

**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:		MINE/PROSPECTING ID#:	MINERAL:	COUNTY:	
Schwartzwalder Mine		M-1977-300	Uranium	Jefferson	
<b>INSPECTION TYPE:</b>		INSPECTOR(S):	INSP. DATE:	INSP. TIME:	
Monitoring		Michael A. Cunningham	March 23, 2017	10:00	
OPERATOR:		<b>OPERATOR REPRESENTATIVE:</b>	TYPE OF OPERATION:		
Cotter Corporation		Steve Cohen, Bruce Nordquist	112d-2 - Designated Mining Operation		
<b>REASON FOR INSPECTION:</b>		BOND CALCULATION TYPE:	BOND AMOUNT:		
Normal I&E Program		None	\$4,339,003.39		
DATE OF COMPLAINT:		POST INSP. CONTACTS:	JOINT INSP. AGENCY:		
NA		None	None		
WEATHER:	INSPECTOR'S SIGNATURE:		SIGNATURE DATE:		
Clear	lit C.f		April 4, 2017		

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

## **OBSERVATIONS**

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). Steve Cohen and Bruce Nordquist were present on behalf of Cotter Corporation; Jim Harrington was present on behalf of Alexco Environmental; Tom Mountfort, Zeke Campbell, Randy Slocum, Christina Burri and Kevin Urie were present on behalf of Denver Water; Judy Schmidt, Kevin Tohill, Tara Kratzer and Kindra Greentree were present on behalf of Arvada Water; and Jeff Gillow, Jake Schill and Shannon Ulrich were present on behalf of Arcadis. The Schwartzwalder Mine is inspected quarterly; this inspection serves as the first quarter inspection.

The primary activities occurring at the Schwartzwalder Mine are related to water treatment. The treated water is discharged into Ralston Creek and in turn feeds the Ralston Reservoir, which provides drinking water for the cities of Denver and Arvada. Denver Water, Arvada Water and Arcadis attended the inspection to get an overview and update on the water treatment efforts at the mine. The Operator is currently pumping and treating the mine pool. The mine pool is currently 50 feet below the Steve Level. Mine pool elevations are anticipated to drop by several feet per week when the pumps are operating at full capacity.

As noted in the previous inspection report, the new water treatment building is in place and both reverse osmosis water treatment systems were online. The inspection included a tour and overview of the new water treatment plant and systems. Cotter is still waiting on obtaining a new radioactive materials license to allow the ion exchange (IX) water treatment system to be transferred to the new water treatment building. Once the IX system is relocated, the original water treatment plant will be demolished. The Division also inspected the in-stream pumps as well as the treated water discharge point and the discharge point for the bypass line. All water in Ralston Creek was being diverted through the bypass line at the time of the inspection.

The Division approved Technical Revision No. 23 on March 17, 2017, which addressed the excavation of alluvial valley fill. The excavated material will be added to the existing waste rock piles and the project is anticipated to span two construction seasons. The Operator is currently waiting on approval from the Army Corps of Engineers before proceeding with excavation activities.

The Division observed erosion on the North Waste Rock Pile. The Operator had taken measures to repair the eroded area including installing jute netting and reseeding the repaired area. The Operator should continue to monitor this area to ensure no further erosion occurs.

This concluded the inspection.

PERMIT #: M-1977-300 INSPECTOR'S INITIALS: MAC INSPECTION DATE: March 23, 2017

## **PHOTOGRAPHS**



1. Erosion repair on North Waste Rock Pile.

**Inspection Contact Address** 

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CC: Wally Erickson, DRMS