




**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> Henderson Mine	<b>MINE/PROSPECTING ID#:</b> M-1977-342	<b>MINERAL:</b> Molybdenum	<b>COUNTY:</b> Clear Creek, Grand
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Stephanie Mitchell	<b>INSP. DATE:</b> August 7, 2019	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Climax Molybdenum Company	<b>OPERATOR REPRESENTATIVE:</b> 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> \$37,993,785.00	
<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> December 10, 2019	

**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>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</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>Y</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**

The Henderson Mill was inspected by Stephanie Mitchell and Peter Hays with the Division of Reclamation, Mining and Safety (Division/DRMS) as part of the Division's monitoring inspection program. Mr. Aaron Hilshorst with Climax Molybdenum - Henderson Operations (Henderson) was present during the inspection.

### **Emergency Cutout Pipeline**

On August 1, 2019 an estimated 10,000 gallons of millwater leaked from the Emergency Cutout Pipeline. The Emergency Cutout (ECO) is part of the tailings delivery system EPF and is an alternative, emergency use pipeline, which can convey tailings to the Henderson Mill tailing storage facility in the event that the tailings delivery line cannot be used. Water was seen flowing from the pipe joint in the ECO just below the splitter box and valve that is used to divert flow from the TDL to the ECO. The water that leaked from the ECO was fully contained in the ditch running along the TDL access road, flowed through the culvert underneath County Road 3 and ultimately ended up in the Henderson Mill TSF.

Hand digging around the pipe joint on the ECO was conducted to investigate the leak. A concrete block was poured around the pipejoint with forms. Once cured the forms will be removed. Henderson Staff will reestablish ditch. Mr. Hilshorst also stated that Henderson is looking into replacing the ECO. Other seals in areas of the ECO are eroding.

### **MLEX-5**

Repairs have been made and appears to be working properly.

### **3-Dam Buttress Project – TR-29**

The 3-Dam Buttress – Stage 1 project approved under TR-29 by the Division on April 4, 2018 is expected to be completed in 2 weeks. 82,000 cubic yards have been hauled so far with 2 more feet to go. All buttress material is placed and instrumentation including two (2) piezometers and two (2) inclinometers will be installed. The surface of the buttress was sprayed with Coherex to prevent wind erosion. The Operator will survey the buttress and produce as-built drawings as required by Rule 7.3.1. The design for Phase 2 of the buttress project is expected to occur over the winter with construction of the Phase 2 occurring next summer.

### **Road Raise Project**

Preparations for road raise include topsoil stockpiled or pushed out of the way. The area is currently closed off. Material for the road raise project is coming from the Ranger Gulch Stockpile.

The 1-Dam Seep Water Collection and Return System Improvements project approved under TR-30 by the Division on November 1, 2018 was observed during the inspection. The culvert extensions, gate

### **3-Dam Seepwater Return Line Clean-Out Port Project – TR-31**

No activity was taking place at this time.

Photographs taken during the inspection are attached. If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at 303.866.3567 x 8180, or by email Stephanie.mitchell@state.co.us.

Inspection Contact Address

Aaron Hilshorst  
Climax Molybdenum Company  
19302 County Rd. #3  
Parshall, CO 80468

Ec: Peter Hays, DRMS

**PHOTOGRAPHS**



Road Raise Project- inactive at time of inspection





Concrete Form around pipe joint- source of leak





ECO pipeline





Leak area- ditch where water was conveyed





3 Dam Buttress Project













MLEX-5 Complete





MLEX-5



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Enclosure

CC: Ec: Peter Hays, DRMS