


**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: SerFer Pit	MINE/PROSPECTING ID#: M-2008-006	MINERAL: Gravel and sand	COUNTY: Larimer
INSPECTION TYPE: Surety Release Inspection	INSPECTOR(S): Jared L. Ebert	INSP. DATE: September 14, 2017	INSP. TIME: 09:00
OPERATOR: Connell Resources, Inc.	OPERATOR REPRESENTATIVE: Kevin Anderson and Brandon Martin	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$21,115.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: September 15, 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>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(CI) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>NA</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>NA</u>

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

OBSERVATIONS

This was a full site release inspection of the SerFer Pit, DRMS Permit No. M-2008-006 operated by Connell Resources, Inc. (Connell). I, Jared Ebert with the Colorado Division of Reclamation, Mining and Safety (DRMS or Division) conducted the inspection. Mr. Kevin Anderson and Brandon Martin with Connell accompanied me during the inspection. This is a 45 acre 112c mining and reclamation operation in Larimer County. Mining is complete at the site and the site is in the reclamation phase. The post mine land use approved for the site is for developed water resources and pastureland.

On August 7, 2017 the Division received a full site release request in accordance with Rule 4.17 for the SerFer Pit. This inspection was conducted to determine if the site is eligible for full site release.

Availability Of Records:

During the review process for the original permit approval in 2008, Connell committed to supplying the Division a copy of the approval of the Town of Windsor Floodplain Development Permit for the SerFer Pit. To date, the Division has not received this document. Prior to the approval of a full site release request the Division will need to have a copy of this document.

Backfilling and Grading:

The site was walked and appears to have been graded in accordance with the approved post mine topography depicted on the revised topography map approved with Technical Revision No. 1. The small depression area was located south of the clay lined reservoir. This area has gentle side slopes and appears stable. The side slopes of the reservoir appear to have been graded to a 3H:1V ratio above the water line. The water was fairly clear at the time of this inspection and the 3H:1V slopes appears to continue below the water level. Overall the reservoir slopes appear stable with only a small cut at the waterline along a portion of the western and norther reservoir slopes.

Financial Warranty:

The financial warranty held for this site is a \$21,115.00 corporate surety. This amount appears adequate to finish reclamation at the site.

Fish and Wildlife:

At the time of the inspection, several water fowl species were observed utilizing the reservoir and a Bald Eagle was observed in a cottonwood tree on the south end of the site.

Hydrologic Balance:

On August 15, 2017, DRMS received a letter from the Colorado Division of Water Resources regarding the full site release request. The letter indicated the approximately 20 acre compacted clay liner was approved by their office as having met the design standards and that no depletions associated with the SerFer Pit remain. Given this, the Colorado Division of Water Resources does not object to the request for full reclamation responsibility release.

Roads:

The small access road remains at the site and a graveled path exists around the reservoir.

Reclamation Success:

The approved reclamation plan calls for the installation of a clay liner for the reservoir. The clay liner has been installed and has been approved by the Colorado Division of Water Resources. Given this, regarding the reservoir, this reclamation obligation has been complied with.

The remaining area was to be seeded and reclaimed as pasture/"native areas". The affected area not utilized as a reservoir or the access road/trail have been seeded with the goal of establishing native grasses. According to Mr. Anderson, the site was seeded in 2015. The small basin area south of the reservoir was observed. Cottonwood trees has volunteered into the bottom of this depression and are very dense. The desired vegetation has begun to establish throughout the site. The density and maturity of the desired vegetation varies throughout the site. However, the dominant species established and observed at the site is Russian Thistle (*Salsola tragus*), a non-native annual weed that commonly invades disturbed areas. The desired grassy vegetation was very sparse around the shallow basin south of the reservoir and the affected lands surrounding the reservoir. The desired vegetation has established the best in the small upland pasture area south of the small depression at the south east end of the site. The density of the desired vegetation at this location is outcompeting the Russian Thistle. However, the density and maturity of the desired vegetation throughout the majority of the affected area has not reached the level where full site release can be approved at this time. Rule 3.1.10(1) indicates that in areas where revegetation is part of the reclamation plan, land shall be revegetated in such a way as to establish a diverse, effective, and long lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer and is at least equal in extend of cover to the natural vegetation of the surrounding area. For the majority of the affected area where revegetation has is required, given the density of the Russian Thistle established at the site and the lower density and maturity of the desired vegetation, the Division cannot make the finding that Rule 3.1.10(1) has been complied with. Given this, the Division will deny Connell's request for full site release.

Overall, given the vegetation established at the site including annual weeds, the side does appear stable and significant erosional features were not observed.

Revegetation:

Please see the Reclamation Success section of this report for details. The desired species observed at the site consisted of western wheatgrass and side oats grama. The Operator is encouraged to monitor the site to determine if the desired vegetation continues to establish and is pushing out the dense amount of Russian Thistle that has established at the site.

PHOTOGRAPHS



Figure 1. From the southeast corner of the reservoir looking north



Figure 2. From the southeast corner of the reservoir looking west.



Figure 3. From the southeast corner of the reservoir looking south.



Figure 4. View of the small depression/basin south of the reservoir.



Figure 5. Affected area south of the reservoir. Primary vegetation observed is Russian Thistle.



Figure 6. From the southwest corner of the reservoir looking south.



Figure 7. Bald Eagle



Figure 8. From the southwest corner of the site looking north.



Figure 9. From the northwest corner of the site looking east.



Figure 10. From the northeast corner of the site looking south.



Figure 11. Small pasture area south of the basin area. Better desired vegetation establishment.

Inspection Contact Address

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