




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: Mahogany Research Project – Public Land Prospecting	MINE/PROSPECTING ID#: P-2003-018	MINERAL: Oil shale	COUNTY: Rio Blanco
INSPECTION TYPE: Monitoring	WEATHER: Clear	INSP. DATE: July 25, 2023	INSP. TIME: 07:30
OPERATOR: Shell Frontier Oil & Gas Inc.	OPERATOR REPRESENTATIVE: Samantha Baker	TYPE OF OPERATION: MP - Mineral Prospecting	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$2,656,462.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: DRMS	JOINT INSP. AGENCY: U.S.BLM	
INSPECTOR(S): Amy Yeldell	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: August 11, 2023	

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>NA</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>NA</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 Mahogany Research Project-Public Land Prospecting is a Hard Rock NOI located in Rio Blanco County. Amy Yeldell of the Division conducted the inspection. Samantha Baker, Dillon Berry and Dave Murray represented the Operator. James Roberts of the White River Field Office was also present.

The permitted NOI includes a total of 12.3 acres and has a required bond of \$83,151. The Division still holds \$2,656,462 in financial warranty for this site since a replacement bond has not been submitted following the approval of SR-1 (5-10-2021). Following the approval of AR-2 (10-25-2021) the following pads permitted remain permitted; 58-14-199, 62-23-199(B6-23) and access road, 66-26-199, 5-18-298, 8-3-298, 9-9-298, 10-32-198, and 13-14-298.

All hydrology wells have been plugged and abandoned, which includes cementing, cut and cap wells and backfill. Hydrology well pads have been reclaimed. The last reclamation efforts were completed in 2015 and now are awaiting adequate vegetation establishment. The past winter consisted of heavy snows with warmer than average temperatures. The early spring/summer was very cold and plant germination was slow up till mid-June when temperature's skyrocketed into the high 90's with little to no moisture. Late June a few storms have begun but the summer monsoons have not truly started. Wild horse populations have continued to be a nuisance despite the round up last year. Vegetation throughout much of the Piceance Basin is showing signs of overgrazing. Over all pads are stable with no signs of erosion. All mining related debris has been removed from the site(s). Specific observations of each pad are listed below,

Pad 8-3-298: This pad is located on private property though it is on a public land NOI. The interim reclamation of this pad (perimeter) has well established grasses and some shrubs. There are some weeds but generally desirable vegetation is resilient. The recently reclaimed areas (middle) are nearly void of desirable vegetation. Only a few shrubs and grasses were present. Evidence of germination but juvenile die off was observed. Weeds were observed but they have been recently sprayed. Soil samples have been done on this pad. This fall soil amendments will be utilized as a test pad for trouble sites. See Photos One and Two.

Pad 9-9-298: The pad is located right off roadway and remains fenced off from cattle. Establishment of desirable species, mostly grasses are progressing. There are very few shrubs so far and grasses remain low. Little to no weeds were observed. Surrounding areas are mature shrubs with little grass understory. Overall vegetative cover is approximately 20%. See Photos Three and Four.

Pad 58-14-199: This pad has an extremely long access road. T-posts have been placed off of the county road indicating that it's reclaimed to detour traffic/use. Vegetation along the road is very hit or miss. Areas are nearly all bare or densely populated with desirable grasses and shrubs. This pad is also out in the open and subject to winds, drying out soils further. The pad itself has sparse but decent grass established. Overall vegetation is very low as this pad has been heavily grazed. Without relief from grazing pressure, grasses will likely remain stunted. A few shrubs have begun to germinate but are less than a foot tall. Previously Russian Thistle was problem at this site. Only a few were observed. This year Halogeton seems to be the weed of concern as it was located throughout the pad and access road. See Photos Five and Six.

No pads were eligible for reclamation release, additional maintenance and monitoring is required. There were discussions of reclamation improvements or modifications to promote reclamation success. If future reclamation efforts significantly deviates (change of seed mix) the reclamation plan will need to be modified.

Responses to this inspection report should be directed to Amy Yeldell at the Division of Reclamation, Mining and Safety, Room 215, 1001 E 62nd Ave, Denver, CO 80216. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

Inspection Contact Address

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PHOTOGRAPHS



Photo 1: Pad 8-3-298 delineation between old vs. new reclamation is distinct







