



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

June 30, 2017

Kye A. Abraham
LKA International Inc.
3724 47th St. Ct. NW
Gig Harbor, WA 98335

Re: Golden Wonder Mine, Permit No. M-1978-091-UG, Technical Revision Application, TR-3, Third Adequacy Review.

Mr. Abraham:

On June 28, 2017, the Division of Reclamation, Mining and Safety completed your response to the preliminary adequacy review of **TR-3** for the Golden Wonder Mine Permit No. **M-1978-091-UG**. The revision requested addresses the following items: *Minor improvements/enhancements to the existing mine water treatment system. Replacing limestone in passive system with more effective materials and adding a small pre-treatment sump on the edge of the existing mine pad.* A few more clarifications must be received before the revision can be approved and implemented. Please address the following items:

- Figure 4 displays a ¾" plywood base. This is a concern due to wood products being susceptible to rotting in a wet setting. Please propose a different material that is resistant to degradation.
- **Response Adequate**
- Please clarify how often the system will require maintenance. Also, what frequency will the slag require replacement. Where will the spent slag be disposed of?
- **Your June 29, 2017 response to the second adequacy review proposes to "repurpose" the spent slag (~50 tons / 5 years) inside of the mine in subsurface reservoirs that have a pH often below 2.5. Due to the unknown long term effects the slag will have being permanently disposed of in acidic water the Division will require that the slag be hauled off site to a permitted solid waste disposal facility.**
- Will any undesirable byproducts be introduced from the slag into Dead Man Gulch?
- **Response Adequate**



- The Enviro-Chem Analytical, Inc. study states that the slag acquired from Harsco Pueblo Slag Company is effective. It was also stated that steel slag products vary greatly and the study is specific to the Harsco slag. Is Harsco able to provide additional slag for a long period of time for the proposed treatment system maintenance?

- **Response Adequate**

- Please commit to testing material on a bench scale prior to field use if a different source other than Harsco is needed to provide slag for the treatment system.

- **Response Adequate**

The decision date for the technical revision has been set for July 3, 2017. Please provide a response to the questions or a request to extend the decision date no later than June 30, 2017. If a response or an extension is not received by June 30, 2017 the request may be denied.

If you need additional information, please contact me at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 S. 3rd St., Suite 301, Grand Junction, Colorado 81501, telephone no. 970.241.2042.

Sincerely,



Travis Marshall
Environmental Protection Specialist

Ec: Erin Scott, CDPHE