



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.

MINE NAME: Cresson Project	MINE/PROSPECTING ID#: M-1980-244	MINERAL: Gold	COUNTY: Teller
INSPECTION TYPE: Monitoring	INSPECTOR(S): Timothy A. Cazier	INSP. DATE: May 23, 2018	INSP. TIME: 10:00
OPERATOR: Cripple Creek & Victor Gold Mining Company	OPERATOR REPRESENTATIVE: Justin Bills	TYPE OF OPERATION: 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$208,491,188.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: September 5, 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>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>Y</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>Y</u>
(SM) SIGNS AND MARKERS----- <u>N</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>Y</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 Division conducted a monitoring inspection of the site on May 23, 2018. Ms. Meg Burt and Mr. Justin Bills represented CC&V during the inspection. Tim Cazier and Mr. Tony Waldron represented the Division. The planned inspection agenda included the following facilities and areas:

- High Grade Mill (HGM);
- Squaw Gulch Valley Leach Facility (SGVLF, a.k.a. VLF 2) slide area;
- WHEX Pit - backfill;
- Grassy Valley – monitoring well locations
- Moffat Tunnel;
- South Cresson Pit area.

Site Inspection:

High Grade Mill: Mr. Dave Rigsby accompanied the Division and CC&V Environmental Department representatives on the mill exterior walk-around inspection. The purpose was to perform a visual inspection for leaks, spills and secondary containment problems. Both the east and west sides of the mill exterior were inspected, as well as the area around the concentrate storage facility (Con Barn). No problems were observed. Mr. Rigsby stated the vat leach circuit on the west side of the HGM was still offline (since around February 18, 2018).

Arequa Gulch Valley Leach Facility: En route to VLF 2, the Division noted misters were actively spraying process solution on VLF 1. CC&V representatives stated the mine was using the misters to increase evaporation, reducing the amount of water in the system in preparation for the upcoming rainy season. **The Division requested more information on the use of the misters and that going forward the mine notify the Division when the misters are going to be actively used as we occasionally get calls asking about the safety of using misters with process solution.**

Squaw Gulch Valley Leach Facility (VLF 2) Slide Area: Mr. Laurin Colby and a representative from Ames Construction accompanied the Division and CC&V Environmental Department representatives to the VLF 2 slide area between the 9850 and 9650 benches. Ames construction had cleared the DCF off the extent of the damaged geomembrane plus two geomembrane panel widths on either side of the torn liner (**Photo 1**) below the 9750 bench (**Photo 2**). The geomembrane had been cut to remove the damaged liner and the edges of the remaining geomembrane had been purposely turned up (**Photo 3**) to prevent runoff from above the tear potentially eroding the soil liner fill ("clay" liner) downgradient. The Division was satisfied with the approach taken to determine the extent the damaged liner and discussed the path forward for repair and the required recertification.

WHEX Pit: The Division was accompanied by Mr. Brian Crawford to observe the progress in backfilling the WHEX Pit. The overlook on CR 82 was used for observation. WHEX Pit backfill had begun from the south end (**Photo 4**).

Grassy Valley – monitoring well locations & ECOSA Seep: Mr. Ron Parrat accompanied the Division and Mr. Bills to Grassy Valley to preview the proposed new Grassy Valley monitoring well requested by the Division for the purpose of investigating potential impact from the ECOSA seep (first identified in 2017). Mr. Cazier collected locations of the proposed monitoring well, the existing waterline and the surveyed property boundary using a

hand held GPS unit (Trimble Juno 3B). The resulting data is shown on the enclosed post inspection map. Mr. Parrat guided the group to the ECOSA seep to help gage the perspective and gradient between the seep and the proposed monitoring well location. The seep pond had some water (**Photo 5**), but there was no inflow observed. The Division concurred the proposed monitoring well location should be adequate for the purpose of investigating potential impact from the ECOSA seep.

Moffat Tunnel: The Division has received complaints regarding potential impacts to seepage in the Moffat Tunnel partially based on the VLF 2 liner damage (which the Division has no evidence of active leaching in the vicinity of, or upgradient of the compromised liner). The Division is also aware of the legal issue regarding right of entry to the tunnel between some of the complainants and CC&V. The legal status at the time of the inspection prevented entry to the area. The Division went to the tunnel opening unaccompanied by CC&V personnel to observe the status of the adit door/closure. The door appeared secure at the time of the inspection (**Photo 6**). However, there was evidence of the door having been cut with a torch and re-welded likely several times. A six to eight inch diameter hole was observed cut into the lower right corner of the door, presumably to allow water from the tunnel to drain out. No evidence of active discharge from the tunnel was observed.

South Cresson Pit area: Mr. Brian Crawford accompanied the Division, Mr. Bills and Ms. Katie Dehlin (CC&V Environmental Department) to developing the South Cresson pit (**Photo 7**). Mr. Crawford stated the typical shot is 20 feet deep with 175 to 200 holes.

On Site Meetings: Mr. Mike Schaffner joined Ms. Burt, Mr. Bills and the Division for the close-out meeting in which the following items were discussed:

- a) VLF 2 Liner Repair – Ms. Burt committed CC&V to providing weekly update on the liner repair progress.
- b) Division / CC&V meetings – CC&V would like regular meetings with Division staff to discuss ongoing changes and activities at the mine in order to determine what actions might be required from a Division permitting perspective. We agreed on bi-annual meetings with the first to occur in late August 2018 (such a meeting occurred on 8/23/18).
- c) Technical Revisions:
 - i. CC&V noted responses to the Division's adequacy comments for TR-103 were in process,
 - ii. CC&V committed to submitting a request to extend the decision date for TR-101,
 - iii. CC&V indicated Black Hills Energy was planning to move a powerline in the vicinity of the mine. The Division stated a TR was not necessary as the move was not related to the mine activity,
 - iv. CC&V plans to recirculate strip solution in the ADRs. The Division stated a TR was not necessary as it does not pose a significant change to the mine plan or require any additional secondary containment of significant modification to an EPF,
 - v. CC&V agreed to provide the Division with "talking points" on the use of misters on the VLFs (e.g., purpose, restrictions – such as high winds, process solution fate and transport above ground).

Please contact Tim Cazier (303-866-3567, ext. 8169) if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. Extent of VLF 2 liner damage.



Photo 2. Extent of VLF 2 liner damage, zoomed in.

PHOTOGRAPHS (cont.)



Photo 3. Turned up geomembrane.

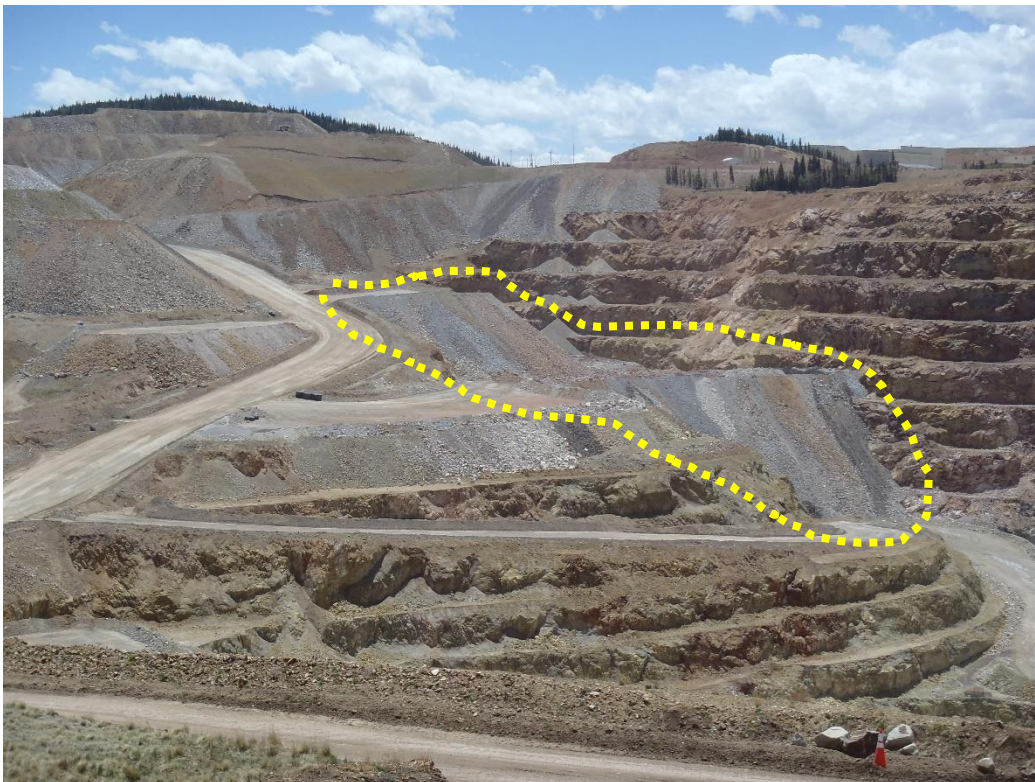


Photo 4. WHEX Pit backfill.

PHOTOGRAPHS (cont.)



Photo 5. ECOSA seep pond (note lack of inflow).

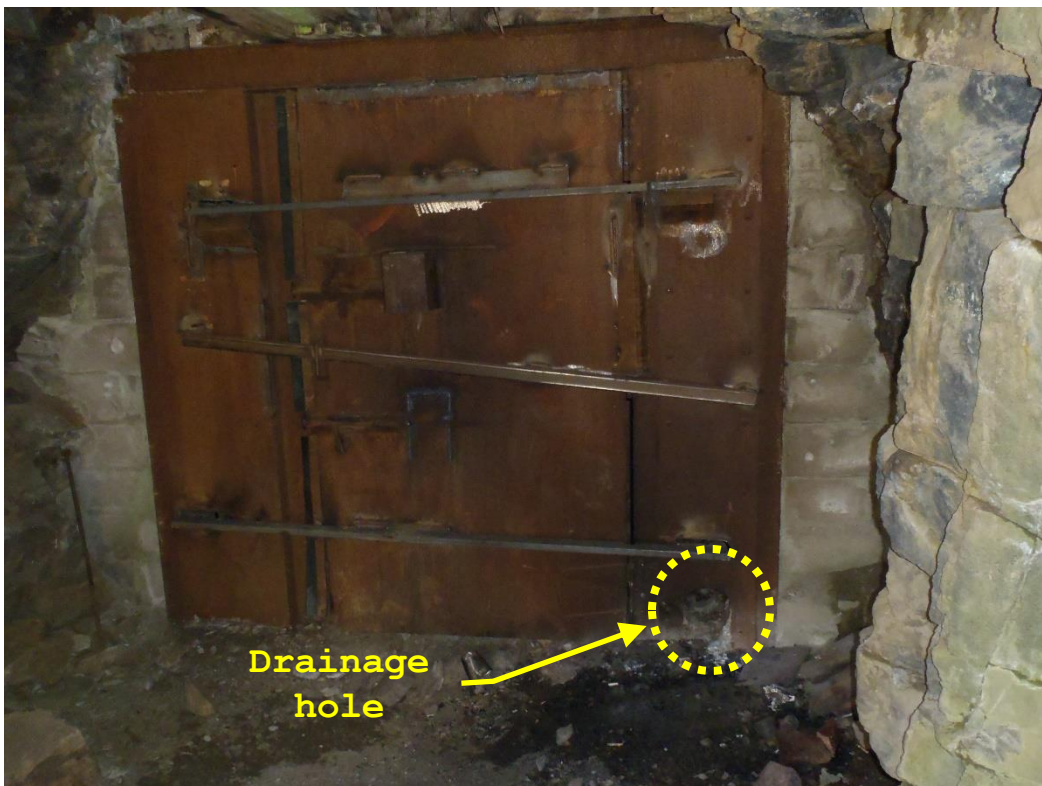


Photo 6. Moffat tunnel closure door (note lack of discharge).

PHOTOGRAPHS (cont.)



Photo 7. Developing South Cresson Pit (looking SE, note blast hole patten on right).

Inspection Contact Address

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EC: Michael Cunningham, DRMS
Elliott Russell, DRMS
Amy Eschberger, DRMS
Meg Burt, CC&V
Justin Bills, CC&V
DRMS file

M-1980-244 Post Inspection May 2018 Map

GPS data collected with Juno 3B on multiple occasions

Legend

- AM-11 Boundary
- ECOSA Seep
- OSABH-14
- Property Line
- Proposed GVMW 25 1A
- Seep Pond
- Seep Trace
- Water Pipeline

