


**COLORADO**Division of Reclamation,
Mining and Safety

Department of Natural Resources

MINERALS PROGRAM INSPECTION REPORT**PHONE: (303) 866-3567**

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Cash & Who Do Mines	MINE/PROSPECTING ID#: M-1983-141	MINERAL: Gold and silver	COUNTY: Boulder
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger, Wally Erickson	INSP. DATE: August 1, 2017	INSP. TIME: 14:42
OPERATOR: Colorado Milling Company, LLC	OPERATOR REPRESENTATIVE: Mark Steen	TYPE OF OPERATION: 110(2) - Hard Rock Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$216,200.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: January 11, 2018	

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Revegetation

PROBLEM: There are state-listed noxious weeds present on site. This is a problem for failure to employ weed control methods for state-listed noxious weed species within the permitted area, and to reduce the spread of weeds to nearby areas as required by Rule 3.1.10(6).

CORRECTIVE ACTIONS: Implement the approved weed control plan and provide proof to the Division that this has been done. If a weed control plan is not already in place, the operator shall develop a weed control and management plan in accordance with Rule 3.1.10(6). This plan should be developed in consultation with the county extension agency, or weed control district office and should include specific control measures to be applied, a schedule for when control measures will be applied and a post-treatment monitoring plan. This weed control plan shall be submitted to the Division as a Technical Revision to the approved plan with the appropriate fee of \$216.00 by the corrective action due date.

CORRECTIVE ACTION DUE DATE: February 10, 2018

OBSERVATIONS

This was a normal monitoring inspection of the Cash & Who Do Mines (Permit No. M-1983-141) conducted by Amy Eschberger and Wally Erickson of the Division of Reclamation, Mining and Safety (Division). The permittee, Colorado Milling Company, LLC was represented by Mark Steen during the inspection. The site is located approximately 10 miles northwest of Boulder, Colorado. The site can be accessed from the north via Sunshine Canyon Drive by passing through the permittee's other mine site, Gold Hill Mill (Permit No. M-1994-117), or from the south via Gold Run Road. Enclosed with this report are **Photos 1-16** taken during the inspection.

This is a 110(2) underground mining operation permitted for 9.83 acres to mine gold and silver (see enclosed Google Earth image of site with important mine features labeled). The permit area is split into three areas including the Mount Royale Adit Area, the Cash Mine Area, and the Who Do Mine Area. Ore mined from this operation is hauled up Cash Gulch to the Gold Hill Mill for processing. The approved post-mining land use for the site is forestry. The permit has been transferred eight times, with transfer to the current permittee occurring in 2015. The permit has been revised through a series of seven Technical Revisions and two Amendments. The most recent revision (TR-07) modified the approved groundwater monitoring plan.

The approved groundwater monitoring plan includes quarterly sampling from the following locations: Cash Mine pool from 3rd level adit, upgradient well MW-1, and downgradient well MW-5. The approved sampling parameters include Arsenic, Cadmium, Manganese, Zinc, Sulfate, pH, Temperature, Conductivity, and Total Dissolved Solids. There are two surface water sampling locations downgradient from the mine workings, one in Cash Gulch (SW-1) and one in the unnamed gulch to the east (SW-2). These drainages are generally dry, with flow only occurring in limited reaches during or immediately after precipitation or snowmelt events. These drainages are tributary to Gold Run Creek, which is tributary to Fourmile Creek (in the vicinity of Salina). Fourmile Creek is tributary to Boulder Creek approximately 5 miles further downstream (in the vicinity of Orodell).

The site has been inactive since 2008, and is currently in its final term of Temporary Cessation (TC), which will expire in June 2018, per Rules 1.13.5(1)(b) and 1.13.9. According to Mr. Steen, once out of TC, the mine could stay active for quite some time by hauling material from the existing mine dumps up to the mill for processing. Mr. Steen indicated it could be a while before the operation continues underground mining activities.

The Bureau of Land Management (BLM) owns portions of the surface of the permitted area. In April 2013, the BLM issued a Notice of Temporary Suspension for all the Gold Hill Mines operations (including Cash and Who Do Mines and Gold Hill Mill). The initiation of mining or milling operations may not occur until such time as the BLM has completed the NEPA process, approved a Plan of Operations for these activities, and terminated the suspension order. Mr. Steen indicated during the inspection he is currently working with the BLM to get a Plan of Operations in place. The BLM has informed the Division that an incomplete Plan of Operations was submitted to their office in June 2017. However, as of September 2017, the BLM had not yet received the additional information required to call the Plan of Operations complete. The operation will need to gain compliance with the BLM prior to recommencing activities at the site.

The Division began the inspection at the Mount Royale Adit Area, which is located downgradient from the other two areas, and can be accessed via Gold Run Road. This area includes the main ore bin/loadout, waste rock dump areas, the Mount Royale No. 1 Adit, and a small sediment pond located below the mine portal (on top of the waste rock pile). The adit was discharging some water at the time of the inspection. The water was leaving an orange stain on the ground surface, consistent with an iron oxide precipitate. The mine water reports to the sediment pond. The sediment pond was partially full of water and no water was observed to be

discharging from the pond. According to the permit record, the Division has asserted that a discharge permit is necessary for the water coming out of the mine. The Water Quality Control Division of the Colorado Department of Public Health and Environment has determined that a discharge permit is not required for this operation. Additional information regarding the need for a discharge permit can be obtained in the permit file.

The Cash Mine Area is located just uphill from the Mount Royale Adit Area. The Cash Mine Area includes the Cash shaft and headframe, a hoist house, an office building, a main storage building, and an escapeway adit. In the permit record, it appears the Division refers to both this area and the Mount Royale Adit Area collectively as the "Cash Mine Area". Therefore, the Mount Royale No. 1 Adit is also sometimes called the Cash Mine or Cash Portal.

The Division inspected the Who Do Mine Area located on the other side of Cash Gulch, west of the Cash Mine Area. This area includes a mine portal (referred to as the Donald R. Adit in the mining plan), the Who Do shaft and headframe, a mine dump area, a collapsed building (possibly the remnant Hoist House mentioned in the mining plan), and a small brick building (possibly the remnant Powder Magazine mentioned in the mining plan). The adit in this area is typically referred to in the permit file and inspection reports as the Who Do Mine or the Who Do Portal. The Division could see some water present in the mine portal, but no water was observed discharging directly from the portal. However, the ground surface of the small sump located directly in front of the portal had some orange staining, indicating the sump does impound mine discharge as intended. The Division did not observe orange staining on the ground outside of the sump area.

The Division did not observe a permit sign posted for the Cash and Who Do Mines operation. However, a problem is not cited in this report as the operator submitted photographic evidence on September 27, 2017 showing an appropriate permit sign has been placed at the northern gated entrance to the site.

The Division did note the presence of several weed species at the site, including Common mullein and Canada thistle, which are state-listed noxious weed species. Rule 3.1.10(6) requires that methods of weed control be employed for all prohibited noxious weed species and whenever invasion of a reclaimed area by other weed species seriously threatens the continued development of the desired vegetation. The Division cited a problem for weeds in the inspection report for Gold Hill Mill, sent on August 28, 2017. On November 29, 2017, the operator submitted a Technical Revision (Revision No. TR-10) to update the weed control plan for the Gold Hill Mill site. Because the Gold Hill Mill is a separate permit, the operator will need to address this issue separately for the Cash and Who Do Mines permit. Therefore, a problem is cited in this report for the presence of state-listed noxious weed species at the Cash and Who Do Mines. By the corrective action deadline, the operator will need to either provide proof that the approved weed control plan has been implemented at the site, or develop a weed control plan and submit it as a Technical Revision to the Cash and Who Do Mines permit. The operator may submit the same weed control plan submitted for Gold Hill Mill.

This concludes the inspection.

PHOTOGRAPHS



Photo 1. View looking east at Cash Mine Ore Bin/Loadout.



Photo 2. Closer view of Cash Mine Loadout area.



Photo 3. View of groundwater monitoring well MW-5, located just downgradient from the Mount Royale No. 1 Adit.



Photo 4. View looking southwest, showing small sediment pond located on top of waste rock pile, below the Mount Royale No. 1 Adit (adit circled). Note pond was partially full of water.



Photo 5. Closer view of Mount Royale No. 1 Adit.



Photo 6. View of ground immediately in front of Mount Royale No. 1 Adit, showing water draining from portal. Note orange colored staining of ground where drainage occurs.



Photo 7. View looking southeast from Mount Royale No. 1 Adit, showing mine drainage flowing toward sediment pond. Note orange colored staining of ground where drainage occurs.



Photo 8. View looking toward Mount Royale No. 1 Adit from edge of sediment pond, showing mine drainage path toward pond. Note orange colored staining of ground where drainage occurs.



Photo 9. View looking north toward Who Do Portal.



Photo 10. View looking inside Who Do portal, showing some water present. However, no water was observed discharging directly from the portal.



Photo 11. View of sump area located directly in front of Who Do portal. Note some orange colored staining of ground surface inside sump, indicating it does impound mine drainage as intended.



Photo 12. View of area in front of Who Do Portal showing abundance of weeds, including state-listed noxious weed species Common mullein.



Photo 13. View of Who Do headframe.



Photo 14. View of collapsed building (behind old mine carts) located southwest of Who Do headframe. This building may be the remnant Hoist House mentioned in the mining plan.



Photo 15. View of small brick shed located southwest of collapsed building in Who Do Mine Area. This building may be the remnant Powder Magazine mentioned in the mining plan.



Photo 16. View looking southwest where rails end at edge of mine dump in Who Do Mine Area.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>PB</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address

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Enclosure: Google Earth image of site with important mine features labeled

CC: Mike Bynum
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Moab, UT 80342

Stephanie Carter, BLM via email at: sscarter@blm.gov
Wally Erickson, DRMS via email at: wally.erickson@state.co.us

M1983-141 / Cash and Who Do Mines / Colorado Milling Company, LLC

Site view looking north, with important mine features labeled.
(Image data from 9/7/2016)

Donald R. Adit/ Who Do portal

Who Do Shaft and Headframe

Cash Shaft and Headframe

Mount Royale No. 1 Adit/ Cash portal

Main Ore Bin/Loadout