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September 28, 2022

Mr. Clayton Wein Division of Reclamation, Mining and Safety 1313 Sherman Street, Room 215 Denver, CO 80203

RE: Technical Revision #74 – Combination of RP-2/3/4 and RP-5A
Deserado Mine – Permit No. C-1981-018. Preliminary Technical Adequacy
Review Response.

Dear Clayton:

Deserado Mine is formally responding to the preliminary technical adequacy response letter sent on July 12, 2022. The Division's comments are in bold and Deserado's response follows each item in red.

Rule 2.10:

1. When reviewing proposed Map 165, a cross-section "Structure 8 Profile" has been shown however, it is unclear to the location of the Structure 8 Profile cross-section as it has not been identified on plan view of the proposed RP-2/3/4/5. It appears that this cross-section might be located in the area located between the current gap of RP-2/3/4 and RP-5A showing the foundation cut prior to refuse placement. If this is the case, including the proposed refuse slope and profile would be beneficial for the Division's review. Please provide an updated Map 165 showing the location of cross-section Structure 8 Profile. If the location of the Structure 8 Profile is located within proposed RP-2/3/4/5, please include the refuse slope and profile associated with the location of Structure 8 Profile.

Deserado Mine Response:

The location of the Structure 8 Profile is labeled in the plan view in a similar manner as the other profiles in addition to having the SEDCAD structure label "8" next to it. This structure is the ditch on the southeast side of the refuse pile flowing in an east-northeasterly direction. The profile was included to show where the ditches used to flow down the valley between RP-234 and RP-5A, will flow continuously to the east-southeast with minor grading of the knoll at the head of the valley. The grading will be done during the stockpiling of the topsoil and subsoil from the valley area.

Rule 4.10:

2. Rule 4.10.4(2) states, coal mine waste banks shall have a minimum static safety factor of 1.5. Based on the proposed TR-74 application, no slope stability analysis of the proposed coal mine waste bank RP2/3/4/5 has been provided. When reviewing the map notes on proposed Map 165 it states, "geotechnical stability analysis demonstrates adequacy stability with 3H:1V slopes (Illustration 42C)". Illustration 42C is specific to the geotechnical analysis to RP-A and has no reference to the proposed RP-2/3/4/5. Additionally, while individual geotechnical analyses have been performed for the existing piles RP-2/3/4 and RP-5a, the combination and redesign to RP-2/3/4/5 will need to be evaluated to ensure this Rule is complied with. Please provide a geotechnical analysis for the proposed RP-2/3/4/5 to ensure a minimum static safety factor of 1.5 is met along with discussion regarding the coal mine waste bank.

<u>Deserado Mine Response:</u>

2. The reference to Illustration 42C was an artifact left over from similar notes from the RP-A map. It should refer to Illustrations 42B and Illustration 21. Map 165 has been revised with the correct reference to illustrations. While Illustration 42B focuses on RP-234, the clay bedrock identified in Illustration 21 extends under RP-5A as they are adjacent. The refuse parameters are the same whether it is RP-234 or 5A. the analysis results shown in Illustration 42, Figure 2 show that with 3:1 slope and three 10 ft wide benches, and a height of slope of 210 ft above the toe, the safety factor will be 2.179, well above 1.5. The proposed RP-2345 has three 20 ft wide benches and the total height is under 210 ft in most areas. The highest peak shown will be 220 ft but will likely never reach that elevation as the area will be very small.

Please let me know if you have any questions or additional concerns regarding this revision.

Sincerely,

Kurtis Blunt Sr. Environmental Engineer kblunt@deserado.com

enc: