# Bureau of Land Management
# Colorado River Valley Field Office
# Minerals Inspection Report

| General Information | |
|---|---|
| ***Date*** | 5/3/2017 |
| ***Project Name*** | Rifle Quarry |
| ***Operator*** | Colorado Lien Company |
| ***Serial Number*** | COC-077876 |
| ***Project Classification*** | Plan of Operations |
| ***Project Location*** | T4S R92W Sec15, Garfield County |
| ***Inspection Purpose*** | Reclamation site inspection |
| ***Time Period Onsite*** | 1 hour |
| ***Attendees*** | Jessica Lopez Pearce, BLM Geologist |

## New Remarks

On May 3, 2017, I inspected the Colorado Lien Company Rifle Quarry. The goal of this site visit was to check on final reclamation progress of the remaining 1.65 permitted acres and ensure compliance with the Final Reclamation Plan, authorized July 1, 2016. The weather was partly cloudy, temperatures were in the 50's.

Upon my arrival at the quarry, I found the access road blocked per the Final Reclamation Plan. The surface of the road appeared to be covered in the approved alternative growth media and mulching material (a combination of fish emulsion solids, spent grain solids, spent potato mash solids, mulch, and topsoil) and seeded (Photo 1). There were small grass sprouts, but I was unable to identify if the vegetation was in compliance with the 2016 BLM-approved seed mix. Signage was present at the southeast corner of the main quarry area.

The 1.65-acre site includes a highwall on the north side and a backfilled and regraded area to the south. The backfilled quarry floor terminates to the east with an east-facing, 20-foot high, approximately 2:1 slope. I observed a bermed access route up the eastern slope to the recontoured quarry floor (Photo 2). The eastern slope, the quarry floor, the northern upper access bench, as well as most of the remaining quarry area was covered in the alternative growth media and mulching material. Some of the ground was damp and the material appeared compacted, while other areas were dry. It appeared that some portions of the quarry area had thick coverage of alternative growth media and mulching material, while other areas had thinner coverage or the material had washed away (Photo 3).

There were several 24" tall sediment control windrows running perpendicular to the west-to-east gradient on the quarry floor. These windrows were covered in alternative growth media and mulching material and were partially effective in trapping sediment (Photo 4). There was some evidence of rilling and erosion of material in channels on the quarry floor (Photo 5). The channelization and erosion wasn't extensive at this time, but additional erosion could occur if measures are not taken. Additional sediment control structures (or the extension of existing windrows) may need to be added to the quarry floor to prevent establishment of larger rills and erosion. Future inspections will continue to monitor effectiveness of sediment control.

I observed some revegetation; there were some grass sprouts present (Photo 6). However, my visit occurred early in the growing season and another visit later in the year will better evaluate revegetation success.

The three securely-gated mine portals on the northeast side of the highwall and permit boundary appeared undisturbed. The eastern-most gate is outside of the DRMS-permitted boundary.

## Recommended Changes to Operations or Corrective Actions Needed

- No corrective actions at this time.

## Photo Summary


Photo 1: Looking west at the barricaded access road. Alternative growth media and mulching material was applied to the surface.


Photo 2: Looking west to the slope on the eastern side of the quarry. This slope of backfilled material is approximately 2:1.


Photo 3: Looking south (highwall is behind the camera) at the distinction between quarry floor with applied alternative growth media and mulching material (left) vs. bare backfilled quarry (right).


Photo 4: Looking west at the sediment control windrows that run north-south (right to left) across the quarry floor.

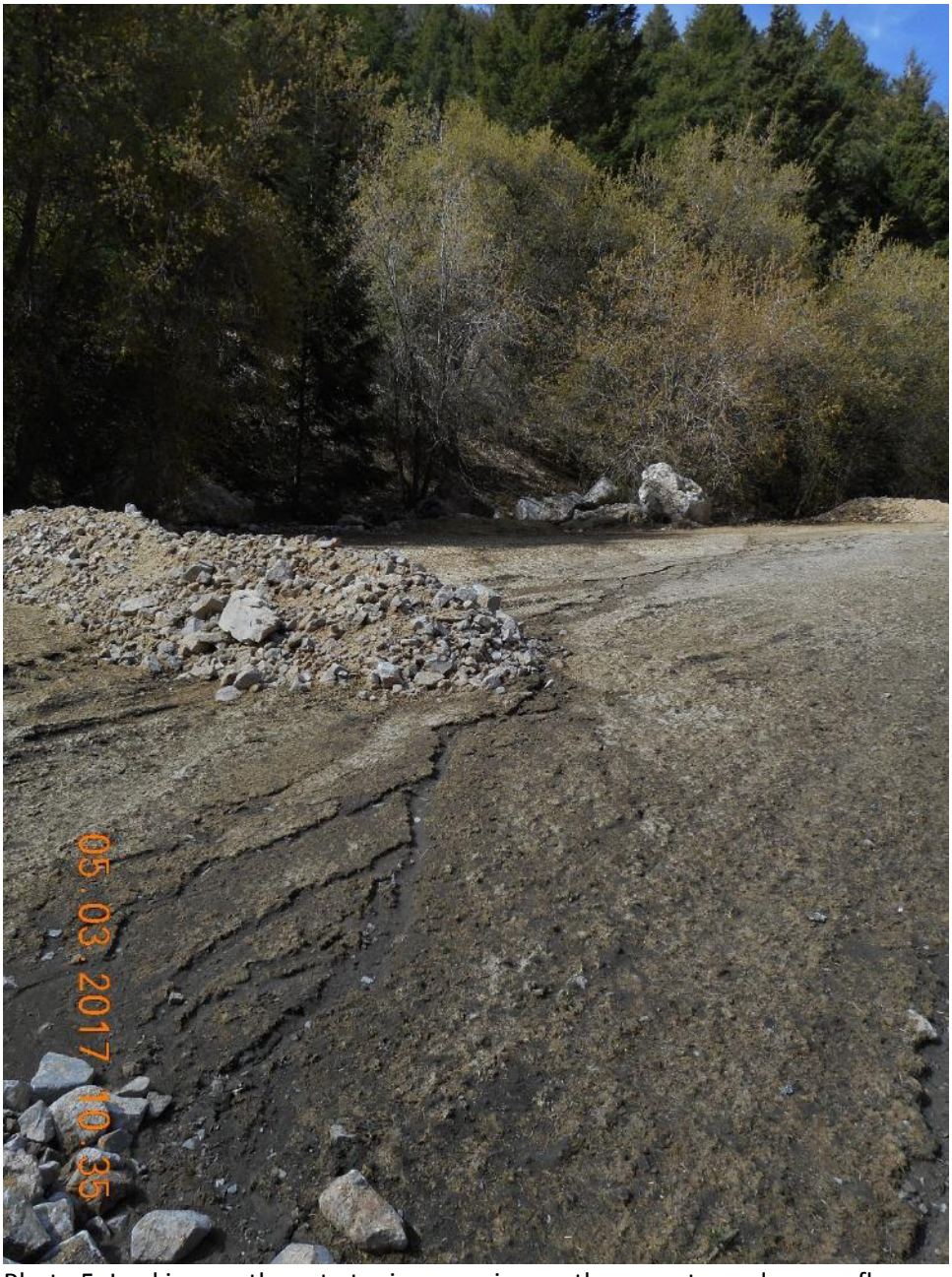


Photo 5: Looking southwest at minor erosion on the recontoured quarry floor.


Photo 6: Grass is beginning to sprout from the seeded alternative growth media and mulching material on the quarry floor and access road.