



**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.

|                                                              |                                                                                                                    |                                                                   |                             |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------|
| <b>MINE NAME:</b><br>Schwartzwalder Mine                     | <b>MINE/PROSPECTING ID#:</b><br>M-1977-300                                                                         | <b>MINERAL:</b><br>Uranium                                        | <b>COUNTY:</b><br>Jefferson |
| <b>INSPECTION TYPE:</b><br>Monitoring                        | <b>WEATHER:</b><br>Clear                                                                                           | <b>INSP. DATE:</b><br>November 10, 2022                           | <b>INSP. TIME:</b><br>13:00 |
| <b>OPERATOR:</b><br>Colorado Legacy Land, LLC                | <b>OPERATOR REPRESENTATIVE(S):</b><br>Liz Busby, Jim Harrington, Allan Steckelberg                                 | <b>TYPE OF OPERATION:</b><br>112d-2 - Designated Mining Operation |                             |
| <b>REASON FOR INSPECTION:</b><br>Normal I&E Program          | <b>BOND CALCULATION TYPE:</b><br>None                                                                              | <b>BOND AMOUNT:</b><br>\$7,674,022.00                             |                             |
| <b>DATE OF COMPLAINT:</b><br>NA                              | <b>POST INSP. CONTACTS:</b><br>None                                                                                | <b>JOINT INSP. AGENCY:</b><br>None                                |                             |
| <b>INSPECTOR(S):</b><br>Amy Eschberger<br>Michael Cunningham | <b>INSPECTOR'S SIGNATURE:</b><br> | <b>SIGNATURE DATE:</b><br>November 18, 2022                       |                             |

**GENERAL INSPECTION TOPICS**

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

|                                            |                                          |                                 |
|--------------------------------------------|------------------------------------------|---------------------------------|
| (AR) RECORDS----- <u>Y</u>                 | (FN) FINANCIAL WARRANTY----- <u>N</u>    | (RD) ROADS----- <u>Y</u>        |
| (HB) HYDROLOGIC BALANCE----- <u>Y</u>      | (BG) BACKFILL & GRADING----- <u>Y</u>    | (EX) EXPLOSIVES----- <u>N</u>   |
| (PW) PROCESSING WASTE/TAILING---- <u>N</u> | (SF) PROCESSING FACILITIES----- <u>N</u> | (TS) TOPSOIL----- <u>Y</u>      |
| (MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>   | (FW) FISH & WILDLIFE----- <u>N</u>       | (RV) REVEGETATION---- <u>N</u>  |
| (SM) SIGNS AND MARKERS----- <u>N</u>       | (SP) STORM WATER MGT PLAN---- <u>Y</u>   | (RS) RECL PLAN/COMP-- <u>Y</u>  |
| (ES) OVERBURDEN/DEV. WASTE----- <u>N</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 / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

## **OBSERVATIONS**

This was a normal monitoring inspection of the Schwartzwalder Mine (Permit No. M-1977-300) conducted by Amy Eschberger and Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). The operator was represented by Jim Harrington, Elizabeth Busby, and Allan Steckelberg during the inspection. The site is located approximately 6 miles northwest from Golden, CO in Jefferson County. Access to the site is off of Glencoe Valley Road. The affected lands are owned by the operator. This site is on a quarterly inspection frequency. This inspection serves as the 4<sup>th</sup> quarter inspection for 2022. **Photos 1-20** taken during the inspection are included with this report.

At the time of the inspection, the weather was cold and windy. The mine pool was reported at 264.5 feet below Steve Level, which is 114.5 feet below the required 150 foot depth. The water treatment plant was shut down for the winter in late August of this year. Flows from Ralston Creek were being diverted around the mine site via the bypass pipeline and discharged into the creek at the permitted outfall (SW-BPL).

The valley excavation project in which radionuclide-impacted alluvial valley soils are excavated and disposed of on site had not recommenced. This project has been on hold since December of 2021, after the Black Forest Mine reached capacity (for disposal of excavated material) and the main portal was partially backfilled in accordance with Amendment No. 5 (AM-5; approved on January 13, 2021). In Amendment No. 6 (AM-6), the operator proposed placing additional excavated material (approximately 12,000 cubic yards) at the southeastern edge of the existing South Waste Rock Pile (SWRP), essentially extending the SWRP to the south/southeast in front of the Black Forest Mine. The extended area will be "capped" with 3 feet of cover material and revegetated with a grass/wildflower seed mixture, similar to how the existing waste rock piles were reclaimed. The operator proposed three stormwater control features to be constructed in association with the proposed SWRP extension, including an earthen berm, a drainage swale, and rock armoring. The Division required additional details on these proposed structures which the operator was not able to provide during the AM-6 review period. Therefore, the operator committed to submitting a Technical Revision (TR) with a detailed stormwater management plan for the SWRP extension within 60 days of AM-6 approval. AM-6 was approved by the Mined Land Reclamation Board during a hearing held for the application on October 19, 2022. Therefore, the required TR is due by December 18, 2022. During the inspection, the operator indicated they are on schedule to submit the TR by this deadline.

Another commitment from AM-6 included installing an additional bedrock groundwater monitoring well downgradient of the mine, between existing wells MW-6 and MW-12. The operator will not be able to install this well until the alluvial excavation project has concluded, currently estimated for spring/summer of next year (2023). Per AM-6, the operator will need to submit a Technical Revision within 30 days of installation of the new well, including a final construction report and an updated groundwater monitoring plan and map that incorporate the new well.

Current activities at the site include the removal of refuse and unused equipment and the excavation of soil test pits to determine whether sufficient growth medium exists on site for use in reclamation. In the staging area located north of the creek, the operator has removed the rest of the old equipment and empty storage containers that were stored in this area. All that exists in this area now are piles of rock (which can be used for riprap), a few small slash piles, a wood chipper, and a pile of wood mulch (which can be used for revegetation). Additionally, the operator has recently dug four soil test pits in this area. These test pits show a very rocky substrate is present in this area, with limited soils available for use as a growth medium.

The operator has dug three additional soil test pits in the valley south of the creek, near the base of the mesa. These test pits indicate more usable soils may be present in this area, compared with the area north of the creek.

The operator stated that additional test pits may be excavated over the coming week. Soil samples will be collected from the test pits and sent to a laboratory for analysis to determine the quality of the soils for use as a growth medium. The reclamation plan approved in AM-6 included the importation of 5,727 cubic yards of topsoil for reclaiming the 7.1 acres of valley disturbance. In order to revise this plan, the operator would need to submit a Technical Revision that demonstrates sufficient growth medium is available on site to complete reclamation. This demonstration should include a description of the soil investigation and test results.

Excess organic materials (unable to be chipped), large rocks, and scrap metal are currently stored in separate piles along the southern canyon wall, near the Black Forest Mine. During the inspection, the operator mentioned possibly backfilling over at least some of these materials during construction of the SWRP extension. The large rocks may be placed on the surface after backfilling and recontouring, which would imitate natural conditions in the surrounding areas. The operator should be advised, the inclusion of scrap metal (or any other refuse) into the SWRP extension is not part of the approved plan. Additionally, the inclusion of this material into an Environmental Protection Facility (EPF), such as the SWRP, is not appropriate. Any scrap metal or other refuse will need to be disposed of off-site.

This concludes the report.

*Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at [amy.eschberger@state.co.us](mailto:amy.eschberger@state.co.us).*

## PHOTOGRAPHS



**Photo 1.** View looking southeast at eastern portion of top of mesa, showing materials to be removed for reclamation. Most of these materials were used in the wetland study that has concluded.



**Photo 2.** View looking northwest across valley from top of mesa, showing areas excavated for the alluvial valley excavation project.



**Photo 3.** View looking north across valley from top of mesa, showing soil test pits (circled) being excavated near base of mesa during inspection.



**Photo 4.** View looking southeast across central excavation area in valley. Note water treatment plant located at top of mesa (in background).



**Photo 5.** View looking southeast at westernmost soil test pit excavated near base of mesa.



**Photo 6.** Closer view of westernmost soil test pit excavated near base of mesa.



**Photo 7.** View looking northwest at center soil test pit excavated near base of mesa.



**Photo 8.** View looking southeast at easternmost soil test pit excavated near base of mesa.



**Photo 9.** View looking southeast across southern excavation area in valley. The adjacent access road will need to be temporarily relocated in order to complete excavation in this area.



**Photo 10.** View looking northwest across northern excavation area in valley. Note materials (indicated; described in report) stored against southern canyon wall in area where SWRP extension will be constructed (near Black Forest Mine).



**Photo 11.** View looking south, showing closer view of organic materials (in background) and large rocks (in foreground) stored against southern canyon wall.



**Photo 12.** View looking northwest, showing closer view of scrap metal stored against southern canyon wall (near Black Forest Mine). The operator is not authorized to include scrap metal in the SWRP extension.



**Photo 13.** View looking southeast across storage area located north of creek, showing old equipment and empty storage containers have been removed from this area.



**Photo 14.** View looking northwest at westernmost soil test pit excavated in storage area located north of creek.



**Photo 15.** View looking northwest at 2<sup>nd</sup> soil test pit (from the west) excavated in storage area located north of creek.



**Photo 16.** View looking northwest, showing closer view of 2<sup>nd</sup> soil test pit (from the west) excavated in storage area located north of creek.



**Photo 17.** View looking northwest at wood chipper and mulch pile present in storage area located north of creek.



**Photo 18.** View looking north at 3<sup>rd</sup> soil test pit (from the west) excavated in storage area located north of creek.



**Photo 19.** View looking northwest across storage area located north of creek, showing piles of rock stored in this area which could be used for riprap.



**Photo 20.** View looking northwest at 4<sup>th</sup> soil test pit (from the west) excavated in storage area located north of creek.

**Inspection Contact Address**

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