




**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> Logan Wash	<b>MINE/PROSPECTING ID#:</b> M-1977-424	<b>MINERAL:</b> Oil shale	<b>COUNTY:</b> Garfield
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Travis H. Marshall	<b>INSP. DATE:</b> June 8, 2017	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Occidental Oil Shale, Inc.	<b>OPERATOR REPRESENTATIVE:</b> Bruce Smith	<b>TYPE OF OPERATION:</b> 112 - Hard Rock Regular Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Complete Bond	<b>BOND AMOUNT:</b> \$570,428.00	
<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> June 20, 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>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>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</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>Y</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 conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety (DRMS). Bruce Smith of Western Water & Land, Inc. (WWL) was present representing Glen Springs Holdings, Inc. (GSHI) which manages Logan Wash for Occidental Oil Shale, Inc. (OOSI). The inspection was conducted by Travis Marshall and Russ Means of the DRMS.

The condition of the evaporation pond liner was observed and found to be properly functioning. As stated in previous inspection reports the liner has been repaired many times and is very near the end of its lifespan. Bruce Smith stated that he is in the process of getting the liner replaced as the operator has gained approval of a 30 year extension from the BLM allowing the evaporation pond to remain.

In 2008 the operator was given a notice that required to have the evaporation ponds and mine facility fully reclaimed by September 5, 2018. Many portions of the operation are reclaimed. The upper mine bench has adequate vegetation and the mine entries are sealed and secured. One outstanding item that complicates a complete release of the site is the perpetual drainage of contaminated water that continues to come in contact with the in-situ retorts. The only way the operator has been able to adequately address this mine drainage for the past 30 years is the evaporation pond that is located 6 miles west of the mine on BLM managed land. At this time it is not known what the long term solution for the site may be. The DRMS is expecting a proposal for a long term solution for the site prior to the September 5, 2018 deadline.

Photos that show the conditions observed during the inspection are included at the end of this report.

No problems or off site damage was observed during the inspection.

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 3<sup>rd</sup> Street, Room 301, Grand Junction, Colorado 81501, phone no. (970) 241-2042.



## PHOTOGRAPHS









**Inspection Contact Address**

Bruce Smith  
Occidental Oil Shale, Inc.  
743 Horizon Ct., Suite 330  
Grand Junction, CO 81506