



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

August 23, 2023

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

Re: Second Adequacy Review, Revision No. TR-135, Cresson Project, Permit No. M-1980-244

Dear Ms. Smith:

On June 8, 2023, the Division received your responses to our April 2023 preliminary adequacy review (PAR) letter for the TR-135 Technical Revision application for the Cresson Project, File No. M-1980-244, regarding the VLF2, Phase 3 Stage A.1 Record of Construction Report. The following comments need to be addressed prior to the DRMS accepting the submitted report:

- 1) Document Control: There is a clear problem with document control related to the project specifications. The March 2023 submittal of TR-135 included a set of specifications including 01400 (Technical Specifications – Earthworks Construction Quality Assurance (CQA) Plan, Rev. 2, Issued for Construction) and 02200 (Technical Specifications – Earthworks Rev. 4, Issued for Construction), both dated 8/27/2021. Your June 2023 response included similar specifications: same Project No., Title and Specification No.; but with different revision numbers (still Issued for Construction) and dated 15 days prior as 8/12/2021. Adding to the confusion is your response to Comment no. 1 in the June 8th letter: *“Except for two minor changes, the more recent revision of August 12, 2021 attached to all of the technical specifications is minor.”* This statement appears to ignore the 01400 and 02200 specifications dated 8/27/21 submitted with TR-135 in March 2023, thereby casting doubt on the validity of the 8/27/21 version of specification 02200.

The June 8th response to Comment 1 ignores the change to both the 8/12/21 and 8/27/21 02200 specifications that included the addition of overburden backfill. The response also presents confusion with respect to overburden fill with respect to earthworks CQA, specification 01400. The response indicates the overburden fill was removed from the “most recent revision” (8/12/21), yet the 8/12/21 version submitted only with the June 8th response includes Section 6.1 Overburden Fill Placement. However, the 8/27/21 version of 01400 submitted with the TR-135 in March, and apparently the more recent version, does not include a section on overburden fill placement. The response continues by stating the section was removed because the overburden fill placement was performed by CC&V, not the Contractor, but that section 6.1 was enforced when the mine placed overburden fill in Stage A and will be again in Stage C. This again demonstrates two versions of the same specification number may be considered valid at the same time in future segments of the project. The best practice is to have one set of specifications for a given project (i.e., VLF2 Phase 3) to



eliminate ambiguity and potential confusion, especially when there is an overlap as indicated with Stage C. If a portion of the specification (01400 – specifically related to overburden fill placement) is not applicable, then it can simply be pointed out - either verbally or in the actual specification, that it does not apply to the contractor during certain segments of the project. To further illustrate the problem with different specifications with identical numbers and what party is responsible for various activities, Section 6.1 of the 8/12/21 version of 01400 states the Contractor will place the overburden fill. It appears that CC&V placed the overburden fill and not the Contractor. This could be considered a deviation from the specifications and should be discussed in Section 5 of the CQA report.

The text “Backfill Pit” follows the Specification No for both the 8/12/21 versions of 01400 and 02200. It is the industry standard and the DRMS position that a specification number is just a number (e.g., 02200 with no text following it). This position was initially stated circa 2016 when NewFields submitted their first specifications to the DRMS. If a similar or related specification is necessary, then the common practice is to use a number like 02201. Furthermore, both the 02200 specifications (Rev. 0 – 8/12/21 and Rev. 4 – 8/27/21) have sections addressing overburden fill, which was not included in the same specification submitted with Amendment 13. It is unclear why two separate 02200 specifications, both addressing overburden fill were needed within 15 days of each other, nor which one was actually enforced for the placement of overburden fill. Having two or more specifications with the same number results in ambiguity, increases the review time, and has the potential to cause confusion during construction as well as during regulatory review. Please address the following:

- a. Explain why separate, identically numbered specifications, both addressing overburden fill were necessary.
 - b. Confirm whether the 8/12/21 or the 8/27/21 version of specification no. 02200 was used for overburden placement.
 - c. Retire the 8/12/2021 01400 and 02200 specifications or explain why they are still needed and renumber them following standard industry practice.
 - d. Commit to following standard industry practice for document control in the development and revision of future specifications.
- 2) Undeclared Deviations: Review of the TR-135 submittal and the June 8th response resulted in the discovery of two significant omissions in Section 5 of the Valley Leach Facility 2 Phase 3 Stage A.1 Record of Construction Report, Project Deviations. The two omissions have to do with placing structural fill on snow and not maintaining the nominal two percent grade in the leak detection system trench. These two deviations are summarized below:
 - A. Placing fill on snow. All three versions of specification no. 02200 (see comment 1 above) have a paragraph under the Fill Placement section in which the last sentence states “Fill shall not be placed upon frozen material, such as **snow** or ice.” On eight separate occasions as reported in the NewFields Field Weekly Progress Reports, snow accumulation of 2 inches or less was not removed prior to placing the “High

Compaction Back Fill”. The dates, amounts of snow and the disposition of the accumulated snow as presented in the progress reports follows:

- 1/1/22 (2” – 4”) – “Newmont personnel removed accumulated snow from out in front of the leading edge of the 9970' lift on 1/1/2022.”
- 1/21/22 (2” – 4”) – “Newmont Operations personnel removed snow (any area with plus 2" in accumulation) from out in front of the leading edge of high compaction fill placement during the weather event on the evening of 1/21. Snow was spread out in a designated area away from the leading edge, to allow it to melt during warmer temperatures.”
- 1/22/22 (1-2"); 01/25 (2-3"); 01/27 (5"-6") – “Newmont Operations personnel removed snow (any area with plus 2" in accumulation) from out in front of the leading edge of high compaction backfill placement during weather events on the early morning of 1/25/22 and the afternoon and evening of 1/26/22. Snow was spread out in designated areas away from the leading edge and outside of fill limits, to allow it to melt during warmer temperatures.”
- 2/2/22 AND 2/3/22 (*no depth provided*)– “Newmont Operations personnel removed snow (any area with plus 2" in accumulation) from out in front of the leading edge on high compaction fill placement during the weather event on 2/2 and 2/3. Snow was spread out in a designated area away from the leading edge, to allow it to melt during warmer temperatures.”
- 2/16/22 (5"-7") – “Newmont Operations personnel removed snow (any area with plus 2" in accumulation) from out in front of the leading edge of high compaction backfill placement during a weather event on the night of 2/16/22. Snow was also removed from the 10,000' elevation lift from STA 15+00 to STA 25+00 on 12/17/22 (Drawing A105) around the rough grade of the PSSA. Snow was spread out in designated areas outside of fill limits, to allow it to melt during warmer temperatures.”

These eight incidents are clear deviations to both the previously approved, and revised specifications. Please address the following:

- a) Why were these deviations to the approved 02200 specifications not discussed in the Record of Construction Report as required?
 - b) Provide an explanation as to why the approved specifications were not followed in these eight instances.
 - c) Provide a demonstration as to how these actions met the intent of the approved specifications.
- B. Leak Detection Trench Grade. The DRMS analyzed the record drawing for the VLF2 Phase 3-Outside of PSSA Leak Detection Trench for compliance with the nominal two percent requirement. The results are presented in Attachment A. Of the 628 feet of trench installed, 359 feet were installed at a grade of less than 2 percent.

Previous CQA reports submitted to the DRMS that documented sections of the leak detection trench being installed at grades flatter than the nominal approved 2 percent resulted in a commitment from CC&V that this practice would only be allowed when bedrock was encountered preventing adherence to the required two percent. The concern is that if the leak detection system is installed at grades flatter than two percent in areas subject to potentially significant differential settlement, the resulting settlement could lead to sections of the system having reverse gradients that could interfere with the effectiveness of the leak detection system. Well over half the leak detection trench presented in this record drawing was installed at a grade flatter than that required, yet this deviation was not presented in the CQA deviations section. Furthermore, no information was provided to indicate the presence of bedrock that might interfere with maintaining the required grade. Please address the following:

- a) Why were the 359 feet of the leak detection system installed at a grade flatter than 2 percent not discussed in the Record of Construction Report deviations section as required?
 - b) Provide an explanation as to why the 2 percent grade was not maintained.
 - c) If bedrock prevented the proper installation of the leak detection trench, submit documentation demonstrating as much.
- 3) Location of Perforated CPeP: The fifth bullet in the Section 5 Project Deviations states “Three four-inch perforated CPeP were added to the spillway between Phase 2 and Phase 3.” Please indicate where these pipes are shown on the Record of Construction drawings.
- 4) Overburden Fill Placement Task Training: Section 3.3.B.4 of the 8/12/2021 version of Specification 02200 requires the Contractor to complete task training to ensure that material meeting the specification is borrowed and placed prior to commencement of Overburden Fill. Please provide documentation of this completed training.

Sincerely,



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

Enclosure: Attachment A – Leak Detection Trench Slope Evaluation.

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

ATTACHMENT A - Leak Detection Trench Slope

VLF2 PHASE 3-OUTSIDE OF PSSA LEAK DETECTION TRENCH AS-BUILT EXHIBIT

Ground Order of Points	Drawing Data					Calculated Results					Length ≤ 0.5%	1.0% ≤ Length ≤ 0.5%	Length ≤ 2%
	POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	NORTHING Δ (ft)	EASTING Δ (ft)	Distance (ft)	Elev. Δ (ft)	Slope (ft/ft)			
1	800	58781.064	35248.259	10041.29	none								
2	801	58810.161	35236.254	10040.87	none	29.097	-12.005	31.5	-0.42	-1.3%	0.0	0.0	31.5
3	808	58820.384	35231.754	10040.35	none	10.223	-4.500	11.2	-0.52	-4.7%	0.0	0.0	0.0
4	802	58828.306	35230.292	10040.25	none	7.922	-1.462	8.1	-0.10	-1.2%	0.0	0.0	8.1
5	807	58836.293	35237.198	10040.15	none	7.987	6.906	10.6	-0.10	-0.9%	0.0	10.6	10.6
6	803	58842.857	35248.057	10039.84	none	6.564	10.859	12.7	-0.31	-2.4%	0.0	0.0	0.0
7	804	58854.457	35272.812	10039.40	none	11.600	24.755	27.3	-0.44	-1.6%	0.0	0.0	27.3
8	805	58861.122	35293.042	10038.97	none	6.665	20.230	21.3	-0.43	-2.0%	0.0	0.0	0.0
9	806	58864.913	35315.073	10038.50	none	3.791	22.031	22.4	-0.47	-2.1%	0.0	0.0	0.0
10	809	58863.795	35339.465	10037.98	none	-1.118	24.392	24.4	-0.52	-2.1%	0.0	0.0	0.0
11	810	58852.351	35356.479	10037.63	none	-11.444	17.014	20.5	-0.35	-1.7%	0.0	0.0	20.5
12	811	58839.388	35367.850	10037.30	none	-12.963	11.371	17.2	-0.33	-1.9%	0.0	0.0	17.2
13	812	58828.156	35388.824	10036.90	none	-11.232	20.974	23.8	-0.40	-1.7%	0.0	0.0	23.8
14	813	58818.930	35411.668	10036.34	none	-9.226	22.844	24.6	-0.56	-2.3%	0.0	0.0	0.0
15	814	58813.024	35433.001	10035.96	none	-5.906	21.333	22.1	-0.38	-1.7%	0.0	0.0	22.1
16	815	58808.753	35458.838	10035.41	none	-4.271	25.837	26.2	-0.55	-2.1%	0.0	0.0	0.0
17	816	58807.844	35467.726	10035.22	none	-0.909	8.888	8.9	-0.19	-2.1%	0.0	0.0	0.0
18	817	58806.532	35484.762	10034.89	none	-1.312	17.036	17.1	-0.33	-1.9%	0.0	0.0	17.1
19	818	58807.108	35499.036	10034.65	none	0.576	14.274	14.3	-0.24	-1.7%	0.0	0.0	14.3
20	819	58811.137	35512.743	10034.32	none	4.029	13.707	14.3	-0.33	-2.3%	0.0	0.0	0.0
21	820	58822.082	35532.554	10033.98	none	10.945	19.811	22.6	-0.34	-1.5%	0.0	0.0	22.6
22	821	58835.627	35556.717	10033.29	none	13.545	24.163	27.7	-0.69	-2.5%	0.0	0.0	0.0
23	822	58846.312	35576.791	10032.88	none	10.685	20.074	22.7	-0.41	-1.8%	0.0	0.0	22.7
24	823	58851.403	35586.922	10032.67	none	5.091	10.131	11.3	-0.21	-1.9%	0.0	0.0	11.3
25	824	58856.619	35611.715	10032.15	none	5.216	24.793	25.3	-0.52	-2.1%	0.0	0.0	0.0
26	825	58858.275	35622.996	10031.92	none	1.656	11.281	11.4	-0.23	-2.0%	0.0	0.0	0.0
27	826	58861.380	35646.918	10031.44	none	3.105	23.922	24.1	-0.48	-2.0%	0.0	0.0	24.1
28	827	58866.479	35677.807	10030.87	none	5.099	30.889	31.3	-0.57	-1.8%	0.0	0.0	31.3
29	828	58870.615	35691.596	10030.51	none	4.136	13.789	14.4	-0.36	-2.5%	0.0	0.0	0.0
30	829	58880.051	35713.721	10029.99	none	9.436	22.125	24.1	-0.52	-2.2%	0.0	0.0	0.0
31	830	58886.146	35735.650	10029.56	none	6.095	21.929	22.8	-0.43	-1.9%	0.0	0.0	22.8
32	831	58891.151	35766.943	10029.03	none	5.005	31.293	31.7	-0.53	-1.7%	0.0	0.0	31.7
							Totals:	627.9	-12.26	-2.0%	0.0	10.6	359.1