess sediment accumulation was observed.  **Photo 16:** Looking southwest at OF-8b.
OF-8c	Consists of a series of rock check-dams, downgradient of the southeast corner of the West Lay-Down Yard. Outlets into Butler Gulch. Observations: • The check dams were dry at the time of the inspection. • Appears to be functioning as intended. • Banks surrounding the check-dams appear to be stable. • Straw wattles and rip-rapped dams appear to be in great condition. • No excess sediment accumulation was observed.  **Photo 17:** Looking southwest at the series of check dams leading to OF-8c.

OF-9	Consists of a drainage basin, discharges through pipes from below the southeast corner of the employee parking lot that outlet onto a rip-rapped slope, and finally outfalls into the West Fork Clear Creek. Observations: • Drainage basin holding water at the time of the inspection. • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • No excess sediment accumulation was observed.  **Photo 18:** Rip-rapped drainage basin located upslope and south of OF-9.  **Photo 19:** Circled are two drainage pipes (one box culvert one metal pipe), discharging onto the rip-rapped slope leading to OF-9.

OF-12	Consists of a rip-rapped depression along the perimeter of a bermed flat area north of the seeded waste tailings pile. Located at the north central portion of the Lower Storage Yard (below the former Southwest Energy Yard). Observations: • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • The check dams were dry at the time of the inspection. • No excess sediment accumulation was observed.

Photo 20: Looking north at OF-12.

Photo 21: Looking south, upslope of OF-12 at the reclaimed waste tailings pile. In the foreground is a flat area that has earthen berms around the perimeter, leading to OF-12.

Photo 22: Looking west along one of the perimeter berms. Photo shows evidence of standing water (mudcracks) retained by the berms and leading to OF-12.

<table>
<tr><td>OF-14</td><td>Consists of a rip-rapped depression, located west of the Truck Scale and southwest of OF-7.

Observations:
Appears to be functioning as intended.
The rip-rap appears to be in good condition.
The basin area before the rip-rapped slope was dry at the time of the inspection.
No excess sediment accumulation was observed. 
Photo 23: Looking north-west at OF-14.
 
Photo 24: Looking downslope from OF-14 at Butler Gulch.</td></tr>
<tr><td>OF-15</td><td>Consists of a rip-rapped drainage basin leading to a culvert. OF-15 is located north of the West Fork Clear Creek, and down slope of the Mine entrance road.

Observations:
Appears to be functioning as intended.
The rip-rap appears to be in decent condition. The Operator stated that this basin and the rip-rapped banks may receive maintenance during the upcoming internal storm water maintenance inspection.
The basin was mostly dry at the time of the inspection.
Some sediment was contained within the basin but no excess sediment accumulation was observed.
The Operator stated that they may build up the western portion of the road west of the outfall to encourage more positive drainage into the outfall and way from the bermed portion of the road located north of the creek.</td></tr>
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<tr><td></td><td> 
Photo 25: Looking south at the rip-rapped drainage basin at OF-15.

 
Photo 26: Looking upslope of OF-15 at the road leading to the drainage basin in Photo 25.</td></tr>
<tr><td>OF-17</td><td>Consists of a few rock check-dams. Located southwest of the former Southwest Energy Yard. OF-17 outlets to the No Name Gulch.

Observations:
Appears to be functioning as intended.
The rip-rap and surrounding banks appear to be in good condition.
The check dams contained water at the time inspection, and water was flowing down the No Name Gulch.
No excess sediment accumulation was observed. 

Photo 27: Looking southwest at check dams along No Name Gulch, south of OF-17.</td></tr>
</table>

OF-18

Consists of a box culvert located to the east of the Potable Water Treatment area at the northern-most corner bend in the road.

Observations:

- Appears to be functioning as intended.
- The wattles are in decent condition but will likely be replaced during the Operator's internal storm water maintenance inspection.
- The t-post for the sign was bent and the sign was missing – likely resulting from piled snow from snow plows in the winter. The Operator stated that this will also be addressed during the internal storm water maintenance inspection.
- The area around the box culvert and the drainage path to the culvert were free from obstructions.
- Some sediment has accumulated around the wattles but no excess sediment accumulation was observed.

Photo 28: Looking northeast at the OF-18 box culvert.

Photo 29: Looking into the grate of the box culvert. The culvert is free of obstructions.

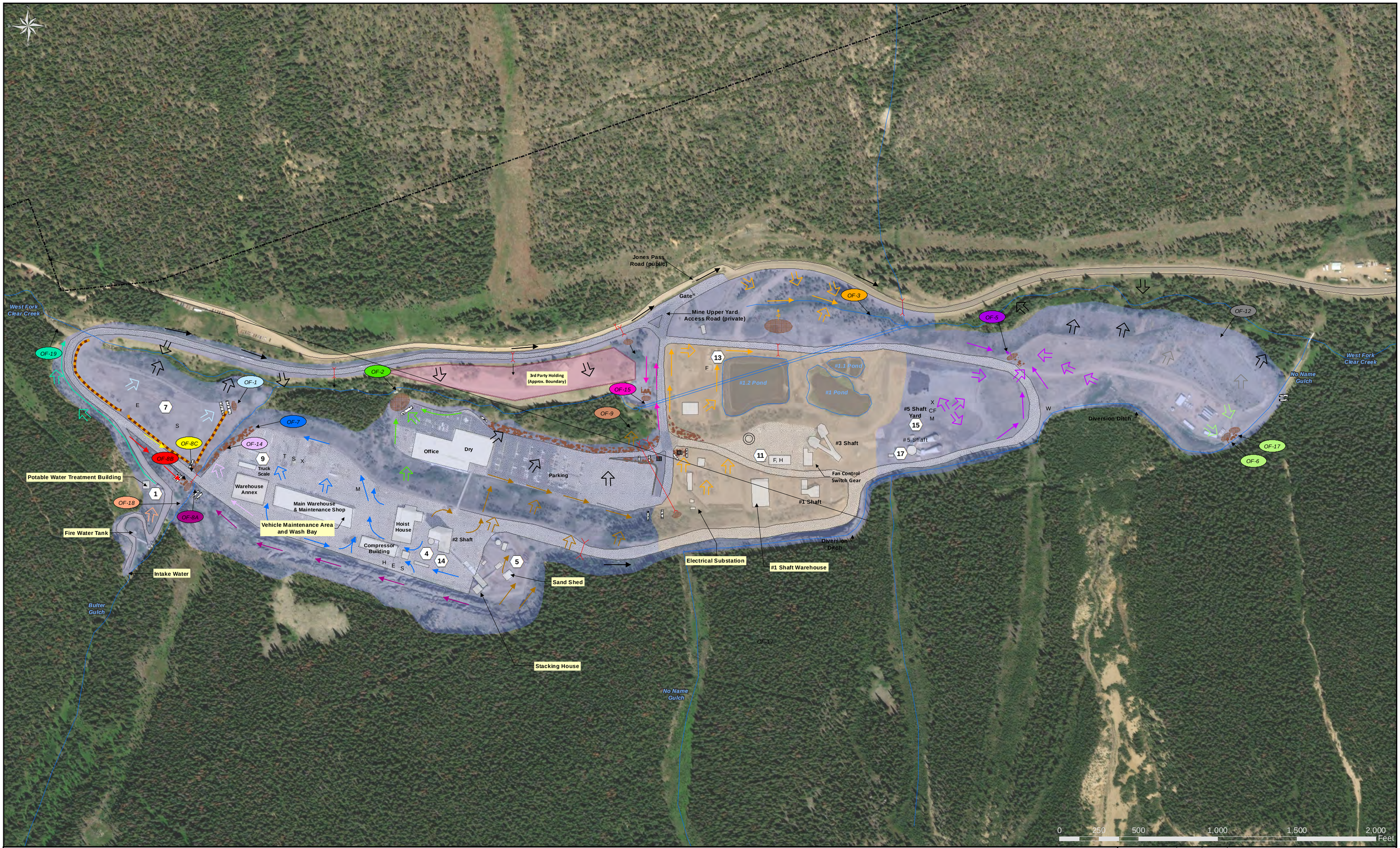
Photo 30: Looking northwest along the drainage path south and west of the Potable Water Storage area.

OF-19	Consists of a rip-rapped channel. OF-19 is the westernmost outfall, and outlets to West Fork Clear Creek. OF-19 is located near the sampling location CC-10. Observations: • Appears to be functioning as intended. • The rip-rap appears to be in good condition. • The ditch leading to the outfall and the rip-rapped channel contained flowing water at the time of the inspection. • No excess sediment accumulation was observed.

Photo 31: Looking north at where the outfall enters West Fork Clear Creek.

Photo 32: Looking south and uphill of OF-19 at the drainage leading to the outfall.

Photo 33: Looking at where the drainage in Photo 32 meets with the armored channel leading to OF-19.



LOCATION MAP

MAP FEATURES

- NPDES Permitted Process Water Area
- Areas of Soil Disturbance (Approximate)
- Impervious Areas
- Rip-Rap Check Dams / Wattles
- Rock BMP
- Sediment Pond
- Cut or Fill Slopes
- Electrical or Telephone Manholes and Drains
- Building Drains
- Area Drains and Culverts
- Sediment Basin & Outfall Chute
- Concentrated Flow Swales & Channels
- Sheet Flow
- OF-4 Stormwater Outfall (Conc. Flow)
- 7 Potential Stormwater Pollutant Source
- Decorative Rock Wall
- Property Boundary
- Earthen Berm
- 3rd Party Holdings

POTENTIAL POLLUTANT SOURCE LOCATIONS

1. Potable Water System
4. Cement Silos and Unloading Area
5. Non-Hazardous Waste Storage
7. West Lay-down Yard
9. Warehouse Docks and Equipment Yard
11. Bulk Oil Storage NW of Shaft #1
13. Lower Yard Fuel Island
14. Staging Area South of #2 Shaft
15. #5 Shaft Temporary Storage Yard
17. Underground Fuel Transfer Station/#5 Shaft Fans and Motors

Refer to the Henderson Mine SWMP for specific PPS and facility descriptions.

MATERIAL STORAGE AREAS

- S - Steel, Pipe, and Metal Stock
- E - Small Equipment, Machine Parts, and Ventilation Equipment
- M - Mobile Equipment (Salvage) Parking
- F - Flammable Materials Storage
- H - Hazardous Materials and Chemicals
- T - Tires
- X - Timber and Wood Products
- CF - Stockpiled Clean Fill Material

REVISION	DATE	AUTHOR
Initial map release.	04/15/2021	MT
Re-Added OF-6 and OF-17. Added OF-18 and OF-19. Updated BMPs.	11/1/2022	MT
Updated flow arrows	12/22/2022	MT

Climax Molybdenum
A Freeport-McMoRan Company
HENDERSON OPERATIONS
1746 County Road
Empire, Colorado 80438

FIGURE 1
MINE STORMWATER MANAGEMENT MAP

Aquionix EHS Services
5545 W. 56th Ave.
Arvada, CO 80002
303-299-7520
www.aquionix.com

DESIGNED BY:
DRAWN BY: MT (Aquionix)
DATE DRAWN: 4/15/2021

SCALE: 1:3,200
DATA FRAME COORD SYSTEM: WGS_1984_Web_Mercator_Auxiliary_Sphere

S:\ArcGIS and AutoCAD files\CMC - Henderson 370\Henderson GIS\mxds\mine\Stormwater

Lower URAD Reservoir

Inactive URAD Mine Areas managed under Inactive URAD Mine SWMP

Woods Creek

Diversion Ditch

Diversion Ditch

J Pond

Precipitation Pond 2

Treatment Pond 1

URAD WTP

U-3

H

Sludge Pond 1

Sludge Pond 2

Diversion Ditch

Inactive URAD Mine Areas managed under Inactive URAD Mine SWMP

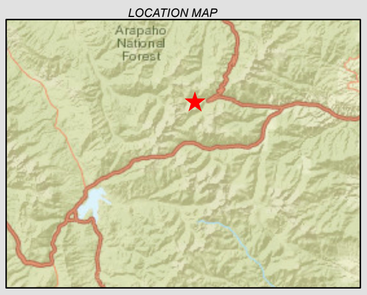
County Road 203 (public access)

Woods Creek

Ruby Creek

0 250 500 1,000 1,500 2,000 Feet

LOCATION MAP



MAP FEATURES

- Inactive URAD Mine Areas
- Surface Stormwater Area Disturbed By WTP Facilities
- Concentrated Surface Flow Direction
- Sheet Surface Flow Direction
- Property Boundary
- River, Stream or Creek
- U-3 Potential Stormwater Pollutant Source
- River, Stream or Creek Underground Pipeline
- Road
- Diversion Ditch

NOTES:
(1) Inactive URAD Mine Areas managed under Inactive URAD Mine Stormwater Management Plan (SWMP)
(2) Underground pipeline locations are approximate.

MATERIAL STORAGE AREAS

H - Hazardous Materials and Chemicals

POTENTIAL POLLUTANT SOURCES

U-3 URAD Water Treatment Plant Area

REVISION	DATE
Initial map release.	04/15/2021

Climax Molybdenum
A Freeport-McMoRan Company
HENDERSON OPERATIONS
1746 County Road
Empire, Colorado 80438

FIGURE 2

URAD WATER TREATMENT PLANT STORMWATER MANAGEMENT MAP

Aquionix EHS Services
5545 W. 56th Ave.
Arvada, CO 80002
303-289-7520
www.aquionix.com

DESIGNED BY:

DRAWN BY: MT (AQUIONIX)

DATE DRAWN: 4/15/2021

SCALE:1:3,000

DATA FRAME COORD. SYSTEM: WGS_1984_Web_Mercator_Auxiliary_Sphere

S:\ArcGIS and AutoCAD files\CMC - Henderson -370\Henderson GIS\mxds\Urad\Stormwater