



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, Colorado 80203

January 14, 2019

Mark A. Steen
Colorado Milling Company, LLC
P.O. Box 1523
Longmont, CO 80502

**Re: Gold Hill Mill, Permit No. M-1994-117
Amendment Application (Revision No. AM-01), Adequacy Review No. 3**

Mr. Steen:

The Division of Reclamation, Mining and Safety (Division) has completed its third adequacy review of the materials submitted for the above referenced amendment application. All comment and review periods for the application began on January 4, 2018, when the application was called complete for filing purposes. The decision date for the application, **January 4, 2019**, has expired. The operator has requested a 90-day extension of this date. However, pursuant to Rule 1.4.1(9), the Division is unable to approve an extension beyond 365 days from the date the application was filed. Therefore, the operator's request has been set for consideration by the Mined Land Reclamation Board (Board) at the February 20-21, 2019 Board meeting.

After reviewing the operator's adequacy response submitted on January 4, 2019, the Division has identified adequacy items requiring clarification or additional information. These items are identified below under their respective exhibit heading, and are numbered sequentially. The item numbers referenced in this letter correlate with the Division's adequacy items identified in its review letter sent to the operator on December 21, 2018.

Exhibit C – Mining Plan (Rule 6.3.3):

- 1) The operator's response to item no. 8 states the footbridge will no longer be installed, and that a field survey has disclosed a gap between the Mammoth MS No. 17576 and the Paris MS No. 5149A that will provide access to the pump station from Licksillet Road. This open area is located entirely on the Gold Gulch unpatented lode mining claim owned by the operator. Please describe this new proposed access to the pump station. Is there an existing trail/road in this area? If so, will it need to be improved and/or widened for access by the operation? Will any vegetation need to be removed from this area? This information is needed for the Division to determine whether the access is considered affected land pursuant to Rule 1.1(4). Please show this proposed access on the E-1 – Mine Plan Map.
- 2) The operator's response to item no. 9 includes a generalized cross-section of the Times Mine adit and a generalized cross-section of the Times-Wynona Mines. The Times-Wynona Mines cross-



section shows a different scenario than what is depicted in the cross-section of these workings submitted with the December 11, 2018 response. Firstly, the new submittal shows the 50 foot winze dropping down at an angle to connect to the 100 foot level of the Wynona Mine, while the previous submittal shows the 50 foot winze dropping vertically to connect to this level. Secondly, the new submittal does not show the tunnels for each of the four levels in the Wynona Mine. Please explain the differences between these two cross-sections.

Additionally, please add more details to these cross-sections, including:

- a. the elevation of the Times Mine portal
- b. the floor elevation at the bulkhead location
- c. the collar elevation of the 50 foot winze
- d. the collar elevation of the Wynona Mine shaft
- e. the proposed maximum water level to be maintained in the mine workings
- f. the length and diameter of the culvert installed in the Times Mine adit
- g. the dimensions of the concrete bulkhead in the Times Mine adit
- h. the distance to the bulkhead from the portal entrance
- i. the distance between the bulkhead and the winze opening
- j. the location of any equipment installed or to be installed in the Times Mine adit and/or Wynona Mine shaft

These details are needed to better depict the proposed water storage scenario, and thus help the Division determine whether disturbances to the prevailing hydrologic balance will be minimized, as required by Rule 3.1.6(1).

- 3) The operator's response to item no. 9 states that water will be drawn from the Times and Wynona Mine workings from drill holes and pumps that will be connected to these mine workings. It was the Division's understanding that water would only be pumped out for mill use from the Wynona Mine shaft. Please describe any other locations proposed for obtaining water from these workings. Additionally, please be sure these locations are clearly identified on the E-5 - Mill Site map.
- 4) The operator's response to item no. 10 states the operation will access the water pipeline easement using four historic mine roads. Please describe these existing roads. Will the roads need to be improved and/or widened for use by the operation? Will any vegetation need to be removed from these areas? This information is needed for the Division to determine whether the access roads are considered affected land pursuant to Rule 1.1(4). Please show these historic mine roads on the E-1 through E-5 maps.
- 5) The operator's response to item no. 10 states the legal right to cross the property between the county roads and the waterline was preserved in the Water Pipeline Easement Deed with Boulder County. The Easement for Water Line with Access agreement was submitted with the response. This agreement grants the operator a permanent and perpetual 12 foot wide easement with access for ingress and egress over a portion of the Eureka Millsite, MS 601B (from Licksillet Road, County Road 89). This appears to be the only access location covered by the agreement.



However, the operator has stated the operation will use four historic mine roads to access the water pipeline easement. Does one or more of the historic mine roads cross the Eureka Millsite, MS 601B? Please describe the properties on which the four historic mine roads exist. Additionally, please provide demonstration the operator has a legal right to access/cross these properties as proposed.

- 6) The operator's response to item no. 11 indicates the operation proposes retaining water behind the Times Mine bulkhead above the collar elevation of the 50 foot winze connecting the Times Mine to the Wynona Mine, potentially filling the Times Mine cross-cut with water. This appears to contradict the operator's response to item no. 12 which states the maximum elevation that water will be retained in the mine is 8,360 feet, the collar elevation of the 50 foot winze. Please explain this contradiction. Additionally, please explain how/when the collar elevation of the winze was obtained.
- 7) The operator's response to item no. 13 indicates the Times Mine bulkhead is already impounding some water. Please provide demonstration the bulkhead is designed to impound water for the full height of the bulkhead, with completely flooded workings (Times Mine cross-cut filled with water). This demonstration must include certification by a professional engineer. Alternatively, the operator can commit to maintaining water levels in the mine workings below the collar elevation of the 50 foot winze (said to be 8,360 feet). In either case, please describe the monitoring system that will be utilized to monitor bulkhead pressure.
- 8) The operator's response to item no. 12 states that water levels will be monitored by periodic manual measurements in the Wynona Mine shaft well casing. Please state the frequency that water levels will be monitored during operations. Additionally, please commit to maintaining the monitoring records on site to be made available for Division review during inspection.
- 9) The operator has indicated the Wynona Mine workings are currently flooded to some extent. Therefore, please commit to measuring water levels in these workings on a quarterly basis for five quarters, and submitting this data to the Division a minimum of 60 days prior to commencing with operations. This information will help demonstrate whether the proposed water storage is a closed system, thus minimizing disturbances to the prevailing hydrologic balance.
- 10) The operator's response to item no. 14 states the Wynona Mine water will be sampled on a quarterly basis (and analyzed for a total of 12 water quality parameters), when the operation begins storing water in the mine and when the mill is in operation. Firstly, please add the following parameters approved in Technical Revision No. 9 to the Winona Mine sampling parameter list: Manganese, Temperature, and Conductivity. Secondly, please commit to collecting a grab sample of the current mine-pool and providing the results to the Division a minimum of 60 days prior to pumping out the water for mill use or pumping any additional water behind the Times Mine bulkhead. Lastly, please commit to reporting the Wynona Mine water quality sampling results to the Division on a quarterly basis along with the other required water monitoring data for the site once operations have commenced.



- 11) The operator's response to item no. 15 states the discrepancy between the estimated annual water usage for the mill and the amount of water the operator is authorized (per Decree) to withdraw from Left Hand Creek during irrigation season was a mathematical error. However, no further explanation was provided. Please describe the error. Will the mill be limited to operating less than 50 tons of ore per day and/or less than 260 days per year due to the water requirements (4 tons water/1 ton ore)?
- 12) The operator's response to item no. 17 states the Wynona Mine shaft has been caved from about 10 feet down to about 70 or 80 feet below the surface for many years, and no water has ever been observed flowing from the collar of the shaft.

The Division has the following questions/comments regarding the Wynona Mine shaft:

- a. Please describe any work that will need to be done to the shaft prior to using it for the operation.
- b. How does the operator know the location of the collapse? Has the shaft been characterized since caving in?
- c. Will this collapse interfere with the operator's ability to obtain accurate water level readings or collect water quality samples from the shaft?
- d. How does the operator intend to install the necessary infrastructure through the collapsed shaft to pump water from the workings? Is there existing infrastructure that will be utilized?

Exhibit D – Reclamation Plan (Rule 6.3.4):

- 13) Please describe the proposed reclamation plan for the Wynona Mine shaft. Additionally, please be sure the closure costs for this shaft are included in the reclamation cost estimate.

Exhibit E – Map (Rule 6.3.5):

- 14) The operator's response to item no. 25 included revised Exhibit E maps. Map E-3 – Revised Mine Reclamation Plan indicates the proposed pump station, fuel tank, and 2" water line will be removed for reclamation. However, the map does not clearly describe the components of the reclamation plan for the Times Mine adit, or the mill site, including the Wynona Mine shaft. Please include these details on the reclamation plan map. Because Map E-3 is very busy due to the surface ownership information being included, it would be helpful to also include the reclamation information for the Times Mine and the mill site on a map showing a closer view of those areas (i.e., Map E-5). Please be sure any mining plan and reclamation plan maps are labeled accordingly.

Exhibit L – Permanent Man-Made Structures (Rule 6.3.12):

- 15) The operator's response to item no. 30 included proof of hand-delivery of structure agreements to Excel Energy (for the power poles and lines) and to Boulder County (for Lefthand Canyon Dr.,



Lickskillet Rd., and Sunshine Canyon Dr.). Please submit copies of the executed structure agreements, or per Rule 6.3.12(b), provide an appropriate engineering evaluation that demonstrates these structures will not be damaged by activities occurring at the mining operation.

For the structures owned by Gene L. Sapp and Dene F. Sapp, the operator states they are covered by the Easement for Water Line with Access (submitted with the response) which grants the operator legal right of entry to their property, the Eureka Millsite, MS 601B to access the water line easement. The Division could not find any language in the agreement regarding structures owned by the landowners. Therefore, the easement agreement does not satisfy the requirements of Rule 6.3.12(a), as it does not include language that the operator will provide compensation for any damage to structures. Please provide demonstration that structure agreements have been attempted for these structures (proof of hand-delivery or Certified Mailing). If a structure agreement cannot be reached for these structures, per Rule 6.3.12(b), please provide an appropriate engineering evaluation that demonstrates these structures will not be damaged by activities occurring at the mining operation.

For the structures owned by James K. McCumber and Amy Fortunato, the operator provides discussion as to why the proposed infrastructure at the Left Hand Creek pump station should pose no potential for adverse damage to these structures. The Division understands the proposed activities in this area are minimal with no excavations. However, the operator's information does not fully demonstrate the stability of these structures will not be adversely affected by the operation. Therefore, please provide demonstration that structure agreements have been attempted for these structures (proof of hand-delivery or Certified Mailing). If a structure agreement cannot be reached for these structures, per Rule 6.3.12(b), please provide an appropriate engineering evaluation that demonstrates these structures will not be damaged by activities occurring at the mining operation.

Additional Item(s):

- 16) Please remember that, pursuant to Rule 1.6.2(1)(c), any changes or additions to the application on file in our office must also be reflected in the public review copy which was placed with the County Clerk and Recorder. Pursuant to Rule 6.4.18, you must provide our office with an affidavit or receipt indicating the date this was done.
- 17) Please be informed, the Division has changed the inspection frequency for this permit to annually. The operator will be noticed of any future change to this frequency.

This concludes the Division's third adequacy review of your amendment application. Pursuant to Rule 1.4.1(10), the operator has the burden of demonstrating that the application meets the minimum requirements of the Act, Rules, and Regulations. Therefore, all adequacy items identified by the Division must be sufficiently addressed in order for the application to be approved.

As mentioned above, the decision date for the application, January 4, 2019, has expired, and your extension request has been set for consideration by the Board at the February 20-21, 2019 Board



meeting. Pursuant to Rule 1.4.1(9), at the hearing, the Board may at the request of the operator extend the review period and decision date, deny the application, or approve the application with or without conditions.

If you have any questions, you may call me at (303) 866-3567, ext. 8129, or email me at amy.eschberger@state.co.us.

Sincerely,



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