



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

December 30, 2016

Mr. Jack Henris
Cripple Creek & Victor Gold Mining Company
100 N. Third Street
P.O. Box 191
Victor, CO 80860

**Re: Cresson Project, Permit No. M-1980-244;
Third Adequacy Review (Part 2) for Amendment 11 (AM-11) and Amended AM-11**

Dear Mr. Henris:

The Division has completed its adequacy review of the December 19, 2016 response (received December 19, 2016) to our October 19, 2016 Second Adequacy Review (2AR) of the Cresson Project 112d-3 Amendment Application (AM-11) and the subsequently submitted amendment to AM-11. The current decision date for AM-11 is tentatively set at February 1, 2017.

Please be advised, if you are unable to satisfactorily address any concerns identified in this review before the decision date, prior to February 1, 2017, it will be your responsibility to request an extension of the review period. If there are outstanding issues which have not been adequately addressed at the end of the review period the Division may deny this application. Please address these adequacy issues by January 23, 2017, to ensure ample time for the Division to complete its review process prior to the decision deadline.

The number sequence of the 2AR comments have been retained for the purpose of tracking. Previous comments requiring additional responses are indicated in underlined text: “The response is not adequate.”

6.4.3 Exhibit C – Pre-mining & Mining Plan Map(s) of Affected Lands

4. *Drawing C-1a.*

- b. The response is not adequate. Specifically, the structure about 850 feet west of Grassy Valley monitoring wells GVMW-22B & GVMW-22A along Beaver Valley Rd (38°44'26.24"N, 105° 6'51.04"W) is not identified on the drawing as being owned by CC&V. Pursuant to Rule 6.4.3(g), Exhibit C maps must “Show the owner's name, type of structures, and location of all significant, valuable, and permanent man-made structures contained on the area of affected land and within two hundred (200) feet of the affected land”. The Division does not typically require structures that are obviously part of the mine operation (e.g., mill buildings, truck



- maintenance shops, etc.) to be specifically identified as such, but does for buildings that don't appear to be related to the mine operation. Please label and provide the owner's name for all valuable, and permanent man-made structures contained on the area of affected land and within two hundred (200) feet of the affected land that are not clearly part of the mine operations. Be advised this comment also applies to structures in Poverty Gulch in the vicinity of the Chicago Tunnel and Proper Adit.
5. *Drawing C-3.* There are numerous utility alignments... The Division appreciates CC&V identifying the owner of each utility in the December adequacy response. Heretofore, the Division was unaware the majority of these utilities were not owned by CC&V. The response is not adequate. The response attempts to argue slope stability analyses and historic blast monitoring demonstrate there will be no impact on the utilities. The implication is blasting and the stability of existing slopes pose the only risk to these utilities. Other mine operations or incidents that the Division has observed over the life of the mine (e.g., large process solution releases and their required cleanup/mitigation excavation near the VLF liner edge) can impact the local stability of slopes. The proximity of the gas line to the AGVLF southwest of the HGM is of particular concern. Furthermore, Rule 6.4.20(b) states "where an agreement cannot be reached", an appropriate engineering evaluation can be provided. CC&V has not demonstrated that a damage compensation agreement cannot be reached. This must be demonstrated prior to accepting an engineering evaluation. Finally, pursuant to C.R.S. 34-32-115(4), "The board or office shall not deny a permit if the operator demonstrates compliance, where subsection (d) includes "will not adversely affect ... permanent manmade structures ... except where there is an agreement between the operator and the persons having an interest in the structure..." Here the statute indicates not having such an agreement is basis for denial. If an agreement cannot be reached with each of the utilities and CC&V can demonstrate as much, the Division will require additional measures be implemented by the mine beyond the slope stability analyses and blast monitoring in order to reduce risk of damage to utilities.
6. *Drawing C-4.* "General Location of the Proposed Haul Road". The response is not adequate. The response states CC&V will submit designs for a revised haul road alignment such that "the haul road is entirely on CC&V owned property" in advance of underground mining activities. The Division requires the commitment clarify two important details: 1) The haul road must be entirely within the affected area boundary, and 2) the designs must be submitted as a technical revision or amendment.

6.4.20 Exhibit T – Permanent Man-Made Structures

13. *Complaint from the Mollie Kathleen...* The response is not adequate. Pursuant to Rule 6.5(4), at sites where blasting is part of the proposed mining or reclamation plan, the Applicant shall demonstrate through appropriate blasting, vibration, geotechnical, and structural engineering analyses, that off-site areas will not be adversely affected by blasting. The response states CC&V/Newmont met with a Mollie Kathleen representative (Mr. Dennis Lanning) and Mr. Lanning's concerns had been addressed, yet no documentation signed by Mr. Lanning was provided. The response also references "information provided in Attachment 2". The information provided in Attachment 2 includes two letters from

Matheson Mining Consultants: one dated December 22, 2011 (previously seen in the AM-10 application), and the other dated November 3, 2015 (included in the original AM-11 application); both dated prior to the AM-11 objection from Mr. Lanning and neither mentioning the underground workings of the Mollie Kathleen tourist mine. The Division requires either a completed and signed Party Status Withdrawal Form (enclosed) from Mr. Lanning or a rigorous engineering evaluation demonstrating the proposed underground blasting and the North Cresson surface blasting, both of which will be much closer to the Mollie Kathleen than any previous Cresson Project blasting, will not adversely affect the Mollie Kathleen tourist mine (both surface structures and underground workings).

6.4.21 Exhibit U – Designated Mining Operation Environmental Protection Plan

Project Description

21. *Page 11-1, Section 11.1 Surface Water.* CC&V's September 2016 response committing to provide the Division with surface water quality data on a quarterly basis beginning with Q3 2016 is adequate.
24. *VLF Detailed Reclamation Plan.* CC&V's response committing to provide the Division with a detailed reclamation plan for the AGVLF thorough the permit modification process (technical revision or amendment, as appropriate) within 180 days of the approval of AM-11 is adequate. Please note, if, on the decision deadline there exists unresolved adequacy issues which prohibit the Division from rendering a favorable recommendation, this condition may be used to support a recommendation to deny AM-11.

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30. *Appendix 5 – Scope and Purpose Clarification.*
 - b. *Limits of potential highwall failure.* The response including CNI's revised presentation of the stability analyses results is adequate.
31. *Appendix 5 – Factors of Safety.*
 - b. *...Wiles (2000) suggesting the "coefficient of variation..."* The response is adequate given the adequate response to Comments 30.b above.
34. *Appendix 5 Section 6.3, Global Stability Analysis Results (p. 6-4).* The response is adequate.
35. *Appendix 5 Section 6.3.5, Figures 6-1 and 6-18.* The response is adequate.
37. *Appendix 5 Section 6.3.11, Figures 6-1 and 6-18.* The response is adequate.
38. *Appendix 5 Table 6-2.* CC&V's stated commitment to modify and implement recommended slope angles based on updated slope stability analyses as provided in Table 1-5 of the Appendix 5 is adequate.

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53. *Appendix 10, Chicago Tunnel Site Detention Pond (p. 6).* The response to this comment was received on December 27, 2016 and is currently under review. The Division will

provide additional comments as necessary.

57. *Appendix 10, Drawing CCVSA11-6.* The response to this comment was received on December 27, 2016 and is currently under review. The Division will provide additional comments as necessary.

The following comments are based on the Division's review of Adequacy Review Response (received December 19, 2016) to supplemental DRMS Comments on Amendment 11. The original alphabetic identifiers of these comments have been retained for the purpose of tracking.

Supplemental AM-11/11.1 Adequacy Responses Received October 3, 2016

A. *Vol. I, Exhibit U, Project Description.* The response to the request for more detail in the reclamation plan for the Chicago Tunnel/Proper Adit areas raised additional questions. As such, the response is not adequate. The previous adequacy requested clarification as to what differences the Division should expect between the approved reclamation plans for the Chicago Tunnel (M-1988-026) and the Cresson Project (M-1980-244). The response was "reclamation will be completed in a manner similar to other portions of the Cresson Project." Later, the December 19, 2016 response suggests the original Chicago Tunnel reclamation plan will be maintained. There are significant differences between the two plans. For example, there is not a single species in the two seed mixes in common. Furthermore, the response to Comment B states "a detailed reclamation plan for the Chicago Tunnel underground mine area is not yet fully developed...". The Division requires additional information on the following:

- a. Clarify what part of the reclamation plan will follow the approved Chicago Tunnel plan and what part will follow the Cresson Project plan.
- b. Please describe the temporary buildings to serve as an office and change house. Where will they be located? Will there be foundations on which to place these temporary structures? Will there be any superstructure requiring removal/demolition in order to transport them offsite when no longer required?
- c. The historic structures in the vicinity of the Chicago Tunnel identified in the SWCA survey need to be identified and labeled on both Exhibits C and F. It should be clear which structures are to remain and which, if any will be relocated or removed. If the current disposition of any of these structures has not been determined based on discussions with SHPO, Teller County, and/or the City of Cripple Creek, it should be noted on Exhibits C and F.
- d. The second paragraph of the response states "existing structures will be reclaimed as is specified in the current Chicago Tunnel/Proper Adit reclamation plan". The second sentence references reclamation costs in the AM-11 application. Please clarify that the intent is to reference the reclamation plan approved in Permit No. M-1988-026, and provide a reference as to where the reclamation plan can be found

(i.e., Exhibit, page, etc. Also include references to adequacy reviews and responses between the Division and CC&V).

- e. The second paragraph also differentiates between existing, non-historic buildings (vs. historic structures); and roads existing prior to 1980 (that will remain in place) and “new” roads. All roads and structures need to be identified on Exhibits C and F as to which category they belong so as to provide a clear reclamation plan. “Historic waste rock piles” and “other historic mine features” to remain must also be identified on Exhibits C and F.
- f. The last paragraph states the area is “already shown on Exhibit F-1”. However, there is inadequate detail due to the small scale to show the proposed topography of the area with contour lines of sufficient detail to portray the direction and rate of slope of all the reclaimed lands as required by Rule 6.4.6(a). Please provide an additional Exhibit F map showing this detail and meeting the requirements of Rule 6.2.1(2)(e). Please also include specifics for the reclamation of the features not in the original permit such as the proposed ore storage area.
- g. The approved mine plan for Permit No. M-1988-026 allows for no more than 8,000 tons to be dumped on the surface (April 25, 1988 Adequacy Review to MLRD, from CC&V, Item No. 2). Exhibits C and F should show where and how much of the 8,000 tons of material has been placed, so the Division can determine when this level of placement has been achieved.
- h. Please clarify if the Proper Adit is to be used or if it will just be properly sealed or gated.

B. *Vol. IV, Appendix 11, Reclamation Cost Estimate.* Tab 58 (Chicago Tunnel).

- a. The response is not adequate. The response begins by stating “a detailed reclamation plan for the Chicago Tunnel underground mine area is not yet fully developed...”. Please note:
 - i. Pursuant to C.R.S. 34-32-115(4), the Division may be prohibited from approving an amendment to a Mine Reclamation Permit when the area to be incorporated into the existing permit does not have a fully developed mine reclamation plan.
 - ii. Pursuant to Rule 4.2.1(1), the financial warranty shall be set and maintained at a level which reflects the actual current cost of fulfilling the requirements of the reclamation plan and environmental protection plans. Therefore, the Division cannot verify the reclamation cost estimate until the reclamation plan and environmental protection plans are fully developed.

- iii. Based on CC&V responses from September 2016 and December 19, 2016, the Division's understanding of the reclamation plan for the Chicago Tunnel area is that the current Cresson Project (M-1980-244) reclamation approach will be used for grading, topsoiling and revegetation. The approved Chicago Tunnel (M-1988-026) reclamation plan will be used for reclamation not covered by the approved Cresson Project plan, such as closure of adits/tunnels. The Division also understands that CC&V may want to update some specifics for reclamation in the Chicago Tunnel area. The Division will consider and review any updates through the normal process for technical revisions and amendments as appropriate. Please confirm this is what was intended to be conveyed with the statement regarding a detailed reclamation plan for this area is not fully developed. Also provide the requested map discussed in Comment A above.
- b. The December 19, 2016 response reiterated the location of the Providence Mine reclamation cost estimate on page 104 of the Reclamation Cost Estimate in Appendix 11. Volume IV of the AM-11 submittal. Please confirm the Providence Mine is not intended to be included in AM-11.
- C. *Mollie Kathleen Tourist mine*. Potential safety impacts to the Mollie Kathleen tourist mine:
 - a. *Concerns over "airflow, ventilation and subsurface ground stability"...* CC&V's commitment to continue to communicate with Dewey-Dwight on a routine basis is adequate for the purpose of concerns over airflow and ventilation. The frequency of routine communication should be included in this commitment. The Division suggests a Mollie Kathleen representative be contacted by CC&V: 1) at least one week prior to the tourist mine opening each season; 2) at least every other week during the Mollie Kathleen's operating season, and 3) whenever CC&V's planned underground operations include backfill, stope opening or other activities that may impact the network of existing underground workings and alter airflow. However, as the requirements expressed in Comment 13 above have not been adequately addressed, concerns about subsurface ground stability still need to be resolved. The response is not adequate, pursuant to Rule 6.5(4). An adequate response to Comment 13 above is required.
- D. *Teller County*. Cripple Creek Mining Overlay District (CCMOD). The response is adequate. Based on the referenced November 4, 2016 letter from Teller County officials, the Division understands Teller County will rely on both the Division's and County review processes to address Teller County concerns.
- E. *City of Cripple Creek*. The response is not adequate. The following comments address each of the five separate responses to issues raised by the City of Cripple Creek's March

29, 2016 letter, as provided to the Division on December 19 (as Items (1) through (5) below) followed by summary comments for the remaining issues:

- 1) *Item 5 – Location of Proposed Haul Road.* An adequate response to Comment 6 above is required.
- 2) *Items 1, 2, and 3 – Drawing with City Requested Boundaries.* The response references a) a drawing provided to the City of Cripple Creek on September 30, 2016, and b) a drawing emailed to the Division and Teller County on November 8, 2016. The Division must have a copy of the September 30 drawing provided to the City of Cripple Creek in order to demonstrate the boundaries requested by the City were on the referenced drawing. The drawing submitted to the Division and Teller County was provided as a *Draft* version and was not considered an official submittal. As it was referenced in the subject response letter, the November 8 drawing has been added to the Division's public document file (Laserfiche). However, the Division requires a final version that is signed by the appropriate person (e.g., registered land surveyor, professional engineer, or other qualified person), pursuant to Rule 6.2.1(2)(b). Please provide the referenced drawings. In order to address the City's concerns, the final, larger scale drawing(s) should include: existing and approved facilities and utilities; proposed facilities and utilities; and changes to disturbance categories.
- 3) *Item 8 – Utilities.* The removal of the proposed waterline on Drawing C-3 appears to adequately address the City's comment. The response is adequate.
- 4) *Item 9b – Traffic Study.* CC&V's response to access the Chicago Tunnel area via the mine's Iron Clad Security facility appears to adequately address the City's comment. The response is adequate.
- 5) *Item 9j – Water Quality.* The response to capture and re-use water encountered in the Chicago Tunnel appears to adequately address the City's comment. However, the commitment to apply for the appropriate CDPS permit requires an addition to Exhibit M. Please provide an updated Exhibit M (pursuant to Rule 6.4.13) to include a potential CDPS permit for the Chicago Tunnel.
- 6) *Item 4 – Mining Disturbance and Boundaries.* The Division anticipates the requested maps discussed in Comments 6 and E.2 above will address potential jurisdictional issues raised by the City.
- 7) *Item 6 – City Rights-of-Way.* The Division believes CC&V's commitment to access the Chicago Tunnel area via the Iron Clad entrance adequately addresses the City's comment.

- 8) *Item 7 – Surface Water Control.* The Division anticipates the requested maps discussed in Comments 6 and E.2 above will address potential jurisdictional issues raised by the City.

**Follow-up Review Response to Amendment 11 ECOSA Stability Comments Dated
November 23, 2016**

The Division reviewed the Adequacy Review Response (received December 19, 2016) for ECOSA related Comments N1, N2, N3, N4, and N5. All five responses were deemed adequate, no further response is necessary.

If you have any questions or need further information, please contact me at (303) 866-3567 x8169.

Sincerely,



Timothy A. Cazier, P.E.
Environmental Protection Specialist

Enclosure (Party Status Withdrawal Form)

ec: Wally Erickson, DRMS
Amy Eschberger, DRMS
Elliott Russell, DRMS
DRMS file
Meg Burt, CC&V
Erik Munroe, CC&V
Dan Williams, Teller County