STATE OF COLORADO

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Henderson Mine, M-1977-342, Inspection Report

Ebert - DNR, Jared <jared.ebert@state.co.us> Thu, May 23, 2024 at 12:09 PM
To: "Hamarat, Miguel" <mhamarat@fmi.com>
Cc: Nikie Gagnon - DNR <nikie.gagnon@state.co.us>, gniggele@fmi.com

Hello Miguel,

Thank you and Geoff for facilitating the inspection yesterday. Attached is the inspection report. Please let me know if you have any questions or concerns. Please let me know if you would like me to send a hard copy of the report.

Thank you,

Jared

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Jared Ebert

Senior Environmental Protection Specialist

COLORADO
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Department of Natural Resources

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INSP-REPORTM_M1977342_NCG_05232024113013.pdf
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COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

MINERALS PROGRAM INSPECTION REPORT
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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:** May 22, 2024	**INSP. TIME:** 09:00
OPERATOR: Climax Molybdenum Company	**OPERATOR REPRESENTATIVE:** Miguel Hamarat and Geoff Niggeler	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $170,904,202.00	
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None	
INSPECTOR(S): Jared Ebert Nikie Gagnon	**INSPECTOR'S SIGNATURE:**	**SIGNATURE DATE:** May 23, 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---- Y
(SM) SIGNS AND MARKERS---------- N	(SP) STORM WATER MGT PLAN---- N	(RS) RECL PLAN/COMP-- N
(ES) OVERBURDEN/DEV. WASTE--------- N	(SC) EROSION/SEDIMENTATION--- N	(ST) STIPULATIONS------- N
(AT) ACID OR TOXIC MATERIALS------- N	(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 was a normal monitoring inspection of the Henderson Mine, Colorado Division of Reclamation, Mining and Safety ("DRMS" or "Division") Permit No. M-1977-342, operated by Climax Molybdenum Company ("CMC"). I, Jared Ebert and Nikie Gagnon with DRMS conducted the inspection. Miguel Hamarat and Geoff Niggeler with CMC hosted the inspection.

Air Resource Protection:
At the time of the inspection, the Operator was applying Coherix dust control surfactant to the surface of 1 Dam. It appears the surface of 3 Dam had already been treated with Coherix.

Hydrologic Balance:
Extraction Well MLEX-2 was observed. This well is part of the Groundwater Extraction System. This well was not operating at the time of the inspection. According to Mr. Niggeler, CMC has portable generators that could be deployed to these wells should they lose power. These wells are routinely monitored and inspected for functionality by CMC staff.

Figure 1. MLEX -2 Extraction Well controls

Figure 2. MLEX - 2 Well

The Ultimate Canal was observed in places. Water was flowing through the canal and no problems were observed.

Processing Waste:

This inspection focused on the Process Water and Tailings Circuit at the Mill as discussed in section 7.2.1 of the Environmental Protection Plan (EPP).

The East Branch Reservoir ("EBR") was observed. At the time of the inspection the Barge Return Pipeline was discharging water into the EBR. The dam embankment of the EBR was covered with a thin layer of snow but overall appeared stable. The EBR was discharging into the drainage that flows to the south east end of the Tailings Storage Facility ("TSF"). The East Branch Pump Station was observed and no problems were noted.

Figure 3. Dam face of EBR

The Tailings Delivery Line ("TDL") and the Emergency Cutout Line was observed on the east side of the Mill. These reinforced concrete pipes appear to be in working order, no problems were noted. We followed the TDL to the TSF where CMC was actively depositing tailings at the crest of 1 Dam. CMC was utilizing spigots to deposit the tailings. The TDL is partially buried in places; where it was exposed, the TDL was visible and no problems were noted.

Figure 4. TDL and Emergency Cutout Line observed east of the Mill.

Figure 5. Active tailings deposition on 1 Dam crest.

The Bear Paw Pipeline was discharging into the TSF.

3 Dam was observed. The face of the dam appeared stable with only minor rills observed. CMC appears to have recently repaired a rill that had formed on the south side of the 3 Dam face. The seep water collection system below 3 Dam was observed, this area appeared in good repair and the discharge point into the 3 Dam Seep Water Pipeline appeared clear of debris and functional.

Figure 6. Top of 3 Dam. Treated for dust control.

Figure 7. Face of 3 Dam and seep water collection area.

1 Dam was observed. Multiple horizontal drains were observed discharging water into the seep water collection system at the toe of the dam. Some standing water was observed in the seep water collection area but it appears the majority of the storage capacity of this area was available. Seep water was observed flowing to the Ute Park Pump Station. Several rills and gullies have formed on the face of 1 Dam. According to Mr. Niggeler, CMC monitors these rills and once they extend through two bench heights, they are repaired. Several larger rills were observed that will likely need to be repaired. On the north end of the TSF, sands that have been cleaned out of the seep water collection system are stockpiled, windrowed and allowed to dry. This material is then use to repair the rills on the face of the dam.

Figure 8. Toe of 1 Dam. Horizontal drains discharging into the seep water collection system.

The emergency diesel back-up pump for the Ute Park Pump Station was observed. The pump is staged and ready for use.

Figure 9. Back-up diesel pump staged and ready for the Ute Park Pump Station.

The Barge Pump Station was observed and it appeared to be functional.

Figure 10. Barge Pump Station

Revegetation:

CMC has established revegetation test plots in two locations on 1 Dam. Two plots were observed on the face of 1 Dam at the north end of the TSF. Three plots were observed on the northwest end of the TSF beach of 1 Dam. CMC is testing various topsoil replacement types, depths and layering schemes to better determine the most effective way to establish vegetation on the TSF upon closure of the operation and to best facilitate TSF long term stability. Vegetation is beginning to establish on the three test plots observed in the beach area.

Figure 11. From the north end of the TSF, 1 Dam looking southeast. Two revegetation test plots visible on the face of 1 Dam.

Figure 12. Revegetation test plots on the beach area on 1 Dam.

Support Facilities On-site:

CMC showed us the location of where to Mill Water Treatment Plant ("Mill WTP") will be located. According to Mr. Hamarat, CMC is waiting for final approval of the discharge permit from the Colorado Department of Public Health and Environment before they initiate construction of the "Mill WTP". As the Mill WTP is an Environmental Protection Facility ("EPF"), the Division will need to conduct phased construction inspections in accordance with Rule 7.4.2. When a construction schedule is defined for the Mill WTP, CMC and DRMS will need to coordinate the timing of these inspections.

Inspection Contact Address
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Enclosure

EC: Geoff Niggeler, CMC
Nikie Gagnon with DRMS