

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:       | MINE/PROSPECTING ID#:           | MINERAL:                              | COUNTY:     |
|------------------|---------------------------------|---------------------------------------|-------------|
| Orlando Pit      | M-2001-106                      | Sand and gravel                       | Huerfano    |
| INSPECTION TYPE: | INSPECTOR(S):                   | INSP. DATE:                           | INSP. TIME: |
| Monitoring       | Tyler V. O'Donnell              | January 15, 2016                      | 08:45       |
| OPERATOR:        | <b>OPERATOR REPRESENTATIVE:</b> | TYPE OF OPERATION:                    |             |
| Huerfano County  | Melanie Bounds                  | 112c - Construction Regular Operation |             |

| <b>REASON FOR INSPECTION:</b> | BOND CALCULATION TYPE: | BOND AMOUNT:        |
|-------------------------------|------------------------|---------------------|
| Normal I&E Program            | None                   | N/A                 |
| DATE OF COMPLAINT:            | POST INSP. CONTACTS:   | JOINT INSP. AGENCY: |
| NA                            | None                   | None                |
| WEATHER:                      | INSPECTOR'S SIGNATURE: | SIGNATURE DATE:     |
| Windy                         | abor Dormell           | June 8, 2016        |
|                               | byler oomen            |                     |

# **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>N/A</u>                  | (FN) FINANCIAL WARRANTY <u>N/A</u>  | (RD) ROADS <u>Y</u>         |
|--|-------------------------------------|-----------------------------|
| (HB) HYDROLOGIC BALANCE <u>Y</u>         | (BG) BACKFILL & GRADING <u>Y</u>    | (EX) EXPLOSIVES <u>N</u>    |
| (PW) PROCESSING WASTE/TAILING <u>N</u>   | (SF) PROCESSING FACILITIES <u>N</u> | (TS) TOPSOIL <u>Y</u>       |
| (MP) GENL MINE PLAN COMPLIANCE- <u>Y</u> | (FW) FISH & WILDLIFE <u>Y</u>       | (RV) REVEGETATION Y         |
| (SM) SIGNS AND MARKERS Y                 | (SW) STORM WATER MGT PLAN <u>Y</u>  | (CI) COMPLETE INSP <u>Y</u> |
| (ES) OVERBURDEN/DEV. WASTE <u>N</u>      | (SC) EROSION/SEDIMENTATION Y        | (RS) RECL PLAN/COMP Y       |
| (AT) ACID OR TOXIC MATERIALS <u>Y</u>    | (OD) OFF-SITE DAMAGE <u>N</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 normal routine monitoring inspection was conducted by Tyler O'Donnell of the Division of Reclamation, Mining and Safety (Division). Huerfano County (Operator), was represented by Melanie Bounds during the inspection.

The Orlando Pit is located in Huerfano County approximately 1 mile Southeast of Gardner, Colorado. The permit was converted from an 110c to a 112c in June 2012. The Orlando Pit is a 36.46-acre 112c Construction Materials Reclamation Permit with a maximum allowed disturbance of 15 acres. The primary commodity being mined at the site is sand and gravel, for road base. The approved post-mining land use is rangeland. The mine site was surrounded by the following land uses: rural residential, and rangeland.

No problems or possible violations were observed during the inspection. During the inspection, the sky was slightly overcast. There was partial snow cover, covering approximately 10% of the ground. It appears that all mining related disturbance has taken place on top of the Huerfano River terrace. It appears that mining started at the crest of the terrace and progressed to the west. At the present time it appears that the mining operation had affected approximately 9 to 10 acres throughout the life of mine.

#### **Backfilling and Grading:**

There was a highwall just east of the access road, the highwall nearly paralleled the access road. The highwall had an average height of approximately 15 feet and was approximately 250ft long, running roughly north-south. The highwall had an approximant slope of .5H:1V to just flatter than 1H:1V. All mined areas daylight off the terrace to the northeast. The site has been graded between the crest of the terrace to the active highwall along the southern affected land boundary. The Operator has graded portions of the affected land to 3H:1V or flatter. No exposed groundwater was observed. When completing final reclamation, the Operator will need to grade all slopes to 3H:1V or flatter to comply with the approved reclamation plan. All slopes appeared to be structurally stable.

## Hydrologic Balance:

The current pit excavation is located on a gravel terrace just south of the Huerfano River. There was no evidence of excessive erosion. There appeared to be no significant impacts to the prevailing hydrologic balance.

## Gen. Compliance With Mine Plan:

The operation appeared to be following the approved mine plan. All mining activity appeared to be within the approved affected land boundary. The Mining operation has not affected more than 15 acres limited by the approved mine plan.

#### Roads:

The access road was stable, it appears that the access road has been used frequently, the access road services both the mining operation and the surrounding land; however the access road is not a public road. It appears that the landowner uses the access road to access his pastures. The internal pit haul road and ramp appeared to be stable.

#### Reclamation Success:

The mined out eastern portion of the site has been successfully backfilled and graded to 3H:1V or flatter in areas, creating a stable land surface. It appears that the Operator may have replaced the topsoil, in the eastern portion of the site, just west of the crest of the terrace. It appears that the eastern portion of the site has not been revegetated yet. Volunteer vegetation and annual weeds have begun to establish in the eastern portion of the site.

#### **Revegetation:**

There was some plant growth throughout the current affected areas. The plant growth in the current affected areas appeared to be volunteer vegetation, comprised of native vegetation and annual weeds. There was some plant growth on the stockpiles and a little vegetative growth elsewhere in the active mining area.

#### Sediment Control:

There was no evidence of excessive erosion (rills, gullies, or sediment fans).

#### Signs and Markers:

A mine I.D. sign was located at the entrance to the mine site. The permit boundary was clearly marked by t-posts.

#### Topsoil:

There was a topsoil stockpile located on top of the highwall just east of the access road. The topsoil stockpile had decent vegetative cover to protect from erosion. There appeared to be just enough topsoil to reclaim the current mining disturbance.

## **CONCLUSION**

The Operator appears to be conducting mining operations as approved in the permit. It appears that an area in the eastern portion of the site has nearly been mined out. Once the Operator completes mining in the furthest southeastern portion of the site, the Operator should consider reclaiming the eastern extent of the affected land because this area will have been mined out. Also the amount of topsoil salvaged appears to be barely adequate to complete final reclamation, additional topsoil should be salvaged when new areas are opened up for mining.

## **Inspection Contact Address**

Melanie Bounds Huerfano County 401 Main St., Suite 201 Walsenburg, CO 81089

cc: Wally Erickson, DRMS

# **PHOTOGRAPHS**



**Photo 1:** Southern reclaimed slope at or near the affected land boundary. The majority of the slope has been graded to 3H:1V or flatter.



Photo 2: Active highwall progressing to the west, highwall runs roughly north-south.



Photo 3: Topsoil stockpile on top the highwall.



**Photo 4:** Eastern portion of the pit. Pit floor appears to be well graded. It appears that topsoil has been spread over this area.