

January 6, 2023

Barbara Brunk  
Resource Conservation Partners, LLC  
P.O. Box 1522  
Longmont, CO 80502

**RE: Adequacy Review No. 1; Technical Revision (TR-1) – Revise Mining and Reclamation Plans and Maps to Account for Acreage Release Areas in AR-1; Irwin/Thomas Mine, Permit No. M-2016-054**

Dear Ms. Brunk,

On December 19, 2022, the Division of Reclamation, Mining and Safety (Division/DRMS) received a request for Technical Revision (TR-1) to revise the Mining and Reclamation plans and maps to account for the proposed acreage release areas in AR-1 for the Irwin/Thomas Mine, Permit No. M-2016-054. Please be advised that on January 18, 2023, the application for TR-1 may be deemed inadequate and denied unless the following clarification(s) or items are addressed to the Division's satisfaction.

1. Please provide an updated Exhibit C-1 Map depicting the Existing Site Conditions and Surface Owners of Record that accounts for release area in AR-1.
2. Where there are new structures along the new permit boundary new structure agreements will need to be obtained. Pursuant to Rule 6.4.19, where the mining operation will adversely affect the stability of any significant, valuable and permanent man-made structures, located within 200 feet of the affected land, the applicant may either:
  - a. Provide a notarized agreement between the applicant and the person(s) having an interest in the structure, that the Applicant is to provide compensation for any damage to the structure\*; or
  - b. Where such an agreement cannot be reached, the applicant shall provide an engineering evaluation that demonstrates that such structure shall not be damaged by activities occurring at the mining operation; or
  - c. Where such structure is a utility, the Applicant may supply a notarized letter, on utility letterhead, from the owner(s) of the utility that the mining and reclamation activities, as proposed, will have "no negative effect" on their utility.



\* Structure agreements shall be sent by a trackable method, i.e. certified mail. In addition, the individual structure agreements shall be labeled with the certified mail number or other tracking number.

3. It is unclear to the Division if the Operator has chosen one of the four proposed reclamation alternatives. It appears the Operator is opting for the reclamation alternative scenario where a permanent augmentation plan is obtained, but significant off-site backfill material is not available. For this scenario Mining Phases 1 and 2 are mined and there is sufficient on-site backfill material to create side slopes for ponds and some adjacent wetland areas. However, without off-site material for backfilling Mining Phase 3 and 4 are not mined. Please confirm if this is the case or not. If not please provide updated Reclamation Plan Maps for all four reclamation alternatives and provide an updated Reclamation Plan summary that clearly states the details of the four alternatives.
4. Please provide an updated Mining Plan Map C-5 include on the map the monitoring well locations that are measured monthly. Label the wells according to the annual submittals.
5. During the SO-1 inspection the Division cited a problem for not submitting the annual groundwater level measurements. The problem was abated when the Operator provided the monthly water level measurements since 2016. In that submittal it is noted that MW-C may have been compromised by Costco but measurements resumed. Please provide an update as to the condition of this well and if it is adequately protected for future monitoring purposes now that the land is owned by another entity. Note that if the well is compromised or if it can no longer be monitored according to the approved plan a replacement must be installed and the Division appropriately notified if this becomes the case.
6. The Operator has proposed reducing the mining setbacks from the approved 200 feet to 100 feet along HWY 119. The Operator will have to provide geotechnical demonstration that the reduction meets the required factor of safety during mining. Additionally, include in the demonstration that the proposed reclamation alternative (Ponds C and D) within this area are protective of permanent man-made structures.
7. In the Operator's responses, dated March 23, 2017, to the Division's Preliminary Adequacy Review item #27 the Operator states regarding dewatering of mine cells, *During the well permitting process through the Colorado Department of Natural Resources, Division of Water Resources, Office of the State Engineer, owners of permitted wells and adjudicated water rights will be notified and waiver agreements or other conditions will be secured. A copy of the agreements and/or conditions shall be forwarded to the Division in the form of a technical revision.* What is the status for obtaining the well permit and associated agreements to allow for dewatering of the mining cells?
8. In the Operator's responses, dated March 23, 2017, to the Division's Preliminary Adequacy Review the Operator provided a Hydrogeologic Evaluation of the Irwin/Thomas Mine. At the time

there was limited groundwater elevation data for the site and the effects from dewatering were rough approximations. The potential effects from dewatering need to be re-assessed using the six (6) years' worth of site groundwater elevation data to verify and/or update the site assumptions of the effects of dewatering.

9. In the Operator's responses, dated March 23, 2017, to the Division's Preliminary Adequacy Review the Operator provided an updated Exhibit G. In that exhibit there is brief discussion regarding the mounding and shadowing effects of a slurry wall. Please provide a groundwater model depicting the effects of installing a slurry wall and any details of mitigation measures needed to prevent injury from mounding or shadowing of groundwater as a result of installing the slurry wall. Include a discussion about the potential impacts to residential basements near the permit boundary.
10. In the Operator's responses, dated July 20, 2017, to the Division's Adequacy Review No. 2 item #8 the Operator states, *Initial information provided to the Division that a City of Longmont Special Use Permit was being obtained for the project was not accurate. The project will be constructed in the City of Longmont under a PUD Development Plan. When obtained following completion of annexation, a copy of the approved City of Longmont PUD Development Plan will be provided to the Division in the form of a technical revision.* Please provide an update or a copy of the PUD Development Plan.
11. Please provide the details on the proposed enhanced riparian area adjacent located in Mining Area 1 and adjacent to St. Vrain Greenway.
12. The Operator is requesting the Division recalculate the current bond associated with Mining Area 1 with the reduction in slurry wall length. Please provide an updated Exhibit L Reclamation Costs similar to the one provided in Operator's response to adequacy review dated October 16, 2018. Include within the exhibit a line item for the enhanced riparian area and an updated cost estimate for slurry wall installation with the name of site where slurry wall estimate was derived from. The Division presumes the \$5.97 per square foot of slurry wall construction has increased since 2018.
13. Please affirmatively acknowledge the following permit commitments made during the initial permitting process;
  - a. For Mining Area 2, a material conveyor will be installed beneath Hwy 119 adjacent to the creek pedestrian trail. This conveyor will be covered and separated from the trail with security fencing. Prior to moving into Mining Area 2, the operator must provide the final design for this conveyor, including whether its installation will require any permanent structures (i.e., concrete footers) that would require demolition for reclamation.
  - b. The permit approval authorized the operator to conduct mining and reclamation only within Mining Area 1 (south of Hwy 119). Prior to affecting land within Mining Areas 2, 3, or 4, the operator must submit and obtain Division approval of a Technical Revision to increase the maximum disturbed area to more than the currently approved 114.9 acres

(in Mining Area 1). Please note the currently approved disturbed area of 114.9 acres will be reduced by 63 acres to 51.9 acres with the approval of AR-1.

- c. Prior to commencing with operations in Mining Areas 3 and 4, the Operator must provide demonstration to the Division that a jurisdictional wetland delineation has been performed in these areas and the necessary permit(s) has been obtained from the USACE.

This concludes the Division's adequacy review of your application. The Division reserves the right to further supplement this document with additional adequacy items and/or details as necessary.

The decision date for your application is set for **January 18, 2023**. If additional time is needed to respond, an extension request must be received by our Office by the decision date. If on the decision date, outstanding adequacy items remain, and no extension request has been received, your revision may be denied and the file terminated.

If you need additional information or have any questions, please contact me by telephone at **303-866-3567 x8114**, or by email at [patrick.lennberg@state.co.us](mailto:patrick.lennberg@state.co.us).

Sincerely,



Patrick Lennberg  
Environmental Protection Specialist

cc: Jared Ebert; DRMS

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