

STATE OF
COLORADO

Cazier - DNR, Tim <tim.cazier@state.co.us>

Re: Daniels Monthly Report

1 message

Wyatt WEBSTER <wyatt.webster@holcim.com>

Tue, Sep 13, 2022 at 3:13 PM

To: "Cazier - DNR, Tim" <tim.cazier@state.co.us>, Neil WHITMER <neil.whitmer@holcim.com>

Tim,

Attached monthly report for Daniels Pit Slope Stability. The plan is to rectify the erosion issues within the next month.

Wyatt Webster | Environmental and Land Manager

Holcim Group | Holcim - WCR, Inc.

Address: 1687 Cole Blvd., Suite 300

Golden, CO 80401

Office & Mobile: (702) 379-4623

Email: Wyatt.Webster@holcim.com

On Mon, Aug 15, 2022 at 9:09 AM Cazier - DNR, Tim <tim.cazier@state.co.us> wrote:

Thanks Wyatt.

Tim Cazier, P.E.

Environmental Protection Specialist III - Engineering

[I am working remotely - please call me at 303-328-5229]**COLORADO**
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P 303.866.3567 x8169 | F 303.832.8106 | C 303.328.5229

Mailing Address: Division of Reclamation, Mining & Safety, Room 215, (optional: c/o: Tim Cazier), 1001 E 62nd Ave., Denver, CO 80216

Physical Address: 1313 Sherman St., Room 215, Denver, CO 80203

tim.cazier@state.co.us | <https://drms.colorado.gov>

On Mon, Aug 15, 2022 at 8:15 AM Wyatt WEBSTER <wyatt.webster@holcim.com> wrote:

Tim,

Attached monthly report for Daniels Pit Slope Stability.

Wyatt Webster | Environmental and Land Manager

Holcim Group | Holcim - WCR, Inc.

Address: 1687 Cole Blvd., Suite 300

Golden, CO 80401

Office & Mobile: (702) 379-4623

Email: Wyatt.Webster@holcim.com**Daniels Sand Pit 2 - Sept 2022 Observation (2).pdf**

4450K



September 9, 2022
Project No.: 19125

2750 S. Wadsworth Blvd, Suite D-200
Lakewood, Colorado 80227
303.625.9502
www.LithosEng.com

Aggregate Industries – WCR, Inc
1687 Cole Boulevard, Suite 300
Golden, CO 80401

Attention: Wyatt Webster & Neil Whitmer
Environmental and Land Managers

Regarding: Daniels Sand Pit 2, Permit No. M-1973-007-SG
Slope Stability Monthly Monitoring Report

Mr. Webster and Mr. Whitmer,

Lithos Engineering (Lithos) has been retained by Aggregate Industries to implement a slope stability monitoring plan for the Fountain Mutual Ditch within Daniels Sand Pit 2. Monthly monitoring will occur for the first year after construction completion. Lithos Engineering (Lithos) visited the site on September 9, 2022. **The ditch appears to be stable but the buttress slope is severely gullied in one location and moderately gullied in other locations. The gullies appear to have been formed from erosion due to runoff from the ditch road. We recommend that the gullies be backfilled with compacted soil within the next several weeks. We also recommend a drainage diversion berm be constructed along the crest of the berm such that runoff is directed toward the ditch. Per the approved design, the buttress slope should be vegetated per the reclamation plan.** Site notes and photographs are presented below:

- Weather: 48-76°, sunny to partly cloudy, winds 10-15 mph
- Visual observation of the Fountain Mutual Ditch:
 - No tension cracks
 - No toe erosion that was visible
 - Vegetation growing on banks and at invert of ditch
 - Approximately 1.5 feet of flowing water
 - No sloughed slope surfaces
 - Mowing operations for access road occurring while on site
 - The condition of the ditch is stable



Photo 1. Fountain Mutual Ditch looking east



Photo 2. Fountain Mutual Ditch looking west



Photo 3. Fountain Mutual Ditch invert looking north (note vegetation)

- Visual observations of the Buttress Slope
 - The buttress slope varies from 3H:1V to 4H:1V
 - Vegetation (mainly weeds) are growing in some locations on the buttress
 - Several locations visible evidence of surface water runoff and erosion gullies.
 - On the eastern side of the buttress (less weeds), surface/drainage erosion is present approximately 15 feet from the ditch. Just south of the access road, the erosion gully is approximately 3 to 4 feet wide and deep. S. Myers met Grant Smith at the scale house to discuss the surface drainage/erosion near the access road. Grant was going to look at the location later in the afternoon.



Photo 4. Buttress slope looking south



Photo 5. Buttress slope looking east from toe



Photo 6. Buttress slope looking south, evidence of surface water drainage/erosion (eastern slope, less weeds)



Photo 7. Buttress slope looking north, note expanding evidence of drainage/erosion forming



Photo 8. Erosion in relation to access road and ditch



Photo 9. Zoomed in erosion at access road



Photo 10. Second location of surface drainage/erosion on access road (shallower)

If you have any questions regarding the contents of this report, please contact Aggregate Industries or Lithos Engineering.

Sincerely,

Lithos Engineering



Steve Kuehr, PE
Senior Consultant

A handwritten signature in blue ink that reads "Sarah Myers".

Sarah Myers, EIT
Project Engineer