

**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
INSPECTION TYPE:		INSPECTOR(S):	INSP. DATE:	INSP. TIME:
Monitoring		Michael A. Cunningham	June 28, 2016	09:00
OPERATOR:		<b>OPERATOR REPRESENTATIVE:</b>	TYPE OF OPERAT	FION:
Cotter Corporation		Ken Mushinski, Steve Cohen	112d-2 - Designated	Mining Operation
<b>REASON FOR INSPECTION:</b>		BOND CALCULATION TYPE:	<b>BOND AMOUNT:</b>	
Normal I&E Program		None	\$4,339,003.39	
DATE OF COMPLAINT:		POST INSP. CONTACTS:	JOINT INSP. AGENCY:	
NA		None	None	
WEATHER:	INSPE	CTOR'S SIGNATURE:	SIGNATURE DAT	Е:
Clear	U	il C.f	July 12, 2016	

## **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>N</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>N</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>N</u>	(CI) COMPLETE INSP <u>N</u>
(ES) OVERBURDEN/DEV. WASTE <u>N</u>	(SC) EROSION/SEDIMENTATION <u>N</u>	(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 and Tim Cazier of the Division of Reclamation, Mining and Safety (Division). Ken Mushinski and Steve Cohen with Cotter Corporation were also present for the inspection.

The purpose of the inspection was to follow up on several Technical Revisions which are currently under review. Technical Revision No. 23 was submitted to the Division on May 4, 2016 and addresses the excavation of alluvial valley fill and the placement of the fill onto the existing waste dumps. Technical Revision No. 24 was submitted to the Division on June 20, 2016 and addresses the relocation of the water treatment plant as well as a minor permit boundary discrepancy.

The inspection started with a tour of the north and south waste rock piles. The waste rock piles have been in a reclaimed state for a number of years. Both of the waste rock piles lie outside of the 100-year floodplain and held up remarkably well during the regional flooding that occurred in 2013. The Operator is proposing to excavate between 32,000 to 54,000 cubic yards of alluvial valley fill which will be placed onto both of the existing waste rock piles. The alluvial valley fill is comprised of mine waste rock as well as naturally occurring soils, sands and gravels. The waste rock piles have a remaining capacity of 603,000 cubic yards. Both of the waste rock piles were found to be stable and adequately vegetated. The Division did observe a small seep on top of the north waste rock pile. The seep was flowing at an estimated rate of 2 gpm. The water was found to be flowing across a portion of the top of waste rock pile. The Division observed hydrophytic vegetation around the seep, which indicates the seep has been present long enough for plants such as cattails to establish. The water was not flowing down the face of the waste rock pile and no erosion was associated with the seep. The presence of the seep will need to be addressed through the review of Technical Revision No. 23. The Operator will be required to address the long term stability of the waste rock pile and will need to provide a plan for diverting the seep so that it does not come into contact with any of the waste rock.

Following the tour of the waste rock piles, the Division inspected the new water treatment building. The new water treatment building is currently under construction and will be located adjacent to the Steve Level Adit. The foundation of the new water treatment building was in place and the roof and walls had been framed. In addition, clarifier tanks were in place. The next steps planned for the water treatment building include installing electrical and plumbing infrastructure, as well as adding sheet metal to the outside of the building. The Operator informed the Division the electrical substation, which provides power for the water treatment building, will be moved from its current location and will be situated next to the new water treatment building. The Operator will also install a back-up generator to ensure the water treatment plant can continue to operate in the event there are power shortages.

The Operator informed the Division during the inspection that the reverse osmosis circuit was down due to the failure of a booster pump. The pump failed on Friday June 24, 2016 and the Operator anticipated the booster pump would be repaired and back online by Thursday June 30, 2016.

This concluded the inspection.

### PERMIT #: M-1977-300 INSPECTOR'S INITIALS: MAC INSPECTION DATE: June 28, 2016

# **PHOTOGRAPHS**



1. Seep on top of north waste rock pile.



2. Cattails growing around seep on north waste rock pile.



3. South waste rock pile.



4. New water treatment building.



5. Clarifiers.



6. Sump in water treatment building.

Inspection Contact Address Ken Mushinski Cotter Corporation 7800 E. Dorado Place, Suite 210 Greenwood Village, CO 80111

CC: Wally Erickson, DRMS