




## 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.

<b>MINE NAME:</b> Boettcher Gypsum Quarry	<b>MINE/PROSPECTING ID#:</b> M-1977-346	<b>MINERAL:</b> Anhydrite, gypsum	<b>COUNTY:</b> Larimer
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Amy Eschberger	<b>INSP. DATE:</b> August 31, 2022	<b>INSP. TIME:</b> 13:15
<b>OPERATOR:</b> Holcim (US) Inc.	<b>OPERATOR REPRESENTATIVE:</b> Mike Toelle, Tom Newman	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$38,000.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> September 26, 2022	

### 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>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>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

## **OBSERVATIONS**

This was a normal monitoring inspection of the Boettcher Gypsum Quarry (Permit No. M-1977-346) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). The operator was represented by Mike Toelle and Tom Newman during the inspection. The site is located approximately 12 miles northeast of Livermore, CO in Larimer County. The site can be accessed by turning west off of Co Rd 21 onto Co Rd 23, then travelling approximately 0.2 miles. **Photos 1-8** taken during the inspection are included with this report.

This is a 112c operation permitted for 110 acres (see enclosed Google Earth image of site) to mine gypsum for use in the operator's cement plant located in LaPorte, CO (now closed). The affected lands are owned by the operator and Larimer County (managed as part of Red Mountain Open Space). The site is situated along sedimentary rock outcrops located just west of Sand Creek. The permit area consists of a west permit area (approximately 49 acres), an east permit area (approximately 57 acres), and the access road connecting the two areas (see enclosed site map showing permit boundary). Mining was completed at the site many years ago, and the site has been in final reclamation since 2014/2015. The site was never mined to its full extent. According to annual reports submitted by the operator, only approximately 20 acres were disturbed in the southern portion of the west permit area (south of the access road), and approximately 7 acres were disturbed in the southern portion of the east permit area (north of the access road). The disturbed lands were graded to 3H:1V or flatter, retopsoiled, and seeded with the approved rangeland seed mixture in November 2014.

During its June 30, 2015 inspection of the site, the Division confirmed the reclamation earthwork and initial seeding had been completed. The Division inspected the site again on August 16, 2017 to evaluate reclamation progress. At that time, the Division observed the western portion of disturbance in the west permit area to have a well-established grass and shrub cover. However, the vegetative cover in the eastern portion of disturbance in this area consisted primarily of weeds, with very little grasses present. Grasses were growing mainly along the base of the eastern slope, where the seed was most likely washed down by surface runoff. The Division recommended the operator reseed the eastern portion of disturbance in the west permit area and protect this area from livestock grazing until the desired vegetation has established.

During its 2017 inspection, the Division observed the disturbance in the east permit area to have a fairly good grass and shrub cover. However, a portion of the disturbed hill, from approximately mid-slope down, had a more sparse vegetative cover consisting primarily of weeds. The Division recommended the operator reseed this portion of disturbance in the east permit area. At that time, the operator indicated the areas requiring additional revegetation efforts would be reseeded that fall (2017).

During the current inspection, the Division inspected the west permit area first. The previously reclaimed western portion of disturbance in this area remains stable with a good grass and shrub cover. The eastern portion of disturbance looked very different than it did during the 2017 inspection, as a good stand of grasses are now present in this area, mixed with shrubs. Per the Division's recommendation, the operator had installed livestock fencing around this area after reseeding it in the fall of 2017. This fencing was still in place during the inspection. All reclaimed slopes in the west permit area appeared to be stable with no erosion issues observed.

In the east permit area, the previously reclaimed disturbance remains stable with a good grass and shrub cover. The hillside that was reseeded in the fall of 2017 appeared to be stable with a good grass and shrub cover. While some minor erosional rilling was present along this slope, no significant erosion issues were observed (e.g., gullies, washouts).

The additional revegetation efforts conducted by the operator in the areas specified by the Division during its

2017 inspection were successful. The topography and vegetation of the reclaimed areas in both the west permit area and the east permit area blend well with the surrounding lands.

While there were some weeds observed growing in reclaimed areas, they did not appear to be hindering the growth of the desired vegetation. The primary weed species observed was russian thistle, which is considered a nuisance weed and not a state-listed noxious weed species. Additionally, the Division observed a small population of leafy spurge and common mullein in the west permit area, which the Colorado Department of Agriculture (CDA) considers to be List B and List C noxious weed species, respectively. According to the CDA, List B species require the development and implementation of a noxious weed management plan designed to stop the continued spread of these species. List C species require the development and implementation of a noxious weed management plan designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on the lands. The operator has an agreement with the Larimer County weed control program to help manage weeds at all Holcim sites within the county, generally visiting each site twice per year (once in the spring and again in the fall). Therefore, a noxious weed management plan has been developed for this site in coordination with the local government (Larimer County) and is implemented at the site every year.

The Division believes the site has been reclaimed in accordance with the approved reclamation plan, and recommends the operator submit a Full Release request as soon as possible. If the request is submitted within 60 days of the date of this inspection (by October 30, 2022), an additional inspection will not be necessary.

This concludes the report.

*Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at [amy.eschberger@state.co.us](mailto:amy.eschberger@state.co.us).*



## PHOTOGRAPHS



**Photo 1.** View looking east across eastern portion of disturbance in west permit area, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs.



**Photo 2.** View looking southeast across eastern portion of disturbance in west permit area, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs. Note livestock fencing (at bottom right) installed to protect area undergoing revegetation.





**Photo 3.** Ground view in eastern portion of disturbance in west permit area, showing established grasses in this area.



**Photo 4.** View looking southeast across eastern portion of disturbance in west permit area, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs.





**Photo 5.** View looking southwest across previously reclaimed western portion of disturbance in west permit area, which remains stable with vegetative cover consisting of grasses and shrubs.



**Photo 6.** View looking south across previously reclaimed portion of disturbance in east permit area, which remains stable with vegetative cover consisting of grasses and shrubs.





**Photo 7.** View looking northeast across previously reclaimed portion of disturbance in east permit area, which remains stable with vegetative cover consisting of grasses and shrubs.



**Photo 8.** View looking north across disturbed slope in east permit area that was reseeded in 2017, showing slope now stabilized with grasses and shrubs.



**Inspection Contact Address**

Mike Toelle  
Holcim (US) Inc.  
3500 Highway 120  
Florence, CO 81226

Encls: Google Earth image of site  
Site map showing permit boundary

CC: Travis Weide, Holcim (US) Inc.  
Michael Cunningham, DRMS

# M-1977-346 / Boettcher Gypsum Quarry / Holcim (US) Inc.

Red Outline = 110 acres = Approved Permit Area (location approximated based on permit maps)  
(Image data from 6/11/2021)





