




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: Cresson Project	MINE/PROSPECTING ID#: M-1980-244	MINERAL: Gold	COUNTY: Teller
INSPECTION TYPE: Monitoring	INSPECTOR(S): Patrick Lennberg	INSP. DATE: June 24, 2021	INSP. TIME: 08:30
OPERATOR: Cripple Creek & Victor Gold Mining Company	OPERATOR REPRESENTATIVE: Justin Raglin, Jeana Ratcliff	TYPE OF OPERATION: 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$159,491,188.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: July 22, 2021	

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>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</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>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>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

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 Cresson Project (Permit No. M-1980-244) conducted by Patrick Lennberg with Russ Means and Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). The Division was accompanied by Justin Raglin and Jeana Ratcliff and others during the inspection. This is a 112d-3 Designated Mining Operation (DMO) permitted for 6,007 acres to mine and process gold ore. The site is located between the towns of Cripple Creek and Victor in Teller County. The approved post-mining land use is a combination of rangeland and wildlife habitat. Photos 1-24 taken during the inspection are included with this report.

This inspection included the following facilities and areas:

- Carlton Tunnel
- Arequa Gulch CRMW-5 Series Monitoring Wells
- Squaw Gulch Valley Leach Facility (VLF2) Overview
- VLF2 Edge of Liner and Leak Detection Sump 4
- Schist Island Pit and Backfill Area
- and Valley Leach Facility 1 (VLF1) 10,400' Washout

Carlton Tunnel

The Division inspected the Carlton Tunnel and associated ponds. The tunnel was constructed between 1939 and 1941 to lower the groundwater level within the mining district to make mining in the district easier. A recent collapse near the tunnel entrance appeared stable. The tunnel empties into a collection pond which then in turn is routed to five sedimentation ponds. The sedimentation ponds are cleaned out every three years or so depending on field conditions. The ponds were last cleaned out in 2019. Sediment from the clean out is stored in a fenced off area located approximately 300 feet south of the main tunnel. There are two springs located at the toe of slope with Shelf Road (County Road 88) and they are named the Fourmile Creek Spring #1 and #2. Fourmile Creek Spring #1 expresses where the Carlton Tunnel flow is discharging and routed under Shelf Road. Spring #2 expresses upgradient of #1 and flows along Shelf road for 200-300 feet before crossing under the road. Each spring has a flume to measure flow.

At the time of this inspection the operator was in the final stages of reviewing the survey information for defining the permit boundary around the sedimentation storage area.

Arequa Gulch CRMW-5 Series Monitoring Wells

The Division inspected the CRMW-5 series monitoring wells in Arequa Gulch as possible future proposed points of compliance. The area consists of four monitoring wells located in close proximity to one another and screened at varying depths. Monitoring Well 5A is the deepest and CRMW-5D is the shallowest. All wells exceeded the Table Value Standard for Fluoride in the 1st quarter 2021. Additionally, CRMW-5A has seen an increase in Uranium over time. Located upgradient of the monitoring wells is the surface water sampling location AG 2.0. A flume is located at the sampling location to measure flow during sampling.

ARD-2 Offices

The Division went to the ARD-2 Offices where Dylan Noble displayed the current water levels of the various ponds, piezometers, and wells of the VLF's using the remote viewer that the mine uses to track levels across the site. Information displayed by the remote viewer is archived approximately every 15 seconds. This data allows the mine to track and predict water balance needs and identify potential issues before they become critical.

Squaw Gulch Valley Leach Facility (VLF2) Overview

The Division observed VLF2 area from near the Brahma Warehouse. The operation is currently placing lifts, 10,050 foot level, with run of mine material mixed with cement material, which is dispensed directly into the truck beds. Additionally, crushed material is also being placed in lifts. The Division inspected active leaching surfaces, 10,000 foot level, on the SGVLF. The operation is required to minimize ponding of leaching solution to less than 3 feet by 3 feet in area. This is to prevent the ponds from being a wildlife attractant. Active leaching areas appeared to be well-ripped to minimize ponding. No ponding was observed.

VLF2 Edge of Liner and Leak Detection Sump 4

The Division inspected a portion of the VLF2 Phase 2B liner to evaluate actions taken to address questions during the May 2021 inspection. During the May inspection the edge of liner markers appeared to be improperly positioned and there was a concern that ore material and possibly solution, during a weather event, may be able to leave the liner. Since the May inspection a survey was performed to verify the correct placement of the edge of liner signs, all signs were in the correct position. A berm was constructed near the edge of liner as a physical barrier to stop material from going off liner. In conjunction with the berm a compacted trench on the leaching side of the berm was installed to direct any surface runoff away from the edge of liner and back towards the lined area.

The Division inspected the Leak Detection Sump #4, this sump is scheduled to begin operation when leaching begins on the 10,100 foot level estimated to start sometime between September and November. The sump has no ladder on the inside to discourage unauthorized entry. The lid is made of fiberglass material which makes it lighter so one person can remove it for inspection. The Division re-iterated its concern of lids on other sumps allowing precipitation from outside migrating inside the sump making it difficult to determine if the sump is collecting outside water or solution water. The fiberglass lids may be a possible solution to those other leaking lids.

Schist Island Pit and Backfill Area Overlook

The Division observed the ongoing mining activities in the Schist Island Pit area. Mining activities in the area are scheduled to be completed in the next month, end of July or early August. Backfilling is tentatively scheduled to begin in late August in accordance with AM-13.

Valley Leach Facility 1 (VLF1) 10,400' Washout

The Division observed the washout on the 10,400 foot level of VLF1. The washout was caused by a plug failure on a 4-inch plastic pipe. The plug was facing down into the ore material and thus was not easily identifiable.

The approximately 700 gallons of solution escaped from the failed plug which in turn washed material downslope to the 10,300 foot level. The scarp created is approximately 10-15 feet across on the surface and 10 feet deep from the surface. The scarp appears to be stable. The operator is in the process of scheduling to repair the scarp and move the material back to the 10,400 foot level. The plugs will no longer be used to repair the line. Moving forward the operator will fuse/weld the pipe back together once the failed area is removed.

Inspection Contact Address

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PHOTOGRAPHS



Photo 1: Permit boundary sign at Carlton Tunnel Area



Photo 2: Carlton Tunnel entrance/exit



Photo 3: Initial pond for water exiting the tunnel looking southwest



Photo 4: The lined channel coming from the initial holding pond to the sedimentation ponds, flow is towards viewer



Photo 5: The first of five sedimentation cells, flow away from viewer



Photo 6: Flow recording station downgradient of last sedimentation cell



Photo 7: Sediment removed from the last clean out of cells in 2019



Photo 8: Flume to measure flow from Fourmile Spring #2, downhill from Shelf Road



Photo 9: The expression of Fourmile Spring #2 is to the center right of the picture, the trucks are located where the spring is routed under Shelf Road where the flume is located



Photo 10: The flume is located at the discharge for Fourmile Spring #1 and the other discharge is from the Carlton Tunnel after it has gone through the sedimentation ponds



Photo 11: CRMW-5A (center), CRMW-5B (right) and CRMW-5D (left)



Photo 12: CRMW-5A (left), CRMW-5B (center) and CRMW-5C (right)



Photo 13: AG 2.0 surface water sampling location and flume



Photo 14: VLF2 current dumping area



Photo 15: VLF2 area being actively leached, arrow indicates the location of SG LDS4



Photo 16: VLF2 SG LDS4



Photo 17: VLF2 SG LDS4, inside



Photo 18: VLF2 Phase 2B edge of liner area, looking east



Photo 19: VLF2 Phase 2B edge of liner area, looking west



Photo 20: Berm and compacted trench to help prevent material and solution from migrating off liner



Photo 21: Continued mining operation at Schist Island Pit



Photo 22: Washout area on the 10,400 foot level looking down to the 10,300 foot level



Photo 23: Scarp created by the washout area on the 10,400 foot level



Photo 24: Typical plug that failed, all plugs are gradually being cut out and replaced by fusion welds