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 Cazier, P.E.	**INSP. DATE:** September 15, 2020	**INSP. TIME:** 09:30
OPERATOR: Cripple Creek & Victor Gold Mining Company	**OPERATOR REPRESENTATIVE:** Jeana Ratcliff	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	

REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $209,491,188.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Clear	**INSPECTOR'S SIGNATURE:**	**SIGNATURE DATE:** November 18, 2020

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

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

OBSERVATIONS

Tim Cazier (DRMS) conducted a regular monitoring inspection of the site on Tuesday, September 15, 2020. Ms. Jeana Ratcliff represented CC&V for the duration of the inspection. The planned inspection agenda included the following facilities and areas:

- SGVLF/VLF2 Water levels & Leak Detection sumps;
- AGVLF/VLF1
- Off liner dual containment process solution pipe
- Assay/Process Lab
- High Grade Mill (HGM);
- Squaw Gulch Valley Leach Facility (SGVLF, a.k.a. VLF2) Phase 2 Construction;
- South ECOSA Reclamation;
- EMP 17A;
- Blasting Logs.

Due to COVID-19 protocols, DRMS staff are currently required to perform inspections in separate vehicles from site Operators.

SGVLF/VLF2 Water levels & Leak Detection sumps: The high volume solution collection system (HVSCS) water levels in the VLF2 pregnant solution storage area (PSSA) and the three leak detection sumps were checked for compliance with the permit. HVSCS water levels in the PSSA are to be less than 80 percent storage capacity. Sustained conditions were the water levels are above this limit are to be reported to the DRMS. Water levels were checked in all four riser pipes (all between 18.1 and 19.2 feet) as well as the piezometer (outside the influence from the draw down due to pumping in the risers) where the water level was at 36.3 feet. The 80% level is at 94 feet. The water levels in the low volume solution collection system were also checked. The water levels in the two sumps were observed to be at 10.8 and 9.3 inches, well below the maximum allowed 24 inches.

All three of the VLF2 Leak Detection System (LDS) sumps were inspected. All the sumps were found to be dry (see **Photo 1**). Subsequent to the DRMS' October inspection of the VLF 1 LDS sumps, this inspector was reminded of the buckets installed in those sumps to aid in collecting potential leak water. None of the three VLF 2 sumps had buckets suspended below the LDS pipe discharge points in their respective sumps. The DRMS recommends buckets be installed in the VLF 2 sumps in a fashion similar to those associated with VLF 1 sumps.

Arequa Gulch Valley Leach Facility (VLF 1): Messrs. Dylan Noble and Laurin Colby accompanied the DRMS to VLF 1. VLF 1 was checked for solution ponding limits based on the approved wildlife protection plan limiting ponding to areas less than 3 feet by 3 feet. Observations of the 10,200 level showed some areas that appeared to likely be exceeding the 3' x 3' limit (see **Photo 2**), but otherwise appeared to be well ripped to enhance infiltration and reduce ponding. Mr. Colby contacted CC&V Operations to coordinate mitigation. The 10,300 level also appeared well ripped. However, some maintenance was being performed at the time this level was observed. The maintenance required the distribution pipe be flushed, resulting in temporary ponding according to Mr. Colby (see **Photo 3**). The 10,400 level was observed to be well-ripped and no ponding was observed on this level (see **Photo 4**).

HVSCS and LVSCS water levels were not checked on VLF 1.

Off liner dual containment process solution pipe: The header pipe between VLF 1 and VLF 2 crosses a short unlined area (see **Photo 5**). This short segment has a dual pipe to capture and divert any leaking solution onto the lined area. No signs of leakage were observed in the dual pipe area.

Assay/Process Lab: Messrs. Dylan Noble and Tim Lamere accompanied the DRMS on the Carlton Assay/Process Lab exterior walk-around inspection. The purpose was to perform a visual inspection for leaks, spills and secondary containment problems. CC&V is considered a large quantity generator of lead waste. A Clean Harbors roll-off container was observed on the south side of the building for temporary storage of this waste (see **Photo 6**). Site representatives stated Clean Harbors is on a 60-day cycle for transporting this material off-site. Multiple containers ranging from 5-gallon buckets to 55-gallon drums were observed (see **Photo 7**) outside the building. All appeared to be sealed and labeled. Super sacks containing spent carbon were observed on the northeast corner of the building (see **Photo 8**). Stormwater controls and piping were observed directing runoff towards the VLF 1 lined area north of the building (see **Photo 9**). No signs of spilled material were observed.

High Grade Mill: Mr. Andrew Orser accompanied the DRMS 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). Both sides appeared well maintained and no measurable secondary containment storage volume was observed. Water was observed in the mill sump on the southwest corner of the mill platform (see **Photo 10**). Mr. Orser stated the water quality has been tested and the pH is typically between 3 and 3.5. The characterization of the water in the sump and the liner below it are being considered as part of the amendment (AM-13) currently under review by the DRMS.

Squaw Gulch Valley Leach Facility (VLF 2) Construction: Mr. Steve Blaskovich accompanied the DRMS to the crest of the pad on the north side of VLF 2 to observe construction. Drain cover fill (DCF) was being graded to final thickness in the phase 2B1, 2B2 and 2B3 bench areas (see **Photo 11**), covered by the TR-123 CQA report received by the DRMS on 9/25/2020. Geomembrane had been deployed on the phase 2B4 area and soil liner fill (SLF) was observed being placed and conditioned in the phase 2B5 bench area (see **Photo 12**), covered by the TR-125 CQA report received by the DRMS on 11/17/2020. Mr. Blaskovich was asked about placing DCF on geomembrane with significant wrinkles. He said the cool overnight temperatures generally contract the geomembrane enough to take out wrinkles which result from geomembrane expansion caused by warm daytime temperatures and absorption of heat from the sun. He indicated the ideal ambient temperature for placing DCF is at or below 50°F. No problems were observed.

South ECOSA Reclamation: Messrs. Tyler O'Donnell and Brian Crawford accompanied the DRMS to the south end of the ECOSA where reclamation grading was in progress. It is too early to know for sure, but the expectation is this effort will reduce or potentially eliminate the seep water periodically being expressed there.

EMP 17A: Messrs. Tyler O'Donnell and Brian Crawford accompanied the DRMS to the pond area. Based on photos taken during the DRMS September 3, 2020 aerial inspection (report to be sent under separate cover), EMP ponds 17A (see **Photo 13**) and 17B (see **Photo 14**) appear to permanently retain stormwater. These two ponds were visited during the inspection for discussion and confirmation. Both ponds are thought to be lined facilities, explain the retention. CC&V representatives believed their water agreements accounted for this permanent storage, but agreed to research and confirm this assertion.

Blasting Logs: The DRMS received notice from CC&V on September 1, 2020 that a seismograph near the Schist Island pit showed a peak particle velocity (ppv) of 0.6 inches per second (ips) in excess of the 0.5 ips permit

approved maximum for off-site structures (reference AM-11 adequacy letters) reporting. Mr. Justin Bills presented a summary of the situation and blasting logs from the August 25, 2020 event. He explained the seismograph registering the ppv slightly above the reporting level was actually on site, closer to the Schist Island pit than to the Mollie Kathleen tourist mine and that the seismograph in the Mollie Kathleen registered less than 0.5 ips for the event. Based on this clarification, the DRMS determined this event was not a problem.

PHOTOGRAPHS

Photo 1. VLF 2, LDS-1 sump – dry (note lack of bucket below LDS pipe discharge).

PHOTOGRAPHS (cont.)

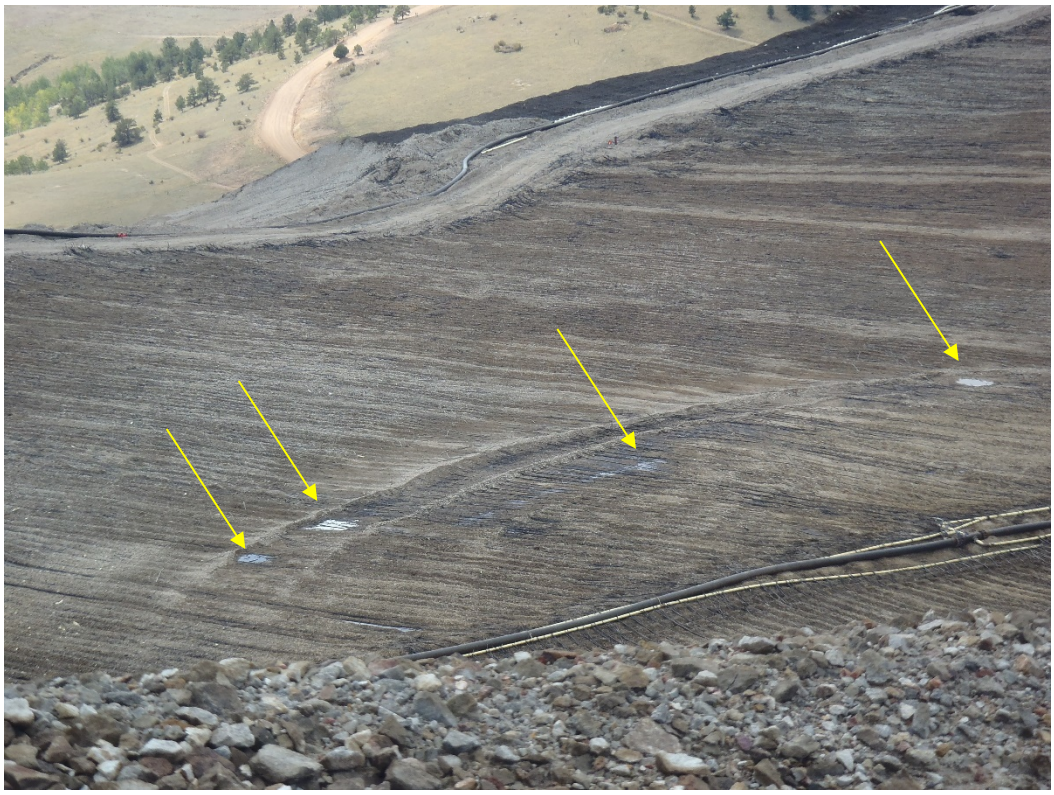

Photo 2. VLF 1, Level 10,200 ponding possibly > 3ft x 3ft.

Photo 3. VLF 1, Level 10,300 ponding – temporary due to flushing required by maintenance.

PHOTOGRAPHS (cont.)

Photo 4. VLF 1, Level 10,400 – no ponding (looking west).

Photo 5. Dual containment pipe between VLF 1 and VLF 2 lined areas (looking NW).

PHOTOGRAPHS (cont.)

Photo 6. Clean Harbors roll off bin at Assay Lab for large quantity generators.

Photo 7. Sealed sample containers outside Assay Lab: 5-gallon buckets to 55-gallon drums (note typical label).

PHOTOGRAPHS (cont.)

Photo 8. Super sacks containing spent carbon (NE corner of Assay Lab).

Photo 9. Stormwater discharge pipe to VLF 1 lined area (NW corner of Assay Lab).

PHOTOGRAPHS (cont.)

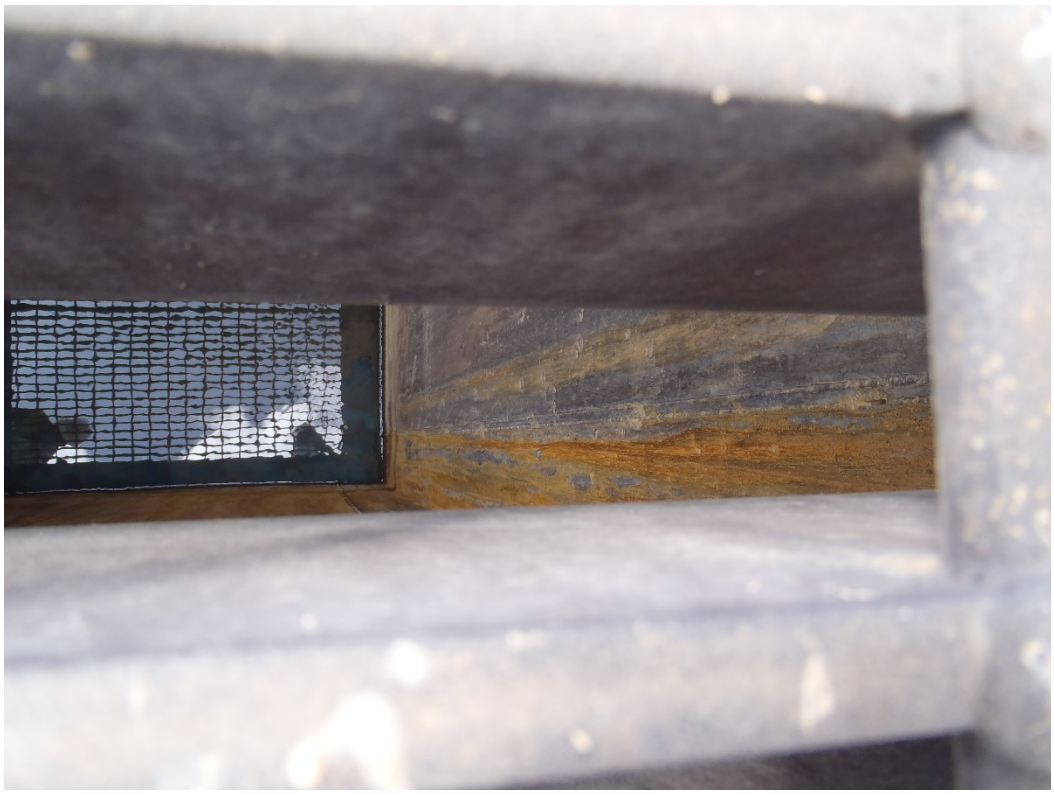

Photo 10. Water in High Grade Mill sump.

Photo 11. Drain cover fill being graded to 3ft thickness on VLF 2, phase 2B1, 2B2 and 2B3 bench areas.

PHOTOGRAPHS (cont.)

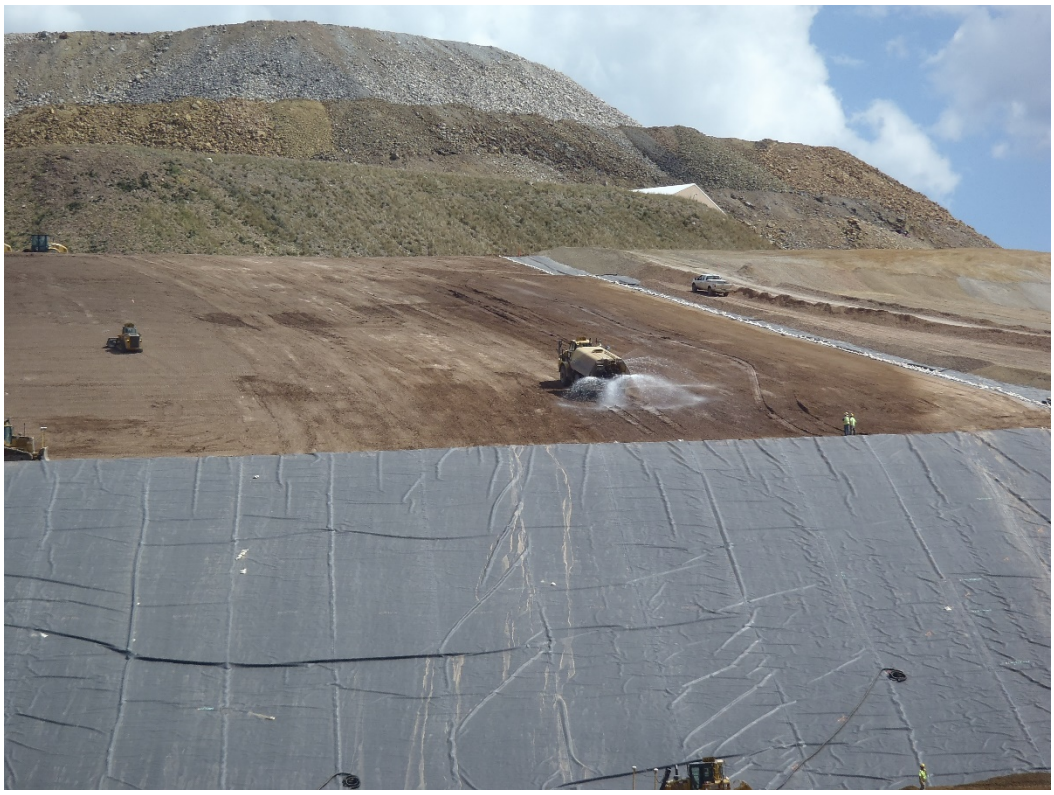

Photo 12. SLF being placed and conditioned in the phase 2B5 bench area.

Photo 13. EMP 17A (note aquatic vegetation – looking NE).

PHOTOGRAPHS (cont.)

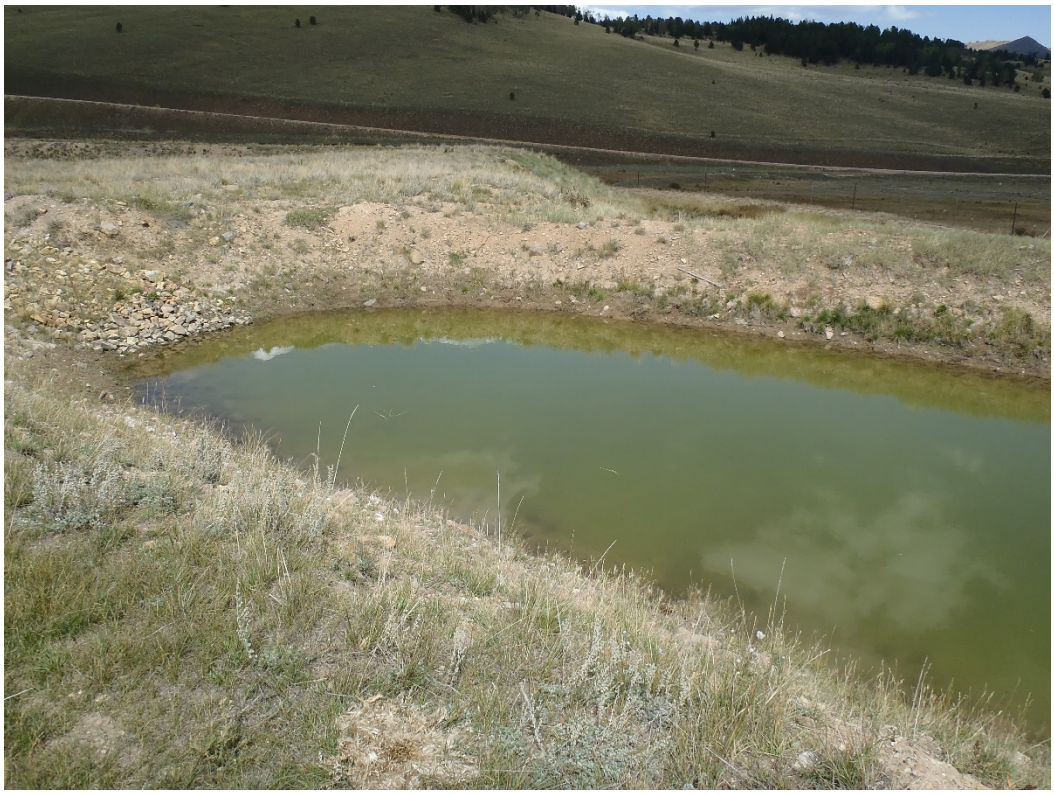

Photo 14. EMP 17B (no aquatic vegetation, but appears to be permanent storage – looking NE).

Inspection Contact Address

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