


**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.

<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> Lucas J. West	<b>INSP. DATE:</b> September 27, 2017	<b>INSP. TIME:</b> 10:00
<b>OPERATOR:</b> Climax Molybdenum Company	<b>OPERATOR REPRESENTATIVE:</b> James Haag, Aaron Hilshorst	<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> October 23, 2017	

**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>Y</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>N</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>	(CI) COMPLETE INSP---- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	(ST) STIPULATIONS----- <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 inspection was conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety. Climax is a 112d-3 Molybdenum mining and milling operation located primarily in Summit County. The site consist of 14,000 permitted acres with approximately 8,000 acres of affected lands. The site is bisected by Colorado State Highway 91 and public access is controlled by a guard station at the main gates. The Division currently holds \$78,246,088.00 in Financial Warranty for the site. Along with Division Staff listed on page one of this report, Aaron Hilshorst and James Haag of Climax Molybdenum were present during the inspection. Two Photos accompany this report to illustrate the current site conditions.

The site was active during the inspection, and the main purpose of this inspection was to discuss and observe the recently discovered leak in the Seepage Return Line from the 5 Dam pup station to the 3 Dam pump station. On approximately September 6, 2017 the Division received notification that a leak in the seepage return line had been discovered. The leak in the line is contained within the larger Mayflower Tailings Storage Facility (TSF) where it is effectively contained. There is no concern of loss of containment from the Tailings Storage Facility at this time. The leak was discovered when the orange colored water was observed pooling in the normally grey colored tailings. Photo One shows the small pool located in the Mayflower TSF. The pool is approximately 1500 Feet away from the tailings dam and does not pose a threat to the stability of the dam itself. The estimated rate of the leak is approximately 200-250 GPM and is being closely monitored by the Operator. As of now the leak is not a major concern as approximately 75% of the flow within the seepage return line is functioning as normal, and small portion that is leaking is contained within the TSF. On site discussions with the Operator included a potential contingency plan that includes opening the ¼ valve in the seepage return line and allowing the entire flow to enter, and be contained within the TSF, however the system will continue to operate as normal until the contingency becomes absolutely necessary. The Operator has been advised that when the contingency becomes necessary and the details of that plan are finalized they will need to be addressed through the Technical Revision Process.

The Division recently approved TR's 25 and 26 which addressed the McNulty Gulch Overburden Storage Facility (OSF) and the Lake Irwin Wetlands Mitigation Project. Both projects have commenced and are currently underway. Vegetation clearing and very minimal topsoil stripping has begun in the McNulty area, and the major earthwork will not commence until spring of 2018. The construction of the Lake Irwin Wetlands area has begun and can be seen in Photo Two. The construction of the Wetlands will be completed in phases that coincide with the phases of the construction of the McNulty OSF. The grading of subsoil in Phase One of the project will be completed in 2017 and the addition of topsoil and vegetation will take place in 2018.

The entire site as a whole is in good condition and no problems or possible violations were observed during this inspection. All responses to this report should be directed to Lucas West at the Colorado Division of Reclamation, Mining and Safety at 1313 Sherman Street, Room 215, Denver, CO 80203, by phone at (970)-243-6368 or by email at [lucas.west@state.co.us](mailto:lucas.west@state.co.us).

## **PHOTOGRAPHS**

Photo One: View Southwest showing the orange colored pool of water that was observed in the Mayflower TSF. The seepage return line from which it is leaking is mostly underground and impossible to repair. Continued monitoring and the development of a contingency is currently taking place.

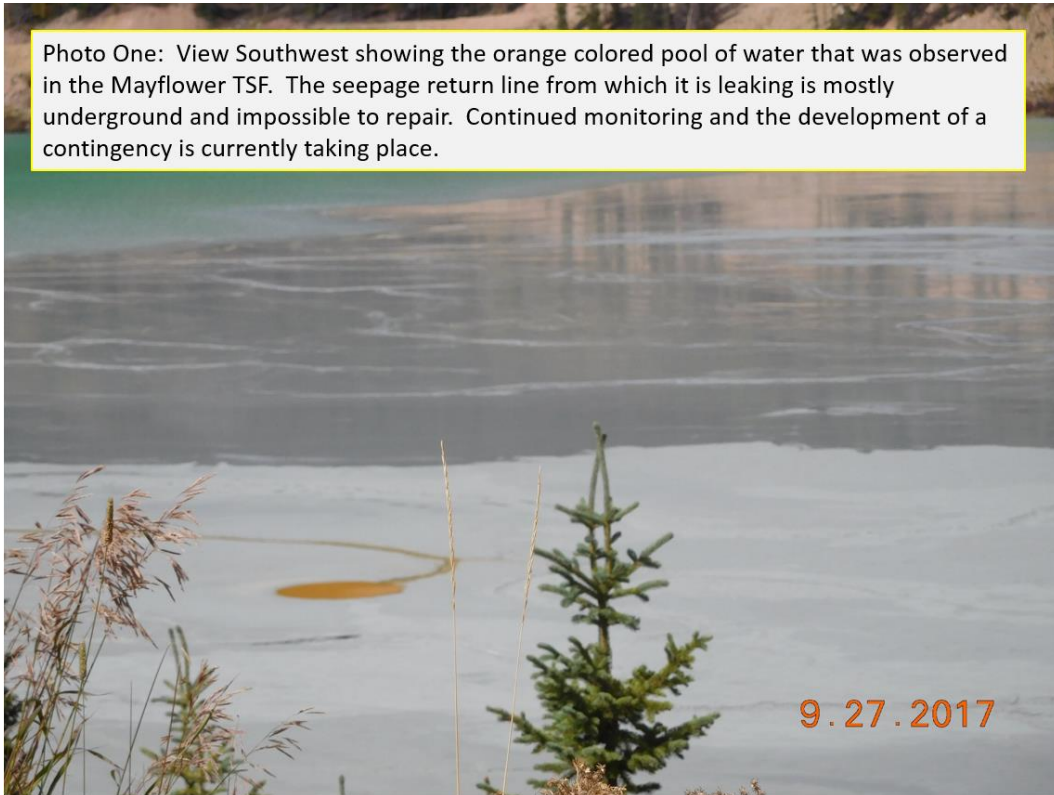


Photo Two: View East showing the progress of Phase One of the Lake Irwin Wetlands Mitigation Project. The grading and earthwork of phase one will be completed in 2017.

**Inspection Contact Address**

Ray Lazuk  
Climax Molybdenum Company  
Highway 91, Fremont Pass  
Climax, CO 80429

Enclosure

CC: Russ Means, Senior Environmental Protection Specialist