



**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.

<b>MINE NAME:</b> Climax Mine	<b>MINE/PROSPECTING ID#:</b> M-1977-493	<b>MINERAL:</b> Molybdenum	<b>COUNTY:</b> Summit
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Dustin M. Czaplá	<b>INSP. DATE:</b> February 7, 2018	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Climax Molybdenum Company	<b>OPERATOR REPRESENTATIVE:</b> Ray Lazuk	<b>TYPE OF OPERATION:</b> 112d-3 - Designated Mining Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$78,246,088.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> February 12, 2018	

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

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

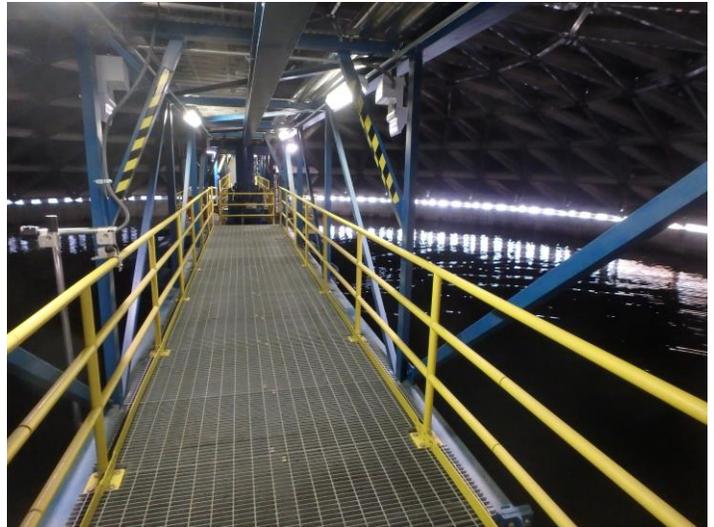
## **OBSERVATIONS**

This was a routine monitoring inspection for the Climax Mine, a 112d-3 hardrock mine operated by the Climax Molybdenum Company. The inspection was conducted by DRMS representative Dustin Czapla. Climax representatives, James Haag and Diana Kelts, guided DRMS during the inspection. Photographs are included with this report in order to illustrate some of the conditions observed. The inspection focused on the following areas:

### **Property Discharge Water Treatment Plant (PDWTP)**

The PDWTP is located below 5 Dam and is intended to remove second stage metals, such as manganese, iron, copper and zinc, prior to discharging excess water into Tenmile Creek. It provides final treatment before affected water leaves the property. The plant has been constructed with adequate secondary containment, in the form of concrete sumps, to contain spills that could occur within the plant. There is an "Events Pond", constructed of concrete, downstream to the west of the PDWTP. The "Events Pond" is constructed with a five million gallon capacity intended to temporarily store any water not meeting discharge requirements. Any water reaching the "Events Pond" can be recycled back to the head of the PDWTP. The "Events Pond" was empty during this inspection. Operation of the PDWTP is automated, but also manned around the clock. Emergency generators are in place in case of power outages. Reagents utilized in the PDWTP include lime, flocculant and sulfuric acid. All chemicals and reagents observed in the PDWTP area were properly stored with adequate secondary containment protections. Containers were clearly labeled. The sulfuric acid is stored in an isolated room in a phenolic lined carbon steel tank, located within an epoxy coated concrete containment area, which is isolated from the rest of the plants containment area. The sulfuric acid truck unloading area has adequate secondary containment in the form of a concrete sump. The facility appears very well kept and maintained.





### **Sludge Densification Plant (SDP)**

The SDP is located on the east side of Tenmile Pond. The SDP uses a similar process as the PDWTP to treat water and create sludge for deposit in tailings storage facilities. The plant has been constructed with adequate secondary containment, in the form of concrete sumps, to contain spills that could occur within the plant. Operation of the SDP is automated and emergency generators are in place in case of power outages. Reagents utilized in the SDP include lime and flocculant. All chemicals and reagents observed in the SDP area were properly stored with adequate secondary containment protections. Containers were clearly labeled. The SDP provides first stage treatment for a significant portion of the mines affected waters. When possible, water is recycled through Robinson Lake for use in the mill facility. The facility appears very well kept and maintained.



### **Mill Reagent Transfer Area**

The reagent transfer area at the mill facility was inspected. The area is constructed with concrete sump to contain spills. All piping is clearly labeled and appeared to be in good working order. Spill kits are located in the area. Alarms systems are incorporated into the plumbing to alert of problems with the system. The area appears very well kept and maintained.



There were no problems or violations noted during this inspection. Overall the site is well maintained and orderly.

Responses to this inspection report should be directed to Dustin Czapla at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 South 3<sup>rd</sup> Street, Room 301, Grand Junction, Colorado 81501, phone number (970) 243-6299.

### **Inspection Contact Address**

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