



January 8, 2021

Melissa Harmon  
Cripple Creek & Victor Gold Mining Company  
P.O. Box 191  
Victor, CO 80860

**Re: Adequacy Review, Revision No. TR-125, Cresson Project, Permit No. M-1980-244**

Dear Melissa Harmon,

On November 19, 2020, the Division received the TR-125 Technical Revision application for the Cresson Project, File No. M-1980-244, regarding the Squaw Gulch Valley Leach Facility Phase 2B Part 2 Record of Construction Report. Pursuant to Rule 7.3.1(5), no chemicals used in the extractive metallurgical process or toxic or acid-forming materials shall be placed in constructed facilities until the Board or Office accepts the certification of the facility, or phase thereof, that precedes placement. The following comments need to be addressed prior to the DRMS accepting the submitted report:

**Report:**

1. Section 1.1 - Project Description: The second paragraph states construction was completed on October 9, 2020. The schedule in Appendix A indicates a "Lead Soils Technician" and a "Lead Geosynthetics Technician" were on site 10/12 & 10/15. If construction was complete on 10/9, what was the purpose of their presence?
2. Section 2.2.1 - Underground Working 6617: The apparent failure of the 2016 remediation for this working is cause for concern with respect to the numerous other remediated underground workings. Has CC&V or the EOR determined why this remediation effort failed? If so, what is being proposed to prevent similar failures in the future?
3. Section 2.5 - Leak Detection Trench: This section states approximately 734 linear feet of trench was constructed. Based on the survey data in 20VLF Phase 2b Part 2 - Leak Detection As-builts (Sheet No 1 of 1), only 716 feet (see Table 1 below) of pipe was installed. The paragraph also states the trench was constructed in accordance with project technical specifications, which include the Issued for Construction (IFC) drawings submitted with TR-125. IFC Drawing A44, Phase 2B Grading Plan, shows the Phase 2B Leak Detection extending to edge of liner. The DRMS acknowledges the alignment differs in that the As-constructed upgradient end of the trench is 25 to 30 feet higher in elevation and farther north than in Drawing A44, but it does not extend to the edge of liner (EOL). The As-built drawing shows the LDS upgradient end to be approximately 300 feet from the EOL. During the review of TR-123, CC&V proposed and the DRMS accepted that future As-built LDS submittals would provide survey data at a minimum of every 100 feet. There are eight survey points describing seven pipe segments on the 20VLF Phase 2b Part 2 - Leak Detection As-builts. The first four segments are all greater than 100 feet long (see Table 1 below). Well over half (495 feet of the 716 feet, sum of columns A and B in



- a. Why was pipe not installed in the additional 18 feet of constructed trench?
- b. Why was the trench and piping not extended to the EOL as indicated and approved by the DRMS on IFC drawing A44?
- c. Describe why the 100-foot maximum survey segment for the pipe was not adhered to as agreed.
- d. Provide a technical explanation for the sub-nominal (0.79%) LDS pipe slope.

4. Section 3.1.2 - Geomembrane Testing Standards: In Tech Specification No. 01400-2 the geomembrane specifications do not match those in Specification No. 02776-0. Please fix this discrepancy and submit updated specifications.
5. Section 3.1.3 - GeoTextile Testing Standards: Specifications quoted in text match those given in Specification No. 02777-0. The specification listed, CBR ASTM6241, is clarified later in the text in Section 3.3.5. It should be noted that in the response to the Division's Adequacy Review Item #4 for TR-123, CC&V stated that the specifications would be updated to account for this new test in future phases. The specification was not updated for this phase. Please update the specification to reflect the addition of the new specification and commitment made in TR-123.
6. Section 3.3.5 - Geotextile QC Certificates: Describe in more detail where and how the geotextile was stored to meet the specifications.
7. Section 3.4.6 Geomembrane Destructive Testing
  - a. Is DF-1282N located correctly on panels P-3714/P-3715, when the parent sample DF-1282 is elsewhere on other panels?

- b. Please describe the size of the cap for DF-1282, it is difficult to ascertain from the text and appendices.
  - c. In Appendix J 5.1 DF-1321 is located on P-3797/P-3801 but on Drawing No. 6 it is located on P-3797/P-3799, please resolve and update accordingly.
  - d. In Appendix J 5.1 DF-1339 is located on P-3840/P-3844 but on Drawing No. 6 it is located on P-3840/P-3845, please resolve and update accordingly.
  - e. In Appendix J 5.1 DF-1345 is located on P-3850/P-3860 but on Drawing No. 6 it is located on P-3858/P-3860, please resolve and update accordingly.
  - f. In Appendix J 5.1 DF-1350 located on P-3825/P-3826 is missing from Drawing No. 6, update.
  - g. In Appendix J 5.1 DF-1387 is located on P-3960/P-3962 but on Drawing No. 6 it is located on P-3960/P-3961, please resolve and update accordingly.
  - h. In Appendix J 5.1 DF-1388 is located on P-3963/P-3964 but on Drawing No. 6 it is located on P-3962/P-3963, please resolve and update accordingly.
8. Section 4 - Project Deviations: Underdrains – the first bullet suggests changes were made to the underdrain alignment related to localized grading. According to IFC Drawing A40, the only underdrain in Phase 2B Part 2 were already existing. How and/or what was modified?
9. Section 4 - Project Deviations: Leak Detection Trench – the narrative in the sixth bullet states only “small sections” of the LDS trench were constructed at less than one percent. Based on the survey data provided in TR-123 and TR-125, more than a third (~1,150 out of ~3,250) was constructed at less than one percent. The use of the word “small” is misleading. Please revise this statement to indicate approximately a third of the LDS trench was constructed at a slope less than the minimum one percent and provide a technical explanation related to bedrock proximity requiring construction methods such as blasting that would be more detrimental to the project.
10. Section 4 - Project Deviations: TR-123 included the following deviation regarding the Leak Detection Trench: “The contractor substituted 80mil geomembrane instead of the 40mil geomembrane for this phase of construction. The roll of the 40 mil was depleted in a section of a trench upstream of this phase, to be reported in a future submittal. The EoR approved this change since the replacement material exceeded the specification of the material.”. Within TR-125, there is only a brief mention of this change in section 2.5 Leak Detection Trench, however it not stated in Section 4. Please address why this was not included in the deviation section and update the section accordingly.

## **Appendices:**

11. Appendix C - Technical Specifications - Technical Specification 02200 - Earthworks: The DRMS noted the same flaws with this specification that were noted in TR-123 related to the “substitute crushed ore as Drain Cover Fill specification” (p. 4 of 02200). There is no range for the second largest sieve (2-inch), only 97 percent passing which means exactly three percent of the test sample must be retained on the 2-inch screen. Furthermore, the third largest sieve range (for the ¾-inch screen) allows up to 100 percent of the test sample to pass. This is an invalid range if 3 percent must be retained on the 2-inch screen. Please make the necessary corrections.

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12. Appendix F: Newmont signature dates on Week Ending, 9-28-2019, 10-5-2019, and 10-12-2019 post-date TR-125 submittal, please update to be accurate.
13. Appendix L: The Tensiometer Certifications submitted are dated for 5/13/2020. The conformance testing data submitted in Appendix K.1 was all conducted in 2019, before the testing equipment was certified. Please clarify this discrepancy.

This concludes the Division's adequacy review of TR-125. This letter shall not be interpreted to mean that there are no other technical deficiencies in your request as other issues may arise when additional information is supplied. Please be advised the Cresson Project Technical Revision TR-125 may be deemed inadequate, and the request may be denied on **January 19, 2021**, unless the above mentioned adequacy review item is addressed to the satisfaction of the Division.

If you have any questions or need further information, please contact me at (303) 866-3567 x8132.

Sincerely,



Elliott R. Russell

Environmental Protection Specialist

Ec: Katie Blake, CC&V  
Michael Cunningham, DRMS