



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.

<b>MINE NAME:</b> Brownwood Pit	<b>MINE/PROSPECTING ID#:</b> M-1979-059	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Larimer
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Jared L. Ebert	<b>INSP. DATE:</b> November 28, 2018	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Coulson Excavating Company, Inc.	<b>OPERATOR REPRESENTATIVE:</b> Ken Coulson	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Complete Bond	<b>BOND AMOUNT:</b> \$89,136.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> December 7, 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:** Hydrologic Balance

**PROBLEM:** The Brownwood North East Reservoir ("BNER") is an open ground water pond without a permanent plan for augmentation in place. This is a problem related to 34-32.5-116(4)(h) of the Colorado Revised Statutes and 3.1.6(1)(a) of the Construction Materials Rules and Regulations governing injury to existing water rights.

**CORRECTIVE ACTIONS:** The Operator shall submit evidence they have applied for a permanent plan for augmentation by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 2/04/19

## **OBSERVATIONS**

This was a monitoring inspection of the Brownwood Pit, Division of Reclamation, Mining and Safety ("DRMS" or "Division") permit number M-1979-059, operated by Coulson Excavating Company, Inc. ("Coulson"). I, Jared Ebert with DRMS conducted the inspection. Mr. Ken Coulson accompanied me during the inspection.

This is a 157.9 acre 112c mining operation located in Larimer County. The approved post-mining land use for the site is Developed Water Resource, Industrial and Agriculture.

### **Backfilling and Grading:**

The industrial sand and gravel processing area is still currently in use. The hot mix asphalt plant was operational at the time of the inspection. The pond located north east of the processing area known at the Brownwood North East Reservoir ("BNER") was observed. The northern and eastern pit slopes of the BNER pond have been graded to a 3H:1V ratio or less and are well vegetated and stable. Land is still affected along the western pond slopes and several stockpiles of material was observed adjacent to the pond. It does appear material has been backfilled at the southern end of the pond in accordance with the approved reclamation plan.

The reservoir constructed in the south east portion of the property known as the SE Reservoir was observed. The slopes of this reservoir have been graded to a 3H:1V ratio or less and appeared stable and vegetated.

The Pfeiff Pond and adjacent land located in the northeast portion of the site was observed. The area appears to be graded in the configuration shown on the approved reclamation plan map. Dense vegetation has established around the pond and the area appears stable.

### **Financial Warranty:**

The Division currently holds a bond in the amount of \$89,136.00 in the form of a corporate surety. This amount appears adequate to reclaim the affected land around the BNER.

### **Hydrologic Balance:**

According to the reclamation plan, the SE Reservoir and the Pfeiff pond are lined. Prior to bond release, the Division will need to receive documentation the liner for these reservoirs have been certified by the Office of the State Engineer (OSE).

The current reclamation plan calls for the BNER to be lined with clay. It does not appear that this has occurred and according to Mr. Coulson they are in the process of applying for a permanent augmentation plan for this pond as well as several other in the surrounding area. The reclamation plan will need to be revised with a Technical Revision to designate the BNER to be an open groundwater pond as opposed to a clay lined reservoir. The Division will need to see evidence Coulson is seeking a permanent plan for augmentation. This issue is cited as a problem at the beginning of this report.

### **Gen. Compliance With Mine Plan:**

Mining is complete at the site.

Reclamation Success:

Overall, the site appears to have been reclaimed in accordance with the approved reclamation plan with the exception of the BNER area. The industrial processing area is currently being used to process off-site generated material and given the approved post-mining land use for this area would be eligible for release. The SE Reservoir and Pfeiff Pond areas are backfilled, graded and revegetated and appear to be eligible for release as long as the SEO has certified the liners of these reservoirs.

As discussed previously, the reclamation plan for the BNER area will need to be revised if the pond will no longer be clay lined.

Revegetation:

The vegetation established south of the processing area, around the SE Reservoir, and around the Pfeiff Pond/property is adequate for release.

Topsoil:

A topsoil stockpile is located adjacent to the BNER. This pile appears stable.

## **PHOTOGRAPHS**



**Figure 1. From the northwest corner of the SE Reservoir looking south.**



**Figure 2. From the northeast corner of the BNER pond looking northwest.**





Figure 3. View of the west side of the BNER from the east side.



Figure 4. From the southwest side of the "Pfeiff Property" looking northeast.



Figure 5. Pfeiff Pond

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