



## COLORADO

### Division of Reclamation, Mining and Safety

Department of Natural Resources  
1313 Sherman Street, Room 215  
Denver, Colorado 80203

September 28, 2018

Bill Schenderlein  
Blue Earth Solutions, LLC  
P.O. Box 2427  
Fort Collins, CO 80522

**Re: Irwin/Thomas Mine, File No. M-2016-054, 112c Permit Application, Preliminary Adequacy Review of Additional Materials Received**

Mr. Schenderlein:

The Division of Reclamation, Mining and Safety (Division) has completed its preliminary adequacy review of the application materials submitted on August 2, 2018 for the Irwin/Thomas Mine, File No. M-2016-054. The Division has identified the following adequacy items that require clarification or additional information before the application can be approved:

**Rule 6.4.7 – Exhibit G – Water Information**

- 1) The Applicant has provided an updated Flood Impact and Mitigation Evaluation that incorporates additional reports and modeling information prepared for the St. Vrain Creek September 2013 flood mitigation planning effort into the analyses. This evaluation includes recommendations for mine phasing, backfilling, and setbacks from the creek that differ from what was previously proposed, including a recommendation to implement the initial mining and backfilling of mining areas during non-flood prone seasons (October-April). Does the Applicant commit to incorporating all of the recommendations into the mining plan? If so, please provide a revised mining plan and mining plan map (Exhibit C-4) that include these changes.
- 2) Please provide an updated Exhibit C-5 – Water Resources Map that incorporates the updated St. Vrain Creek Existing Conditions 100-Year Floodplain referenced in the Flood Impact and Mitigation Evaluation.

**Rule 6.4.12 – Exhibit L – Reclamation Costs**

- 3) The Applicant has provided a reclamation cost estimate that includes costs for reclaiming a total disturbance of 114.9 acres in mining phase MA1. The Division has identified items in the cost estimate that require revision or additional information, as listed below:
  - a) In the reclamation plan submitted, the Applicant commits to replacing topsoil across all disturbed areas at a depth of 12 inches. However, the cost estimate includes replacement of only 6 inches of topsoil across disturbed areas. Please revise all line items for topsoil



replacement (A1, A4, B3, C1, C2, C3, C5) to include replacement of topsoil at a depth of 12 inches, and adjust the material quantities and costs accordingly.

- b) For Aspect A2 – Backfill active mining faces and side slopes to 3H:1V, the Applicant estimates a material quantity of 33,350 cubic yards. However, the Division’s calculation for backfilling 1,500 linear feet of highwall at a height of 25 feet from vertical to 3H:1V slopes gives a material quantity of 52,083 cubic yards. Please correct this line item accordingly.
- c) For Aspect B1 – Slurry wall installation (11,500 x 25 feet), the Applicant uses a unit cost of \$5.50 per square foot. However, the average unit cost from the bids provided is \$5.97 per square foot. Please adjust the unit cost for this line item accordingly.
- d) For Aspect C4 – Backfill sediment pond area (1.9 acre x 20 feet), the Applicant estimates a material quantity of 61,000 cubic yards. However, the Division’s calculation gives a material quantity of 61,307 cubic yards. While this difference may seem minor, it results in a cost difference of \$1,075 according to the unit cost provided. Please adjust the material quantity and cost for this line item accordingly.
- e) For Aspect C6 – Scarify areas in Aspect C1 and C2, the Applicant does not include costs for scarifying Aspect C3 (stockpiling areas). However, these areas must also be scarified prior to topsoil placement. Please adjust this line item to include the 5.5 acres of stockpiling areas, which will change the total acreage from 8 acres to 13.5 acres. Please also adjust the cost for this line item accordingly.
- f) For mobilization/demobilization, the Applicant has provided a cost that is 8% of the total reclamation costs proposed. In order for the Division to calculate the financial warranty amount required for the proposed operation, the Applicant must provide a list of the type and number of equipment to be used for reclamation. Please also provide the nearest location from which the equipment could be obtained.
- g) The Applicant does not provide costs for demolition of structures. Please clarify whether any structures installed and/or used by the operation will require demolition for reclamation (e.g., scale house, culverts, paved road segments). Please be sure to include any costs for structure demolition in the reclamation cost estimate.

#### **Rule 6.4.19 – Exhibit S – Permanent Man-Made Structures**

- 4) The Applicant provided Certified Mail receipts demonstrating that structure agreements were mailed on September 29, 2017 to owners of permanent man-made structures located within 200 feet of the proposed affected land boundary. In comparing these receipts with the list of structure owners provided on the Exhibit C-1 map, the Division was unable to find a Certified Mail receipt for the following structure owner:

Smith Clifford E Estate Et Al (residential house and outbuildings, and fence)



Please provide demonstration that a structure agreement was attempted for this structure owner.

This concludes the Division's preliminary adequacy review of your application materials. If you are unable to satisfactorily address any concerns identified in this review before the decision date, currently set for **October 31, 2018**, it will be your responsibility to request an extension of the review period. Please ensure the Division sufficient time to complete its review process by responding to these adequacy issues at least one week prior to the decision date, by October 24, 2018.

Please remember that any changes or additions to the application on file in our office must also be reflected in the public review copy which has been placed with the local County Clerk and Recorder.

If you have any questions, you may contact me by telephone at 303-866-3567, ext. 8129, or by email at [amy.eschberger@state.co.us](mailto:amy.eschberger@state.co.us).

Sincerely,



Amy Eschberger  
Environmental Protection Specialist

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