



July 11, 2022

Ms. Alyson Boye
Cripple Creek & Victor Gold Mining Company
P.O. Box 191
Victor, CO 80860

Re: Cresson Project, Permit No. M-1980-244; TR-103 Non-Compliance Corrective Action Response Comments

Dear Ms. Boye:

The Division of Reclamation, Mining and Safety (DRMS) has reviewed the May 26, 2022 Review of Ore Slopes at the Mill Platform Technical Memorandum from Jay Janney-Moore to Charles Bissue and have the following comments and concerns, specifically related to the 1.6H:1V slope below the booster pumps building:

- A. Conclusion. Section 3.0 Conclusion asserts "...CC&V has stacked the ore above the HGM in accordance with the intent of the guidelines outlined in TR-103 and the overall slopes are 2(H):1(V) or flatter". However, in the previous Section 2.0 Review of Existing Topography, it is stated in relation to the area for the Booster Pump building "the overall slope was reduced to 1.6(H):1(V)." The DRMS disagrees slopes at 1.6H:1V meet the intent to grade overall slopes to 2H:1V or flatter. The last sentence of Section 3.0 states "After subsequence lift of ore are placed above the booster pumps building, the overall slope will flatten out to less the 2(H):1(V)."
- B. Figure 1. Three slope indicators below the Booster Pump location on Figure 1 show slopes steeper than the intended 2H:1V or flatter (two at 1.4H:1V and one at 1.6H:1V). These slopes will be at the base of any subsequent lifts that would flatten out the overall slopes. The DRMS is concerned a convex slope such as this will be less stable than slopes constructed as described in the approved TR-103 with regular bench widths.
- C. Annotated Graphics. Two unreferenced and unlabeled graphics at the end of the Technical Memorandum appear to conclude based on three data points from March, April and May (no year was given) that the slope is stable because no displacement was observed when comparing to two latter months to the month previous. The DRMS does not consider this limited data set to be conclusive in demonstrating stability.
- D. Booster Pump. The proximity of the booster pump to the non-conforming slope causes the DRMS to have additional concerns in that a slope failure in the area below the booster pump building may be detrimental to the integrity of the piping system conveying process



solution. Should this slope fail, it is likely to result in displacement of some of the piping or pumps, resulting in the potential for large volumes of solution to migrate off the VLF liner. Similarly, a significant leak in the process solution pipes in the area (similar to leaks and/or ruptures that have previously occurred within the VLFs) could cause the slope to fail due to both erosion and/or saturation of the stacked ore.

Given these concerns, and Rules 6.5 and 7.1 governing geotechnical stability and environmental protection facilities, the DRMS requires the following information and analyses:

1. How long is it expected to take to place additional lifts above the booster pump building to “flatten” the overall slope?
2. Provide slope stability analyses for the slope below the booster pump building based on the Mined Land Reclamation Board’s Policy No. 30 for both the existing slope and the expected final slope. The analyses should include worst case conditions for normal leaching and address the stability should there be a process solution pipe breach in the vicinity.

Please provide responses within 60 days of this letter (September 9, 2022). If you have any questions or need further information, please contact me at (303)866-3567 x8169.

Sincerely,



Timothy A. Cazier, P.E.

Environmental Protection Specialist

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