COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
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:** September 16, 2015	**INSP. TIME:** 07:15
OPERATOR: Cripple Creek & Victor Gold Mining Company	**OPERATOR REPRESENTATIVE:** Chris Hanks & Meg Burt	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	

REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $173,434,420.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Clear	**INSPECTOR'S SIGNATURE:**	**SIGNATURE DATE:** November 17, 2015

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Support Facilities On-site

PROBLEM/POSSIBLE VIOLATION: Problem: Excessive vibration caused by the drum agglomerator was observed in the high grade mill. The Division is concerned with potential impacts to the mill foundation, underlying liner, and VLF slope stability.

CORRECTIVE ACTIONS: Provide a report addressing the following: 1) What is the potential for and impact on the mill (primarily with respect to impacted water containment and foundation cracking) from the excessive vibration? 2) What is the potential impact on the underlying liner with respect to rubbing caused by the excessive vibration? 3) What is the potential impact of the excessive vibration on the slope stability of the adjacent VLFs (primarily the Arequa VLF at this time)? 4) How does the mine intend to monitor potential impacts and assess the severity of the potential impact(s) on the aforementioned facilities?

CORRECTIVE ACTION DUE DATE: 1/19/16

OBSERVATIONS

The Division conducted a monitoring inspection of the site on September 16, 2015. Ms. Meg Burt and Mr. Chris Hanks represented the Operator during various parts of the inspection. Tim Cazier represented the Division. The following facilities were inspected during this site visit:

- Squaw Gulch Underdrain Ponds,
- Arequa Gulch Valley Leach Facility (AGVLF) - solution ponding,
- Chicago Tunnel – addressed in a separate inspection report under M-1988-026,
- Proposed Squaw Gulch substation location,
- Appurtenant Environmental Protection Facilities (EPFs):
    - New High Grade Mill (Tony Waldron, Wally Erickson, Amy Eschberger and Elliott Russell from the Division were present for the mill inspection),

On Site Meetings:

Meeting I: Mr. Laurin Colby (CC&V) provided some background, and explanation for and proposed mitigation to address the observed solution ponding on the AGVLF (cited as problems related to wildlife attraction and slope stability in the Division's September 1, 2015 aerial inspection report). High rainfall in May 2015 (~5 inches) and open headers on the pad (due to plugging) led CC&V to apply methods to evaporate barren solution on the AGVLF to control the water balance. (*It should be noted that CC&V did notify the Division of their intent to evaporate solution prior to implementing it*). The evaporation of solution on the VLF surface caused precipitates to coat the pad surface making it essentially impermeable. Mr. Colby stated the mine was re-ripping the surface of the pad to enable infiltration of barren solution with the intent to be free of solution ponding on the pad by the end of September 2015. Mr. Colby also addressed the Division's other concern with respect to slope geotechnical slope stability. As the pad surface was "sealed" by the aforementioned precipitates, that there was no saturation of pad material that might lead to slope instability. The mine was in the process of responding to the Division's corrective actions (ponding solution and slope stability) in writing. The Division received adequate responses to both on 9/17/15.

Meeting II: Mr. Doug Livermore (CC&V) provided some background, and explanation for and proposed mitigation to address the observed potentially impacted water in the SGVLF PSSA (cited as problems related to wildlife attraction and slope stability in the Division's September 1, 2015 aerial inspection report). Higher than average rainfall contributed to what was to be a temporary condition, but with a higher water volume due to the excessive rainfall. Mr. Livermore indicated AMEC/Foster Wheeler (CC&V engineering consultant) was performing stability checks and that the movement of drain cover fill (DCF) was due to erosion (from the high rainfall) an not due to sloughing. The proposed mitigation included inspection of the exposed geomembrane, repair and recertification as necessary to ensure liner integrity. The ponding issue mitigation plan was to load the ponded area with a mixture of ore and DCF. With respect to wildlife impact, Mr. Livermore stated mine personnel had not observed any wildlife in the PSSA to date. This specialist stated the Division would require a contingency wildlife protection plan in the event that any wildlife were to be observed in the PSSA. Adequate corrective action responses were received by the Division for both the wildlife and slope stability concerns on 10/16/2015.

Meeting II: Mr. Don Rodabough (CC&V) provided an overview of the high grade mill to the Division representatives. Mr. Rodabough noted the mine was experiencing excessive vibration from the drum

agglomerator (see **Photo 1**) and that they are evaluating options. The Division representatives toured the mill following the overview presentation. The Division experienced the excessive vibration during the mill tour and has concerns related to the long term impact to the mill and the platform and liner on which it has been constructed as it is an environmental protection facility (EPF). The Division pointed out concerns related to the vibration and its potential impact on the 100 plus feet of structural backfill as part of the adequacy review process during Amendment 10. The Division's concerns are summarized as follows:

1) What is the potential for and impact on the mill (primarily with respect to impacted water containment and foundation cracking) from the excessive vibration?
2) What is the potential impact on the underlying liner with respect to rubbing caused by the excessive vibration?
3) What is the potential impact of the excessive vibration on the slope stability of the adjacent VLFs (primarily the Arequa VLF at this time)?
4) How does the mine intend to monitor potential impacts and assess the severity of the potential impact(s) on the aforementioned facilities?

For the purpose of tracking, **this is cited as a problem on page 1 of this report.** No other concerns or problems were observed with respect to the mill.

Squaw Gulch Underdrain Pond Inspection:
Mr. Hanks pointed out the mine is beginning to excavate the area for the proposed sump at the toe of the SGVLF toe berm (see **Photo 2**). The liner was expected to be installed prior to the next inspection. The proposed substation location was visited. It is at the bottom of Squaw Gulch where it intersects Shelf Road. It was undisturbed at the time of the inspection (see **Photo 3**).

AGVLF Inspection:
This specialist was taken to the top of the AGVLF pad to observe the mitigation efforts in progress to re-establish infiltration of applied barren solution on the pad. **Photo 4** shows where the pad had been ripped to break up the precipitate "seal" (foreground) in contrast to the area beyond that had not yet been ripped and where ponded water was observed.
PSSA Inspection:
This specialist was taken to the top of the southeast end of the PSSA to observe the eroded DCF on the northeast end of the certified PSSA. **Photo 5** shows the eroded DCF. The ponded water in the bottom of the PSSA is visible in the foreground of **Photo 5**.

Water levels:
Water levels were not recorded during this inspection
Summary:
The Division identified some concerns related to the observed excessive vibration associated with the drum agglomerator in the new high grade mill. The Operator is required to address these concerns by the corrective action due date on page 1 of this report.

PHOTOGRAPHS

Photo 1. High grade mill drum agglomerator.

Photo 2. Proposed underdrain sump at the toe of the SGVLF toe berm (looking east).

PHOTOGRAPHS (cont.)

Photo 3. Currently undisturbed proposed substation location (looking SW towards Shelf Road).

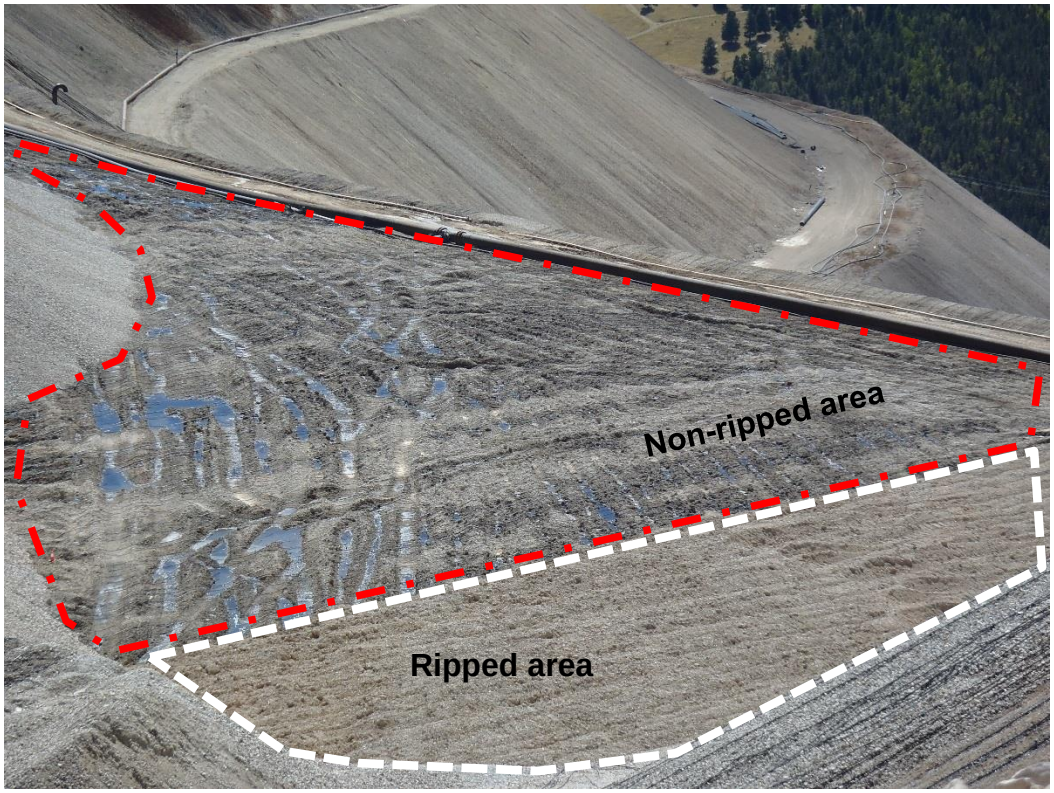

Photo 4. AGVLF pad infiltration mitigation – ripped vs non-ripped (looking east).

PHOTOGRAPHS (cont.)

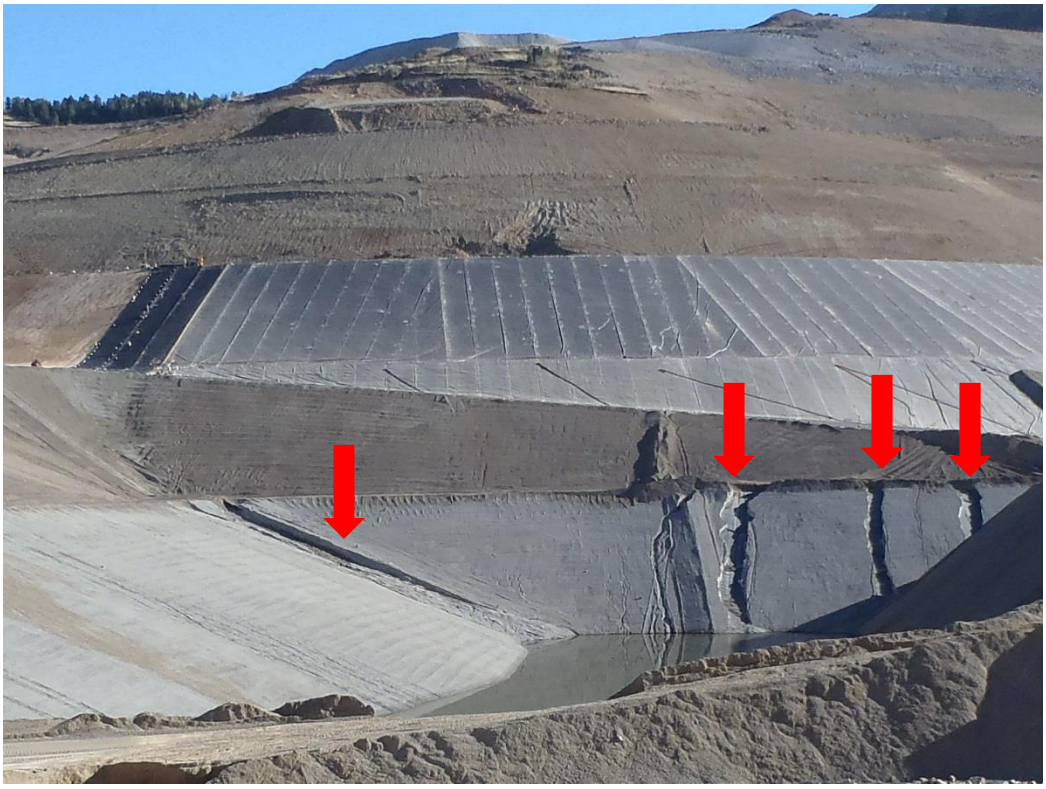

Photo 5. Eroded DCF and ponded water in SGVLF PSSA (looking NE).

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS---------- N	**(FN) FINANCIAL WARRANTY-------- N**	**(RD) ROADS---------- Y**
(HB) HYDROLOGIC BALANCE---------- N	**(BG) BACKFILL & GRADING---------- N**	**(EX) EXPLOSIVES--------- N**
(PW) PROCESSING WASTE/TAILING---- Y	**(SF) PROCESSING FACILITIES------- PB**	**(TS) TOPSOIL---------- N**
(MP) GENL MINE PLAN COMPLIANCE- Y	**(FW) FISH & WILDLIFE---------- Y**	**(RV) REVEGETATION---- N**
(SM) SIGNS AND MARKERS---------- N	**(SW) STORM WATER MGT PLAN---- N**	**(CI) COMPLETE INSP---- N**
(ES) OVERBURDEN/DEV. WASTE--------- N	**(SC) EROSION/SEDIMENTATION--- Y**	**(RS) RECL PLAN/COMP-- N**
(AT) ACID OR TOXIC MATERIALS------- Y	**(OD) OFF-SITE DAMAGE---------- Y**	**(ST) STIPULATIONS------- N**

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

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