




**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> Colony Shale Oil Project	<b>MINE/PROSPECTING ID#:</b> M-1980-047	<b>MINERAL:</b> Oil shale	<b>COUNTY:</b> Garfield
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Amy Yeldell	<b>INSP. DATE:</b> April 28, 2021	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Exxon Mobil Corporation	<b>OPERATOR REPRESENTATIVE:</b> David Bower	<b>TYPE OF OPERATION:</b> 112 - Hard Rock Regular Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$9,500,000.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> DRMS	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> May 12, 2021	

**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>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>N</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>NA</u>	

Y = Inspected / 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 Colorado Division of Reclamation, Mining and Safety normal monitoring program. The Colony Oil Shale Project is a Hard Rock 112 permitted site located northwest of Parachute Colorado in Garfield County. The entire mine was inspected, both underground and surface facilities areas. Colony consists of 5,712.05 acres with a maximum disturbance of 527 acres. The Division currently holds a financial warranty in the form of a corporate surety in the amount of \$9,500,000.00. Amy Yeldell and Travis Marshall of the Division conducted the inspection. David Bower and Kirk Homedew represented ExxonMobil and accompanied the Division on the inspection.

ExxonMobil has continued its work into divesting the asset. Existing disturbances have been evaluated for options of repurposing rather than reclaiming where applicable. Several areas have the potential to be utilized for development of alternate forms of energy i.e. gas production, solar power generation, or pumped hydroelectric power. Additionally ExxonMobil may use undisturbed lands for livestock grazing, tree farming and hunting lease operations. The Operator is advised to release eligible undisturbed areas before implementing other land uses within the permit boundary.

The Division briefly passed by the shop areas (Unit 4, 5, 19A). Support infrastructure remains in place.

The Division inspected the underground mine workings (Unit 19B, 6, 6A). Kirk Black (Red) remained outside and in contact with Mr. Homedew throughout the underground portion of the inspection. All personnel had 4-way gas monitors and re-breathers on. Staff entered through the southern portal, to the cross cut and then exiting through the northern portal. Both the incline and decline were observed however staff did not access other levels. Limited equipment remains stored within the mine. No chemicals or other hazardous materials were observed. Water was observed flowing through the mine following designated BMP pathways. The mine bench pad remained empty. Portals were properly secured. No evidence of rock fall or instability was observed inside the mine or the walls surrounding the portals.

Davis Gulch Dam (Unit 9). Construction of the dam was incomplete and holds significantly less water than originally authorized. The existing cofferdam areas appear stable and well vegetated. Steeper terrain near where the dam was to be constructed is mostly shale outcrops with limited vegetation.

Coarse Ore Stockpile Area (Unit 17A) was observed. This has the potential to be used as a pond or water storage given its existing basin like structure. Mr. Bower indicated that it may also serve for development of alternate forms of energy.

Switch yard (Unit 18A). 48KV powerlines and transformers remain in place. Service is not tied into the system nor has it ever been online. This area is being proposed as future development of alternate forms of energy location given its proximity to existing infrastructure. This would allow ExxonMobil to repurpose an existing disturbance for a beneficial use.

Plant site (Unit 18E). This area consists of a cut pad area with both the floor and slopes adequately revegetated. A dry piezometer is also located in the middle. This area will likely be utilized for development of alternate forms of energy.

Gondola site (Unit 18C) would have been the top of the conveyor from the incline bringing ore to the surface. This area is also flat and an ideal location for development of alternate forms of energy. Currently it is stabilized with native vegetation and appears stable.

Spent Shale Research Site (Unit ERS). Mr. Bower explained some of the history and experiments on revegetation that ExxonMobil conducted to support the future reclamation of the project. The plots with varying combinations of spent shale and topsoil all appear to be thriving. Long-term weather data is also collected at this location.

LaSal Laydown Area (Unit 16A). This area will potentially be repurposed development of alternate forms of energy. The existing 10" water line will remain in place and be tied into the system to supply fresh water. Repurposing the pad and leaving the water line in place significantly reduces reclamation activities for this area and puts an existing disturbances to a beneficial use.

South draw topsoil pile (Unit 14). This area is stabilized with vegetation. This disturbance will be repurposed for alternative forms of energy development.

Monitoring wells with Pump. Mr. Bower indicated that the various monitoring wells located throughout the site are permitted for multi-use. Meaning that water can be utilized for agricultural purposes as well as industrial. Undisturbed areas will potentially be used for livestock grazing. While using the existing monitoring wells to supply water to stock ponds located throughout the property. In order for these wells to remain the Division will need documentation from DWR that the wells are in fact permitted to remain for agricultural use.

Ridgetop/Northdraw Topsoil Pile (Unit12). This is an enormous topsoil stockpile that has been stored for a long period of time. Given the size and length of storage it is unlikely that material much deeper than 3 feet below the surface will have retained any topsoil characteristics. Overall vegetation on the pile is outstanding with lush grasses waist high. This are is anticipated to be recontoured and utilized for alternative forms of energy development.

Middle Fork Reservoir. A brief history of the construction measures taken to build the damn was discussed. Ongoing monitoring for stability was explained. Piezometers were observed within the damn to measure for saturation. This feature is to remain indefinitely and appears to be in proper working order.

Overall the site appears to be in good condition. No signs of excessive erosion or instability were observed. The majority of disturbances appear to be stabilized with vegetation where practical. Excessive weeds or undesirable vegetation was not observed. No problems or possible violations were observed.

Responses to this inspection report should be directed to: Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

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Enclosure

EC: Travis Marshall, Senior EPS, Grand Junction DRMS

**PHOTOGRAPHS**

























