Mineral Materials Site Inspection
U.S. Department of the Interior
Bureau of Land Management
Royal Gorge Field Office

Date: 02/16/2017 Time: 10:35 - 11:02 a.m. Weather: Clear, Cold Inspection Purpose: General	Project Name: Indian Sunset Operator: Colorado Quarries Location: Westcliffe, CO BLM COC #: 073192 CDRMS Permit #: M-1987-027
Attendees BLM: William Jenkins, Kelsey Zabrusky Operator(s): Contacted but not present Other(s): N/A	Project Status: Active Commodity: Rhyolite for road base, boulders, and landscaping Type of Operation: 112c Contract Acres/Amount: 55 acres/5,000 tons/expired 2010 Contract Expiration Date: 10/02/2010
General Compliance Compliance with the approved Mine and Reclamation Plan per the requirements outlined in 43 CFR §3601.40-42.	In general, the operation is in compliance with the Mine and Reclamation Plan on file with BLM. x **Yes** ☐ **No** ☐ **N/A** In general, the operation and disturbances on site coincide with the method of mining, reclamation, and access described in the Mine and Reclamation Plan. x **Yes** ☐ **No** ☐ **N/A**

INTERNAL	
	Inspection Status: **Y** **Y = Inspected and in Compliance, N = Inspected and Violations/ Problems Noted, NA = Not Applicable**
	Inspector's Initials: **WTJ**
	BLM Supervisor's Initials:
	Date:
	Date sent to Operator:
	Date sent to CDRMS:

SITE MANAGEMENT

<u>Site Conditions</u> ☐ Housekeeping ☐ Access (clear, bermed, signed, accurate with Mine/Rec Plan?) ☐ Acreage (disturbance per plan? site secured per Mine/Rec Plan?)	Good housekeeping. The access road into the pit had been plowed. The acreage of disturbance is in accordance with the filed mine and reclamation plan. The site is secured and located behind a locked gate.
<u>Erosion Control</u> ☐ Grading ☐ Vegetation ☐ Drainage Control ☐ Best Management Practices (berms, armored drainage)	☐ **N/A** At present, there is a sediment check dam on the southeastern side of the quarry. The area outside of the disturbed boundary is vegetated and partially bermed. Overall, there did not appear to be any issues with erosion on site, and there were no signs of recent sedimentation in the site's check dam.
<u>Materials Management</u> -Topsoil -Overburden -Waste Rock -Fines ☐ Location ☐ Best Management Practices ☐ Stability (angle of repose, size of material)	☐ **N/A** Topsoil is stored on the eastern side of the quarry, and vegetated for stability. Likewise, several berms around the site appear to be made of topsoil. A stockpile of fines is stored on the quarry floor, and appeared to be stable at the time of the inspection. The operator has two large product piles stored on site. The product piles are sorted by size (roadbase, and landscaping material). Larger boulders are stored near the entrance to the site on the northern side of the access road. As the operator is mining in-situ bedrock material with very little topsoil, there is no overburden or waste rock.
<u>Container/Tank Management</u> ☐ Substance ☐ Storage Container/Tank (overall condition, tank capacity, secondary containment) ☐ Spill Contingency (fixed in a timely manner? Or controlled to prevent hazardous conditions?) ☐ Substance appropriately labeled? (NFPA, SDS accessible) ☐ Best Management Practices	x **N/A** No containers or tanks were stored on site at the time of the inspection.
<u>Weed Management</u> ☐ Weed Control Plan ☐ Control Methods ☐ Type & Percent Surface Cover ☐ Best Management Practices	☐ **N/A** A moderate amount of common mullein weeds were observed around the site. These weeds are a list "C" species according to the Colorado Dept. of Agriculture. The operator should address these weeds accordingly.
<u>Highwall/Working Face Conditions</u> x Working ☐ Reclaimed -Ravelling or rock fall present -Tension cracks -Benches (are they clean?) -Adequate ingress/egress -Measurements (Per filed plan - height, depth, slope)	☐ **N/A** The site's working face is sloped and sub-vertical. The operator is removing material from a sloped outcrop of rhyolite, and thus does not have any benches at this time. There were no tension cracks observed at the time of the inspection (this is likely due to the competency of the material and the sloped angle at which it is removed). There appears to be adequate ingress and egress across the site's working areas, and all measurements appear to be in accordance with the filed

	mine plan.
General Safety Conditions ☐ Fencing ☐ Flagging ☐ Signage (mine site, direction of travel, etc.) ☐ Does it appear that the mining is conducted in a manner that will minimize highwall, material, and bank instability?	☐ **N/A** The quarry is located behind a locked gate, and fenced for site security. The operator has placed signage (DRMS and No Trespassing) on the locked gate. It appears that mining is conducted in such a manner as to prevent instability on the working face, and stockpiled material.

OPERATIONS

Operations ☐ Location ☐ Temporary/permanent structures? ☐ Any observed impacts outside of Mine/Rec Plan?	The operator is actively mining the area north of the quarry floor (where crushers and screens are sometimes temporarily located). There are no permanent structures on the site. There were no observed impacts on site outside of what was described in the operator's mine plan.
Operating Practices ☐ Mining Methods (Surface or Underground) ☐ Equipment (types, concurrent with Mine/Rec Plan, good working condition) ☐ Surface Disturbances (size, and removed quantity) ☐ Processed Material Management (stockpiles, etc.)	The operator is mining bedrock rhyolite material from the ground surface. The operator uses a dozer to rip loose and broken material from the working face. Per the mine plan, the operator did not initially expect to use explosives on the site; however, the operator blasts on occasion when necessary (performed by a certified blaster, and no explosives are stored on site). This loose material is stockpiled, and processed by a mobile crushing/screening unit. A rubber-tired loader is used to load material into the crushing/screening unit, and conveyor belts sort the material into product piles and fines. The surface disturbances' size and removed quantity of material appear to be in accordance with the filed mine plan.
Material Processing ☐ Crushing, screening, washing ☐ Equipment condition, water source	☐ **N/A** The mobile crushing/screening unit was not on site during the inspection. The rubber-tired loader appeared to be in good condition.
Quality Assurance/Monitoring ☐ Reporting Procedures ☐ Systematic Monitoring (frequency, sampling procedures, adverse results response, monitoring programs - air, water, revegetation, stability, noise, etc.)	x **N/A**
Drilling ☐ Method (Air, Fluid) ☐ Drill Pads (location) ☐ Mud Pits (location, containment)	x **N/A**

☐ Drill Hole Plugging and Re-Contour	
<u>Underground Operations</u> ☐ Groundwater (Is there water coming from the adit?) ☐ General Safety (roof stability, ventilation, cribbing condition, monitoring practices, etc.) ☐ Dimensions (Have the adits, shafts, trenches been advanced?)	x **N/A**
<u>Water Management</u> ☐ Dust Mitigation (water trucks) ☐ Mitigation Measures (exposed groundwater, dewatering/pumps, sediment containment, stormwater runoff controls) ☐ Ditch/Impoundment Capacity (will they contain the volume generated by a 100 year 24 -hour rain event?) ☐ Impoundment Structures (Water, tailings ponds, etc.) - adequate freeboard - dimensions, stability - leaking at base?	☐ **N/A** The operator does not use water in their operations, and they have an existing storm water permit with the state of Colorado. The site currently has a retention basin/dam (dry) on the southeastern side of the quarry.

Actions to be taken by the Operator Operators should read this report carefully because it may require corrective action and/or response to the BLM in order to avoid consideration of possible enforcement action.	- Address the weeds on site.
General Comments Other observations and notes from the inspection	- The site's disturbance footprint has not changed since the previous inspection.

Photo Summary

Photo 1. Map showing the location (placemarks) of photos taken during the inspection, over 2016 satellite imagery. Blue boundary shows the current and proposed working area for this site (according to the 55-acre permit boundary).

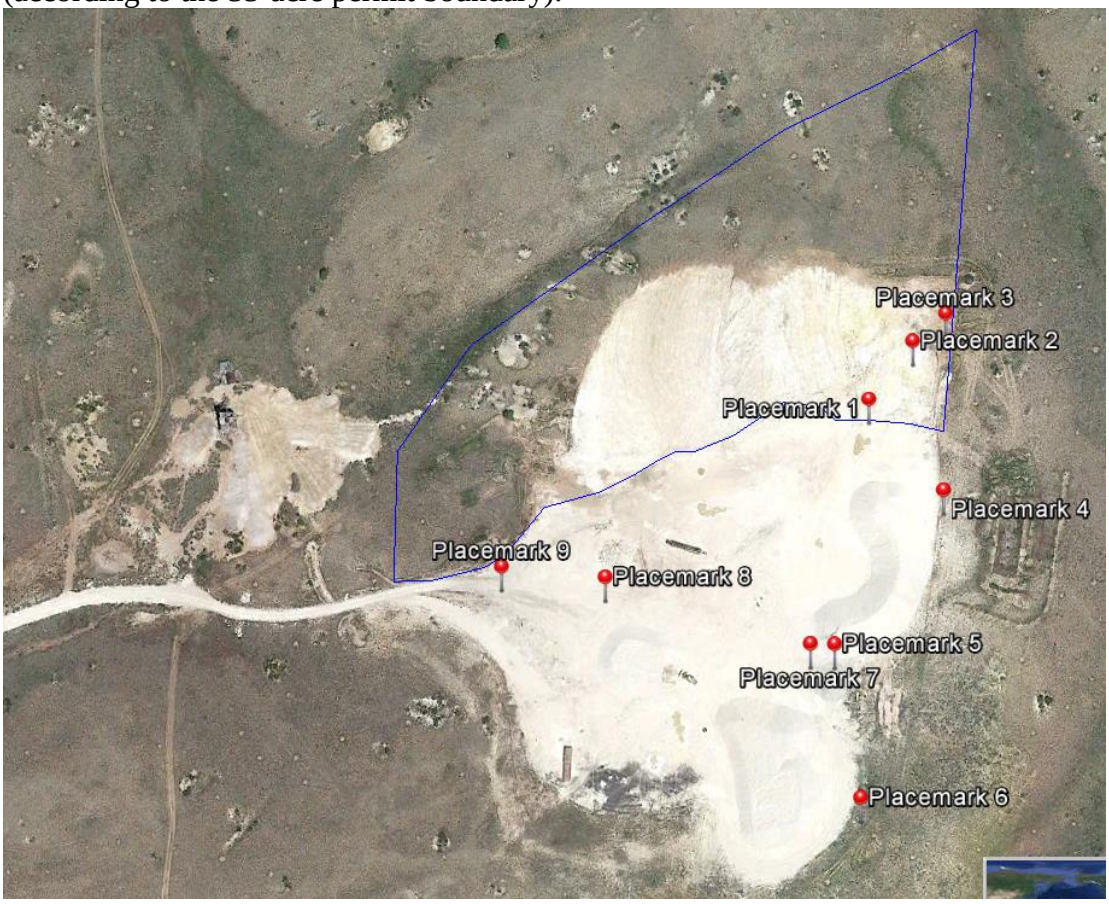

Photo 2. Taken from Placemark 8 along the access road, facing west towards the quarry entrance. Note the stockpile of boulders in the photograph on the right.

Photo 3. The sloped working face on the eastern side of the quarry (facing north), taken from Placemark 1.

Photo 4. Looking south towards the active floor and product pile (roadbase) from atop the sloped working face, taken from Placemark 2.

Photo 5. The topsoil stockpile east of the quarry, taken from Placemark 3 (facing southeast).

Photo 6. The second product pile (landscaping) facing southwest from Placemark 5.

Photo 7. The loader present on site, taken from Placemark 7.