



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

June 25, 2024

Chris Skerik
Thorin Resources LLC.
1900 Main St. Unit #1
PO Box 1030
Ouray, CO 81427

RE: Revenue Mine, Permit No. M-2012-032, Technical Revision (TR-17), Adequacy Review-1

Dear Mr. Skerik:

The Division of Reclamation, Mining and Safety (Division) is in the process of reviewing the above referenced Technical Revision in order to ensure that it adequately satisfies the requirements of the Colorado Mined Land Reclamation Act (Act) and the associated Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations (Rules).

During review of the material submitted, the Division determined that the following issue(s) of concern need to be adequately addressed before the Technical Revision can be considered for approval. Please provide the following:

1. Under AM-02, adequacy review 2 several commitments regarding water quality were made. These commitments were initially promised to the Division in the Summer of 2022 and were delayed due to bankruptcy and transferring of the permit to another Operator. It is the Divisions expectation that these features be installed in 2024 prior to any additional production related activities.
 - a. Installation of an additional down gradient groundwater monitoring well.
 - b. Construction of the storm water containment pond near the entrance to the site.
2. Pg 5. Shut Of Capabilities it states "The internal valve will be closed immediately to prevent liquid leakage in the containment area." Why would the valve to the containment area be open when operating and rely on a person to close it in the instance of a failure? Based on the description it appears that the system is designed to utilize the containment area rather than having it be a redundant backup. Please describe this operation in more detail and how secondary containment will be maintained throughout the operation.
3. Will the filter press be located in its own containment for the purposes of being able to recycle the extracted process water? If so, a secondary containment will be required in the instance of failure. Squeezing liquids out into the 12,359 gal containment for the purposes of recycling does not constitute a secondary containment structure.



4. If there is only 9,247.38 gallons of liquid in the system at any given time how will a 2-minute failure shut down result in 18,494 gal of liquids entering the secondary containments? Is process water constantly being added rather than being recycled?
5. On Diagram 1: Equipment Layout please provide flow arrows.
6. Diagram 1 shows the six separate secondary containment structures that will be utilized. How will secondary containment be maintained in areas outside of the containment structures when transferring liquids between equipment?
7. What is the purpose of Diagram 2 or what is trying to be conveyed? There is no reference to this diagram in the narrative portion of the TR-17.
8. If the gravity circuit will be housed under the Rail Yard Roof, can it be operated year-round? How will freezing temperatures be accounted for, does the plant require winterization?
9. Section 3b - Secondary Containment does give volumetric calculations for containment capacity, however it does not include detailed information on what the containment structure is made of, its construction methodology or any other information regarding the containment device. Please provide a more detailed narrative, supported by technical specifications from the manufacturer if available, describing what the containment device is made of, how it will be installed on site, and what QA/QC measures will be taken to ensure its proper functioning upon completion.
10. Summary of Analytical from February 12, 2024, is provided in Table 2. The sample list does not include all analytes on the Regulation 41 Table 3, or the revised list approved by DRMS in 2015. If these constituents were not tested, additional sampling may be necessary. Please revise the table to include a comparison of all approved discharge limits vs sample results.
11. On Table 2 the 30-day average for Lead (dissolved) is higher than the 30 Day average discharge standards.
12. Table 2 Residue, Filterable (TDS) @ 180C requires a report value and it was not tested.
13. Section 6 provides numerous user provided cost for disposal of the proposed equipment. What is the source of this estimate or basis for the cost?
 - a. What is the disposal method associated with the listed structure/equipment?
 - b. Please include the total job hours for demolition either by individual piece of equipment or all items listed on Table 6. RS Means – Bonding Calculations
14. Given that reclamation costs were provided for the proposed equipment the Division is assuming that all features associated with this revision will be removed upon completion of final reclamation. Please include a statement to revise the Reclamation Plan attesting to this assumption.
15. Prior conversations indicate that a Special Use Permit from Ouray County Road and Bridge is required in order to haul material from the Camp Bird site to the Revenue Mine. Please provide a copy of the executed permit certifying that hauling operations are authorized on the County Road. The attached permit is set to expire July 15, 2024. A valid road use agreement will be required prior to hauling material.

16. No SPLP or ABA test results were provided for the effluent "Tailings Material". Please provide these results to ensure they meet the acceptance criteria to be stored on site in either the Revenue TSF or the Atlas TSF. Additionally, please commit to placing the material in compliance with the Tailings Management Plan approved in AM-2. If, in the event, the SPLP and ABA tests do not meet the acceptance criteria of the Tailings Management Plan, please propose an alternative tailings disposal method.
17. Tables 3 and 4 are labeled SPLP and ABA Testing results for the Camp Bird feed material and the Revenue Virginius feed material respectively, however the tables do not provide Net Acid Forming Potential vs Net Neutralization Potential for either feed stocks. Please provide a summary table displaying the Net Neutralization Potential vs the Net Acid Forming Potential as well as the analytic sheets provided by the laboratory to corroborate the information.
18. Based on the details of the Technical Revision it appears that waste water from the gravity separation circuit will be routed through the Passive Water Treatment System on site. Please provide documentation from the Colorado Department of Public Health and Environments Water Quality Control Division (CDPHE WQCD) that the addition of the gravity separation circuit process will maintain compliance with your Discharge Permit, Permit No. CO000003.
19. Please define what constitutes 'inert' when referring to export material from camp bird.
20. Is there a given duration for which Thorin estimates this gravity separation mill will operate? Additionally, how long do you anticipate testing to take to scale up to the full 75 TPD max?
21. What is the total amount of material to be exported from Camp Bird to be processed at the Revenue Mine.
22. Under the processing description section of the TR it states "The recovery metals shall be dried and loaded into 'super-sacks'" How will Thorin dry the concentrate?
23. Please provide a clarification as to what each Sample ID correlates to and the location from which that sample was taken. . I.e. "RV ABAB HGW Heads-01", what was sampled, and where was the sample taken.
24. Please Identify all sample locations that were provided for laboratory testing. Specifically identify which piles were sampled, where on the piles were sampled, and what depth of sample was taken.

On July 1, 2024 a separate request (TR-8) was made to export material from the Camp Bird Mine, Permit No. M-1982-090 that runs concurrent with this revision. Please note that the proposed activities under M-2012-032 TR17 and M-1982-090 TR-8 may not commence until both revisions are approved by the Division and all other necessary agency approvals are obtained.

Please submit your responses to the above listed issues by Thursday, July 24, 2024 in order to allow the Division sufficient time for review. If you cannot address the above issues by July 24, 2024 please request an extension to the decision due date to ensure adequate time for the Division to review materials. A decision due date of **July 30, 2024** has been set. If any adequacy issues remain by the decision due date and no Decision Date Extension Request has been received, the Division may deny your request.

The Division will continue to review your Technical Revision and will contact you if additional information is needed. If you require additional information, or have questions or concerns, please feel free to contact me.

Sincerely,



Lucas West
Environmental Protection Specialist

Ec: Travis Marshall, Senior EPS, DRMS
Amy Yeldell, DRMS
Erin Scott, CDPHE WQCD