



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

June 28, 2024

Eric Detmer  
Climax Molybdenum Company  
Highway 91 - Fremont Pass  
Climax, CO 80429

**RE: Climax Mine, File No. M-1977-493 , Technical Revision (TR-37) Adequacy Review-3**

The Division of Reclamation, Mining and Safety (Division) received your responses to Adequacy Review #1 for TR-37 on May 17, 2024. The Division has reviewed all material submitted to date and determined that the following issue(s) of concern shall be adequately addressed before a decision can be rendered.

**Questions from Adequacy Review #2 are still outstanding.**

**New**

- 1) Are there foundations (Floors or footers) that need to be demolished associated with the following structures? If so, provide the foundation dimensions, depth, reinforcements, etc.
  - a) TAILING DIST HOUSE - SUPERSTRUCTURE (61x40x14)
  - b) MILL TANK VALVE HSE1 - SUPERSTRUCTURE (21x29x10)
  - c) MILL TANK VALVE HSE2 - SUPERSTRUCTURE (20x20x10)
  - d) NEW SCALE HOUSE - SUPERSTRUCTURE (80x16x16)
  - e) OPEN PIT FUEL PUMP HSE - SUPERSTRUCTURE (40x20x12)
  - f) TENMILE TUNL OFC - SUPERSTR. (trailer) (50x20x12)
  - g) TENMILE BARGE - SUPERSTRUCTURE (36x36x10)
  - h) POND SHOP DOCKS - SUPERSTRUCTURE (200x20x3)
  - i) Explosives Shed (Powder Storage) (13x8x8)
  - j) New Mill Building (1105x805x13)
  - k) Train Shack at Ten Mile North Portal (50x20x14)
  - l) MAYFLOWER HLDNG TANK - SUPERSTRUCTURE (28x28x18)
  - m) 3 MILL SUBSTATION - SUPERSTRUCTURE (155x30x15)



- 2) Per RS Means a 30% reduction of the demolition volume is allowed for buildings with no interior walls. Previously in 2019, buildings were estimated using a reduction volume of approximately 24%. Does CMC have any sort of rationale as to why a different reduction factor was applied?
- 3) Previously relatively flat areas were drill seeded and straw mulched while steeper slopes employed hydroseeding and hydro mulch. The revised Reclamation Plan states that all areas will be broadcast or hydroseeded and only the steep slopes will receive hydromulch.
  - a) Will straw mulch be employed on flatter terrain?
  - b) Furthermore if a tractor is being used to mulch, the Division suggests the area also be drill seeded rather than broadcast.
- 4) The planting of trees in select areas is at a rate of 450 trees per acre. Please specify the species of tree(s) to be planted in these select areas.
- 5) What is the anticipated failure rate associated with the planting of tree bare root stock?
- 6) Section E-7.1.4 Hydric Seed Mix. Under table E-8 alternative shrubs are provided however no shrubs are included within the seed mix table E-7. Should there be shrubs included within this seed mix?
- 7) If the SDP, PDWTP and MRWTP are anticipated to exist in perpetuity, please include a statement within the reclamation plan clarifying that these are permanent structures and that no bonding needs to be associated with their removal.
  - a) If any other structures are to remain post-mining please also explicitly list them out.
- 8) The Load Haul team selected is a 740 Truck with a 938 Loader. A 938 Loader cannot effectively reach/load a 740 Truck. According to CAT a 962, 966 or 972 are the ideal match tool. For the Divisions bonding purposes a 966 High Lift will be employed unless directed otherwise by CMC.
- 9) Most Dozer tasks have a spoil pile correction factor of 1.0 (Dozing over a cliff). The spoil pile factor is based on how the grading is to occur and should vary. Dozing over a cliff was selected for most dozer tasks which is inaccurate. The Division will apply rough grading 0.8 which is more accurate unless additional information is provided.
- 10) Most Dozer tasks have a material weight correction factor of 1.0. The Weight Correction factor is based on the material description and should vary throughout the tasks based on what is being dozed. What material description is being used to derive this value?
- 11) (AR1 #9) Volumes of material have been provided for civil activities however, it is not specified if these volumes are bank, compact or loose. Please clarify the volume units for each task type. No formal update to Exhibit L was provided within the Adequacy 1 responses.
  - a) If all volumes are LCY then once compacted sufficient topsoil depths may not be applied.
  - b) If CCY or BCY once hauled, the volume is loose and the swollen volume for grading has to be accounted for.
  - c) Swell rate varies based on the material type and if it's originally BCY or CCY. Please clarify accordingly or address concerns related to items a and b.

- 12) For dozing the Open Pit - Overburden (2,354,000 CY) one D6 LPG was selected. That is a tremendous amount of material to be graded for a single small dozer. Please explain the rationale for this when larger (more efficient) equipment could be selected. This is true for several other dozer tasks.
- 13) (AR2 #27 and #28 Continued) On the CVS Cost Data there is an item "Pre-Excavation Work and Water Management" which costs \$519,326 and "Finish Work" which costs \$129,000.
  - a) How many task hours are associated with this work.
  - b) What equipment needs to be mobilized?
- 14) How many task hours are associated with installing the hydrologic protection features?  
Please list by area the anticipated number of hours.
- 15) Please provide the Division with the RSMeans 2024 cost for 30" corrugated HDPE Installed (33 31 11.20 3160). The Division has updated all other material costs to 2024.

Please submit your response(s) to the above listed issue(s) by **Monday, July 29, 2024**, in order to allow the Division sufficient time for technical review. The current decision due date is **August 28, 2024**. If any adequacy issues remain by the decision due date 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,



**Amy Yeldell**

Environmental Protection Specialist

Ec:

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