



January 4, 2023

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

**Re: Project, Permit No. M-1980-244;
Technical Revision (TR130) Supplemental Adequacy Review**

Dear Ms. Smith:

The Division of Reclamation, Mining and Safety (DRMS) participated in a virtual meeting with Johnna Gonzalez and Travis Howard (CC&V) yesterday afternoon. During the meeting there was some discussion about the time required to pump out captured stormwater proposed to be stored above the High Grade Mill (HGM) liner prior to being pumped to the ADR2 spent tank (reference Third Adequacy Response dated November 7, 2022).

Based on the discussions during the meeting and the atypically long review period for this TR, I have revisited our previous comments and CC&V's responses to those comments. Please address the following supplemental adequacy issues (*Note: the comment numbering has been changed to A, B, etc. to avoid confusion with previous DRMS comments*):

- A. Runoff Volume Discrepancy: The June 14, 2022 response to our second adequacy stated the design storm (100-year, 24-hour) HGM runoff volume was estimated to be 7.68 acre-feet. The DRMS has estimated the runoff volume to be 8.12 ac-ft using the SCS method with 31.6 acres of contributing area (Figure 1 of the original TR-130 submittal); 4.07 inches of precipitation (original TR-130 submittal); and an SCS curve number (CN) of 91 (p. 5 of March 11, 2022 adequacy response). The November 7, 2022 response to our third adequacy stated the design storm (100-year, 24-hour) HGM runoff volume was estimated to be a considerably less 4.66 acre-feet. Please explain the discrepancy and why the runoff volume was reduced by 40 percent.
- B. Runoff vs. Infiltration: The DRMS is reviewing TR-130 in its current form with the understanding that stormwater runoff in the 31.6 acre area surrounding the HGM is to be temporarily stored in the pore volume of the fill above the HGM liner and below the surface grade. Using the 4.07-inch rainfall depth and a CN of 91, the estimated depth of runoff is 3.08 inches. Based on SCS CN methodology, this 3.08 inches is the amount of rain that does not infiltrate, get intercepted by vegetation or depression storage. Please explain how this volume

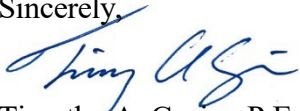


of runoff is to infiltrate the HGM compacted structural fill subgrade in a meaningful timeframe to be stored temporarily in the pore space above the HGM liner.

- C. Potential Drawdown Limitations: Part of the concerns expressed by the DRMS during yesterday's meeting relate to the contact time of stored stormwater in the pore space of potentially acid generating material. The DRMS would want this time to be minimized. CC&V has indicated the volume could be pumped down in 21 days using a 50 gpm pump, and could cut that in half using a second 50 gpm pump. Assuming Comment B above is adequately addressed, has CC&V analyzed, or performed a pump test to assess the drawdown limitations of pumping out of HGM subgrade fill considering the hydraulic conductivity of the compacted structural fill. In other words, what is the highest pumping rate that could be utilized without cycling the pump on and off?

If you have any questions or need further information, please contact me at (303)328-5229.

Sincerely,



Timothy A. Cazier, P.E.
Environmental Protection Specialist

ec: Michael Cunningham, DRMS
Elliott Russell, DRMS
Patrick Lennberg, DRMS
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DRMS file
Katie Blake, CC&V
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