




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: Duck Creek Mine	MINE/PROSPECTING ID#: M-2013-022	MINERAL: Oil shale	COUNTY: Rio Blanco
INSPECTION TYPE: Monitoring	INSPECTOR(S): Travis H. Marshall	INSP. DATE: August 15, 2017	INSP. TIME: 13:45
OPERATOR: Shale Tech International Services LLC	OPERATOR REPRESENTATIVE: Ed Cooley	TYPE OF OPERATION: 110(2) - Hard Rock Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$395,882.86	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Raining	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: August 30, 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>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>PB</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 inspection was a routine inspection of the Duck Creek Mine is a 110(2)Hard Rock materials oil shale mine site. The permit area consists of 5.0 acres. The proposed post mine land use is rangeland. The currently held reclamation bond in the amount of \$395,882.86 is considered adequate at this time. The site is located in Rio Blanco County west of County Road 24X.

A mine identification sign was observed at the main entrance to the site. **The affected area boundary markers are missing or incorrectly placed. This is a problem for failure to maintain boundary markers around the affected area as required by Section 3.1.12(2) of the rule. The operator shall conduct a survey and replace the boundary markers in the correct location(s). The operator shall provide proof to the Division that this has been done by the corrective action date of September 29, 2017.**

The site has recently come out of Temporary Cessation. The Operator plans to remove 5,000 tons of material to bring to the Shale Tech's research facility located in Rifle Colorado.

The site conditions observed during the inspection consisted of an oil shale high wall adjacent to a reclaimed and revegetated slope with re-graded slopes no steeper than the required steepness of approximately 2.5H:1V (adjacent non-disturbed slopes vary from 2H:1V-4H:1V).

No erosional issues were observed during the inspection.

Photos that show the conditions observed during the inspection are included with this report.

Responses to this inspection report should be directed to Travis Marshall at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 South 3rd Street, Room 301, Grand Junction, Colorado 81501, phone no. 970-241-2042.

PHOTOGRAPHS



Inspection Contact Address

Ed Cooley
Shale Tech International Services LLC
1354 County Road 246
Rifle, CO 81650